ENVIRONMENTAL ASSESSMENT
LIVESTOCK GRAZING AUTHORIZATION
CA-680-06-78
Allotment Name: Ord Mountain

BARSTOW FIELD OFFICE
NOVEMBER 2006

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CHAPTER 1: INTRODUCTION

A. Summary

The Bureau of Land Management (BLM) is proposing to issue a 10-year lease to authorize livestock grazing on the Ord Mountain Allotment in accordance with laws and policy described in the Purpose and Need section below. The Ord Mountain cattle allotment is located approximately 9 miles southeast of Barstow, California between I-15 and SR 247. The following is a summary of the current situation:

Public land acres in allotment: 132,852
Kind of livestock: cattle/horses
Ephemeral or perennial: perennial/ephemeral
Plan Area: West Mojave
Current authorized use: 3,632 AUMs
Acres Critical Habitat: 117,417 (public lands)
DWMA[*] Acres in allotment: 117,417 (public lands)
Identified for Voluntary Relinquishment: Yes
Request for Grazing Lease Renewal Received: Yes

[*1]Desert Wildlife Management Areas (DWMA) are Areas of Critical Environmental Concern designated in the West Mojave Plan Amendment for the conservation of desert tortoise.

B. Background

In 2000, the grazing lease for the Ord Mountain Allotment (cattle/horses operation) expired at the end of the 1999 grazing year (2/28/00). This grazing lease was renewed under the authority of Public Law 106-113. The duration of this grazing lease renewal was five years and contained the same terms and conditions as the expiring grazing lease. Public Law 106-113 required compliance with all applicable laws and regulations, which include the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). Following the analysis of environmental impacts this grazing lease may be approved, canceled, suspended or modified, in whole or in part, to meet the requirements of such applicable laws and regulations.

On January 29, 2001 the BLM and a consortium of environmental groups enter into a stipulated agreement effective immediately, herein known as the “Settlement Agreement” for the management of livestock grazing. The Settlement Agreement prescribed areas of the Ord Mountain Allotment be excluded from cattle grazing in the spring and fall. In addition, it placed a cap on stocking rates for this allotment. Based on an April 25, 2002 amendment these stipulations were still in effect until the signing of the Record of Decision (ROD) for the West Mojave Plan Amendment (WMP) to the CDCA Plan. The ROD for the WMP was approved on March 13, 2006, and the stipulations for the Ord Allotment and other allotments within the West Mojave planning area that were identified in the Settlement Agreement expired at that time.

On March 1, 2005 the grazing leases for the Ord Mountain Allotment expired. An application for lease renewal was received from the lessee. Livestock grazing continues under provisions of the Administrative Procedures Act (APA).

C. Tiering to Existing Land Use Plan/EIS

This environmental assessment (EA) is tiered to the WMP Final EIS of January 2005 and provides site-specific analysis on the allotment level. Tiering helps focus this EA more sharply on the important issues related to grazing on the allotment while relying on the WMP analysis for background. Analysis of environmental issues previously considered and addressed in the WMP plan will be 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 this EA.

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

1. WMP is an amendment to the California Desert Conservation Area (CDCA) Plan 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 (FLPMA). As part of the conservation strategy BLM determined which public lands will be available or unavailable for livestock grazing. In addition to designating lands available or unavailable for grazing, WMP established programmatic management prescriptions including regional land health standards and guidelines for grazing management; utilization prescriptions for perennial species; restrictions on cattle grazing within tortoise habitat; monitoring requirements; and specific management prescriptions for DWMAs such as the elimination of ephemeral authorizations and the implementation of an ephemeral forage production threshold of 230 pounds per acres (pp. 2-127 and 2-128 of the West Mojave Plan/FEIS). This EA analyzes the specific application of the programmatic management prescriptions of WMP and considers alternative means to achieve the purpose and need on this allotment as described in section D of this chapter.

2. The WMP considered a range of alternatives to the public land livestock grazing program. The alternatives considered more restrictive and less restrictive management approaches, and were addressed at a regional level for the approximately 3.2 million acres of public lands in the WMP planning area. This EA analyzes the range of alternatives for grazing consistent with WMP, including a proposed action and continuation of current management (No Action). A no grazing alternative is considered to address voluntary relinquishment and subsequent designation of the allotment as unavailable for grazing. In addition, a reduced grazing alternative is included on allotments where a lower level of grazing than under the proposed action should be considered. Chapter 2 of this EA describes the alternatives analyzed in detail and identifies the alternatives considered but dismissed from detailed consideration.

3. Impacts of livestock grazing were addressed at a regional level in the WMP. Analysis addressed the impacts of livestock grazing on a wide range of resource topics, including impacts to air quality, soil, vegetation, wildlife, cultural resources, wilderness, and socio-economic

impacts. The regional analysis is incorporated by reference in this EA (WMP FEIS pages 4-4 thru 4-282) and general discussion of these impacts will not be repeated. The EA analysis will sharply focus on the specific environmental issues associated with areas where livestock are having or may have substantive site-specific effects, including (1) areas where they congregate on the allotment, (2) specific areas of the allotment which are not meeting land health standards due to grazing, and (3) areas of special status species or critical habitat that may be affected by grazing on this allotment. Discussion of the specific topics analyzed in this EA, as well as other resource topics addressed regionally but that will be excluded from further analysis in the EA, is contained in chapter 4.

4. The WMP balanced conservation with public use, occupancy, and development on a regional level. For example, Areas of Critical Environmental Concern/DWMAs are established, routes of travel on public lands designated open, limited or closed to motorized vehicles, and other management prescriptions have been provided to guide multiple use management. Within the context of the CDCA Plan as amended by WMP, BLM has adopted specific lease terms and conditions to ensure that an appropriate multiple use balance is maintained on the Ord Mountain allotment while providing for conservation in accordance with WMP and the associated biological opinion (1 -8-03-F-58, available online at www.fws.gov). In addition, under the terms of the West Mojave Plan, BLM may use its authority to close an area of the allotment to grazing use or take other measures to protect resources if needed. Therefore, issuance of a fully processed grazing lease with such applicable terms and conditions is necessary to manage the public's use, occupancy, and development of the public lands and prevent unnecessary or undue degradation of the lands. (43 USC 1732(b)).

D. Purpose and Need

The purpose of the EA is 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 the lessee's request to graze cattle within the Ord Allotment, consistent with the prescriptions identified in the WMP Plan, dated March 13, 2006, with the terms and conditions of the Biological Opinion of the California Desert Conservation Area Plan, dated January 9, 2006, and with the Regional Rangeland Health Standards approved in the WMP, and to determine any allotment management changes needed to maintain or improve resource conditions within the Ord Mountain allotment.

The WMP plan requires that a grazing strategy be developed within the parameters of the grazing prescriptions contained in the WMP for this allotment within one year after approval of the WMP ROD, which would be incorporated into a revised Allotment Management Plan (AMP) for this allotment.

E. Plan Conformance

The proposed action is subject to the California Desert Conservation Area Plan (CDCA Plan), as amended. The decisions of the CDCA plan that specifically pertain to this proposed action include the CDCA Plan Grazing Element as Amended by the West Mojave (WMP). The

decisions of the WMP plan that specifically pertain to this proposed action include:

> *BLM will continue to administer existing authorizations and uses and will consider future requests consistent with this ROD. Any new authorizations or use of public land within the West Mojave Desert area must be in conformance with the West Mojave Plan and subject to site-specific analysis. Such authorization and use would be subject to administrative review at the time of issuance of a final BLM decision regarding the authorization or use.*
>
> *This ROD approves the Regional Public Land Health Standards and Guidelines to be consistent with the other regional amendments of the CDCA Plan and provide uniform management with respect to grazing, protection of riparian areas, fragile soils and water quality. The regional standards must be submitted to the Secretary of Interior for final approval.*

F. Voluntary Relinquishment

The WMP identified the Ord Mountain Allotment for voluntarily relinquishment.

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

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

G. Consultation, Cooperation, and Coordination

Consultation, Cooperation and Coordination on grazing within the West Mojave, including the Ord Mountain allotment has been extensive, as it has been conducted in the context of an extensive EIS process over many years. On May, 2003 the Draft EIS for the WMP was issued to all lessees and interested publics, including Tribal governments. Included in the Plan were alternatives for grazing of the Ord Mountain Allotment and associated analysis, including an alternative consistent with the proposed action as evaluated herein. Comments on that Draft EIS were incorporated into the Final EIS alternatives and analysis.

On or about July 19, 2004 the Barstow Field Office (BFO) mailed Chapters 1 and 2 of an administrative version of an environmental assessment (EA) for grazing within Ord Mountain allotment to the lessees and all interested publics, including pertinent Indian tribes for scoping purposes. The BFO requested feedback on the proposed action and alternatives and asked if any additional alternatives should be considered. Input from that scoping activity was considered during the development of scope and alternatives for this EA.

On September 30, 2004 BFO issued Proposed Grazing Decisions to the grazing lessees and all interested publics. Action on final decisions was deferred until after release of the WMP and Final EIS. These decisions, including the one issued for Ord Mountain were never finalized and will be vacated as part of this grazing lease renewal action.

In January, 2005 the Final EIS for the WMP was issued to all lessees and interested publics. In March, 2006, the Record of Decision for the WMP was approved by the California State Director of the BLM.

On April 6, 2006 the BFO issued cover letter and a draft NEPA document proposing the grazing lease renewal for this and others allotments to the lessees and all interested publics, including pertinent Indian tribes for the purpose of soliciting input to make grazing within the Ord Mountain and other West Mojave allotments consistent with the guidance in the West Mojave Plan.

On July 12, 2006 the BFO issued a letter to the Ord Mountain allotment lessee informing her of the status of the EA and anticipated time line for completion of the EA, issuance of the proposed and final decision and 10-year grazing lease, if appropriate.

On September 6, 2006 BFO meet with the lessee for the Ord Mountain Allotment to discuss the proposed action and alternatives as outlined in the administrative EA.

On October 6, 2006, a revised EA was sent to the lessee and interested publics. Comments were received from the lessee and five of the interested publics.

H. Relationship to Statutes, Regulations, and Plans

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 (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 State Historic Preservation Officer with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal (see Attachment 1).
. This amendment allows for the renewal of existing grazing permits 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.

The lessee would comply with any future standard protective measures that may be developed for the protection of cultural resources after the completion of further allotment inventory and determination of any additional protection measure needs for significant cultural resources.

2. Biological Opinions on the California Desert Conservation Area Plan

BLM will ensure compliance with the Incidental Take Statement (ITS) of the biological opinion on the West Mojave CDCA Plan Amendment. BLM will immediately report any injuries or mortality to desert tortoises as a result of grazing to the U.S. Fish and Wildlife Service (USFWS). The BLM and USFWS will review the circumstances to determine if any additional protective measures are required. The BLM will compile any instances of take of the desert tortoise due to grazing activities and report annually to the USFWS. If the annual level of take reaches five tortoises for all the allotments in the WMP and NEMO CDCA Plan Amendment areas, BLM will meet with USFWS to determine if re-initiation of consultation is necessary on the grazing aspect of the plan.

3. Grazing Prescription Contained in the WMP Addressed to BLM

a. Within 12 months after completing a Health Assessment for a specific area (i.e., grazing allotment, watershed, etc.), the BLM would use field and office information to make a health determination, which would serve as baseline information to develop corrective management strategies. Where a determination indicates that standards are not being achieved, changes in grazing management would be implemented that may result in new terms and conditions to achieve standards and conform to guidelines. Although not reiterated below, this same regulatory process would be required following specified time-frames given for the health assessments that follow.

b. In all cattle allotments occurring in tortoise habitat outside of DWMAs, ephemeral authorization would only be granted when ephemeral production exceeds 230 pounds per acre

c. New cattle guards would be designed and installed to prevent entrapment of desert tortoises. All existing cattle guards in desert tortoise habitat would be modified within three years of plan adoption to prevent entrapment of desert tortoises.

d. Any hazards to desert tortoises that may be created, such as auger holes and trenches, would be eliminated before the rancher, contractor, or work crew leaves the site.

e. The Ord Mountain Allotment Management Plan will be revised after adoption of the West Mojave Plan. As part of the implementation of the revised AMP, based upon available funding, range fences would be installed in two places to exclude cattle from high concentration tortoise areas round adjacent to the Ord Mountain Allotment: (a) along the southern boundary of the allotment, west of the Cinnamon Hills, in northern Lucerne Valley; and (2) along the eastern boundary of the allotment, in the vicinity of Box Canyon.

f. The Ord Mountain Allotments would be scheduled for assessment of public land health subject to a two-year review period. Allotments not voluntarily relinquished after 24 months from adoption of the plan would be scheduled for public land health assessment within 18 months.

g. Based on concerns expressed by management and grazing lessee(s), conduct a study of tortoise nutritional ecology in relation to livestock grazing, comparable to studies performed in the Ivanpah Valley during the later 1990s. If appropriate, modify grazing program in response to study findings.

CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES

This chapter discusses four alternatives including the proposed action, and one alternative considered but dismissed from further analysis.

A. Proposed Action - West Mojave Plan

The proposed action is: issuance of a 10-year lease in conformance with CDCA Plan and the WMP Amendment as described parts 1-5 of this section. The intent of the proposed action is to balance environmental protection with continued use of the allotment for livestock grazing.

1. Livestock Numbers and Season of Use

Table 1.

Allotment	Number of Animals	Kind	Class	From	To	AUMs
Ord Mountain	302	Cattle	Cow-calf	March 1	February 28	3,632

2. Livestock Management

Under the proposed action BLM proposes to authorize year-long, cow-calf grazing operation with a maximum permitted use of 3,632 AUMs (approximately 302 cows/horses). 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.

Livestock graze throughout most of the year and are separated into smaller herds (approx. 10 to 20 head) and moved to different water sources based on the forage conditions, such as plant density, vigor and stage of plant growth in that portion of the allotment serviced by that water source. There are nine developed water sources on public land and at least three on private land within the allotment. Of the nine developed water sources on public lands, seven are in the western portion of the allotment and two are located in the center of the allotment (see Map 1).

The best pasture/use area had been determined by the lessee. The lessee would turn off water in areas with marginal forage availability or when utilization threshold had been met, and move the cattle to other areas/waters in the allotment. During the summer months a portion of the total

herd (20 to 25%) would be moved to higher elevational rangelands (> 5,000 ft.) while the remaining herd would typically be placed on the lessee's private property near ranch headquarters. Livestock distribution would be maximized during the winter months because temperatures are cooler and their need for water is much less, allowing cattle to drift further from watering facilities and drink less frequently.

Under the proposed action, livestock grazing would continue under this strategy as modified herein, within the parameters of the grazing prescriptions contained in the WMP for this allotment and other stipulations for this allotment listed in part 6a of this chapter. This would include the requirement of excluding livestock from a portion of the allotment, herein referred to as the "designated exclusion area" (see Map 1) in those years when the production of ephemeral plants is less than 230 Ibs./acre in those portions of the Ord Mountain Allotment that overlap the Ord-Rodman DWMA. This exclusion period would be in the spring (March 15 thru June 15). Empirical field research has concluded that when ephemeral production is 230 Ibs./acres or less true competition occurs between herbivores for scarce forage. The spring is an important and active period for the tortoise as they come out of winter hibernation. This period allows tortoise to feed, re-hydrate and breed. This grazing prescription contained in the WMP would eliminate the potential for competition between livestock and desert tortoise and allow tortoise's maximum availability to limited forage.

The BLM in consultation with the lessee would make the determination as to what use area is best, again based on forage conditions such as plant density, vigor and stage of plant growth in that portion of the allotment serviced by that water source. An additional proposed water development (East Ord Well) in the eastern portion of the allotment would improve livestock distribution in the eastern portion of the allotment while reducing grazing pressure in the western portion of the allotment where Native Species Standard is not being met. This proposed range improvement would be developed as funding becomes available. Immediately following the development of the East Ord Well the "designated exclusion area" would be change from the present eastern portion of the allotment to the western portion of the allotment to ensure consistency with achievement of Native Species Standard and recovery actions for the desert tortoise.

Rangeland Health Assessments were conducted on this allotment in 1999 (see Table 4). The assessment concluded that approximately 10% of the allotment was not achieving the Native Species standard. The non-achievement areas are located in the western and central portions of the allotment associated with the seven water sources and surrounding rangelands (see Map 2). BLM is required under 43 CFR 4180 to implement remedial action that would make progress towards the achievement of this standard. The Determination of Rangeland Health (see Attachment 2) contains recommendations that would make progress towards the achievement of this standard. These recommendations have not been implemented because of the Settlement Agreement between BLM and the Center for Biological Diversity (CBD) that occurred in 2001. The interim stipulations contained in the Settlement Agreement were inconsistent with the recommendations contained in the Determination of Rangeland Health.

The primary bases of those rangeland health recommendations are contained in Attachment 2 and the recommendations are incorporated into the proposed action. The Determination of

Rangeland Health recommended that those areas within the allotment identified as not achieving the Native Species standard because of livestock grazing receive rest from grazing during critical growth periods to allow for plant community improvement, thus improvement of habitat quality for the desert tortoise. In those portions of the allotment where the Native Species Standard was identified as not being achieved (see Map 2) livestock would be substantially removed and grazing would be deferred until summer and winter. Grazing would not occur in these areas from March 1 through May 31 and again in the fall from October 1 through November 30 during the active seasons for the desert tortoise in order to aid in recovery of the species. The term "substantially removed" recognizes that a few individual cows might wander into the designated exclusion areas despite the lessee's best efforts and regardless of management facilities (e.g., fences, water sources) that are in place.

The exclusion of livestock from these areas would be accomplished by turning on and off water facilities and the herding of livestock out of the area when found. This deferment period would occur regardless of ephemeral production. The time-frames for the deferment periods would be from March 1 through May 31 in the spring, and October 15 through November 30 in the fall. This deferment would continue until the areas of non-achievement have been determined to have achieved the Native Species Standard in consultation with the lessee.

In addition, standard terms and conditions (e.g. requirement to perform normal maintenance on range improvements) contained in the existing or expired grazing lease for this allotment would also be incorporated into this lease renewal and are included in Section 6a. There were no additional terms and conditions directly related to cattle grazing contained in the BO (1-8-03-F-58) for the WMP.

3. Range Improvements

All existing range improvements would continue to be maintained. Under the proposed action, Table 2 contains new range improvement projects BLM is anticipating to propose in the reasonably foreseeable future. These proposed range improvements are being included in this document in the context of their general and cumulative effects. The locations of these proposed range improvements have yet to be determined and would be located in cooperation with the lessee. BLM would conduct a site specific analysis on these proposed projects prior to development or construction of any proposed range improvements. In addition, a project specific ESA consultation would be conducted prior to development or construction. The purpose of such developments would be to maintain or make progress towards achievement rangeland health standards, to reduce illicit or unnecessary OHV use, and to identify management boundaries. A complete list of existing range improvements that would continue to be maintained under this alternative are contained in Table 8.

Table 2. Proposed Range Improvements

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

East Ord Well # 8224	Yet to be determined	Proposed water well, with up to three trough locations.	This water development would enhance livestock distribution and reduce grazing pressure in DT critical habitat.
*South Ord Boundary Fence # 8505	Yet to be determined.	Proposed southern boundary fence. Approx. 10 miles of fencing.	Excludes cattle grazing from high concentration tortoise areas.
*East Ord Boundary Fence # 8506	Yet to be determined.	Proposed eastern boundary fence. Approx. 4 miles of fencing.	Excludes cattle grazing from high concentration tortoise areas.

*Proposed projects are contained in the WMP for future implementation.

Due to the immediate need to construct the South Ord Boundary Fence because of continuing OHV intrusions and southerly livestock drift and the East Ord Well to improve livestock distribution, project planning for these projects would occur prior to the East Ord Boundary Fence.

4. <u>Additional Projects</u>

One cultural site (SBR-1806H) impacted by cattle grazing would have exclosure fencing placed around the site. The range management section of the BLM /SHPO protocol (see Attachment 1), protective measure A would be applied to install the protective fencing. No other changes to existing management or grazing strategy would occur due to installation of these projects.

A riparian exclosure fence may be constructed at Willow Spring to protect riparian habitat and make progress towards the achievement of the Riparian/Wetland standard at that spring site.

5. <u>Monitoring</u>

Rangeland monitoring (both uplands and riparian) on the Ord Mountain Allotment under this alternative would continue to be conducted on an annual and/or periodic basis and as it is currently conducted, in three categories. These categories would be 1) short term monitoring, 2) long term monitoring, and 3) rangeland health assessments.

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 six key areas (see Map 2). The collection of utilization data would be triggered by the growing season of key species, which includes big galleta grass, desert needle grass, ephedra, white bursage, and spiny hopsgae. This time period would correlate with important phenological

events (such as budding or flowering) of key species. In riparian areas additional annual monitoring would be conducted to identify any new physical impacts to vegetation and soils. The monitoring of utilization level has revealed high to severe levels of utilization on some years at several key areas/locations (see Table 11). This situation has contributed to the localized degradation of native plant communities in the western and central portions of the allotment.

The collection of long term monitoring data occurs on a periodic basis, typically every three 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 assessment of indicators of rangeland health information is a qualitative/quantitative method that requires the formation of an interdisciplinary team that makes observations and direct measurements of various indicators to determine the health of rangelands and the achievement of fallback or regional standards of rangeland health. This method is also considered a long term process, and typically occurs every six to ten years. The re-assessment of cattle allotments is scheduled for 2007 and 2008 using *Indicators of Rangeland Health* (BLM Technical Reference 1734-6 Version 4). The areas of deferment would be periodically re-assessed, starting in 2007 to determine if positive progress is being made towards achievement.

The analysis of rangeland monitoring data, including the determination 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.

6. Measures to Maintain or Achieve Standards (Terms and Conditions of Lease):

The Ord Mountain Allotment is within habitat, both critical and non-critical for the desert tortoise (*Gopherus agassizii*), a federally listed species. DWMA are areas designated by the WMP for conservation and recovery of the desert tortoise and have a high degree of correlation to designated critical habitat areas. Listed below in Table 3 are the acreages of public land for desert tortoise habitat within the Ord Mountain Allotment (see Map 1).

Table 3. Desert Tortoise Habitat

Allotment	Acres within Desert Wildlife Management Areas (DWMA)	Acres outside of Desert Wildlife Management Area (DWMA)
Ord Mountain	117,417	15,435

Portions of the allotment failed to achieve the Fall Back Rangeland Health Standards as follows:

Table 4.

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Impacts from Livestock Yes or No	Remarks	Assessment Scheduled in WMP
Ord Mountain	Soil	Native Species and Riparian/wetland	Yes	Not meet on approx. 10% of allotment	Assessed in 1999, needs re-assessment in 2007

Table 4 is based on the Determination of Rangeland Health (DRH) dated September 22, 1999 (see Attachment 2).

The Rangeland Health Standard - Native Species applies to desert tortoise habitat and populations. In the DRH small areas of the allotment were identified as not achieving this standard (see Map 2). In addition, the riparian/wetland standard has also not been met for this allotment. The DRH made recommendations on corrective management actions that would begin positive progress towards the achievement of these standards.
With the approval of the WMP and scheduled renewal of the grazing lease, corrective management actions are being proposed that would begin moving these areas towards achievement of both the Native Species and Riparian/Wetland Standards.

Under the proposed action, those areas not achieving the Native Species standard would be deferred from grazing during the critical period in the growing season for native species and for the tortoise, spring and fall. This management action would be accomplished through the manipulation of waters and herding. This deferment from grazing, coupled with the grazing prescription from the WMP and other stipulations would allow for positive progress to be made toward the achievement of this standard. The WMP has scheduled this allotment for re-assessment in 2007.

Under the proposed action, those spring areas not achieving the Riparian/Wetland standard would apply corrective actions to achieve this standard. Corrective actions would be applied in a site specific manner that best suites the conditions at each spring site.

7. <u>Proposed Grazing Stipulations</u>

a. WMP (FEIS 2-124 thru 2-136)

Reasonable and prudent measures from the CDCA biological opinion (1-8-04-F-43R) would be incorporated as stipulations of the lease, along with the grazing prescriptions contained in the WMP and other stipulations required by the BFO Field Manager:

1. Only qualified personnel are allowed to handle desert tortoises, conduct clearance surveys, and monitor for desert tortoise compliance. Handling of desert tortoise by the lessee is prohibited.

2. The lessee is required to notify the Barstow Field Office immediately upon any instance of "take" (as defined by the Endangered Species Act) of a desert tortoise.

3. The lessee is required to contact the Barstow Field Office immediately if a desert tortoise is found injured or killed by human activities. Grazing may continue pending a review of the incident by the BLM and the U.S. Fish and Wildlife Service, provided all other stipulations of this lease have been adhered to.

4. Rangelands that are grazed during the active growing season and are not meeting Standards shall not exceed 25 % utilization of key species. Utilization levels on key upland and riparian species shall not exceed 25 % between March 1 thru May 31 and October 1 thru November 30. Utilization levels on key upland and riparian species shall not exceed 40 % between June 1 thru September 30 and December 1 thru February 28. When utilization levels exceed prescribed levels, the lessee shall be required to remove livestock from use and/or key area. Utilization shall be monitored at key areas and/or use areas. The key forge plant method will be used to determine utilization levels.

Table 5
Grazing Guidelines for Range Types

RANGE TYPE	PERCENT OF USE OF KEY PERENNIAL SPECIES	
	POOR – FAIR RANGE CONDITION OR GROWING SEASON	GOOD – EXCELLENT RANGE CONDITION OR DORMANT SEASON
Mojave Desert Scrub	25	40
Semi desert Grass and Shrub land	30	40

Rangeland in good condition or grazed during the dormant season can withstand the higher utilization level. Rangelands in poor condition or grazed during the active growth season would receive lower utilization levels.

5. All cattle carcasses found within 300 feet of a road or watering source shall be removed by the lessee and disposed of in an appropriate manner (i.e., not buried) within two days of being found or, if this is not practicable, such reasonable time as is acceptable to the BLM authorized officer. The lessee must seek prior authorization from the BLM's Authorized Officer is required before removal from designated wilderness areas. Carcasses found farther than 300 feet from a road or watering source shall remain unless determined to be a hazard for reasons of health and safety.

6. If a lessee or their designate creates any hazards to desert tortoises such as auger holes and trenches, they will be eliminated before the rancher, contractor, or work crew leaves the site.

7. No ephemeral authorizations shall occur within DWMAs on the Ord Mountain Allotment. The Ord Mountain Allotment is currently capable of authorizing ephemeral and perennial forage for cattle use will be designated for perennial forage use only.

8. Issuance of temporary non-renewable (TNR) grazing permits shall be prohibited in DWMAs for all lands below an elevation of 4,000 feet.

9. When ephemeral forage production[1] is less than 230 pounds per acre, the lessee shall be required to substantially removed livestock from portions of the Ord Mountain Allotment within the DWMA referred to as "Designated Exclusion Areas" (see Map 1) from March 15 to June 15.

10. Cattle may remain past March 15 in expectation of ephemeral forage production over 230 pounds per acre. If this level of forage is not attained when weather conditions (e.g., warming of the soil) are appropriate, the lessee would substantially removed livestock from Designated Exclusion Areas until such time as 230 pounds per acre ephemeral forage is achieved or June 15, whichever is earlier. This determination will be made based on the evaluation and judgment of the BLM authorized officer. If cattle must be removed, the lessee will be given two weeks to remove them from the designated exclusion area.

11. The term "substantially removed" recognized that a few individual cattle might wander into the Designated Exclusion Areas despite the lessee's best efforts and regardless of management facilities (e.g., fences, water sources) that are in place.

b. Other Proposed Stipulations

12. The lessee shall substantially remove livestock from areas currently identified as not achieving the Native Species Standard from March 1 thru May 31 and October 1 thru November 30 until this standard has been achieved.

13. 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.

14. The lessee is required to perform normal maintenance on all range improvements located on public land within the Ord Mountain Allotment.

15. The lessee's certified actual use report is due no later than 15 days after the end of authorized grazing but no later than March 15th and September 15th.

16. 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.

17. 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.

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1 The *ephemeral production threshold* should not be confused with *ephemeral authorization*. The 230-pound *ephemeral production threshold* is intended to avoid competition between cattle and tortoises in years of poor rainfall and plant growth. *Ephemeral authorization* is different, in that it allows the lessee to increase the stocking rate during years when ephemeral plant growth is abundant. Whereas, ephemeral authorization would allow more cattle to be grazed (only outside DWMAs), the ephemeral production threshold would trigger the removal of cattle from Exclusion Areas (only inside DWMAs).

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. Natural water sources developed as range improvements by the lessee would be modified and maintained to ensure no excessive loss of water through the use of float values or other devices.

3. 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.

4. During prolong drought the BLM will require the lessee to reduce stocking rates.

d. ***Regional Guidelines based on the WMP**

1. Natural water sources developed as range improvements by the lessee would be modified and maintained to ensure there is no excessive loss of water to protect the ecological function and processes of these sites. This may be achieved with the use of float values or other devices.

2. 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 desert tortoise burrows. The lessee would notify the BLM of the proposed location prior to placement.

3. 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.

4. During prolong drought the BLM would require the lessee to reduce stocking rates.

* Implementation of regional standards for public land health and guidelines for grazing management as approved in the WMP cannot occur until the Secretary of the Interior also approves them. This process is underway. Until that time, the nationally developed fallback standards and guidelines would continue as the basis for public land health.

B. <u>Alternative II -No Action</u>

Under this alternative, BLM would continue authorizing livestock grazing on the Ord Mountain Allotment under the grazing stipulations contained in the Settlement Agreement, and under the applicable terms and conditions derived from biological opinions for the management of livestock in habitat for the desert tortoise (see Attachment 3) that were issued prior to the WMP and the grazing guidelines contained in 43 CFR 4180.

1. Livestock Numbers and Season of Use

Table 6.

Allotment	Number of Animals	Kind	Class	From	To	AUMs
Ord Mountain	172	Cow-calf	Cattle/horses	March 1	February 28	2,066

2. Livestock Management

Unlike the proposed action, the allotment would be managed as a year-long cow-calf operation with a maximum permitted use of 2,066 AUMs. This represents a 1,566 AUMs difference from the proposed action. Livestock would be managed under the grazing stipulations contained in the Settlement Agreement (see Part 6), and under the terms and conditions derived from the 1993 biological opinions for the management of livestock in habitat for the desert tortoise (see Attachment 3).

As with the proposed action, the livestock, through most of the year are separated into smaller herds (approximately 10 to 20 cows) and moved to different water sources based on the forage conditions, such as plant density, vigor and stage of plant growth in that portion of the allotment serviced by that water source. There are nine developed water sources on public land and at least three on private land within the allotment. Seven of the developed water sources are in the western portion of the allotment and two are located in the center of the allotment (see Map 1).

The best pasture/use area strategy would be determined by the lessee and BLM. The lessee would turn off waters in areas with marginal forage availability or when utilization threshold have been met and move the cattle to other areas/waters in the allotment. During the summer months a portion of the total herd (20 to 25%) would be moved to higher elevational rangelands (>5,000 ft.) while the remaining cows would typically be placed on the lessee's private property near ranch headquarters. Livestock distribution would be maximized during the winter months because temperatures are cooler and their need for water is much less, therefore cattle drift farther from watering facilities and drink less frequently.

3. Range Improvements

All existing range improvements would continue to be maintained. Under this alternative, Table 7 contains a new range improvement project BLM would propose in the reasonably foreseeable future. This proposed range improvement is being included in this document in the context of its general and cumulative effects. The location of this proposed range improvement has yet to be determined. BLM would conduct a site specific analysis on this proposed project prior to development. In addition, a project specific ESA consultation would be conducted prior to development or construction. The purpose of such improvements would be to maintain or achieve rangeland health. A complete list of existing range improvements that would continue to be maintained under this alternative are contained in Table 10.

The following proposed range improvement would be implemented as part of this alternative.

Table 7. Proposed Range Improvements

Project Name/No.	Location Township/Range/ Section	Comments eg. General condition	Mitigation Description (indicate resource benefit of improvement)
East Ord Well # 8224	Yet to be determined	Proposed water well, with up to three trough locations.	This water development would enhance livestock distribution and reduce grazing pressure in DT critical habitat.

4. <u>Monitoring</u>

As with the proposed action, monitoring has revealed high to severe levels of utilization on some years at several key areas/locations (see Table 11). This situation has contributed to the localized degradation of native plant communities in the western and central portions of the allotment.

As with the proposed action, monitoring would be conducted to determine if the current grazing strategy is meeting monitoring objectives and complying with grazing stipulations

5. <u>Measures to Maintain or Achieve Standards (Terms and Conditions of Lease) by Allotment:</u>

A Rangeland Health Assessment was conducted on this allotment in 1999. The assessment concluded that approximately 10% of the allotment was not achieving the Native Species Standard. The Determination of Rangeland Health contains recommendations that would make positive progress towards the achievement of this standard. Under this alternative, BLM and the lessee would begin discussions on how to implement those recommendations while minimizing impacts to the grazing operations. These discussions would be of highest priority because 43 CFR 4180 requires corrective action.

This allotment is scheduled to be re-assessed for rangeland health in 2007.

6. Existing Grazing Stipulations

1. The permitted use on the Ord Mountain Allotment has been reduced from 3,632 AUMs (302 cows year-long) to 2,066 AUMs (174 cows year-long) as per the Settlement Agreement.

2. 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.

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3. 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).

4. The lessee is required to perform normal maintenance on all range improvements located on public land within the Ord Mountain Allotment.

5. 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.

6. 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. Alternative III - No Grazing

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. If the lessee submits a request for voluntary relinquishment of the lease for this allotment at any time during the life of the lease, BLM will review the analysis contained in this EA for purposes of determining whether to accept such request. If conditions and circumstances remain substantially the same, no further NEPA document should be needed.

D. Alternative IV - Limited Grazing

This alternative emphasizes environmental protection while maintaining use of the allotment for grazing in conformance with the CDCA Plan and the WMP Amendment.

1. Livestock Numbers and Season of Use

Table 8.

Allotment	Number of Animals	Kind	Class	From	To	AUMs
Ord Mountain	310	Cow-calf	Cattle/horses	June 1	September 30	1,240
Ord Mountain	313	Cow-calf	Cattle/horses	December 1	February 28	939

2. Livestock Management

Under this alternative, the Bureau of Land Management (BLM) is proposing to issue a 10-year lease to authorize a cow-calf grazing operation on the Ord Mountain Allotment. Livestock grazing on public land would be restricted to summer and winter use only. The maximum stocking rates for these seasons of use would slightly exceed 300 cows.

Different from the proposed action is that BLM would limit cattle grazing on public land in the Ord-Rodman DWMA to the inactive seasons for the desert tortoise to aid in recovery of the species. Cattle grazing would only be authorized for winter (December 1 through February 28) and summer (June 1 through September 30) use. The permitted use would be temporarily reduced from 3,632 AUMs to 2,180 AUMs unless monitoring verifies that a higher carrying capacity is feasible. This reduction is necessary to limit stocking rates under a reduced season of use.

As with the proposed action, livestock use would be tied to developed water sources in the same manner as described under Section 2 of the proposed action.

3. Range Improvements

All existing range improvements would continue to be maintained. Under the alternative, Table 9 contains new range improvement projects BLM is anticipating to propose in the reasonably foreseeable future. These proposed range improvements are being included in this document in the context of their general and cumulative effects. The locations of these proposed range improvements have yet to be determined. BLM would conduct a site specific analysis on these proposed projects prior to development or construction of any proposed range improvements. In addition, a project specific ESA consultation would be conducted prior to development or construction. The purpose of such developments would be to maintain or make progress towards achievement of the rangeland health standards, to reduce illicit or unnecessary OHV use, and to identify management boundaries. A complete list of existing range improvements that would continue to be maintained under this alternative are contained in Table 9.

Table 9. Proposed Range Improvements

Project Name/No.	Location Township/Range/ Section	Comments eg. General condition	Mitigation Description (indicate resource benefit of improvement)
East Ord Well # 8224	Yet to be determined	Proposed water well, with up to three trough locations.	This water development would enhance livestock distribution and reduce grazing pressure in DT critical habitat.

*South Ord Boundary Fence # 8505	Yet to be determined.	Proposed southern boundary fence. Approx. 10 miles of fencing.	Excludes cattle grazing from high concentration tortoise areas.
*East Ord Boundary Fence # 8506	Yet to be determined.	Proposed eastern boundary fence. Approx. 4 miles of fencing.	Excludes cattle grazing from high concentration tortoise areas.

*Proposed projects are contained in the WMP for future implementation.

Due to the immediate need to construct the South Ord Boundary Fence because of continuing OHV intrusions and southerly livestock drift and the East Ord Well to improve livestock distribution, project planning for these projects would occur prior to the East Ord Boundary Fence.

4. <u>Monitoring</u>

As with the proposed action, monitoring has revealed high to severe levels of utilization on some years at several key areas/locations (see Table 11). This situation has contributed to the localized degradation of native plant communities in the western and central portions of the allotment.

As with the proposed action, monitoring would be conducted to determine if the current grazing strategy is meeting monitoring objectives and complying with grazing stipulations

5. <u>Measures to Maintain or Achieve Standards (Terms and Conditions of Lease) by Allotment:</u>

The Ord Mountain Allotment is within habitat, both critical and/or non-critical for the desert tortoise (*Gopherus agassizii*), a federally listed species. DWMA are areas designated by the WMP for conservation and recovery of the desert tortoise and have a high degree of correlation to designated critical habitat areas. Listed below in Table 10 are the acreages of public land for desert tortoise habitat within the Ord Mountain Allotment (see Map 1).

Table 10. Desert Tortoise Habitat		
Allotment	Acres within Desert Wildlife Management Areas (DWMA)	Acres outside of Desert Wildlife Management Area (DWMA)
Ord Mountain	117,417	15,435

Portions of the allotment failed to achieve the Fall Back Rangeland Health Standards as follows:

Table 11.

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Impacts from Livestock Yes or No	Remarks	Assessment Scheduled in WMP

Ord Mountain	Soil and Riparian/wetland	Native Species	Yes	Not meet on approx. 10% of allotment	Assessed in 1999, needs re-assessment in 2007

Table 4 is based on the Determination of Rangeland Health dated September 22, 1999 (see Attachment 2).

The Rangeland Health Standard - Native Species applies to desert tortoise habitat and populations. In the Determination of Rangeland Health small areas of the allotment were identified as not achieving this standard (see Map 2). In addition, that determination made recommendation on corrective management actions that would begin positive progress towards the achievement of that standard.

With the approval of the WMP and scheduled renewal of the grazing lease, corrective management actions is being proposed under this alternative that would begin moving these areas towards achievement of the Native Species and Riparian/Wetland Standards.

Under this alternative grazing would only be authorized on public land during the summer (June 1 thru September 30) and winter (December 1 thru February 28) to allow for recovery of degraded native plant communities and improve desert tortoise habitat.

This allotment is scheduled for re-assessment in 2007.

6. <u>Proposed Terms and Conditions WMP (FEIS 2-124 thru 2-136)</u>

a. WMP (FEIS 2-124 thru 2-136)
Reasonable and prudent measures from the CDCA biological opinion (1-8-04-F-43R) would be incorporated as stipulations of the lease, along with the grazing prescriptions contained in the WMP and other stipulations required by the BFO Field Manager:

1. Only qualified personnel are allowed to handle desert tortoises, conduct clearance surveys, and monitor for desert tortoise compliance. Handling of desert tortoise by the lessee is prohibited.

2. The lessee is required to notify the Barstow Field Office immediately upon any instance of "take" (as defined by the Endangered Species Act) of a desert tortoise.

3. The lessee is required to contact the Barstow Field Office immediately if a desert tortoise is found injured or killed by human activities. Grazing may continue pending a review of the incident by the BLM and the U.S. Fish and Wildlife Service, provided all other stipulations of this lease have been adhered to.

4. Rangelands that are grazed during the active growing season and are not meeting Standards shall not exceed 25 % utilization of key species. Utilization levels on key upland and riparian species shall not exceed 25 % between March 1 thru May 31 and October 1 thru November 30. Utilization levels on key upland and riparian species shall not exceed 40 % between June 1 thru

September 30 and December 1 thru February 28. When utilization levels exceed prescribed levels, the lessee shall be required to remove livestock from use and/or key area. Utilization shall be monitored at key areas and/or use areas. The key forge plant method will be used to determine utilization levels.

Grazing Guidelines for Range Types

RANGE TYPE	PERCENT OF USE OF KEY PERENNIAL SPECIES	
	POOR – FAIR RANGE CONDITION OR GROWING SEASON	GOOD – EXCELLENT RANGE CONDITION AND DORMANT SEASON
Mojave Desert Scrub	25	40
Salt Desert Shrub land	25	35
Semi desert Grass and Shrub land	30	40
Sagebrush Grassland	30	40
Mountain Shrub land	30	40
Pinyon-Juniper Woodland	30	40

Rangeland in good condition or grazed during the dormant season can withstand the higher utilization level. Rangelands in poor condition or grazed during the active growth season would receive lower utilization levels.

5. All cattle carcasses found within 300 feet of a road or watering source shall be removed by the lessee and disposed of in an appropriate manner (i.e., not buried) within two days of being found or, if this is not practicable, such reasonable time as is acceptable to the BLM authorized officer. The lessee must seek prior authorization from the BLM's Authorized Officer is required before removal from designated wilderness areas. Carcasses found farther than 300 feet from a road or watering source shall remain unless determined to be a hazard for reasons of health and safety.

6. If a lessee or their designate creates any hazards to desert tortoises such as auger holes and trenches, they will be eliminated before the rancher, contractor, or work crew leaves the site.

7. No ephemeral authorizations shall occur within DWMAs on the Ord Mountain Allotment. The Ord Mountain Allotment is currently capable of authorizing ephemeral and perennial forage for cattle use will be designated for perennial forage use only.

8. Issuance of temporary non-renewable (TNR) grazing permits shall be prohibited in DWMAs for all lands below an elevation of 4,000 feet.

9. When ephemeral forage production[2] is less than 230 pounds per acre, the lessee shall be required to substantially removed livestock from portions of the Ord Mountain Allotment within

2 The *ephemeral production threshold* should not be confused with *ephemeral authorization*. The 230-pound *ephemeral production threshold* is intended to avoid competition between cattle and tortoises in years of poor rainfall and plant growth. *Ephemeral authorization* is different; in that it allows the lessee to increase the stocking rate during years when ephemeral plant growth is abundant. Whereas, ephemeral authorization would allow more cattle to be grazed (only outside DWMAs), the ephemeral production threshold would trigger the removal of cattle from Exclusion Areas (only inside DWMAs).

the DWMA referred to as "Designated Exclusion Areas" (see Map 1) from March 15 to June 15.

10. Cattle may remain past March 15 in expectation of ephemeral forage production over 230 pounds per acre. If this level of forage is not attained when weather conditions (e.g., warming of the soil) are appropriate, the lessee would substantially removed livestock from Designated Exclusion Areas until such time as 230 pounds per acre ephemeral forage is achieved or June 15, whichever is earlier. This determination will be made based on the evaluation and judgment of the BLM authorized officer. If cattle must be removed, the lessee will be given two weeks to remove them from the designated exclusion area.

12. The term "substantially removed" recognized that a few individual cattle might wander into the Designated Exclusion Areas despite the lessee's best efforts and regardless of management facilities (e.g., fences, water sources) that are in place.

b. Other Proposed Terms and Conditions

13. The lessee shall substantially remove livestock from areas currently identified as not achieving the Native Species Standard from March 1 thru May 31 and October 1 thru November 30.

14. 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.

15. The lessee is required to perform normal maintenance on all range improvements located on public land within the Ord Mountain Allotment.

16. The lessee's certified actual use report is due no later than 15 days after the end of authorized grazing but no later than March 15th and September 15th.

17. 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.

18. 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 shall 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. Natural water sources developed as range improvements by the lessee will be modified and

maintained to ensure no excessive loss of water through the use of float values or other devices.

3. 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.

4. During prolong drought the BLM will require the lessee to reduce stocking rates.

d. *Regional Guidelines based on the WMP:

1. Natural water sources developed as range improvements by the lessee will be modified and maintained to ensure there is no excessive loss of water to protect the ecological function and processes of these sites. This may be achieved with the use of float values or other devices.

2. The lessee will 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 desert tortoise burrows. The lessee would notify the BLM of the proposed location prior to placement.

3. 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.

4. During prolong drought the BLM will require the lessee to reduce stocking rates.

* Implementation of regional standards for public land health and guidelines for grazing management as approved in the WMP cannot occur until the Secretary of the Interior also approves them. This process is underway. Until that time, the nationally developed fallback standards and guidelines would continue as the basis for public land health.

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 will be included in the Affected Environment section, and the resource element will not be further addressed in this environmental assessment.

<u>Elements:</u>

1. Livestock Grazing
2. Air Quality*
3. Areas of Critical Environmental Concern (ACEC)*
4. Cultural Resources* /Native American Concerns*
5. Environmental Justice*

6. Farmlands, Prime or Unique*
7. Flood plains*
8. Vegetation/Invasive, Non-native Species*
   - Threatened or Endangered Species*
9. Recreation
10. Social and Economic
11. Soil/BSC
12. Waste, Hazardous or Solid*
13. Water Quality, Surface and Ground*
14. Wetlands/Riparian Zones*
15. Wild and Scenic Rivers*
16. Wilderness*
17. Wild Horses and Burros
18. Wildlife
   - Threatened or Endangered Species*

*Critical Elements of the Human Environment

A. LIVESTOCK GRAZING

1. Affected Environment

The Ord Mountain Allotment, #8005 (see Map1), is an ephemeral/perennial allotment with potential forage production to enable the Bureau of Land Management (BLM) to authorize ephemeral forage and an established perennial forage allocation. The current lease, #046804, authorizes 307 head of cattle and eight horse's year long, or 3,632 animal unit months (AUMs) for the Ord Mountain Allotment #8005. The allotment encompasses 154,828 acres, including private, State, and BLM (public) lands. The allotment consists of 18,736 acres of private land, 3,240 acres of State land, and 132,852 acres of public land administered by the BLM. Within the Ord Mountain Allotment, there are 117,417 acres (BLM) of desert tortoise critical habitat within the Ord-Rodman DWMA and 15,435 acres of desert tortoise habitat outside of critical habitat and the DWMA.

This allotment is located in rural San Bernardino County, approximately nine miles southeast of the City of Barstow. Elevations range from 3,280 to 5,740 feet. The allotment is bordered by the 29-Plams Marine Corp Base on the east, the Johnson Valley OHV Open Area to the south, Stoddard Valley to the west and the Rodman and Newberry Mountains to the north. Approximately one quarter of the allotment is within the Newberry Mountains and Rodman Mountains Wilderness Areas. Table 12 depiction of existing range improvements on the allotment:

Table 12. Depiction of existing range improvements on the allotment:

Table 12. Existing Range Improvements

Table 12. Existing Range Improvements

Allotment Name/ Project Name	***Location*** Township/Range/ Section	***Comments***	***Mitigation Description***
Ord Mountain Aztec Spring #8020	T. 7 N., R. 2 E., Section 7 SWSW1/4	Key water source for both livestock and wildlife.	Consider relocation of trough for protection of cultural site.
Ord Mountain Badger Spring #8023	T. 7 N., R. 1 E., Section 31 NWSE1/4	Key water source for both livestock and wildlife.	Locate and fence source.
Ord Mountain Willow Spring #8004	T. 7 N., R. 2 E., Section 19 SENW1/4	Key water source for both livestock and wildlife.	Source is proposed for fencing.
Ord Mountain Kane Spring #8003	T. 8 N., R. 3 E., Section 31 NWSE1/4	Key water source for both livestock and wildlife.	Source protected.
Ord Mountain Goat Spring #8017	T. 7 N., R. 1 E., Section 30 SWNW1/4	Key water source for both livestock and wildlife.	Sourced fenced.

Table 12. Existing Range Improvements			
Ord Mountain Quill Spring #8002	T. 6 N., R. 1 E., Section 4 NWNW1/4	Requires re-construction.	Sourced fenced.
Ord Mountain Fisher Spring #8015	T. 7 N., R. 2 E., Section 28 NENE1/4	Key water source for both livestock and wildlife.	
Ord Mountain Tyler Valley Well #8201	T. 6 N., R. 2 E., Section 6 NWSE1/4	Key water source for both livestock and wildlife.	Necessary for good livestock distribution.
Ord Mountain Camp Rock Well #8202	T. 7 N., R. 3 E., Section 28 NWSW1/4	Key water source for both livestock and wildlife.	Necessary for good livestock distribution.
Ord Mountain West Ord Boundary Fence #8438	T. 7 N., R. 1 E., Section 19	Extended three miles in 1999 (#8484).	Prevents livestock drift off the allotment.
Ord Mountain Ord Mountain Exclusion Fence #8499	T. 7 N., R. 3 E., Section 19	Nine miles of internal fencing used to facilitate the Settlement Agreement with CBD.	Used to exclude livestock from portions of the allotment during seasonal closures for desert tortoise.

Livestock grazing in the western Mojave Desert has been occurring as an industry since the late 1800's. Based on BLM records, cattle grazing, on what is now the Ord Mountain Allotment has been ongoing since the 1950's. The 1980 CDCA Plan rates the Newberry/Ord Allotment in fair range condition, with a carrying capacity of 1,031 AUMs or 86 cows year-long. The CDCA Plan indicates that the public land on the allotment had historically been authorized primarily for ephemeral use, but did indicate that the development of an Allotment Management Plan (AMP) would re-classify the allotment as a perennial/ephemeral allotment. In 1985 an AMP was approved. This AMP combined the Newberry/Ord with the West and East Ord Extension to the Newberry/Ord which became the Ord Mountain Allotment. The Ord Extensions were classified as being in good range condition. Since 1985 this allotment has been classified as a perennial/ephemeral allotment with a year-long cow-calf operation and a maximum stocking rate of approximately 300 cows. The CDCA Plan through the Ord Mountain AMP has authorized a maximum permitted use of 3,632 AUMs. The average carrying capacity for this allotment is estimated to range from 40 to 60 acres/AUM

Since the 1950's, stock water has been developed over the years. Currently there are nine operating water sources on public land and at least three water sources on private land. Eight out of the 11 water sources are located in the western portion of the allotment with the other three located in the central portion of the allotment (see Map1). The eastern portion of the allotment lacks any developed water sources, but does contain several natural catchment basins that can hold limited water until late spring. The distribution of developed water sources correlates directly with livestock distribution. For greater than 20 years cattle use has been concentrated in the western and central portions of the allotment because of the lack of water in the eastern portion of the allotment.

As described in the proposed action, livestock use is closely tied to these developed water sources. The native plant communities up to one half mile from these water sources and portions of those plant communities that exist between these water sources have been degraded to varying degrees over the years because of livestock concentrations in these areas. This situation was confirmed during the 1999 Rangeland Health Assessment. This pattern of livestock use continued until the summer of 2005. The lessee has been decreasing stocking rates on the allotment when compared to historic use levels. However these low stocking rates are voluntary and economically driven as the lessee slowly rebuilds the herd.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

Under the proposed action, the grazing lease for the Ord Mountain Allotment would be renewed for 10 years. The terms and conditions contained in the new lease would include the grazing prescriptions listed in the WMP, as well as other terms and conditions deemed necessary by the BLM Field Manager. These grazing prescriptions would eliminate ephemeral authorizations and temporary non-renewable (TNR) authorizations below 4,000 feet however this would not substantially change current grazing operations on the allotment being re-authorized. They would include key terms and conditions contained in previous grazing decisions related to cattle grazing in desert tortoise habitat. The WMP now requires site specific NEPA analysis and

project specific ESA consultation for all new range improvements or proposed changes in grazing management that would be considered more than a minor change.

The Ord Mountain Allotment is within a desert tortoise DWMA. There are additional prescriptions for cattle grazing within a DWMA. These prescriptions ensure that there is sufficient forage available for tortoises to thrive and reproduce, and requires that the grazing operation be conducive with recovery of the desert tortoise. Because of the requirements that were stipulated under interim management the allotment and the grazing operation would not be substantially impacted if required to exclude grazing from portions of the allotment in dry years (< 230 Ibs./acre) for a three month period in the spring.

Under the proposed action, additional management actions aimed at making positive progress toward achievement of the Native Species and Riparian/Wetland Rangeland Health Standards would be implemented. These management actions, deferment of grazing in specific portions of the allotment until summer and fencing off the sources at Willow and Upper Sweetwater Springs are feasible. Effective implementation of these actions would require full cooperation from the lessee. There would be some additional cost to the lessee in terms of additional time and labor costs. It may take several years before improvement to native plant communities, in those areas deferred from grazing in the spring can be detected.

There would be a positive impact from the development of the East Ord Well because the project would enhance livestock distribution and reduce grazing pressure in other portions of the allotment that contain DWMA and areas that currently do not achieve rangeland health standards. There would be a positive impact from the construction of the South Ord Boundary Fence because this project would prevent livestock from drifting off the allotment to the south into areas with dense desert tortoise populations, and better manage OHV riders as they access the allotment's route network.

b. <u>Impacts of No Action</u>

Under this alternative, grazing operations would resume to the stipulated conditions that were in place under interim management on the Ord Mountain Allotment. Under interim management, the permitted use is temporarily reduced to 2,066 AUMs and a spring and fall exclusion period. This would not be impacting to the lessees or their operations because this operation has been under these interim stipulations for the past five years and internal fencing has been constructed to facilitate the exclusion period.

Under this alternative, impacts from the development of the East Ord Well would be the same as those for the proposed action.

c. <u>Impacts of No Grazing</u>

Under this alternative grazing would not be authorized on public land.

d. <u>Impacts of Limited Grazing</u>

Under this alternative, the grazing operation on the Ord Mountain would be substantially impacted. Cattle grazing would not be authorized on public land five out of 12 months. Removing livestock from public land during the spring and fall and re-locating them to private land owned or leased by the lessee could represent a substantial financial hardship to the lessee. In the fall and in spring with below normal precipitation the lessee would probably need to supplement her herd with hay. There could also be a potential increase in labor and fuel costs to lessee. The temporary reduction in permitted used would reduce the lessee ability to produce calves and result in lower net income.

There would be a positive impact from the development of the East Ord Well because the project would enhance livestock distribution and reduce grazing pressure in other portions of the allotment. There would be a positive impact from the construction of the South Ord Boundary Fence because this project would prevent livestock from drifting off the allotment to the south into areas with dense desert tortoise populations, and better manage OHV riders as they access the allotment's route network.

e. Consultation

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

f. Maps

See Map1.

g. References:

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

U.S. Bureau of Land Management. 1985. Ord Mountain Allotment Management Plan. Barstow, CA

U.S. Bureau of Land Management. 2006. West Mojave Plan Amendment. Moreno Valley, CA

U.S. Fish and Wildlife Service. 2006. Biological Opinion for the California Desert Conservation Area Plan [West Mojave Plan] (6840(P) CA-063.50) (1-8-03-F-58).

B. AIR QUALITY

1. Affected Environment

The project area for the purpose of this analysis is the Ord Mountain Allotment, located in rural San Bernardino County (see Map1).

The project area is part of the Mojave Desert Air Basin. Most days' air quality is good to fair.

Windblown air pollutants from the South Coast Air Basin, which includes Orange County and non-desert portions of Los Angeles, Riverside, and San Bernardino counties, strongly influence the air quality of the Mojave Desert Air Basin. As pollutant emissions continue to decline in the South Coast Air Basin, the Mojave Desert Air Basin will benefit.

The pollutant emissions from sources, climatic conditions, and atmospheric interactions determine the quality of air. Air quality in a given location is described by the concentration of various pollutants in the atmosphere. An area is designated by the EPA as being in non-attainment for a pollutant if ambient concentrations of that pollutant are below the National Ambient Air Quality Standards (NAAQS).

Non-attainment areas are designated if repeated violations of the NAAQS occur, and the relative seriousness of the problem is determined at the time that a basin is determined to be in non-attainment of national standards. The classification may be deemed to be Very Serious, Serious or Moderate non-attainment. The California Clean Air Act of 1988 also requires that areas of California be designated attainment, non-attainment, and unclassified for state ambient air quality standards. The Ord Mountain allotment is included in an area classified by EPA and the California Air Resources Board as a Moderate non-attainment area for particulate matter (PM^{10}) and serious non-attainment for ozone.

Sources for ozone missions include exhaust from primary transportation vehicles (particularly diesel trucks) industrial sources, including secondary sources, and climatic sources. Grazing management activities do not contribute measurably to ozone emissions.

Primary sources for emissions of particulate matter under 10 microns, PM^{10}, in the project area are wind erosion on unpaved surfaces including disturbed areas, construction activities, mining-related activities, use of unpaved routes, and dirt storage piles. During most days of the year, visibility exceeds 25 miles. Exceptions occur during strong westerly winds when dust is blowing and when smog filters up from the Los Angeles Basin. There are no major single sources of pollutant emissions in the project area. Generally, locally generated PM^{10} pollution is somewhat greater in the OHV open areas, which have increased disturbed area and route densities, as well as increased unpaved route use associated with recreational activities.

The Mojave Desert Air Quality Management District (MDAQMD) has State air quality jurisdiction over San Bernardino County, and has been delegated authority to implement the Clean Air Act from the EPA. MDAQMD has analyzed impacts from existing sources for PM^{10}, and prepared a state implementation plan (SIP) for the Mojave Desert planning area which identifies sources of emissions and control measures to manage existing emissions and reduce new emissions (MDAQMD, 1995). In the SIP, Miscellaneous Area Sources were considered to by a minor category of PM^{10} emissions in the planning area, generating 1.3% of total emissions in 1990. Agricultural activity is a small contributor within this miscellaneous category, and Ord grazing allotment a small portion of the agricultural activity contributions. No measures were identified in the SIP specific to existing livestock grazing activities, 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 quality in the Mojave Desert planning area (BLM, 1997). None of the alternatives would result in increased grazing activities over those historic levels,

and regional exceedances of PM^{10} standards have decreased approximately 10% (EPA, 2003) due to voluntary and SIP measures to decrease emissions from substantial sources. Therefore, there would be no substantial affect to air quality under any of the alternatives.

2. References

Final Mojave Desert Planning Area Federal Particulate Matter (PM10) Attainment Plan, Mojave Desert Air Quality Management District, 31 July 1995, approved by MDAQMD in July, 1996.

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

National Air Quality and Emissions Trend Report, 2003, Fig. 2-40: Trend in PM10 annual mean concentration by EPA Region, 1992–2001.

C. AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

The project areas for the purpose of this analysis are the Rodman Mountain Cultural ACEC, the Mojave Monkeyflower ACEC and the Ord-Rodman DWMA ACEC within the Ord Mountain grazing allotment, located in rural San Bernardino County (see Map 1).

1. Affected Environment

<u>Rodman Mountain Cultural ACEC</u>
The Ord Mountain allotment overlaps a small portion of the Rodman Mountain Cultural Area ACEC. The Rodman Cultural Area was designated in 1989 to protect cultural resources and included 6,204 acres mostly within the Rodman Mountain Wilderness. Specific relevant features that formed the basis for ACEC designation are the multiple rock art sites that have been listed on the National Register of Historic Places. These features met the importance criteria for ACEC designation because of their diversity of artistic styles, their association with related cultural sites, and their significance to the religious and spiritual concerns of Native Americans. Livestock grazing would not affect the resources (rock art) for which this area met relevance and importance criteria for ACEC designation, as many of these resources are not readily accessible to livestock. Site-specific cultural impacts, including those to rock-art sites, are addressed further in the Cultural Resources analysis.

<u>Mojave Monkeyflower ACEC</u>

A portion of the Daggett Ridge Unit of the Mojave Monkey Flower Conservation Area is located within the boundaries of the Ord Mountain Allotment. The ACEC boundaries overlap the grazing allotment in the northwest portion on twelve sections (7,680 acres, of which 6400 acres are currently public lands and therefore are currently designated as ACEC. This represents approximately 15% of the public lands currently in the ACEC. Specific relevant features that formed the basis for ACEC designation are the moderate to high densities of Mojave Monkeyflower, a BLM-designated sensitive species, and the potential of the area to continue to

sustain monkeyflower populations over the long-term. These factors met the importance criteria for ACEC designation because of the historic declines in Mojave monkeyflower populations and suitable habitat for the species in the region, and the desire to protect remaining population concentrations to avoid its listing under the Endangered Species Act. Site-specific impacts to the Mojave Monkeyflower ACEC are addressed further in the analysis of Vegetation Resources.

Ord-Rodman DWMA ACEC

The Ord-Rodman DWMA ACEC overlaps approximately 117,000 acres of the Ord cattle grazing allotment. The Ord-Rodman DWMA was designated in 2006 to protect the federally-listed as threatened desert tortoise. Specific relevant features that formed the basis for ACEC designation are the moderate to high densities of desert tortoise, the presence of critical desert tortoise habitat, and the potential of the area to support desert tortoise populations over the long-term. These factors met the importance criteria for ACEC designation because of the historic declines in desert tortoise populations and habitat throughout the southwest that eventually led to its listing under the Endangered Species Act.

Livestock grazing was present at the time of ACEC designation and would not affect the basis for which this area met relevance and importance criteria for ACEC designation since desert tortoise and associated habitat will continue to be relevant and important (i.e., threatened) regardless of the presence of livestock for the reasonably foreseeable future, due to the slow reproductive rates of the species. Site-specific wildlife impacts, including those to desert tortoise and its habitat, are addressed in the Wildlife Resources analysis.

D. CULTURAL RESOURCES/NATIVE AMERICAN CONCERNS

1. Affected Environment

There are 34 documented sites within the Ord Mountain allotment managed by the Barstow Field Office (BFO). Previous surveys of the allotment covered less than 2% of the total allotment and were conducted in the early to mid 1960s. The surveys focused on natural water sources in the area. The site records give no indication of impacts caused by cattle grazing.

Of the 34 sites within the allotment five are historic sites which consist of four mining sites, and one site consisting of various can dumps and house hold debris from early homesteading. There are 29 documented prehistoric sites within the allotment. The prehistoric sites consist of 11 lithic scatter sites, nine rock shelter sites, one rock feature, and eight petroglyph sites. Three of the petroglyph sites, CA-SBR-159, CA-SBR-306, and CA-SBR-5053 are within the Rodman Mountain ACEC. These sites are listed on the National Register as part of the Rodman Mountains Archaeological District.

There are 1800 acres of the Ord Mountain allotment that extends into the very southern edge of the Rodman Mountain Cultural ACEC The area was designated an ACEC for the cultural value of resources in the area. The ACEC includes the Rodman Mountains Archaeological District which was nominated to the National Register on May 10, 1982. There are three known petroglyph sites within the ACEC portion of the allotment, CA-SBR-159, CA-SBR-306, and

CA-SBR-5053. These sites are listed on the National Register as part of the Rodman Mountains Archaeological District. This area is visited occasionally by BLM employees and there has been no damage observed that would be attributed to grazing.

2. Unavailable Information

Field survey pursuant to the Supplemental Programmatic Agreement for Livestock Grazing for the Ord Mountain Allotment is approximately 25% completed. The remainder of the allotment is scheduled for completion in FY-2007 (see attachment 5). Areas with natural water sources, fence lines, salt licks, and other cattle congregation areas will be the main focus of the survey. At the present time there are only 25 head of cattle grazing on a grazing allotment of 145,000 acres.

Within the jurisdiction for the BFO there is approximately 132,852 acres of public land utilized for livestock grazing on the Ord Mountain Allotment. The Supplemental Programmatic Agreement for Cattle Grazing allowed 10 years to complete the cultural resource surveys of the grazing allotments as this is a time consuming task. There are eight years remaining to fulfill the surveys. The agreement "allows for renewal allow for renewal of an existing grazing permit as long as Protocol direction, the BLM 8100 Series Manual guidelines (Protocol Amendment F), and specific stipulations are followed" (see Attachment 5).

Environmental Consequences

1. <u>Impacts of Proposed Action</u>

At present, one archaeological site has been identified as being impacted by cattle grazing within the Ord Mountain allotment. Site SBR-1806H is a historic mine site with two stone structures. The cattle have used the structures to rub against which is causing the walls to deteriorate resulting in substantial damage to the structures. It is recommended that Standard Protective Measures A: fencing of livestock from the cultural resource sufficient to ensure long-term protection.

Prior to development of the East Ord Well and South Ord Boundary Fence a Class II cultural survey would be conducted to ensure that impacts to cultural resources would not occur.

2. <u>Impacts of No Action</u>

Under this alternative livestock would be excluded from the ACEC during the spring and the fall under interim management. This would not substantially modify affects to cultural resources.

Prior to development of the East Ord Well a Class II cultural survey would be conducted to ensure that impacts to cultural resources would not occur.

3. <u>Impacts of No Grazing</u>

Under this alternative there would be no further impacts to cultural resources. Threats from

future grazing would be eliminated and the Supplemental Programmatic Agreement (see Attachment 5) would no longer apply to future actions.

4. Impacts of Limited Grazing

Same as the proposed action.

NATIVE AMERICAN CONCERNS

1. Affected Environment

Four Native American tribes have interests in the Ord Mountain Allotment within the Barstow Field area. There were no concerns expressed for specific sites within the Ord Mountain Allotment.

a. Consultation

Consultation was initiated in April 2006 with the Native Americans and interested publics for grazing matters on file with BLM on the proposed lease renewals for this allotment. Comments and concerns regarding cultural and religious values within this allotment that may be affected by livestock grazing will also be solicited and incorporated into follow-up site-specific cultural evaluations for allotments when visited.

The BFO received one response to the Native American Consultation Letters. On May 4, 2006 the Cultural Resource Coordinator for the Morongo Band of Mission Indians (Cahuilla and Serrano) voiced his concerns with Jim Shearer Archaeologist for the BFO. He expressed concerns that Native American habitation and petroglyph sites potentially impacted by grazing be protected.

Consultation was conducted with the California State Historic Preservation Office November 17, 2004 to submit a schedule 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* (see Attachment 5).

b. Maps

N/A

c. References

Informal consultation with Brit Wilson, Cultural Resource Coordinator for the Morongo Band of Mission Indians (Cahuilla and Serrano).

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.

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 Attachment 5).

E. ENVIRONMENTAL JUSTICE

1. Affected Environment

The project area for the purpose of this analysis is rural San Bernardino 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 San Bernardino County (*USDA National Agriculture Statistics Service, 2002 Census of Agriculture, CA, SBCO 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. Also, minority populations in the cattle industry are typical for rural San Bernardino County and farm industries in general. Therefore, the proposed action or any alternative would have no adverse affect to environmental justice issues.

F. FARMLANDS, PRIME OR UNIQUE

1. Affected Environment

The proposed action or any alternative would have no affect on farmlands, prime or unique because no prime or unique farmlands are present in or adjacent to the Ord Mountain grazing allotment. In the Mojave Desert, prime or unique farmlands are associated with floodplains, which are absent in the allotment.

G. FLOOD PLAINS

1. Affected Environment

The proposed action or any alternative would have no affect on flood plains because no flood plains are present in or adjacent to the Ord Mountain grazing allotment (FEMA Flood Hazard Maps, 2006).

H. VEGETATION/INVASIVE, NON-NATIVE SPECIES

1. Affected Environment

The vegetative communities within the Ord Mountain Allotment vary with elevation, soils, aspect and annual precipitation. Elevational gradients within this allotment range from 3,280 to 5,740 feet. This allotment is dominated by sandy soils. Precipitation on this allotment ranges from 3 to 6 inches annually, depending on elevation. Terrestrial natural communities have been

mapped using the classification employed by the California Natural Diversity Database of the Natural Heritage Division in the California Department of Fish and Game (Robert F. Holland, Ph.D., 1986) and the California Native Plant Society's A Manuel of California Vegetation (Sawyer and Keeler-Wolf, 1995) (see Map 3).

The primary plant communities occurring within the allotment is Mojave Creosote Bush Scrub, which is the predominate plant community of the Mojave Desert. Other communities include Mojave Mixed Woody Scrub, Mojave Wash Scrub, and Black bush Scrub. These plant communities make up a small percentage of the overall allotment (approximately 11% or 14,614 acres) and are scattered throughout the allotment occurring when elevation and site conditions are conducive to support such vegetation. Riparian vegetation is discussed under the Wetland/Riparian Zone Section. The following is a description of the key plant species or plant communities that may be affected by the proposed action.

The Mojave Creosote Bush Scrub - This community occurs from 245 feet below sea level to 3,300 feet above sea level, in well drained soils found on alluvial fans, bajadas and upland slopes. The dominant perennial species in a Creosote Bush Scrub plant community is the creosote bush (*Larrea tridentata*) which is also the most abundant shrub in the California Desert. The shrub diversity of the creosote bush scrub plant community diversity is characteristically low to medium, though annual plant diversity can be very high. Some associated plant species in this community include white bursage (*Ambrosia dumosa*), Mormon tea (*Ephedra* sp.), and desert senna (*Senna armata*). This vegetative community comprises approximately 89% or 137,797 acres of the total allotment.

The Mojave Mixed Woody Scrub - This community occurs between 1,000-5,000 foot elevation on all slopes in shallow and deep soils that are occasionally rocky. The Mojave Mixed Woody Scrub community is comprised primarily of the dominant Yucca species (*Yucca schidigera*, *Yucca bacata*) and associated species like winter fat (*Kraschenninnokovia lanata*), boxthorn species (*Lycium* sp.), spiny menodora (*Menodora spinescens*), spiny hopsage (*Grayia spinosa*), cacti species (*Opunita spp.*, *Mammallaria spp.*, *Echinocactus polycephalus.*, *Ferocactus cylindraceus.*, *Echinocerus spp.*) and California buckwheat (*Eriogonum fasciculatum*). This vegetative community comprises approximately 8% or 12,386 acres of the total allotment.

The Mojave Wash Scrub Community - This community occurs below 5,000 feet on sandy bottoms of wide canyons, incised arroyos of upper bajadas, and sandy, braided, shallow washes of the lower bajadas. This community is comprised primarily of the dominant catclaw acacia (*Acacia gregii*), and associated species like desert willow (*Chilopsis linearis*), black-stem rabbitbrush (*Chrysothamnus paniculatus*), allscales saltbush (*Atriplex polycarpa*), smoke tree (*Psorothamnus spinosus*), cheesebush (*Hymenoclea salsola*), pygmy-cedar (*Peucephyllum schottii*), honey mesquite(*Prosopis glandulosa torreyana*), screw bean mesquite (*Prosopis pubescens*), desert almond(*Prunus fasciculate*), and skunkbrush (*Rhus trilobata*). This vegetative community comprises approximately 1% or 1,548 acres of the total allotment.

The Black Bush Plant Community (black bush series) - This community occurs between 4,000 and 6,000 feet on alluvial slopes and bajadas in shallow soils that are often derived from a dolomitic, limestone substrate. The blackbrush plant community is dominated almost

completely by blackbrush (*Coleogyne ramosissima*) with some associates including Mojave yucca (*Yucca schidigera*), Ephedra species, spiny hopsage and buckwheat species (*Eriogonum spp.).* This vegetative community comprises approximately 2% or 3,097 acres of the total allotment.

BLM Sensitive Plant Species:

One uncommon plant designated a BLM Sensitive Species, is known to occur on the Ord Mountain Allotment: Mojave monkey flower (*Mimulus mohavensis*). This species occurs in small isolated populations, in the northwestern portion of the allotment near Kane Spring, the Azucar Mine, and along Camp Rock Road where suitable habitat is available (granitic soils, gravelly banks and desert washes). Several other populations are known to occur just north of the allotment boundary and in the Brisbane Valley to the west of I-15.

The WMP established an Area of Critical Environmental Concern (ACEC) to protect this species. The Daggett Ridge Unit of the Mojave Monkey Flower Conservation Area is located within the boundaries of the Ord Mountain Allotment. Only the Brisbane Valley portion of the ACEC has protective measures that apply. The ACEC boundaries overlap the grazing allotment in the northwest portion on twelve sections (7,680 acres).

Two Unusual Plant Assemblages (UPAs), as defined by the CDCA Plan of 1980, are found within the allotment. The Ord Mountain UPA occurs south of Ord Mountain and the Johnson Valley/Lucerne Valley creosote clones are found throughout the central and eastern part of the allotment. The jojoba UPA is a disjunct stand of this species apart from its primary range. This population has been fenced to exclude livestock. The creosote clones are an ancient vegetation type of this common species exhibiting an unusual growth form. In addition, riparian sites, including Kane Springs, are recognized by the CDCA Plan as Unusual Plant Assemblages. These are discussed in the Wetlands/Riparian Zone section of this EA.

In 1999 a rangeland health assessments was conducted on the Ord Mountain Allotment (see Table 4). Rangeland health assessments have been completed by an interdisciplinary team and with other monitoring studies completed on the allotments, including condition and trend have identified the extent livestock grazing is currently affecting vegetation. The assessment team compared indicators of resource condition to the National Fallback Standards. After a review of indicators and conditions the team made recommendations to continue current grazing practices in areas of the allotment achieving standards and modify current grazing practices in those portions of the allotment not achieving standards (see Map 2). These recommendations were finalized with the signing of a Determination of Rangeland Health (see Attachment 2) by the Barstow Field Manager.

Rangeland Monitoring

Rangeland monitoring (utilization and photo trend) over the last 15 years, corroborated by the 1999 rangeland health assessments has revealed that the lessee typically places livestock in the same general areas of the allotment associated with developed water sources at the same time every year. This practice and the lack of periodic rest have resulted in slow degradation of these

plant communities, predominantly creosote bush scrub and Mojave mixed woody scrub. Over the past thirteen years this allotment has had a utilization threshold of 40% of current year's growth on all forage species. The plant communities that have been exposed to these grazing practices typically exhibit high utilization levels (see Table 13) on key species, poor age class distribution, poor recruitment of key species, a reduction in the production palatable species (key species) and an overall reduction in species diversity. These grazing practices are primarily responsible for non-achievement of the Native Species standard on 10% of the allotment and the subsequent degradation of desert tortoise habitat.

Table 13 – Utilization Data (1996 to 2006)

Year Data was Collected	Percent Utilization Recorded	Species Utilized	Location of Utilization Transect
1996	77%	*Pleuraphis rigida* (Big galleta grass)	T. 7N.,R. 3E., Section 30
1996	77.5%	*Sphaeralcea ambigua* (Apricot mallow)	T. 7N.,R. 1E., Section 20
1996	70%	*Pleuraphis rigida* (Big galleta grass)	T. 7N.,R. 1E., Section 20
1996	90%	*Achnatherum speciosum* (desert needlegrass)	T. 7N.,R. 1E., Section 20
1997	68%	*Achnatherum speciosum* (desert needlegrass)	T. 6N., R.1E., Section 11
1997	68%	*Achnatherum speciosum* (desert needlegrass)	T. 7N.,R. 2E., Section 18
2000	50%	*Pleuraphis rigida* (Big galleta grass)	T. 6N., R.1E., Section 34

Invasive, Non-Native Species

The Ord Mountain Allotment contains varying densities of annual, invasive and non-native species over the vast majority of the allotment. These annual species include Red brome (*Bromus madritensisi ssp. rubens*), downy brome (*Bromus tectorum*), schismus (Schismus arabicus), filaree (*Erodium cicutarium*), and several mustard species, including Sahara mustard (*Brassica tournefortii*) are the five most widespread invasive species present in the allotment. The invasive and non-native species compete with native herbaceous species, especially annual species, for available moisture, nutrients, and spatial occupation of available upland habitat. Because they are annuals, species densities vary widely. There are numerous documented causes for the spread and establishment of invasive and non-native species, weeds. Weeds prefer disturbed sites (Petroff and Sheley 1999) that could be caused by OHV or livestock concentration areas. Healthy rangelands are the best defense against the spread of weeds, however even well managed rangelands are susceptible to natural disturbance such as wildfire. Vectors for the spread of weeds include vehicles, wind, recreationists, waterways, animals including livestock, and weed-contaminated hay (Petroff and Sheley 1999). For example, these

species are most widespread in the western and central portion of the allotment where livestock grazing is concentrated.

2. Environmental Consequences

a. Impacts of Proposed Action

The utilization of vegetation by cattle and horses for forage is affected in a number of ways. Key forage plant species for livestock consumption are palatable species that may be utilized frequently, when available, as forage for livestock. Common key forage species that occur in one or more of the plant communities within the allotments are listed below. These include, but are not limited to: Mormon tea (*Ephedra* spp.), winter fat (*Kraschenninnokovia lanata*), spiny menodora (*Menodora spinescens*), big galleta *(Pleuraphus rigida)*, indian rice grass (*Achnatherum hymenoides*), desert needle grass (*Achnatherum speciosum*), saltbush (*Atriplex spp.*), spiny hopsage (*Grayia spinosa*) and white bur-sage (*Ambrosia dumosa*) . These key species can be found in the Mojave creosote scrub, Mojave mixed woody scrub; Mojave wash scrub, black brush communities and riparian community types.

Measurements of grazing utilization are the proportion of degree of the current years forage production that is consumed or destroyed by livestock (ITR-Utilization Studies 1996). Utilization of key species (grasses) during the critical growing period, typically spring may prevent formation of a seed-head and dissemination of seed. If this occurs year after year to the same population of grass species, a negative impact to recruitment occurs. If high levels of utilization occurs (see Table 11) to a given population of forage species, those plant have less leaf area to absorb sunlight, produces lower levels of carbohydrates and expends a considerable amount of energy on re-growth. This type of scenario results in poor plant vigor, lower abundance and poor age class distribution. Forage utilization, plant vigor, abundance and age class distribution of key species are generally more intensely impacted around water sources or high-use facilities due to constant soil compaction from trampling and continual cropping of vegetation from cattle and horses. Impacts to resource conditions next to water developments are expected, and the area impacted will vary in size. These types of negative impacts have occurred in portion of the allotment where the Native Species Standard is not being achieved.

On the Ord Mountain Allotment, the Native Species Standard was not met in areas of the western and central portions of the allotment, and it was determined that cattle grazing are the primary cause. Recommendations from the Determination of Rangeland Health (see Attachment 2) varied, recommending periodic rest, or deferred grazing in areas of the allotments where the native plant communities have been degraded and recruitment of key species is not occurring. In the case of the Ord Mountain, the livestock grazing prescriptions contained in the WMP in itself would not move those areas currently not meeting standards towards achievement.

Under the proposed action, those areas identified as not achieving this standard would not be subject to livestock grazing in the spring and fall grazing during the critical growing periods. BLM anticipates slow, but positive progress towards improvement of degraded native plant communities as a result of this corrective management action and reverse the downward trend in rangeland health. This deferment from grazing during the critical growing period for native

species is anticipated to favor recruitment, vigor and enhance species diversity in native plant communities previously degraded by past grazing practices in portions of the allotment. Desert tortoises prefer certain native annual forbs over non-native annual forbs (Jennings 1997). BLM has not inventoried for these annual native species so there abundance on the Ord Mountain Allotment is unknown, however under this alternative native annual forbs located in the "deferment areas" would have the opportunity to germinate, grow and disseminate seed.

The additional changes in grazing practice as described in the proposed action are anticipated to make positive progress toward achievement by reducing the utilization thresholds from 40% to as low as 25% on key species allotment wide which would allow more leaf area to absorb sunlight. This would improve plant vigor and production. There are two other grazing prescriptions contained in the WMP that would not authorize ephemeral and TNR use. These provisions would not allow additional use of forage species on the allotment in productive years. Implementation of these prescriptions may have a future impact on the lessee's ability to apply flexibility to her operation when forage production is exceptional. These authorization options have not been applied for by the lessee during the past 15 years of operation. The WMP grazing prescription that requires exclusion from portions of the allotment when ephemeral production is less than 230 Ibs./acre would beneficial to the vegetation that would be excluded from grazing. There would no impact to reproduction and plant growth during these poor production years. However, the already stressed vegetation in those areas of the allotment where grazing would be allowed would suffer resulting relatively high levels of utilization, which in turn means little to no reproduction and poor plant vigor that growing season.

Based on BLM records, cattle grazing activities have not been identified as adversely affecting the Mojave monkey flower or UPAs. Cattle generally do not prefer to graze forbs such as the Mojave monkeyflower so the potential for grazing this species is low, however livestock can potentially trample monkeyflowers. Again, this potential is low because livestock are not concentrated where monkeyflower populations exist. The WMP does not contain any conservation actions directed at livestock grazing within the Daggett Ridge Unit of the Mojave monkey flower conservation area.

The development of the East Ord Well would have a direct negative impact to vegetation at the well site and within a ¼ radius of the well site. As with all livestock congregation areas vegetation would be denuded and trampled. These impacts would decrease as the distance increase away from the well site. This project would have a slight positive affect on native plant communities elsewhere in the allotment by decreased grazing pressure in those areas.

The South Ord Boundary Fence would have a nominal positive affect to vegetation after construction because the fence would better manage OHV riders within the Ord route network.

Invasive, Non-Native Species

The presence of livestock can spread the seeds of invasive species through seeds sticking to their hide, or deposition of seed through their digestive system (Belsky 2000). The extent to which poor grazing practices contribute to the spread of non-native invasive species on the Ord Mountain Allotment is unknown. However, some grazing practices like overgrazing do reduce

the diversity, and reproductive abilities of these native, desert plant communities (Boarman 1999). This in turn promotes the establishment and spread of non-native invasive species that now occupy habitat once primarily inhabited by native species because poor grazing practices degrade palatable native plant species resulting in a reducing its ability to reproduce, poor plant vigor, poor age class distribution and lower overall productivity. This allows highly aggressive non-native herbaceous plants to invade habitat occupied by stressed native species or habitat once occupied by native species.

Year-long continuous use, often grazing the same area at the same time year after year may have contributed to a transition of the native herbaceous ground cover to these five invasive and non-native species over a substantial portion (>50%) of the western portion of the Ord Mountain Allotment. This lack of periodic rest for native species in these areas contributes to habitat more vulnerable to invasion by non-natives. The palatability of non-native vs. native plant species to cattle varies based the species and phenological stage. Overall cattle prefer native forbs over non-native forbs however non-natives forbs typically germinate earlier in the growing season and are generally grazed in an earlier phenology stage than natives which can in some years favor native forbs in the production of seed into the seed bank. Depending on density, the utilization of native forbs can be lower than utilization levels on non-native forbs because native forbs are most palatable when there is the highest level of forage diversity available to the cattle.

Grazing practices that allow for periodic recruitment opportunities commonly have lower densities of non-native species and are more compatible with sustaining native plant communities. Under the proposed action, the deferment of grazing in the spring and fall, strict compliance with the grazing prescriptions contained in the WMP, and the other grazing stipulations would aid in improving native plant communities and in reducing the spread of non-native invasive species. The lowered utilization thresholds on key forage plants and other requirements should improve the overall trend of native plant communities.

Overall, the current densities of non-native invasive species on the allotments being analyzed in this document is consider moderate based on ocular estimates. Annual fluctuations in densities are directly influenced by the amounts of late winter and/or early spring precipitation.

The development of the East Ord Well would substantially increase densities of weeds such as mustards, schismus or red brome at the well site and within ¼ mile of the well site. Weed species have an affinity to disturbance and seeds are spread through cattle dung and on their hides. Because cattle would be continually accessing the site they would spread weed seed in a disturbed environment.

b. <u>Impacts of No Action</u>

Under this alternative, those portions of the allotment where native plant communities have been degraded (see Map2) because of grazing practices would continue to be degraded because this alternative would have no provision to require periodic rest. These grazing practices include grazing the same area the same time of year, year after year. These areas exhibit poor plant vigor, low densities and poor age class distribution. If these populations are reproducing then new plant are being consumed prior to reaching maturity. The utilization threshold under this

alternative would be 40% as opposed to 25% in the proposed action. In addition, there would be no accelerated schedule that requires completion of a new Rangeland Health Assessments, nor a requirement to revise the AMP.

Under the no action alternative, impacts to invasive, non-native species would be the same as the proposed action.

The development of the East Ord Well would result in the same impacts as the proposed action.

c. Impacts of No Grazing

Under this alternative, livestock grazing on this allotment would cease. This would have a positive impact to native plant communities within the allotment boundaries. Grazing pressure in this allotment is primarily confined to the western portions of the allotment that are serviced by existing water developments. The winter months allow for greater livestock distribution because the temperatures are much cooler and livestock's need for water is less. There are large areas in the eastern and southern portions of the allotment with poor to moderate forage base due to site potential. There are areas in the eastern portion of the allotment not or only infrequently grazed because of the distance from water. The individual plant populations within the communities that are grazed on a regular basis would have an opportunity to grow, flower and reproduce. An upward trend would be anticipated for those areas over the next ten years.

Any potential threats to the Mojave monkey flower populations, although unlikely would be eliminated under this alternative.

Invasive, Non-native Species

Under the no grazing alternative, impacts from invasive, non-native species on native plant communities may initially be slightly greater than the proposed action. There would no longer be herbivory occurring to invasive, non-native species prior to seed dissemination thus more weed seeds would be contributed to the seed bank. There would a net increase in both the number non-native plants and the amount of seed entering the seed bank. Conversely, the spread of weed seed would decrease slightly because livestock could not be a carrier of weed seed.

As native species begin to thrive because of no grazing pressure they could eventually dominate sites over time. Healthy, native plant communities are the best defense against degradation due to invasive, non-native species.

d. Impacts of Limited Grazing

Under this alternative there would be a positive affect to perennial vegetation on the Ord Mountain Allotment. The spring represents the primary critical growing period for most perennial vegetation in the Mojave Desert. The elimination of spring and fall grazing would maximize the ability of perennial plants to flower and disseminate seed. This situation would also eliminate any impacts to young perennial plants during their first growing season and the critical growing period for most perennial plants.

The management of non-native plant species may be hinder in the Ord Mountain Allotment. Grazing on public lands within the allotment would be deferred until after June 1, and there would be no opportunity for livestock to consume annual weed species prior to seed dissemination which would both eliminate the above ground biomass and that year's seed production for those plants that were grazed. There would a net increase in both the number non-native plants and the amount of seed entering the seed bank. Conversely, the spread of weed seed would decrease slightly because livestock would not be present on public land during seed dissemination to carrier weed seed.

The impacts from the development of the East Ord Well and South Ord Boundary Fence would be the same as the proposed action.

e. Consultation

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the Ord Mountain Allotment.

f. Maps

See Map3

g. References:

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

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

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Calif. Dept. of Fish and Game, Sacramento, CA.

Jennings, Bryan. 1997. Habitat Use and Food Preferences of the Desert Tortoise, *Gopherus agassizii*, in the Western Mojave Desert and Impacts of Off-Highway Vehicles. Desert Tortoise Preserve Committee. Riverside, CA

Petroff, Janet K. and Roger L. Sheley 1999. Biology and Management of Noxious Rangeland Weeds. Montana State University and Oregon State University Press.

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

U. S. Bureau of Land Management. 1996. Interagency Technical Reference – Utilization Studies and Residual Measurements, Denver, CO.

I. RECREATION

1. Affected Environment

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

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

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

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

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

Visitors using the north end of the Johnson Valley OHV Recreation Area and the east-central portion of the Ord Mountains would see cattle on occasion. However, there are no major conflicts between grazing and recreation. The overlap area in the northern end of Johnson Valley OHV Area and the Ord Mountain Allotment known as the “dog ears” which receives the lowest amount of overall use, but does contain the northern portion of a race course. There are localized conflicts between recreationalist and campers related to the presence of cattle manure, especially near watering or corral facilities.

The East Ord Well would be developed outside the DWMA in the SE portion of the allotment. This part of the allotment is within the Johnson Valley OHV Open Area. Currently, livestock presence in this portion of the allotment is incidental. However, with this development livestock presence would be consistent for most of the year at a greater stock level. This situation may

moderately increase the potential for conflicts between cattle and OHV riders, such as collision potential from high-speed riders with cattle to the harassment of cattle by OHV.

The construction of the South Ord Boundary Fence would better manage OHV use in the southwest portion of the allotment by aiding in directing riders to the route network within the allotment, and would reduce potential recreation and livestock conflicts because cattle would drift the East Ord Well area.

b. Impacts of No Action

Under this alternative, impacts to recreation would not appreciably change from the proposed action.

Impacts from the development of the East Ord Well would be the same as the proposed action.

c. Impacts of No Grazing

Under the no grazing alternative livestock grazing activities on the Ord Mountain Allotment would cease. Any potential conflicts between livestock and OHV would be eliminated.

d. Impacts of Limited Grazing

The vast majority of outdoor recreation occurs outside of the summer months. Under this alternative there would be no spring grazing on the Ord Mountain Allotment so there would be no potential impact to OHV riders from the presence of livestock on public land in the spring.

Impacts to recreation from the development of the East Ord Well and South Ord Boundary Fence would be the same as the proposed action.

e. Consultation

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

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. 2006. West Mojave Plan Amendment. Moreno Valley, CA

J. SOCIAL AND ECONOMIC VALUES

1. Affected Environment

The project area for the purpose of this analysis is San Bernardino County.

Approximately 425,000 acres of San Bernardino County is considered pasture lands. While overall land area and farm size has been decreasing over time, market values of all farm products have been increasing. This increase was over 61% between 1997 and 2002 (*2002 Census of Agriculture*, Table 6, USDA, National Agricultural Statistics Service, Vol. 1, Ch. 2, 2004). Cattle production ranks 2nd behind milk production in market value of farm products produced in San Bernardino County (Ibid, Table 2), although cattle ranching comprises only 85 of 1336, or 6.1% of all farming operations (Ibid, Table 51). In 2002, cattle livestock generated approximately $61.0 million dollars in market value of sales, up from $48.3 million in 1997 (Ibid, Table 2).

Individual incomes vary widely, depending on size of farm and whether activities are pursued on a full-time or part-time basis. Just over 50% of farms make net profits while almost as many register net losses. On average, net cash income from farm operations are above average as compared with incomes of other industry sector workers in rural San Bernardino County (Ibid, Table 4). These figures are based on very large gains from a few larger operations, modest incomes from small to mid-sized farms worked full-time, and losses from small to mid-sized ranches that are ranched part-time. Most farms, including livestock operations, employ 1 to 10 seasonal or year-round laborers.

According to the 2002 Census of Agriculture, cattle ranching in San Bernardino County ranked 7th in the State of California and in the top 10% of production in the nation. Overall, ranching-related production represents approximately 1% of the State's gross state product, ranking behind most other industries, but still contributing a measurable amount of production to the State GDP (*California Statistical Abstract*, California Department of Finance, Table D-4, January, 2006). The sale of calves at the stock yard by the lessee benefits the financial needs of the lessee, as any small business would, and allows them to purchase goods and services for their grazing operation and personal household. Secondary effects to the economy come from wholesale businesses related to cattle processing and hay production. Most individual cattle operations, including the Ord Mountain allotment operation are considered small to mid-sized.

Approximately $15,000 to $25,000 of the BLM grazing fees collected is returned to San Bernardino County (RIAC) annually depending on what the grazing fee is for that year and the number of AUMs utilized.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

Under the proposed action, grazing would continue at current stocking rate (see Table 1). These levels are at their lowest point when compared to historic levels, and are expected to continue to

decrease. This grazing operation is small, and would therefore continue to have a nominal influence on the local and regional economy of San Bernardino County.

Due to decreased funding to BLM for range improvements, the use of funding from San Bernardino RIAC for these improvements would increase at RIAC's discretion.

b. Impacts of No Action

Under this alternative, impacts to grazing and its socioeconomic values would not appreciably change from the proposed action.

Due to decreased funding to BLM for range improvements the use of funding from San Bernardino RIAC for these improvements would increase.

c. Impacts of No Grazing

Under the no grazing alternative, impacts to grazing and its socioeconomic values would be the same as the proposed action on a regional or State-wide level. Individual adverse impacts could occur to the individual rancher, based on the loss of income associated with ranching activities. These losses would be at least partially off-set by gains from the sale of ranching privileges.

d. Impacts of Limited Grazing

Under this alternative, impacts to grazing and its socioeconomic values on a regional or Statewide level would be nominal, the same as the proposed action. Stocking rates on the Ord Mountain Allotment would be reduced by approximately 40% from the proposed action and operational cost would increase. These factors combined would represent substantial economic impacts to the lessee and an overall reduction in net income to the lessee, but would not be significant from a local or regional economic perspective because of the relatively small size of the operation.

Due to decreased funding to BLM for range improvements the use of funding from San Bernardino RIAC for improvements would increase.

e. Consultation

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the Ord Mountain Allotment.

f. Maps

N/A

g. References:

2002 Census of Agriculture, USDA, National Agricultural Statistics Service, Vol. 1, Ch. 2, 2004.

California Statistical Abstract, California Department of Finance, Table D-4, January, 2006.

K. SOILS

1. Affected Environment

The soil classification of the Ord Mountain Allotment has not been mapped with any detail.

Based on the 1970 SW Desert Area Report and General Soils map prepared by the NRCS, soils associations in the Ord Mountain Allotment includes the Rock Land Association are dominantly exposed bedrock and very large boulders, Lava Flows Association are lava bedrock with small pockets of sand to loamy sand, Cajon Association are excessively drained, very deep, fine sands, Adelanto-Mohave Association are well drained, very deep, sandy loams, Mohave-Adelanto Varients Association are well drained, sandy loams, moderately deep to deep to caliche, Mohave Varient - Sunrise Association are moderately well drained and well drained, loamy fine sands, shallow to deep to caliche. Erosion potential of these soils ranges from slight to moderate. There is no identified erosion problems on the allotment associated with livestock grazing outside of congregation areas.

BLM assessed the Ord Mountain Allotment in 1999 to determine if the rangeland health standards were being met. Specific soils standards relate to permeability and infiltration. All sites examined were found to meet the standards for soils.

Biological Soil Crust

The open space between higher plants is not generally bare of all life. Highly specialized organisms can make up a surface community that may include cyanobacteria, green algae, lichens, mosses, microfungi and other bacteria. Soils with these organisms are often referred to as cryptogamic soils and form what is referred to as biological crusts.

The1999 Determination of Rangeland health (Attachment 2) on the allotment notes that cryptogams and microphytes (biological soil crusts) were present in the extreme western and eastern portions of the allotment. These populations are generally small, scattered but intact. Distance to developed water appears to be a major factor; the further from water, the less fragmented the biological soil crusts are.

In general, cyanobacteria and microfungal filaments 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 rhizimes, hyphae and filaments that further bind the soil together. Most of the biological crust organisms make their growth during cool moist conditions. The intermountain region had many-extensive complex crusts. Many of those areas are so fragile that even casual foot traffic can cause extensive damage. Many of the intermountain areas have fine textures soils, cooler climates and summer rains which are conducive to crust development.

As a contrast, the western Mojave desert has coarse-textures soils, high temperatures, little summer rain and very high potential evapotranspiration potential (PET). According to Belnap (2003, 2005) "less stable, coarse-textured soils often support only highly mobile, large filamentous cyanobacteria (such as Microcoleus) spp.)." She also observes that (2003 and 2005), "Cyanobacteria heavily dominate crusts of hot desert sites (Sonoran, Mojave and Chihuahuan) where PET is high." She further indicates that some hot desert sites may not support biological crusts (Belnap 2005). The latest data, Belnap (2003 and 2005) and BLM 2001, indicates that the likelihood is that they would be simple crusts that are highly mobile and quick to recover from disturbance.

This is consistent with the health assessment on the allotment (and field observations in the other cattle allotments as well) (Chavez 2006). No species specific mapping of the allotment has been conducted for biological crusts. All data collected has been associated with the rangeland health evaluation and random spot observations.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

Under the proposed action, livestock grazing on the Ord Mountain Allotment would continue to have a localized, negative affect on soils associated with congregation areas such as watering sites, and corrals through soil compaction caused by the concentration of livestock in a localized area. Soil compaction results in accelerated erosion by allowing for rapid run-off of water because of the lack of infiltration, and impedes seed germination. The vast majority of soils in this allotment would continue to achieve the soils standard.

Grazing animals can apply compressional and shear forces to the soil. The crust response to these disturbances is highly variable. Moisture and burial are two important factors relating to the degree of impact. With coarse textured sandy soils, moist crusts are better able to withstand disturbances than dry soils (Belnap 2003 and BLM 2001). Many of the biological crust species are not mobile and cannot survive burial. However, as Belnap (2002 and 2005 and BLM 2001) noted, the hot desert crusts are simple crusts that are highly mobile and quick to recover from disturbance. The large, filamentous cyanobacteria can move 5mm per day if it is wet (Belnap 2003 and BLM 2001). Although rain and moist soils occur at the start of the grazing season, grazing in the later part of the spring can reduce the cover of biological crusts because the soils are dry. These simple crusts would likely recover within days once the rain returns Because the crusts are simple to nonexistent, site recovery, outside of congregation areas should be such that the impact would not be substantial (BLM -TR 1730-2 2001).

The development of the East Ord Well would not occur where biological soil crust populations have been identified.

b. <u>Impacts of No Action</u>

The impacts of the no action alternative would be very similar to the proposed action alternative.

The difference would be in the amount of area impacted and the frequency of impacts. The proposed action alternative would allow grazing over a larger area more often over a ten-year period and therefore a larger area would receive the same impacts.

The development of the East Ord Well would not occur where biological soil crust populations have been identified.

c. Impacts of No Grazing

Under the no grazing alternative livestock grazing would cease. There would be positive impacts to soils in congregation areas because they would begin the long, slow process of de-compaction. The continued threat to biological soil crusts from fragmentation and/or destruction from grazing would cease.

d. Impact of Limited Grazing

Under this alternative the overall impacts to soils would remain substantially the same. The impacts to biological soil crusts may be slightly lower because summer grazing greatly limits livestock's ability to access large portions of the allotment and/or livestock are generally moved to rocky, higher elevation rangelands and winter grazing which limits these impacts. Winter grazing also most closely replicates the grazing strategy of native herbivores that generally used more productive, higher elevational sites during the summer and lower elevational sites in winter (Miller et al. 1994: Burkhardt 1996).

The development of the East Ord Well would not occur where biological soil crust populations have been identified.

e. Consultation

Consultation would occur with all lessees, interested publics, county governments, and Native American tribes with traditional ties to the lands within the Ord Mountain Allotment.

f. Maps

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

g. References:

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

Belnap, J. 2005. Personal communication

Burkhardt, J.W. 1996. Herbivory in the Intermountain West. An overview of evolutionary history, historic cultural impacts and lessons from the past. Station Bulletin 58. Idaho Forest,

Wildlife, and Range Experiment Station, University of Idaho, Moscow. 35 Pp.

Miller, R.F., T.J. Svejcar, and N.E. West. Implications of livestock grazing in the intermountain sagebrush region: plant composition. In: Vavra, M., W.A. Laycock, and R.D. Pieper, eds. Ecological Implications of Livestock Herbivory in the West. Society for Range Management, Denver, Colorado. pages 101-146.

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

Soil Conservation Service. 1978. Soil Survey of San Bernardino County California. Mojave River Area.

U.S. Bureau of Land Management. 2001. Biological Soil Crusts: Ecology and Management, Technical reference 1730-2. USDI Bureau of Land Management, Printed Materials Distribution Center, Denver, CO

L. WASTE, HAZARDOUS OR SOLID

1. Affected Environment

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

Use of agricultural solid wastes, including manure, is managed pursuant to State and local law under RCRA implementing regulations (RCRA Subtitle D). California has issued joint California Integrated Waste Management Board/State Water Resources Control Board regulations (Division 2, Title 27). Use of non-hazardous decomposable waste is generally exempt from these regulations. The Regional WQCB may issue waste discharge requirements 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 AND GROUND WATER

1. Affected Environment

Water quality and quantity on the Ord Mountain Allotment is focused on the seven developed water sources on public land that provide surface water to livestock on the allotment being analyzed in this document. Six out of the seven developed spring sources have been fenced or

are sufficiently armored to protect water quality and riparian habitat. At all of the developed springs, water has been piped away from the source to troughs for consumption by livestock and wildlife. There are also two undeveloped spring sources, Lower and Upper Sweetwater. Of the nine total surface water sources, four are man made. Through mans actions, usually mining activities surface water was exposed and utilized by the lessee longer after the original exploration exposed the surface water. Very limited water quality and flow data has been collected at any of these sources (see Table 14). None of the spring sources are associated with human consumption, or are required to meet drinking water standards. None of the spring sources provide habitat for any federally listed species.

Table 14. Water Quality

Spring Source/Type	Currently Used by Livestock	Water Quality Data Available	Source Protected
Kane Spring (natural)	Yes	Yes, limited	Yes
Fisher Spring (man-made)	Yes	No	Yes
Willow Spring (natural)	Yes	Yes, limited	No
Aztec Spring (man-made)	Yes	No	Yes
Badger (natural)	Yes	No	No
Quill Spring (man-made)	No	No	Yes
Goat Spring (man-made)	Yes	Yes, limited	Yes
Lower Sweetwater Spring (natural)	No	Yes, limited	Yes
Upper Sweetwater Spring (natural)	Yes	Yes, limited	No

There are two water wells on public land associated with livestock grazing within the boundaries of the allotment. These two wells are under the jurisdiction of the San Bernardino County Environmental Health Department and must comply with strict standards to prevent ground water contamination. The Mojave Water Agency considers these well as “minimum consumers” of ground water, which means they consume less than ten acre-feet/year.

The Lahontan Regional Water Quality Control Board has issued a Basin Plan for the North and South Lahontan Basins. This basin plan identifies beneficial uses (Chapter 2, LARWQCB, 1994) and water quality objectives (Chapter 3, LARWQCB, 1994) for the surface waters in the Ord Mountain Cattle Allotment. The basin plan lists specific beneficial uses as standards to maintain or meet. For many of the sources, the plan states that beneficial uses includes municipal, agricultural, ground water recharge, recreation, warm water fisheries, cold water fisheries and wildlife.

The Clean Water Act and the U.S. Environmental Protection Agency (USEPA) classify water pollution from rangelands as non-point source pollution (NSP). Management of NSP is through

a series of management practices called best management practices (BMP). According to the USEPA, "The restoration or protection of designated water uses is the goal of BMP systems designed to minimize the water quality impact of grazing and browsing activities on pasture and range lands." Management practices can minimize the delivery and transport of pollutants to surface and ground waters. According to the USEPA, management practices control the delivery of NPS to receiving water resources by:

- minimizing pollutants available;
- retarding the transport and/or delivery of pollutants; and/or,
- remediating or intercepting the pollutant before or after it is delivered to the water resource.

The USEPA has produced guidance titled National Management Measures to Control Non-point Pollution from Agriculture. In that document section 4E addresses grazing management. The following grazing management measure is taken from that document and would apply to the Ord Mountain Allotment:

> "Manage Rangeland, pasture and other grazing lands to protect water quality and aquatic and riparian habitat by:
>
> 1. improving or maintaining the health and vigor of selected plant(s) and maintaining a stable and desired plant community while, at the same time, maintaining or improving water quality and quantity, reducing accelerated soil erosion, and maintaining or improving soil conditions for sustainability of the resources. These objectives should be met through the use of one or more of the following practices:
>
> a. maintains enough vegetative cover to prevent accelerated soil erosion due to wind and water;
>
> b. manipulates the intensity, frequency, duration and season of grazing in such a manner that the impacts to vegetation and water quality will be positive;
>
> c. ensures optimum water infiltration by managing to minimize soil compaction or other detrimental effects;
>
> d. maintains or improves riparian and upland vegetation;
>
> e. protects streambanks from erosion;
>
> f. manage for deposition of fecal material away from water bodies and to enhance nutrient cycling by better manure distribution and increased rate of decomposition; and,
>
> g. promotes ecological and stable plant communities on both upland and

bottom lands sites.

2. excluding livestock, where appropriate, and /or controlling livestock access to and use of sensitive areas, such as streambanks, wetlands, estuaries, ponds, lake shores, soils prone to erosion, and riparian zones through the use of one or more of the following practices:

a. use of improved grazing management systems (e.g. herding) to reduce physical disturbance of soil and vegetation and minimize direct loading of animal waste and sediment to sensitive areas;

b. installation of alternative drinking water sources;

c. installation of hardened access points for drinking water sources;

d. placement of salt and additional shade, including artificial shelters, at locations and distances adequate to protect sensitive areas;

e. provide stream crossings, where necessary, in areas selected to minimize the impacts of the crossings on water quality and habitat; and,

f. use of exclusionary practices, such as fencing (conventional and electric), hedgerows, moats and other practices as appropriate,

and

3. achieving either of the following on all rangelands, pastures and other grazing lands not addressed above:

a. apply the planning approach of the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) to implement the grazing land components in accordance with one or more of the following from NRCS: a Grazing Land Resource Management System (RMS); National Range and Pasture Handbook (USDA-NRCS, 1997b); and NRCS Field Office Technical Guide, including NRCS prescribed Grazing 528A;

b. maintains or improves grazing lands in accordance with activity plans or grazing permit requirements established by the Bureau of Land Management, the National Park Service, or the Bureau of Indian Affairs of the U.S. Department of Interior, or the USDA Forest Service; or other federal land manager."

The text in number 3 above is included in the state of California guidance called California Non-point Source Encyclopedia (SWRCB 2004) updated July 2004.

2. Environmental Consequences

a. Impacts of Proposed Action

Until current water quality monitoring is conducted, the affects of livestock grazing on this allotment to water quality at the developed water sources is unknown Most of the sources are protected from contamination from livestock by fencing or natural/man-made features and the water is piped to a trough. It is unknown at this time the levels of surface water contamination resulting from this access however unidentified levels of fecal coliform contamination are possible. There is probably some level of "de-watering" associated with providing drinking water to livestock from springs with finite sources. However, overall impacts to water quantity within watersheds that overlap allotment boundaries from cattle grazing operations on public land is considered nominal because spring sources are protected from direct access by livestock

A program-wide water quality monitoring strategy is under development for the Barstow Field Office for allotments. Best Management Practices (BMP) for water quality is being developed for public lands in California, including the California Desert District (CDD) and would be adopted upon approval. Regional Rangeland Health Standards, which include a standard for water quality, have been approved by the State Director for the CDD which include the allotment being analyzed in this document.

The BLM is currently consulting with Lahontan Regional Water Quality Board to develop a Management Agency Agreement (MAA) for non-point sources on public lands to address water quality issues. Upon agreement by both agencies, relevant portions of the Management Agency Agreement would be incorporated into the grazing lease to address any remaining water quality issues or conflicts. A draft of this agreement is anticipated this year.

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

The development of the East Ord Well would not have negative impacts to the quality of ground water because the development would strictly adhere to the County's water well and sanitary requirements that prevent contamination.

b. Impacts of No Action

Under this alternative, impacts to water quality would not appreciably change from the proposed action.

The impacts from the development of the East Ord Well would be the same as the proposed action.

c. Impact of No Grazing

Under the no grazing alternative livestock grazing on this allotment would not be authorized. It

is unknown at this time if BLM would continue to maintain these waters for wildlife purposes. The de-watering of these springs would continue if maintained for wildlife. Water developments owned by the lessee would most likely be abandoned, scraped and not maintained. Any threats to water quality from livestock grazing would cease.

d. Impacts of Limited Grazing

Under this alternative, impacts to water quality would not appreciably change from the proposed action.

The impacts from the development of the East Ord Well would be the same as the proposed action.

e. Consultation

The Lahontan Regional Water Quality Control Board.

f. Maps

N/A

g. References:

RWQCB. 1994. Water Quality Control Plan for the Lahontan Region. California Regional Water Quality Control Board, Lahontan Region. South Lake Tahoe and Victorville, CA

SWRCB, 2004. California Non-point Source Encyclopedia.California State Water Resource Control Board. At www.swrcb.ca.gov/nps/encyclopedia.html /. Sacramento, CA

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

U.S. Bureau of Land Management. 1980c. California Desert Conservation Area Plan Appendix XIII: Livestock Grazing., Riverside, CA

USEPA. 1982. Grazing Non-point Source Control Strategy. Environmental Protection Agency, Region VIII, Denver, CO

USEPA. 2004a. National Management Measures to Control Non-point Source Pollution from Agriculture. At http://www.epa.gov/owow/nps/agmm/index.html. Washington, DC

USEPA. 2004b. Polluted Runoff (Nonpoint Source Pollution). At http://www.epa.gov/nps/MMGI/Chapter2/ch2-2e.html.Washington, DC

N. WETLANDS/RIPARIAN ZONES

1. Affected Environment

Water sources in the Mojave Desert and on the Ord Mountain Allotment are rare and primarily occur as seeps and springs. Natural water sources occur on the Ord Mountain Allotment. Springs are generally small and are associated with prominent mountain ranges. Vegetation associated with these springs generally consists of limited amounts of small herbaceous plants, but may include riparian shrubs and trees. These species include inland saltgrass (*Distichlis spicata)*, sedge (*Carex spp.*), bull rushes (Scirpus *spp.)*, coyotebrush (Baccharis *spp.)*, and willow (Salix *spp.*). Springs provide much needed water to wildlife species that require a perennial water source. Both game and non-game species routinely visit springs in the desert. Endemic micro fauna can also be found inhabiting these rare water sources.

Wetland areas (springs) that are located on the allotment have been assessed using a modification of a tool that evaluates the proper functioning condition for lentic areas. The method uses a standardized, qualitative method called proper functioning condition or PFC (Prichard 2003). PFC evaluations were only conducted at natural springs. There are four surface water sources that provide water to livestock and wildlife that are man made and do not support riparian vegetation. Riparian or wetland habitat at the five natural springs is extremely limited and may only support riparian facultative species like mesquite. The fallback riparian standard for rangeland health purposes requires the riparian area to be classified at PFC to achieve this standard. The riparian standard has not been met for this allotment. The lentic PFC method separates the wetland into three major components: hydrology, soils, and vegetation. Each component is addressed according to its site potential. Together, these three components allow an interdisciplinary team to assess the functionality of the physical processes of a spring. Functionality is described using three specific terms: functional (F), functional at risk (FAR), nonfunctional (NF), and unknown (UK). These terms are defined below:

Functional (PFC) - A riparian-wetland area has adequate vegetation, landform, or debris is present to: dissipate energies associated with wind action, wave action, and overland flow from adjacent sites, thereby reducing erosion and improving water quality.

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

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

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

There are five natural springs on public land within the allotment that have been developed for livestock use and have been evaluated using the lentic PFC methodology (Prichard 2003). Evaluated springs have been compiled into Table 15 displayed below.

Table 15. Proper Functioning Condition of Evaluated Waters in Cattle Allotments

Spring	Allotment	PFC Assessed	PFC Rating	Cattle Excluded
Upper Sweetwater	Ord Mountain	Y	FAR – Downward Trend	No
Lower Sweetwater	Ord Mountain	Y	FAR – Upward Trend	Yes
Willow	Ord Mountain	Y	FAR – Downward Trend	No
Kane	Ord Mountain	Y	FAR – Upward Trend	Yes
Badger	Ord Mountain	Y	NF	No

The source for Kane Spring is located within a large mesquite bosque and is protected from impacts that could occur from livestock and OHV. This riparian facultative plant community is currently in good condition and extremely dense based on an ocular evaluation.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

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

The small riparian areas identified in Table 8 that is currently rated as non-functional, or functioning at risk with a downward trend must conform to Regional Rangeland Health Standards. BLM’s riparian objectives are to improve the conditions of these important, but very limited riparian resources. Typical tools used to accomplish this objective include fencing, adding additional troughs, re-routing pipelines systems and placing shut-off devices (floats) within the water delivery system.

Selected riparian area springs have been identified for fencing to maintain or improve riparian habitat conditions. Fencing has already been constructed to protect selected riparian areas on the Ord Mountain Allotments. A riparian exclosure fence on the Ord Mountain Allotment at Lower Sweetwater spring has had positive results. Impacts described above still occur at troughs but do not degrade the spring sources and the riparian vegetation within the exclosure.

Another measure instituted to avoid or minimize impacts to springs is the prohibition of salt and/or mineral blocks within one-quarter mile of these springs. Any riparian area, developed or undeveloped that exhibits a downward trend in condition would be targeted for mitigation such as fencing, based on priority (potential for future impacts) and funding availability.

There would be no impacts to riparian habitat and resources from the development of the East Ord Well or construction of the South Ord Boundary Fence because these are upland projects and are not located in a riparian seep or spring area.

b. Impacts of No Action

Under this alternative, impacts to riparian habitat would not appreciably change from the proposed action on the Ord Mountain Allotment.

The development of the East Ord Well or construction of the South Ord Boundary Fence would be the same as the proposed action.

c. Impacts of No Grazing

Under the no grazing alternative livestock grazing on this allotment would not be authorized and therefore impacts to riparian areas would not occur. Areas currently exhibiting downward trend are anticipated to improve in the short term, except where other man-made influences are substantial contributors to downward trend such as OHV use, camping and hunting at these riparian areas.

d. Impacts of Limited Grazing

Under this alternative, impacts to the limited riparian habitat would be slightly improved. Grazing would not occur during the growing season and riparian vegetation would be allowed to disseminate seed and would not be subject to grazing during the critical growth period.

The impacts from the development of the East Ord Well or construction of the South Ord Boundary Fence would be the same as the proposed action.

e. Consultation

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

f. Maps

See Map 1

g. References:

Prichard, Don.et al. 2003. A User Guide to Assessing Proper Functioning Condition and the

Supporting Science for Lentic Areas. TR 1737-16. Bureau of Land Management. BLM/RS/ST-03/001+1737, Denver, CO. 109 pp.

O. WILD AND SCENIC RIVERS

1. Affected Environment

The proposed action or any alternative would have no affect on wild and scenic rivers because no wild and scenic rivers are present or influenced by grazing activities in the Ord Mountain allotment.

P. WILDERNESS

1. Affected Environment

Livestock grazing in wilderness is in conformance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 (CDPA). Section 4(D) (4) of the Wilderness Act states, "the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agricultural." Section 103(c) of the CDPA has similar language in reference to livestock as that of the Wilderness Act. The grazing of livestock in BLM wilderness areas is regulated under 43 Code of Federal Regulations (CFR) 6304.25, and guided by BLM manual 8560.15 (G). BLM manual 8560.15 (G) states, "

Congressional guidelines regarding "Grazing in National Forest Wilderness Areas," published in House Report 96-1126, dated June 24, 1980, must be implemented in all BLM-administered wilderness with pre-existing grazing." These guidelines state, "The maintenance of supporting facilities, existing in an area prior to its classification as wilderness, is permissible in wilderness. Where practical alternatives do not exist, maintenance or other activities may be accomplished through occasional use of motorized equipment." The grazing of livestock in BLM wilderness areas located in the California Desert is guided by Annex 1 of the management policy *Principles for Wilderness Management in the California Desert*.

Newberry Mountains Wilderness

The Newberry Mountains Wilderness includes approximately 6,938 acres within the Ord Mountain Allotment. The Newberry Mountains Wilderness was designated in 1994. The grazing use level of the Ord Mountain Allotment at the time of designation was 3,632 AUMs. The current permitted use is 3,632 AUMs. Virtually all the grazing use occurs where the wilderness area overlaps the allotment which would be in the southern portion of this wilderness area. Because there are no water facilitates located in the wilderness boundary and the distance from water is substantial, or topographic features make access difficult livestock use in this wilderness area is probably light. No formal census or inventory of livestock numbers has been conducted. Impacts prior to designation included: The naturalness of approximately 6,938 acres of the Newberry Mountains Wilderness affected by the presence of a non-native species (cattle). The opportunity to experience an area without the evidence of man (naturalness) was also

affected by the presence of cattle. The wilderness character and the opportunity for solitude were affected by the sights and sounds associated with cattle grazing and the physical evidence of their presence.

Rodman Mountains Wilderness

The Rodman Mountains Wilderness includes approximately 16,969 acres within the Ord Mountain Allotment. The Rodman Mountains Wilderness was designated in 1994. The grazing use level of the Ord Mountain Allotment at the time of designation was 3,632 AUMs. The current permitted use is 3,632 AUMs. Virtually all the grazing use occurs in the eastern and southern portion of this wilderness area. Because there are no water facilitates located in the wilderness boundary and the distance from water is substantial, or topographic features make access difficult livestock use in this wilderness area is probably light. No formal census or inventory of livestock numbers has been conducted. Impacts prior to designation included: The naturalness of approximately 16,969 acres of the Rodman Mountains Wilderness affected by the presence of a non-native species (cattle). The opportunity to experience an area without the evidence of man (naturalness) was also affected by the presence of cattle. The wilderness character and the opportunity for solitude were affected by the sights and sounds associated with cattle grazing and the physical evidence of their presence.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

The impacts to the Newberry and Rodman Mountains Wilderness from grazing would be the same as what occurred prior to the passage of the CDPA and are described in the affect environment. Based on low livestock numbers and limited seasonal use due to the lack of water the effects of grazing are not considered substantial enough to adversely affect the area's suitability for designation.

The reduction in the utilization thresholds on perennial forage to 25% during the growing season would be beneficial to the naturalness of the affected wilderness areas by helping to protect the natural composition of vegetation communities. Due to the lack of developed or perennial water sources these wilderness areas are primarily grazed in the winter/spring and typically with light stocking rates.

There are currently no range improvements in either of the wilderness areas; however the development of the East Ord Well or the hauling of water to the eastern portion of the allotment, outside of wilderness would probably increase the number and duration of cows in the Rodman Mountain Wilderness. The proximity of this wilderness area to suitable locations for perennial water availability may have an increased impact to naturalness and the opportunity for solitude when cattle are present. Any impacts to wilderness from the development of the East Ord Well would be documented and analyzed in the project specific EA that would be prepared prior to development of this proposed project.

The stipulation that requires a threshold of 230 lb/acre ephemeral forage production to authorize perennial preference in DWMAs would also be beneficial to the naturalness of the portions of

the affected wilderness areas containing DWMAs. The threshold would help protect native vegetation and consequently native wildlife by helping to prevent excessive use in dry years. During years when the threshold is not met, cattle would be substantially removed from the entire Newberry Mountains Wilderness areas from March 15th to June 15th because the portions of the wilderness areas covered by the allotment are also covered by a DWMA. Wilderness visitors would have greater opportunity to experience an area without evidence of man during this time period.

If the allotment was voluntarily relinquished, the wilderness areas would substantially benefit. The naturalness of the areas would no longer continue to be impacted by the presence of a non-native species (cattle). The opportunity to experience an area without evidence of man would no longer be impacted by the presence of cattle. The wilderness character and the opportunity for solitude would no longer be affected by the sights and sounds associated with range improvement maintenance including occasional motorized equipment use in wilderness. In addition, there would not be any future potential to graze cattle in the area and range improvements could be removed to improve the areas' naturalness and provide a greater opportunity to experience an area without evidence of man.

The development of the East Ord Well would probably increase livestock presence in the Rodman Mountains Wilderness. Because the exact location of the well has yet to be selected it is unknown the proximity of the development to the wilderness boundary. Further and more detailed analysis on the potential affect of the project on wilderness would be done in the project specific EA completed prior to development.

b. <u>Impacts of No Action</u>

Under this alternative, impacts to wilderness would not appreciably change from the proposed action. However, positive impacts associated with voluntary relinquishment or canceling the Ord Mountain Allotment would not occur under this alternative.

The impacts from the development of the East Ord Well would be the same as the proposed action.

c. <u>Impacts of No Grazing</u>

Under the no grazing alternative livestock grazing on the allotment would cease. There would be no continuation of impacts as described under the proposed action.

In addition, if the no grazing alternative is selected and the Ord Mountain Allotment is cancelled it would enhance the wilderness characteristics of the Newberry and Rodman Mountains Wilderness by removing a non-native species (cattle), and improve opportunities for solitude and a primitive type of recreation by eliminating activities relating to operation, maintenance and administration of cattle grazing in wilderness. Overall, the no grazing alternative would promote a more natural condition as defined by Section 2(c) of The Wilderness Act, 1964 and help insure the preservation of the wilderness character of each affected wilderness area as mandated in Section 4(b) of The Wilderness Act, 1964 and Section 101(1) of the California Desert Protection

Act, 1994.

d. <u>Impacts of Limited Grazing</u>

Under this alternative, impacts to plant communities within wilderness areas would be substantially reduced because palatable forage species would be allowed to disseminate seed and would not be subject to grazing during the critical growth period.

In addition, if a reduced grazing alternative were selected for the Ord Mountain Allotment it would enhance the wilderness characteristics of the Newberry and Rodman Mountains Wilderness by reducing the number of a non-native species (cattle), improve the naturalness of the area, and improve opportunities for solitude and a primitive type of recreation by eliminating activities relating to operation, maintenance and administration of cattle grazing in wilderness. Overall, a reduced grazing alternative would move the affected wilderness areas toward a more natural condition then presently exists.

The impacts of development of the East Ord Well would be the same as the proposed action.

e. <u>Consultation</u>

Notice of Proposed Action issued on April 5, 2006 to wilderness mailing list.

f. <u>Maps</u>

See Map 1

g. References:

Wilderness "Values" *[California Statewide Wilderness Study Area Report, BLM, 1990, Part 4, Volume 5, CDCA-251, p.6]*.
Appendix A (Grazing Guidelines) of the Report of the Committee on Interior and Insular Affairs to accompany H.R. 2570 of the One Hundred First Congress (H. Rept. 101-405).
Arizona Desert Protection Act (P. L. 101-628, 28 November 1990)
California Desert Conservation Area Plan (BLM, 1980, as amended)
California Desert Protection Act (P. L. 104-433, 31 October 1994)
California Statewide Wilderness Study Area Report (BLM, 1990, Part 4, Volumes 4 & 5).
Federal Land Policy & Management Act (P. L. 94-579, 21 October 1976)
Norton, Secretary of the Interior, et al., v. Southern Utah Wilderness Alliance et al., No. 03-101,542 U. S. ___ (2004), decided June 14, 2004)
Wilderness Act (P. L. 88-577, 3 September 1964)

Q. WILD HORSES AND BURROS

1. Affected Environment

The proposed action or any alternative would have no affect on wild horse and burros because no

wild horse and burros or herd management areas are present in the Ord Mountain Allotment.

R. WILDLIFE

1. Affected Environment

Common Animals

Common species of animals found in most vegetation communities within the Ord Mountain 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*).

BLM Sensitive Wildlife Species

Several sensitive wildlife species occur on lands proposed for continued grazing. Their regulatory status and habitat preference are indicated in Table 16. There are two avian species and one large mammal species. Bighorn sheep are associated with mountainous terrain and can be found in the Ord Mountain Allotment.

Table 16. Sensitive Wildlife Species Within Cattle Allotments

Species Name	Regulatory Status	Preferred Habitat
Bighorn Sheep (*Ovis Canadensis nelsoni*)	BLM Sensitive	Steep Mountainous Terrain
LeConte's Thrasher (*Toxostoma lecontei*)	BLM Sensitive	Creosote Bush Scrub, stands of cholla, Joshua trees, and thorny shrubs
Burrowing Owl (*Athene cunicularia*)	BLM Sensitive	Creosote bush scrub

Threatened or Endangered Wildlife Species:

Desert Tortoise

The desert tortoise was listed as threatened in 1990 by the U.S. Fish and Wildlife Service (USFWS) and has been listed as threatened by the California Department of Fish and Game (CDFG) since 1989. The USFWS designated four critical habitat units (CHU) within the West Mojave planning area in 1994. The Ord Mountain occurs within a CHU. The Bureau has also categorized desert tortoise habitat into three categories named I, II, and III (BLM and CDFG 1992). These categories have been reduced by the West Mojave Plan to only two categories in

the planning area: habitat inside a DWMA and habitat outside a DWMA.

The desert tortoise (*Gopherus agassizii*) is widely distributed across the California desert and is known to occur in the Ord Mountain Allotment. Desert tortoises typically occupy habitats at elevations less than 4,000 feet however on occasion they have been found at elevations greater than 4,500 feet. Elevations on the Ord Mountain Allotment vary from 3,200 to almost 6,000 feet. The USFWS noted in the BO on the WMP (1-8-03-F-58) that desert tortoises are less abundant in elevations greater than 4,000 feet. Approximately 50% of the Ord Mountain Allotment is above 4,000 feet. Field surveys have been conducted throughout the California Desert since the tortoise was listed. Tortoise presence/absence and tortoise densities have been reported in the West Mojave planning area. Map 3-11 from the WMP displays Total Corrected Sign (TCS) concentrations for desert tortoise. Based on the inventory data contained on that map concentration areas have been identified in the southwestern and the northeastern (Box Canyon area) areas within the Ord Mountain Allotment.

2. Environmental Consequences

a. <u>Impacts of Proposed Action</u>

Common Animals
Most wildlife species are mobile and can avoid being trampled by cattle. Impacts to wildlife are typically indirect. Cattle may impact wildlife indirectly by modifying habitat on which wildlife depend. Cattle can modify habitat by disrupting soils and damaging vegetation. Soils are impacted through hoof shearing and by soil compaction. Vegetation can be removed if trampled or overgrazed. Impacts identified above typically occur near salt licks and watering holes where cattle congregate. Soil compaction typically occurs along cattle trails, however this compaction is very localized and limited and the impact to common animals is generally negligible. BLM's enforcement of land health standards on this allotment will serve to ensure that adverse impacts to common wildlife are avoided.

Sensitive Wildlife Species
Desert bighorn sheep do not typically occupy the same habitat as cattle. Cattle generally inhabit alluvial fans and washes and extend into higher elevations on gentle, less rocky slopes than those preferred by bighorn sheep. Bighorn sheep and cattle primarily interact at water sources (Wehausen and Hansen, 1986). A potential impact of this interaction could be the spread of diseases from cattle to bighorn sheep. The extent of this potential to spread disease and how it impacts the bighorn sheep population as a whole is unknown, due to small sample sizes in studies and the presence of other factors impacting the sheep populations. The impacts of cattle grazing on bighorn sheep in the Ord Mountain Allotment are considered minimal. Bighorn sheep have been observed grazing, bedding and watering with cattle. These observations indicate some level of compatibility. Bighorn sheep populations in the Newberry-Ord Area were estimated at 25 to 50 animals in 2004 (Epps et. al, 2004). Since 1971, when sheep populations were rated at zero there has been slow but study increasing in sheep numbers over the last thirty-five years. Many of the perennial water sources on this allotment, both manmade and natural, are not utilized by bighorn because of there location on the landscape. The water sources utilized by bighorn and on occasion with cattle present are in mountainous areas which allow for escape

cover.

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

Desert Tortoise

Literature regarding direct and indirect impacts of livestock grazing to rangeland and desert tortoise habitat has been critically reviewed in an unpublished document by the U. S. Geological Survey (USGS) (Boarman 2002).

Under the proposed action cattle grazing would be deferred in portions of the allotment until after the critical growing period (March 1 to June 15) for both perennial and annual native species if the biomass production on annual vegetation is less than 230 Ibs./acre. If the annual ephemeral biomass is less than 230 Ibs./acre cattle would be excluded from the eastern portion (exclusion area) of the allotment and allowed to graze the western portion of the allotment. This management action, which is contained in the WMP is intended to benefit habitat quality for the desert tortoise over time by allowing for sufficient quality and quantity of forage species and thermal cover during the peak tortoise activity periods. However, in the Ord Mountain Allotment degraded tortoise habitat has been identified for the western portion of the allotment where cattle would be allowed to graze during the critical growing period. This is inconsistent with the intent and recommendations contained in the 1999 Determination of Rangeland Health (see Attachment 2).

Deferment of grazing use during dry years in areas with degraded habitat quality and limiting utilization levels allotment wide are positive actions for improving habitat quality. Under this alternative, deferment of grazing use until summer on the Ord Mountain Allotment would occur on average five years out of ten so any benefit to desert tortoise habitat would not be substantial.

Grazing would not impede the movement, dispersal or gene flow of desert tortoise within the allotment boundaries because neither livestock nor fencing represents a physical barrier to movement, and there is sufficient habitat inside and outside of the allotment. However, livestock congregation areas (water sources, corrals) would not be conducive to tortoise burrowing, nesting, or over wintering due to soil compaction at those sites. Those sites are very localized and only represent a few acres out of the 117,000+ acres of critical habitat within the allotment boundary. There are no known caliche caves on the allotment however tortoises have been documented occupying rock shelters in the lower elevations of the West and East Ord Mountains. These areas are generally too rocky for livestock presence.

A stipulation listed under the proposed action would be the requirement that the lessee report to BLM the sighting of any injured and dead desert tortoise. These reports would be followed up by an investigation on the cause of injury or mortality. This requirement would assist BLM in compiling the number of discoveries and generating a report to the FWS. The FWS would then make a determination of direct impacts to the species and when re-initiation of formal consultation would be required.

The development of the East Ord Well would be outside the DWMA boundary. There may be impacts to desert tortoise and other wildlife species associated with increased livestock presence in the eastern portion of the allotment as a result of this development, however this development would increase livestock distribution and reduce grazing pressure in other portions of the allotment. This objective related to the development is anticipated to have overall positive impacts on an allotment basis.

b. Impacts of No Action

Under this alternative there would continue to be allotment exclusion as prescribed under interim stipulations. There would also be terms and conditions limiting utilization levels and terms and conditions related to construction and maintenance of range improvements. No substantial changes to historic grazing practices would occur. This alternative would be the least effective in aiding the recovery of the desert tortoise.

The impacts from the development of the East Ord Well would be the same as the proposed action.

c. Impacts of No Grazing

Under the no grazing alternative livestock grazing on this allotment would cease. Continuing impacts to native plant communities, which provides habitat for the desert tortoise and other wildlife species habitat would cease.

Unless BLM maintained the existing developed water sources dependence on these waters by wildlife species would also cease. Wildlife would be forced to seek water elsewhere. Bighorn sheep frequently water at Kane Spring. Key water source like Kane Spring would have to be maintained. BLM would seek assistance from the Bighorn Sheep Society for continued maintenance of this water source.

d. Impacts of Limited Grazing

Under this alternative there would a positive impact to desert tortoise, any sensitive species and native plant communities on the Ord Mountain Allotment. Desert tortoises are the most active for the purposes of feeding and reproduction in the spring and fall of the year. The prohibition on spring and fall grazing would increase the availability of spring forage and enhance successful breeding. These are paramount requirements for recovery of the species.

The prohibition on spring and fall grazing would greatly reduce any threats to species like the Mojave monkey flower. Native plant communities would not be grazing during this critical growth period and most species would have disseminated seed prior to the resumption of grazing. The positive affects to native plant communities would also greatly improve habitat quality for the desert tortoise and other wildlife species.

The development of the East Ord Well would be the same as the proposed action.

e. Consultation

The BLM has formally consulted with the FWS on five occasions regarding livestock grazing in desert tortoise habitat. The BLM is proposing to issue grazing leases under the most recent biological opinion dated January 9, 2006.

f. Maps

None

g. References:

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

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

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U.S. Fish and Wildlife Service. 2006. Biological Opinion for the California Desert Conservation Area Plan [West Mojave Plan] (6840(P) CA-063.50) (1-8-03-F-58).

4. CUMULATIVE ANALYSIS

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 West Mojave Proposed Plan/Final Environmental Impact Statement (January 2005) for San Bernardino County and adjacent

areas. The cumulative analysis in this document therefore does the following:

. • Briefly summarizes the West Mojave cumulative analysis as it relates to grazing issues;
• Focuses on information from activities other than grazing specifically occurring within the Ord Grazing Allotment and that may contribute to cumulative effects from the proposed action or alternatives, as appropriate, and
• Discusses resource-specific cumulative effects for the Ord Mountain grazing allotment.

Where 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 West Mojave Proposed Plan/FEIS for more detail.

1. Summary of West Mojave Plan Cumulative Analysis

The West Mojave Plan described the current environment of the planning area as having been broadly influenced by past activities occurring prior the passage of FLPMA in 1976, such as development of major highways, railroads, and communities in the region. Other important activities related to the baseline condition of the planning area have included the Land Tenure Adjustment Program, mining, military use, recreation, lands actions, wildfire, special area designation and management, and livestock grazing (Proposed Plan/FEIS, Chapter 3).

West Mojave Plan further addressed recent and reasonably foreseeable future changes in land use resulting from FLPMA and other resource management related laws, including State and Federal Endangered Species Acts and the California Desert Protection Act, and the Fort Irwin expansion legislation (Proposed Plan/FEIS, pages 4-135 to 4-141). West Mojave Plan considered BLM's six CDCA regional plan amendments that were approved or under preparation as key determinants of environmental conditions (Proposed Plan/FEIS, pages 4-139 and 4-140).

The West Mojave Plan specifically recognized the cumulative conservation benefits of other past actions by Congress in setting aside large areas within the CDCA for parkland, non-surface disturbing military use, the desert tortoise natural area, and wilderness; benefits derived from designation by US Fish and Wildlife Service of millions of acres of critical habitat in the CDCA. In addition, the West Mojave plan identified benefits resulting from the implementation of management actions established under BLM land use planning for six regional plan areas in the CDCA. In the West Mojave planning area, these benefits included mineral withdrawals, voluntary grazing relinquishments, elimination of ephemeral grazing, and ACEC management for special status species. The plan also acknowledged cumulative adverse impacts; particularly to wildlife in incidental take areas, from factors such as urban-interface conflicts, use within adjacent OHV Open Areas, and the Fort Irwin expansion.

The West Mojave Proposed Plan discusses factors that affect both forage availability and use, and grazing use in cattle allotments, including the Ord grazing allotment, as well as the cumulative effects of grazing management in the region. These effects are discussed relative to past, present, and reasonably foreseeable actions that would occur as a result of grazing management within the parameters of the West Mojave Plan.

Cumulative effects for the following resources and activities/uses are identified in the West Mojave Plan that also affect or are affected by grazing in the Ord grazing allotment: vegetation and wildlife; watershed

values, water quality, cultural resources; vehicle access; and socioeconomic resources. In addition, new legislation facilitating alternative energy development and expansion of energy corridors, as well as other large-scale resources or uses specific to the Ord grazing allotment are addressed in this cumulative analysis. The cumulative treatment will focus on how the adoption of the **Proposed Action** would modify the cumulative effects with respect to these factors.

The cumulative effects region for which effects of grazing management for the Ord grazing allotment and other past, proposed, and reasonably foreseeable actions that would be cumulatively recorded or experienced varies by resource as noted herein. There are two main analytical frameworks considered in this cumulative effects analysis of grazing management in the Ord grazing allotment:

- Grazing management activities or activities with similar impacts to grazing management (those activities that can or do modify forage availability and public land health) that are occurring within the Ord grazing allotment and the cumulative effects region;
- Other activities within the Ord allotment that similarly affect (as does grazing management) specific resource values and uses.

2. Past, Present, and Reasonably Foreseeable Actions affecting the Ord Grazing Allotment

One of the CDCA Plan (1980) decisions included designations of allotments and associated levels of AUM (numbers of animals). Allotment management plans were developed for each allotment to manage livestock and use of resources associated with grazing. These allotments and associated animal numbers were reviewed in the West Mojave Plan (2005) and other bioregional plans in Southern California and in some cases, boundaries or uses were modified or eliminated, or AUM was adjusted.

In addition to the activities discussed in the cumulative effects analysis in the West Mojave Plan, there have been substantial actions and proposals that have resulted in or have the potential to add to cumulative impacts for one or more resources being affected by grazing management in the Ord Grazing Allotment. A listing of the most substantial of these follows. Whether or not these are individually mentioned, they have or have the potential to contribute to cumulative effects, based on the amount of land base they may affect or change in land use they could produce, not only within their boundaries, but regionally (at least indirectly).

- **Johnson Valley OHV Open Area Management and Activities**
- **Rodman Mountains and Newberry Mountains Wilderness Management parameters**
- **Wind Energy Farm Testing & Proposals: Sand Ridge, Fry Mtns, & Rodman Mtns**
- **Solar Energy Farm Proposal**
- **Termination of Closures pursuant to Lawsuit**: Various area or grazing closures or limitations that were put in place pending completion of specific bioregional plans or otherwise fulfilling lawsuit requirements are no longer in effect.
- **Sensitive Spp Inventory**
- **Ord-Rodman DWMA Route Rehabilitation and associated route signing**
- **Proposed Service Rock Quarry Expansion**

The BLM's multiple use mission typically results in a variety of activities that are authorized to occur on the same lands, consistent with designations for geographic-specific planning units within the land use plan (California Desert Plan, 1980, as amended). Activities that overlap the Ord Mountain grazing allotment include: approval and use of the utility corridor H designated in the 1980 California Desert Plan, multiple (3) Ord Mountain communication sites, casual-use recreational activities (i. e. hunting, picnicking, camping, hiking, motor-vehicle touring and rock

hounding), off-highway vehicle (OHV) Open Area organized use, small mining operations, and scientific study. Many of these activities were occurring in some manner or in existence prior to the development of the CDCA land-use plan, such as the historic LADPW power lines in utility corridor H that link Los Angeles and Las Vegas, small mining, and casual-use recreation activities.

The Bureau minimizes disturbances through the planning and associated NEPA process as well as through subsequent site-specific NEPA compliance. With respect to planning decisions, all areas are designated based on the spectrum of resource use vs. resource protection within the multiple-use mandate of FLPMA. In addition, resource-specific allocations have been made across broad landscapes in the land-use plan.

For instance, large linear utility projects have been identified for co-location in specific designated utility corridors to minimize potential surface disturbances outside of those corridors. Routes of travel have been designated for casual recreational vehicle use to minimize off-route impacts. OHV Open Areas have been designated for organized and intensive recreational uses and other activities compatible with those recreational uses. Other areas have been identified for sensitive resource protection, special management actions beyond those identified in the CDCA Plan, or to define parameters for areas with potentially conflicting uses. Mining operations in the California Desert Conservation Area (wilderness, multiple-use class Limited, special areas) require a plan of operations regardless of size, and in any event, where a SMARA plan is required (over 1 acre). In addition, several livestock allotments were identified and allotments were designated for particular landscapes, including numbers and types of livestock, types of forage management, and grazing seasons of use.

The Ord Mountain cattle allotment was one of the allotments designated in the CDCA Plan, and a subsequent allotment management plan was written. Subsequently, new parameters were identified through the West Mojave Plan that has been incorporated into the current proposed action for the Ord Mountain allotment. Impacts from grazing management may be short term (for example, impacts resulting from construction of new range facilities) and long term (impacts resulting from continued grazing). Both the short-term and long-term impacts are consistent with the analysis of the West Mojave Plan. When added to effects identified in the West Mojave Plan and effects of other actions on the allotment, the cumulative impact of the proposed action would not be significant as summarized below.

3. Resource-specific Cumulative Assessment

This environmental assessment concludes that no significant impact would result from the proposed grazing permit renewals or other alternatives. Impacts to the following 11 critical resources and other resource uses and values of the human environment are minimal, as described below:

1) Areas of Critical Environmental Concern. Effects to specific resources within ACEC that would not affect importance or relevance for ACEC designation are discussed under the appropriate topic.
2) Protection of Native American values has not been identified by tribes as an issue during consultation. Concerns about prehistoric cultural sites were identified by one of the

tribes, and are addressed under cultural resources.

3) Environmental Justice issues are not present within the allotment.
4) Prime or unique farmlands are not present within the allotment.
5) Floodplains are not present within the allotment.
6) Hazardous or solid wastes are not present, based on federal and State regulations that are associated with grazing. Affects to water quality from grazing are discussed under that topic.
7) Wild and scenic rivers are not present.
8) Wild horses and burros are not present.
9) Air quality impacts are not contributing to air quality exceedances under any alternatives and are consistent with the State Implementation Plan.
10) Wilderness suitability would not be 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 allotment. As grazing is proposed at or below the previous levels authorized at the time of the California Desert Protection Act (1995), cumulative impacts from grazing are not anticipated to wilderness, and actually decrease over those present at the time of wilderness designation under some alternatives.
11) 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 affects from the proposed action on recreation would be nominal.

Impacts described in this EA include insignificant impacts to biological resources, invasive species, cultural resources, social and economic values, soils, water quality, wetlands and riparian areas. These impacts have been determined to be insignificant because both the short-term and long-term impacts are consistent with the analysis of the West Mojave Plan, contributions from grazing are insubstantial as compared to other effects that contribute to cumulative impacts, and substantial cumulative effects have been offset by substantial positive strategies identified in the West Mojave Plan. When added to effects identified in the West Mojave Plan and effects of other actions on the allotment, the cumulative impact of the proposed action would therefore be insignificant as summarized below:

Biological Resources

The past, present, and reasonable foreseeable future cumulative impacts of cattle/horse grazing on wildlife, including the desert tortoise, in the West Mojave Bioregion are anticipated to decrease due to the implementation of the West Mojave Plan. The proposed voluntary relinquishment of three grazing allotments within desert tortoise habitat, two within critical habitat, totaling over 248,000 acres would reduce the overall cumulative impacts of grazing to wildlife in the West Mojave.

Some loss will still occur. Slower, less mobile wildlife species such as the desert tortoise may not be able to escape being injured or killed by cattle, particularly because of burrow collapse. The likelihood of such losses is small away from cattle congregating areas (i.e. rangeland

waters). In cattle concentration areas, the density and frequency of animals increases the likelihood of direct take.

However, these losses are small when compared to those that may occur from other desert activities, such as direct mortality from fast moving recreational vehicles or construction-related mortality from heavy equipment. Clearance surveys and seasonal restrictions, fencing, or biological monitors are generally employed to avoid tortoise mortalities during range construction or other ground disturbing projects operating in tortoise habitat. The most substantial threat to direct mortality of wildlife of all types comes from casual use in the Johnson Valley OHV Open area, which is far greater than from activities managed under permit or lease.

Indirectly, casual and organized OHV use, other recreational activities, and construction and related activities have the potential to degrade habitat by removing vegetation, and degrading areas through compaction of soils and elimination of microclimates that facilitate revegetation. Habitat is impacted by recreational vehicles in localized areas where favorite trails or hill climbs exist, at OHV staging areas, and at well-used camping areas. A major utility corridor crosses the allotment, and power lines and natural gas pipelines located in that corridor remove portions of habitat for construction work areas that require many years to restore.

Mining actions result in localized areas of intense use (i.e. rock quarries). Most of these are small, but some moderate to large quarries can result in substantial loss of habitat. Alternative energy exploration is occurring throughout the West Mojave Desert, and 3 proposals currently in the testing phase overlap parts of the grazing allotment. If one or more of these proposals proceeds through the plan of development stage, the construction activities and associated access required could contribute to long-term loss of wildlife habitat. Grazing in cattle concentration areas, also contributes to these adverse effects to wildlife habitat, although to a minor degree based on their relatively small size. Rehabilitation of all such sites occurs slowly in the desert, and wildlife habitat may take many years to return to its former productivity, unless degraded areas receive frequent monitoring and additional management inputs at appropriate times.

Two actions in the West Mojave Plan, the designation of routes and the limit of surface disturbances within desert wildlife management areas, will reduce cumulative impacts, including direct wildlife losses immediately and habitat degradation over the long-term. Particularly positive is the impact reduction that occurs from the closure of substantial mileage of routes. Not only are rehabilitated areas improved, but also additional areas that are no longer readily accessible by vehicle are improved. When rangeland health standards are met throughout allotments, forage is left for herbivorous wildlife, including the desert tortoise, and grazing does not contribute substantially to adverse impacts to wildlife habitat. When rangeland health standards are not met and if wildlife forage species are adversely affected, corrective actions are recommended to avoid long-term cumulative effects to wildlife habitat.

Invasive Species

Past and present grazing practices are one of several activities that have negatively impacted native plant communities on portions of grazing allotments in the West Mojave. As discussed above, there are other activities such as casual and organized OHV use and construction

activities that occur on public land that also contribute to the degradation of native plant communities. These impacts are most apparent in heavily used areas of this allotment (Johnson Valley Open Area). Fragile, slow to recover desert plant communities require periodic rest from anthropogenic pressures to maintain long-term stability. The proposed action would allow some level of periodic rest from anthropogenic pressures through the deferment of grazing in degraded areas.

The spread and establishment of non-native invasive species occurs through a variety of man-made and natural mechanisms, including grazing or other disturbances that promote non-native species over natives. Grazing is a relatively small contributor to non-native species spread, because of the relatively small areas of substantial disturbance. Impacts from non-native species are partially offset by invasives management activities and parameters on permits and leases to minimize the potential for non-native establishment and recruitment, such as through planting of native species and spraying areas to prevent non-native establishment.

Cultural Resources

Most known sites that have been adversely affected are as a result of either natural weathering or vandalism. Vandalized sites include prehistoric rock art and other cultural resources that have been removed, scratched with hard sharp rock, or had modern graffiti added to obscure the prehistoric or historic cultural values, and sites on the ground that have experienced substantial damage from OHV use off of designated routes. In much of the allotment where livestock are more dispersed or in rock areas without sufficient feed, impacts would be restricted to surface displacement and impacts from grazing are anticipated to be minimal.

Grazing is known to cause movement and mixing of cultural resources in areas where livestock congregate on allotments, including the historic ruins near Aztec Spring in the Ord Mountain Allotment that have been used by cattle to rub against. Approximately 10% of the known sites are found in active allotments and these sites have been subject to grazing for many years without documented damage. Sites with documented damage from grazing would be fenced or otherwise protected until their importance can be determined, and appropriate mitigation, such as data recovery performed on valuable sites. Only a few sites have documented damage from grazing in the West Mojave, while substantial damage has been documented by vandalism or OHV-related casual use. Impacts resulting from the proposed grazing permit renewal are not expected to add any further adverse impact to known sites. The combined impact would be insignificant, both incrementally and cumulatively, because BLM will implement procedures in accordance with amended 2004 State Protocol Agreement to insure compliance with section 106 of the National Historic Preservation Act.

Social and Economic Values

There would not be substantive cumulative impacts to the local or regional economy of San Bernardino County from the implementation of any of the alternatives. Farming and ranching in the West Mojave continue to decrease in land area, numbers of operations, and numbers of animals, irregardless of these lease renewals or non-renewals. These downward trends are

anticipated to continue in San Bernardino County as in most parts of the country, and are the result of downward pressures on production costs of agricultural products as farm production increases in other parts of the world, as well as regional upward pressures for non-rural development activities for residential and commercial enterprises. The past, present, or future gross domestic product contributions of these operations to the local or regional economy is nominal and is expected to continue to decrease as a percent of the total regional economy.

Soils

The past, present and in the reasonably foreseeable future cattle grazing operations will continue to have a localized, cumulative impact on soils in congregation areas such as water sources and corrals. Other land uses also contribute to compaction and accelerated erosion but on a broader scale.

These cumulative impacts to soils are similar to those for vegetation. Indirectly, casual and organized OHV use, other recreational activities, mining, and construction and related activities have the potential to modify soil structure, increasing erosion potential and decreasing re-vegetation potential. Rehabilitation of soil productivity can be enhanced through de-compaction of soils in heavily used areas and providing microclimates for plant seedlings, thereby decreasing erosion potential over the long-term.

Two actions in the West Mojave Plan, the designation of routes and the limit of surface disturbances within desert wildlife management areas, will reduce cumulative impacts to soils. Particularly positive is the impact reduction that occurs from the closure of substantial mileage of routes. Not only are rehabilitated areas improved by reduced erosion and elimination of compaction, but also additional areas that are no longer readily accessible by vehicle are improved.

Water Quality/Ground and Surface

Perennial water sources are rare in the West Mojave Desert. Past grazing practices adversely affected water quality at small isolated springs, primarily from increased dissolved solids and elevating fecal coliform levels. Current grazing practices include protection of all natural water sources. Those used as watering sites for cattle include pipes and troughs away from the natural water source to protect water quality. These protections would continue in the future under any alternative that authorizes cattle grazing. Past areas adversely affected by grazing either have recovered or are on the way to recovery. Therefore there are no cumulative effects to water quality from grazing.

Water use and overuse is a substantial issue in the desert. Overall, extractions from aquifers from all sources have been steadily increasing to the point that the aquifers overall may be overdrafted in the Mojave River Basin. The contribution of the livestock industry to regional water use is declining over time, is not a substantial percentage of the total water use, and existed before overdraft conditions began. It is anticipated that this trend will continue. Therefore, from a regional perspective these developments represent a nominal cumulative impact to water resources, and the decreased water use by the livestock industry provides a small offset to

increases from other segments of the economy.

Wetlands/Riparian

Riparian areas within the allotment consist of small springs and artificially created or enhanced wells, as well as high-elevation ephemeral drainages. Ephemeral drainages provide some riparian habitat, but due to the aridity of the West Mojave Desert with an average of approximately 3 to 6 inches of rain per year, ephemeral drainages that supply habitat and cover are generally limited to upper elevations where microclimates surrounding higher peaks supply additional localized rain. These areas are not readily accessible to most public lands users, and substantial impacts in these ephemeral drainages have not occurred.

Springs may occur at any elevation, and can be subject to both man-made and natural impacts. Other activities authorized by the Bureau are not anticipated to adversely impact most springs since they can no longer be accessed by motor vehicles. There is foot traffic to springs to picnic and enjoy the shade, flora and fauna. Foot traffic also increases in the vicinity of some of the springs during hunting season, but has not resulted in cumulative effects to riparian vegetation. The fencing of springs has reduced impacts from both cattle and humans coming to enjoy what springs have to offer. Earthquakes are a frequent occurrence in the West Mojave and can result in new springs, or an increased or decreased flow at existing springs.

Springs have been developed and water wells have been dug within the planning area for use by livestock for over 100 years. There have been localized riparian impacts in the past to springs from grazing activities due to trampling and promotion of invasive species, but these impacts do not contribute to effects from other uses in the West Mojave due to fencing and other mechanisms to avoid impacts from other activities. There may be localized cumulative impacts from grazing to spring resources based on the overall volumes extracted over time and recharge rates, and consequential loss of riparian vegetation and habitat associated with springs. However, as livestock grazing operations in the West Mojave planning area continue to decrease, both in numbers of animals and in the number of viable ranching operations that remain, impacts to spring resources from grazing will continue to decrease, and do not contribute to cumulative impacts to those resources.

Grazing Management

Temporary limits on grazing in areas not meeting rangeland health standards may have a short-term adverse affect to grazing operations at a local level, but would not affect the majority of the land base within grazing allotments. There are no identified long-term cumulative impacts to livestock grazing from the implementation of the proposed action. The current trend of reduced agriculture and ranching in the West Mojave is the result of economic and development pressures unrelated to the proposed action.

The no grazing alternative would have a small negative present and reasonable foreseeable future cumulative impact on the livestock industry in the Mojave Desert by cumulatively adding to the current trend of reduced ranching presence on a regional basis. This impact is relatively large on an individual basis, given the overall downward trends of local ranching as a segment of the

economy and historic settlement of the region, and the relatively few remaining operations. Three allotments in the BFO are being eliminated through voluntary relinquishment. However, it is not a significant trigger or accelerant of the decline of ranching industry, because it is unlikely any reasonable strategy can reverse the overall trend away from agriculture and ranching in the region.

5. CONSULTATION AND COORDINATION

A. Participating Staff

Remijio Chavez	Rangeland Mgmt. Specialist
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Jim Shearer	Archaeologist
Edy Seehafer	Environmental Coordinator

B. Consultation

Affected grazing lessees, interested publics and affected Native American tribes.