ENVIRONMENTAL ASSESSMENT
LIVESTOCK GRAZING AUTHORIZATION

EA Number: CA-650-2008-27

Allotment Name: Lacey-Cactus-McCloud Allotment

Bureau of Land Management
Ridgecrest Field Office
May 22, 2013

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CHAPTER 1: INTRODUCTION

A. SUMMARY

The Bureau of Land Management (BLM) is proposing to issue one 10 year term permit on the Lacey-Cactus-McCloud (L-C-M) Allotment to authorize livestock grazing in accordance with laws and policy described in the Purpose and Need section below. The L-C-M Allotment is located east of Olancha, California in Inyo County. U.S. Route 190 borders the allotment on its north side, and the Naval Air weapons Station borders the allotment on the southern and eastern side.

Table 1:
Acres in the allotment: 165,140
Acres of public land: 162,765
Acres of private land: 2,375
Kind of livestock: cattle
Type of grazing: perennial
Plan area: West Mojave (WMP)
Current authorized use: No AUMs, no current permit
Acres of T&E Habitat (Tortoise): 1800
Acres of Area of Critical Environmental Concern: None
Acres/Name of Wilderness: 49,296 Coso Range, 3,860/Argus Range, 698 Darwin Falls Wildernesses
Identified for Voluntary Relinquishment: No

The allotment is located in Inyo County, California. Elevation range is between 3750 feet and 7493 feet. Vegetation communities are a mix of Creosote Bush Scrub, Joshua Tree Woodland, and Great Basin Scrub.

Within the context of the CDCA Plan as amended with the West Mojave Desert Plan amendment (WMP), BLM is proposing specific permit terms and conditions to ensure that an appropriate multiple use balance is maintained on this allotment while providing for conservation in accordance with WMP and the associated biological opinion. In addition, 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 permit 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)).

This EA is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. This EA assists the BLM in project planning and ensures compliance with the National Environmental Policy Act (NEPA) when making a determination as to whether any "significant" impacts could result from the proposed action or one of the viable alternatives. "Significance" is defined in Title 40 Code of Federal Regulations (CFR) 1508.27. This EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of "Finding of No Significant Impact (FONSI)." Should the decision maker determine that this project has

"significant" environmental impacts following analysis, an EIS would be prepared for the proposed project. If not, a Decision Record (DR) may be signed approving a selected alternative. A DR, including the FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts.

B. BACKGROUND

The administration of the Lacey-Cactus-McCloud (L-C-M) has been undecided since the Navy canceled grazing on the Naval Air Weapons Station (NAWS) in 2000. That action by the Navy removed approximately 2/3 of the allotment area. This resulted in an immediate loss of available forage. In addition, livestock management became very difficult because most of the water sources were on the NAWS and there were many miles of unfenced boundary between the BLM and the NAWS. The Navy indicated that they would not tolerate any drift of cattle onto the NAWS. Another issue was access to portions of the allotment in Darwin Wash and east into the Argus Range because the access would be through the NAWS. The existing permit expired at that time and was not renewed due to the need to totally revise it.

Since that time the BLM has considered a number of alternative ways to graze cattle on what was left of the L-C-M allotment. A number of alternatives included the construction of new range improvements such as boundary fences and additional watering sites. Many of these alternatives were the subject of previous draft Environmental Assessments. As a result of the reviews, a number of alternatives were dropped from further consideration. In some cases, the alternatives were thought to be too expensive, impractical or not implementable in any reasonable time scale. At the same time, the base property and preference has been transferred to a new operator.

Another issue has been the rating of the grazing capacity for the revised allotment. The original adjudication of the allotment in 1966 allocated 4,873 AUMs to the permittee at that time. The allotment was configured differently then so it is unclear what the total carrying capacity was at that time. The California Desert Conservation Area (CDCA) Plan (1980) rated the L-C-M allotment at 19 acres per AUM. Other allotments in the area were rated at 20 acres per AUM (Olancha Common Allotment) and 24 acres per AUM (Tunawee Common Allotment) by the CDCA Plan. Several attempts have been made at reconstructing the CDCA Plan inventory to estimate the carrying capacity for the L-C-M Allotment. Several of these have been presented in previous draft versions of this Environmental Assessment. These reconstructed estimates of carrying capacity showed the carrying capacity for the Cactus Flat-McCloud Flat area at 2350 AUMs (listed as Adjusted Renewable Forage Production). This works out to approximately 19 acres per AUM. The subtractions to the available forage shown in the previous documents don't all apply to the actions analyzed in this EA, but will be addressed as applicable in this document.

C. TIERING TO EXISTING LAND USE PLAN/EIS

This Environmental Assessment (EA) is tiered to the West Mojave Plan (WMP) Final EIS of (January 2006) and provides site-specific analysis on the allotment level. Tiering helps focus this EA more sharply on the significant issues related to grazing on these allotments 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). Part of the conservation strategy BLM developed applies to the L-C-M Allotment. These include a determination of which public lands will be available or unavailable for livestock grazing. Livestock grazing in the CDCA is an economic resource of public lands recognized in section 601 of FLPMA. In addition to designating lands available or unavailable for grazing, the WMP established programmatic management prescriptions including regional land health standards and guidelines for grazing management; utilization prescriptions for perennial species; and monitoring requirements (pg 2-130 from WMP 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 these allotments as described in section C of this chapter.

2. 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. 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 in the WMP which is a regional plan covering the western Mojave Desert. 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, socio-economic impacts and cumulative impacts. The regional analysis is incorporated by reference in this EA (pg 3-1 through 3-294; WMP FEIS). A general discussion of these impacts will not be repeated. This EA analysis will focus on the site specific environmental issues associated with livestock grazing on the L-C-M Allotment and will include areas where livestock congregate on the allotment and areas of special status species that may be affected by grazing on this allotment. The EA also addresses highway safety issues and military security issues along the China Lake Boundary. 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 3.

4. WMP balances conservation with public use, occupancy, and development on a regional level. For example, Areas of Critical Environmental Concern (ACECs) are established, routes of travel on public lands designated open, limited or closed to motorized vehicles, and other management prescriptions are provided to guide multiple use management. Within the context of the CDCA Plan as amended by WMP, BLM is proposing specific permit terms and conditions to ensure that an appropriate multiple use balance is maintained on these allotments

while providing for conservation in accordance with WMP and the associated biological opinion. In addition, 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 permit 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 FOR THE PROPOSED ACTION

The purpose of the proposed action is to complete a site-specific evaluation of grazing that provides information to be analyzed by the BLM in conformance with the implementing regulations for the NEPA (40 CFR Part 1500), FLPMA, BLM grazing regulations (43 CFR Part 4100), and Public Law 106-113 section 325 to determine whether to authorize grazing within this allotment and what stipulations are necessary.

The need for the proposed action is to determine whether or not to authorize grazing for this public land grazing allotment in compliance with the prescriptions prescribed in the WMP, dated January, 2005, the Biological Opinion for the California Desert Conservation Area Plan, dated March 31, 2005, and the proposed Regional Rangeland Health Standards.

E. PLAN CONFORMANCE

The alternatives analyzed under this EA are subject to the California Desert Conservation Area Plan (CDCA Plan), as amended. The Proposed Action, Alternative B, and the No Action Alternatives have been determined to be in conformance with this plan as required by regulation (43 CFR §1610.5-3(a)). The Proposed Action, Alternative B, and No Action Alternative would occur in areas identified for livestock grazing as indicated in the Livestock Grazing Element in the CDCA Plan 1980 (1999), pages 56 to 68. The proposed action, Alternative B, and No Action Alternative are consistent with the land use decisions, and goals and objectives listed in the CDCA Plan. The proposed action is consistent with the CDCA Plan Amendment for the West Mojave Plan (WMP) as prescribed in section 2.0, (pages 2-118 through 2-129)

The Darwin Allotment was comprised of 7,323 acres and was located entirely within the L-C-M Allotment (See allotment map) as an area where both domestic horses and cattle could graze. The allotment was classified as a domestic horse allotment which authorized 44 AUMs for grazing domestic horses. The conflicts between the domestic horses and the known populations of wild horses made it difficult to manage. This allotment had not been used for many years. The WMP eliminated the Darwin allotment and the classification of suitable for domestic horses. The area originally designated as the Darwin allotment remains a portion of the L-C-M allotment along with the classification of suitability for cattle. The Darwin allotment name along with its suitability classification for domestic horses has been eliminated. The AUMs of preference associated with domestic horses have been suspended and are not transferable to cattle.

The Rangeland Health Assessment was completed on the L-C-M allotment in 2005. The assessments indicated the Rangeland Health Standards were not met due to flood damage and the presence of salt cedar and not as a result of cattle use.

Table 2: Rangeland Health Assessments

Rangeland Health Standard	Standard Met / Not Met	Standard Not Applicable	Impacts from Livestock Yes or No	Remarks
Soil Permeability	Met			
Riparian/Wetland	Not Met		No	Salt Cedar present, and head cutting from flood events
Stream Morphology	Not Met		No	
Native Species	Not Met		No	Salt Cedar

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

F. VOLUNTARY RELINQUISHMENT

WMP does not identify this allotment for voluntary relinquishment. A permittee may voluntarily relinquish their permit at any time. Because this allotment was not identified for voluntary relinquishment however, a plan amendment would be required if a voluntary relinquishment were received and the BLM determined that the allotment should be unavailable for grazing. If BLM determines that the allotment should remain available for grazing, an amendment would not be required and BLM would consider new applications for permits by qualified applicants.

G. RELATIONSHIP TO STATUTES, REGULATIONS, AND PLANS

1. Wilderness Act (1964) and the California Desert Protection Act (1994). Section 4(d)(4)(2) of the Wilderness Act of 1964 states "the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture." This language reappears in Section 103(c) of the California Desert Protection Act of 1994 and is reaffirmed in BLM regulation (43 CFR Parts 6300 and 8560, Wilderness Management; Final Rule) and policy (BLM Manual 8560.37A.1.). The use was established if grazing was authorized by permit or lease at the time the area was designated as wilderness.

Congressional Grazing Guidelines (House Committee Report 96-1126 on the Colorado Wilderness Act, P.L.96-560, December 1980) further explain the intent of Congress regarding

the grazing of livestock in wilderness. There will be no curtailments of grazing in wilderness areas simply because the area is designated wilderness. The numbers of livestock permitted to graze in wilderness should remain at approximately the same levels as at the time of wilderness designation. The maintenance of pre-existing supporting facilities is permissible. Where practical alternatives do not exist, such maintenance may be accomplished through use of motorized equipment. The construction of new facilities or replacement of deteriorated facilities in wilderness is also permissible in accordance with management guidance for the area. However, new construction should be primarily for the purpose of resource protection rather than to accommodate increased numbers of livestock.

BLM regulations regarding the administration of grazing in wilderness areas are contained in 43 CFR Parts 6300 and 8560 Wilderness Management; Final Rule (12/14/2000). Section 6304.25 of these rules state that a person may continue to graze livestock if she/he or their predecessors were exercising a BLM grazing permit or lease before Congress designated the area as wilderness. All grazing activities must comply with 43 CFR Part 4100 Grazing Administration rules (09/12/1983). Grazing support facilities existing prior to wilderness designation may be maintained or reconstructed in accordance with management plans for the area. However, BLM will not authorize new support facilities for the purpose of increasing the number of livestock. The construction of new facilities must be solely "for the purpose of protection and improved management of wilderness resources." Similarly, BLM may authorize an increase in livestock numbers only if it can be demonstrated that "the additional use will not have an adverse impact on wilderness values."

Wilderness values and resources requiring protection are naturalness, untrammeledness, solitude, opportunities for primitive and unconfined recreation, and other features of cultural, geological, or ecological value, including native plant communities and wildlife populations or habitat. (Section 2(c) of the Wilderness Act)

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

In August 2004, and renewed in October 2007, 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 State Protocol Agreement between California Bureau of Land Management and the SHPO with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal.

This amendment allows for the renewal of existing grazing permits as long as the 2007 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 Permittee 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.

BLM will also utilize and coordinate the NEPA commenting process to satisfy the public involvement process for Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470f) as provided for in 36 CFR 800.2 (d)(3).

3. Biological Opinions on the California Desert Conservation Plan

There are 1800 acres of desert tortoise habitat on the LCM Allotment. BLM will ensure compliance with the Incidental Take Statement (ITS) of the biological opinion on the West Mojave CDCD 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 the 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.

CHAPTER 2: PROPOSED ACTION AND ALTERNATIVES

Several grazing alternatives are analyzed for feasibility in this Environmental Assessment. The elimination of cattle grazing on the Naval Air Weapons Station (NAWS) necessitates changing the entire grazing operation. Not only did the elimination of grazing on the NAWS eliminate grazing on the naval base, but it resulted in losses of access to water and historic grazing patterns. One of the alternatives is to graze most of the remaining BLM managed portions of the allotment. It does not address grazing in the Darwin Wash portion of the allotment due to a lack of water in the area. This alternative is described as Alternative B. The proposed action (Alternative A) is to graze only the Cactus Flat and McCloud Flat portion of the allotment. Both of these alternatives leave portions of the allotment ungrazed. These ungrazed portions of the allotment will remain a part of the allotment and could be reconsidered for grazing in the future. Several sets of stipulations are common to all grazing alternatives and would apply to each one. One of these is the Measures to Adhere to Livestock Grazing Amendment of Cultural Resources Protocol (See Appendix 5).

A. PROPOSED ACTION -- ALTERNATIVE A

The proposed action consists of authorizing cattle grazing on the Cactus Flat-McCloud Flat portion of the L-C-M Allotment under a grazing permit, for a term of 10 years. This area contains approximately 41,900 acres of which approximately 14,000 acres are designated wilderness. Table 3 describes the proposed season of use and permitted AUM use level. The management prescriptions and stipulations stated below would also be included in this grazing permit.

Livestock Numbers and Season of Use

The CDCA Plan lists the season of use for the LCM allotment as fall, winter and spring. Under this alternative cattle would graze from December through March each grazing season.

1. Mandatory Terms and Conditions

Table 3 Typical Grazing Schedule			
Use Period	Number of livestock	Class of Livestock	Animal Unit Months
December 2 – March 31	200	Cow/calf	790

The basis for the AUMs for the reconfigured allotment was the California Desert Conservation Area (CDCA) Plan of 1980 which established the original number of acres and the original number of AUMs for the entire allotment. (See Appendix 2 for the derivation of acreages and AUMs). Under this alternative there would be no grazing in the Lower Centennial Flat area.

Grazing in the Cactus Flat-McCloud Flat area would be contingent upon: (1) the extension of the Navy boundary-security fence to the north up a hill for less than an eighth of a mile; and (2) building a set of two gap fences, one running south from the southern end of the Navy boundary-security fence to a rock outcrop. The second fence would close a gap in a rock outcrop which is located north of the fence coming up from a pumice mine.

Cattle would be typically be trailed to the Lower Cactus Flat area across alluvial benches to the west of the Coso Range Wilderness but still in the allotment. The cattle would be herded to avoid the areas of *Cymopteris ripleyi*. (See map in Appendix 1) This crossing would take one day over and one day returning, use 14 AUMs total, and occur within the dates allotted for grazing. Therefore, the AUMs used for trailing would be included in the permitted AUMs.

2. Livestock Management and Grazing prescriptions (Other terms and conditions)

a. The existing Allotment Management Plan would terminate and be replaced with terms and conditions in the permit.

b. Livestock grazing would follow a one pasture grazing strategy. Cattle would graze from December 2 through March each year. (See Table 3 above).

c. All mineral supplements would be placed at least ¼ mile from all water sources.

d. All structural improvements, except Cactus Flat Reservoir, would be maintained in proper functioning condition. No maintenance would be allowed at Cactus Flat Reservoir.

e. The Regional Standards & Guidelines from the recent approval of the WMP amendment would be incorporated into this grazing permit and management practices once they are approved by the Secretary of Interior, without further notice. Until that time, the National Fallback Standards would remain in effect. Rangeland health assessments would be conducted

and a Determination made if necessary, prior to the renewal of the next grazing permit. See Appendix 4 for regional and fallback standards and guidelines.

Prescriptions from Fish & Wildlife Service's Biological Opinion (1-8-03-F-58) & WMP (Vol 1A, pp 2-124—2-128) Governing Grazing and Applicable to Lacey-Cactus-McCloud

a. Only qualified personnel are allowed to handle desert tortoises, conduct clearance surveys, and monitor for desert tortoise compliance. Handling of desert tortoises by the lessee/permittee is prohibited.
b. The permittee is required to notify the Ridgecrest Field Office immediately upon any instance of "take" (as defined by the Endangered Species Act) of a desert tortoise.
c. The permittee is required to contact the Ridgecrest 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 Wild Service, provided all other stipulations of the lease have been adhered to.
d. ….livestock utilization level of key perennial species in the Mojave Desert range type would not exceed 40 percent on ranges that are grazed during the dormant season and are meeting standards. Rangelands that are grazed during the active growing season and are not meeting Standards shall not exceed 25 percent utilization of key forage species except as described in allotment management plans, decisions, or other management documents with a specific grazing strategy with prescribed levels of perennial forage consumption. (For Lacey-Cactus-McCloud, where utilization thresholds expressed as Proper Use Factors for individual key species as found in Appendix 3 are less than the 40% specified for the Mojave Desert range type the PUF threshold shall be used to trigger cattle removal.)
e. Any new cattle guards (in desert tortoise habitat) would be designed and installed to prevent entrapment of desert tortoises. All existing cattleguards within tortoise habitat will be modified to provide escape opportunities for those tortoises which become trapped, falling through the grates.

The rangeland monitoring of this allotment would continue to occur as described under the monitoring section in the Livestock Grazing critical element (page 20). There are no riparian areas in the area proposed for grazing covered by the Proposed Action.

3. Range Improvements

See Chapter 3.A.1.4 for a list of the existing and proposed range improvements that would function to support livestock grazing management under this alternative, as well as maintenance actions that would occur to keep these improvements functioning. See allotment maps in Appendix 1 for location of the range improvements. The proposed drift fences on the border between the BLM and NAWS will be analyzed in this environmental assessment. All other proposed range improvements will be analyzed with separate site specific environmental assessments.

A new set of drift fences is proposed which would be constructed prior to the turnout of cattle (See map, Appendix 1. The purpose of these fences would be to control any drift of cattle coming out of McCloud Flat and heading east toward the Navy portion of Upper Cactus Flat. One fence would be on the boundary between the Coso Range Wilderness (BLM) and the Naval Air Weapons Station (NAWS). The fence would be less than 1/8 mile long and go up the hill on the section line between sections 33 and 34 in Township 20 South, Range 38 East. This fence will be built on the section line separating NAWS and BLM wilderness. Mechanized equipment would not be used to construct this segment of fence since it is so close to wilderness. The site will be accessed by foot and by horseback from the road bordering the BLM wilderness.

Two more segments of drift fence would be built outside of wilderness. The second drift fence would start at the south end of the existing boundary fence and go south for approximately 130 feet and tie off in a rock outcrop. The third segment of drift fence is about ¼ mile in distance and would start at the base of a rock outcrop on BLM land and go east to the Navy boundary. From that point it would head southwest and loop back into BLM land and end by bending back to a point on the Navy boundary to the south. It would tie off in a rock outcrop just to the north of an existing fence which comes north from a pumice mining operation.

The fences will be 4 strands of wire; the top 3 barbed and the bottom wire smooth. The fences will be 42" high with spacing from the ground up of 16", 8", 6", and 12". The 12" spacing at the top allows deer to leap the fence without getting snagged. T-posts will be 22' apart and wooden stress panels will be installed as needed. The new permittee will construct the fences.

Environmental protection measures include the following:

1. Fence lines will follow along routes designated by a BLM archaeologist to avoid cultural resources.
2. In the event that cultural or paleontological resources, not previously identified, are discovered during development activities, operations in the vicinity of the discovered resources shall ease immediately and the BLM archaeologist will be notified. The BLM will evaluate the significance of the site and determine the need for mitigation.
3. No blading of the fencelines is permitted.
4. Garbage shall be kept in closed containers to discourage scavengers from coming to the site.
5. Post holes will not be left open over night or for the weekend.
6. In the wilderness segment of the fence (the northern segment) no motor or mechanical transport and no motorized tools will be used during construction or maintenance of the fence.
7. Wood and steel posts will be put well away from existing animal burrows.
8. No vegetation will be moved along the fence lines. Vegetation may cut back or trimmed, but entire plants will not be moved.
9. Birds' nests will be avoided. Shrubs with nests should be only minimally trimmed.
10. Work, if possible, should take place outside of breeding season.
11. Work will be contained to the smallest practicable area.
12. To the extent possible, previously disturbed areas in the project area will be used for stockpiling equipment.

Upper Centennial Spring is an important water source for wild horses. Any activities which could impair their access to water would have a negative effect on the herd. Prior to any dismantling activities of this range improvement, an assessment would be completed to assure that water from the spring would be available for animals which have become dependent upon this water source.

4. Monitoring:

The use of short term utilization monitoring is a tool to gauge the effect of the current authorization. This type of monitoring consists of actual use, current climatic conditions and the collection of utilization data. This type of data would be collected on a yearly basis at minimum. The collection of utilization data would be carried out in three situations: (1) prior to the turnout of cattle, (2) during the time that cattle are grazing to be sure they have not exceeded the threshold Proper Use Factor (PUFs) of key forage species found in the Mojave Desert range type (see note below); and (2) prior to the time that the grazing period ends on the pasture or allotment to determine the total utilization levels for the grazing season. (See table of Proper Use Factors (PUFs) for species in the Ridgecrest Field Office Area, Appendix 3.)

Note: Key forage species for the Lacey-Cactus-McCloud Allotment include: *Atriplex canescens* (Fourwing Saltbush), *Graya spinosa* (Spiney Hopsage), *Artemesia spinescens* (Budsage), *Menodora spinescens* (Spiney Menodora), *Krascheninnikovia lanata* (Winterfat), *Ephedra nevadensis* (Mormon Tea), *Achnatherum speciosa* (Desert Needlegrass), and *Achnatherum hymenoides* (Indian Ricegrass).

B. ALTERNATIVE B

Under this alternative, it is doubtful that the area east of Darwin and into the Argus Range would be open to grazing because access is through NAWS and there is a lack of accessible water. Likewise, it is doubtful that a small area north of Route 190 and bordering on the Hunter Mountain Allotment would be grazed because of an indistinct boundary. And lastly, an area south of Owens Lake and north of Route 190 is in the Bishop Resource Area and is unavailable for grazing. This leaves 149,819 acres in the allotment as a whole. However, in Alternative B two grazing areas would be used totaling approximately 84,600 acres (see map, Appendix 1).

The action in Alternative B consists of authorizing cattle grazing on the L-C-M Allotment under a grazing permit for a term of 10 years. Grazing would occur within the area described in the proposed action and the area known as Centennial Flat and east to the community of Darwin as shown on the map showing grazing areas for Alternative B in Appendix 1. This alternative would occur over approximately 84,600 acres. Areas of the allotment not included in this alternative would continue to be part of the allotment and could be included in future alternatives pending future analyses and grazing decisions. Table 4 describes the season of use and permitted AUM use level. The management prescriptions and stipulations stated below would also be included in this grazing permit.

1. Livestock Numbers and Season of Use

Mandatory Terms and Conditions
Table 4:

Season of Use	Number of livestock	Class of Livestock	Animal Unit Months
November 1 to February 28	100	Cow/calf	395
March 1 to May 31	100	Cow/calf	302

In order to reach the grazing areas the cattle would cross areas outside the designated grazing areas but still within the allotment. The crossing to Lower Cactus Flat would be the same as described in the Proposed Action, but would take only 4 AUMs because of reduced herd numbers. Crossing the allotment to Lower Centennial Flat would entail using the flats south of Route 190 and would use 4 AUMs. When cattle are moved between Lower Cactus Flat and Centennial Flat by way of the flats south of 190 it would take two days and use 7 AUMs one way. The AUMs would be used during the designated grazing season and would be included as part of the permitted AUMs. The total number of AUMs for a full season of grazing would be fifteen (15).

2. Livestock Management and Grazing prescriptions

Other Terms and Conditions

a. The existing Allotment Management Plan would terminate.

b. Livestock grazing would follow a two pasture deferred rotation grazing strategy. In year one, livestock would be turned out in Lower Cactus Flat, McCloud Flat and the flats to the west of the Coso Range, grazing from November 1 through February 28, then rotated to Centennial Flat from March 1 through May 31. The second year, livestock would turn out in Centennial Flat from November 1 until approximately February 28, then rotated to the flats west of the Coso Range, Lower Cactus Flat and McCloud Flat. The mid season move would have two weeks flexibility depending on forage conditions and utilization. Key forage species Proper Use Factors would not be exceeded.

c. All mineral supplements would be placed at least ¼ mile from all water sources.

d. All structural improvements would be maintained in proper functioning condition.

e. The Regional Standards & Guidelines from the recent approval of the WMP amendment would be incorporated into this grazing permit and management practices once they are approved by the Secretary of Interior, without further notice. Until that time, the National Fallback Standards would remain in effect. Rangeland health assessments would be conducted and a Determination made, if necessary, prior to the renewal of the next grazing permit. See Appendix 4 for regional and fallback standards and guidelines.

Prescriptions from Fish & Wildlife Service's Biological Opinion (1-8-03-F-58) & WMP (Vol 1A, pp 2-124—2-128) Governing Grazing and Applicable to Lacey-Cactus-McCloud

a. Only qualified personnel are allowed to handle desert tortoises, conduct clearance surveys, and monitor for desert tortoise compliance. Handling of desert tortoises by the lessee/permittee is prohibited.
b. The permittee is required to notify the Ridgecrest Field Office immediately upon any instance of "take" (as defined by the Endangered Species Act) of a desert tortoise.
c. The permittee is required to contact the Ridgecrest 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 Wild Service, provided all other stipulations of the lease have been adhered to.
d. ….livestock utilization level of key perennial species in the Mojave Desert range type would not exceed 40 percent on ranges that are grazed during the dormant season and are meeting standards. Rangelands that are grazed during the active growing season and are not meeting Standards shall not exceed 25 percent utilization of key forage species except as described in allotment management plans, decisions, or other management documents with a specific grazing strategy with prescribed levels of perennial forage consumption. (For Lacey-Cactus-McCloud, where utilization thresholds expressed as Proper Use Factors for individual key species as found in Appendix 3 are less than the 40% specified for the Mojave Desert range type the PUF threshold shall be used to trigger cattle removal.)
e. Any new cattle guards (in desert tortoise habitat) would be designed and installed to prevent entrapment of desert tortoises. All existing cattleguards within tortoise habitat will be modified to provide escape opportunities for those tortoises which become trapped, falling through the grates.

3. Monitoring:

The use of short term utilization monitoring is a tool to gauge the effect of the current authorization. This type of monitoring consists of actual use, current climatic conditions and the collection of utilization data. This type of data would be collected on a yearly basis at minimum. The collection of utilization data would be carried out in three situations: (1) prior to the turnout of cattle, (2) during the time that cattle are grazing to be sure they have not exceeded the threshold Proper Use Factor (PUFs) of key forage species found in the Mojave Desert range type (see note below); and (2) prior to the time that the grazing period ends on the pasture or allotment to determine the total utilization levels for the grazing season. (See table of Proper Use Factors (PUFs) for species in the Ridgecrest Field Office Area, Appendix 3.)

Note: Key forage species for the Lacey-Cactus-McCloud Allotment include: *Atriplex canescens* (Fourwing Saltbush), *Graya spinosa* (Spiney Hopsage), *Artemesia spinescens* (Budsage), *Menodora spinescens* (Spiney Menodora), *Krascheninnikovia lanata* (Winterfat), *Ephedra nevadensis* (Mormon Tea), *Achnatherum speciosa* (Desert Needlegrass), and *Achnatherum hymenoides* (Indian Ricegrass).

The rangeland monitoring of this allotment would continue to occur as described under the monitoring section in the Livestock Grazing critical element (page 20). In addition, all riparian areas, including the adjacent upland benches, would be added as key areas for monitoring in the L-C-M Allotment.

Salt grass, sedge, rushes and willows would be added to the key species list along with their proper use factors . The PUFs would be salt grass (30%), sedge (30%), rushes (30%) and willow (10%). When utilization levels reach or exceed those levels, livestock would be removed from that riparian area.

4. Range improvements

See Chapter 3.A.1.4 for the existing range improvements that would continue to function and support livestock grazing management on this allotment, as well as maintenance actions that would occur to keep these improvements functioning. The following new proposed range improvements are planned if this alternative is chosen. Separate EAs will analyze the impacts from the construction, maintenance and use of these improvements which are determined necessary for the management of livestock on the L-C-M Allotment with this alternative. See allotment maps in Appendix 1 for location of the following range improvements.

Table 5: Proposed Range Improvements

Range Improvement Name/Number	Location	Purpose	Improvement Necessary prior to authorizing grazing Yes/No
Lower Centennial Spring Repair with Pipeline extension, storage tank and trough, 5053	Lower Centennial Spring & Flat, T19S, R39E, Sec 20, ¼ NE, ¼ SE ¼ SE & ¼ NE, ¼ NE T19S, R39E, Sec16, ¼ SW, ¼ SW	Distribute grazing away from spring and small riparian area	No
Black Springs Reconstruction, & Lacey Pipeline Reconstruction, 5355	Black Springs T19S, R39E, Sec 27, ¼ NW, ¼ SE	Distribute grazing by making water available to pipe to tanks on Lower Centennial Flat to the north and east	Yes
2 LCM Water Haul Sites, 5383	(See Below)	Distribute grazing more evenly throughout the allotment	Yes

Proposed project descriptions:

a. #5053, Lower Centennial Spring Reconstruction, Pipeline Extension, Tank & Trough; The cisterns at the spring site will be cleaned out and a cover constructed to discourage use of the spring by wildlife and cattle (also, the Tamarisk will be removed to conserve ground water, this may be analyzed separately under the weed protocol). A 2" diameter perforated PVC pipe will be secured to collect water from the cisterns and the perforated pipe will be spliced to a 1¼ "

PVC pipeline which would run in the dry stream bed to a low point in the road. It will continue down the road as a buried pipeline for about 0.7 mile where it will be spliced to a 2" pipe leading to a storage tank on the east side of the road (UTMS: E 431656, N 4014743). The tank will be a 4245 gallon galvanized steel tank with 2" intake and outlet vents and painted beige. From the outlet vent a 2" PVC pipe will go to a watering trough equipped with a float valve. The trough will be equipped with a bird ramp and be available for livestock, and year round for wildlife and wild horses and burros. If necessary it will be recessed into the ground. The pipeline, in the middle of the road, will be trenched and laid by a tractor with a trenching tool attached. The labor of construction will be provided by the permittee.

b. #5024, Black Springs Reconstruction & #5355 Lacey Pipeline Reconstruction; There are two springs at the Black Springs site. The upper spring is high on the west side of the dry wash and seeps into a cistern which will be cleaned out. The lower spring near the old road head is in the bottom of the wash above where the road ends. The cistern will be dug out and reconstructed and the head wall cut to increase flow if necessary. A 1¼" PVC pipe will be secured at the cistern and run to the old road bed where it will be spliced to the existing Lacey Pipeline (1¼" PVC). The labor of construction will be supplied by the permittee.

c. #5383, L-C-M Water Haul Sites; There are 2 new water haul sites proposed:

#1 – Centennial Corral, T18S, R39E, Section 31. ¼ NE

#2 – On the pass east of Reed Corral, T19S, R39E, Section 24.
UTMs: E 441449, N 4013531

There will be a 4245 gallon galvanized steel water storage tank placed at each site. There will be a gravel base upon which the tank will be placed. Water will be pumped from a truck through a manhole in the dome of the tank. Each tank will have intake and outlet vents and will be painted beige. At the 2" outlet a PVC pipeline will run to a watering trough. There will be a float valve in the pipeline to conserve water. These water haul sites will be used when grazing is authorized during a particular grazing season. The troughs will be equipped with bird ramps. The labor of construction will be provided by the permittee.

In addition the following stipulations will be followed, as applicable, for all three projects to ensure environmental protection.

a. In the event that cultural or paleontological resources, not previously identified, are discovered during development activities, operations in the vicinity shall cease immediately and the BLM archaeologist will be notified. The BLM will evaluate the significance of the site and determine the need for mitigation.

b. No blading of the area is permitted.

c. Garbage will be kept in closed containers to discourage scavengers.

d. Post holes will not be left uncovered overnight.

e. All construction in wilderness will be done with hand tools, without use of motor vehicles or motorized or mechanized equipment.

C. NO ACTION ALTERNATIVE

The No Action Alternative would typically maintain current management practices. In June, 2000, the grazing permit expired. At that time, the Naval Air weapons Station decided not to renew their portion of the permit. This action automatically withdrew approximately 233,535 acres from grazing or more than 55% of the total allotment. With this significant loss of land, grazing could not continue under current management strategies. Therefore, BLM has delayed reissuing the grazing permit until a new grazing strategy could be identified and analyzed through NEPA.

Because current management practices could not be implemented, this alternative will not be further analyzed within this EA.

D. NO GRAZING ALTERNATIVE

This alternative would not issue a grazing permit on the L-C-M Allotment. As a result, grazing would not continue on the L-C-M Allotment. This is to be a permanent action. The BLM would initiate a process in accordance with the 4100 regulations to permanently eliminate grazing on the allotment.

CHAPTER 3 ENVIRONMENTAL ANALYSIS

A. LIVESTOCK GRAZING

1. Affected Environment

Grazing on the L-C-M Allotment has not occurred since the spring of 2000. Prior to that, the majority of grazing occurred within the Naval Air Weapons Station. Nearly two thirds of the range improvements occurred within the NAWS lands (see range improvement section below for remaining existing range improvements).

1. Recent Historic Use to the Present Proposal

1. Original Allotment Size = 421,172 acres, reduced to 415,554 by range line agreement
   This was the size of the entire grazing allotment when wilderness areas were designated in 1994 by the California Desert Protection Act. Wilderness acres in the allotment:

Coso Range Wilderness	49,296 acres
Darwin Falls Wilderness	698 acres
Argus Range Wilderness	3,860 acres

2. From 1988 – 1998 grazing years, the years spanning wilderness designation, the permit allowed 448 cow/calf pairs, totaling 3,136 AUMs over a 7 month period for the entire original allotment. The seven month period spanned from November 1 through May 31.

3. A permit was issued on March 1, 1998 which expired on June 15, 2000. The allotment was last grazed in May 2000. This permit was not renewed because the Navy cancelled grazing on their part of the allotment in the spring of the year 2000. This left 165,140 acres. With the loss of grazing on Navy property four of the six grazing areas were lost. One area was deemed unsuitable for grazing and another was limited in its use. Essentially two grazing areas were lost to the Navy. This left two grazing areas outside the Navy property on the BLM. These grazing areas were (1) Lower Cactus Flat – McCloud Flat and the western portion of Upper Cactus Flat, and (2) the Lower Centennial Flat Area.
4. A newly configured allotment which excluded Navy lands and included the old Darwin Allotment was mandated by the WMP Amendment in 2006. There were approximately 165,140 acres in the newly configured allotment. The carrying capacity for this acreage is 9210 AUMs. The Ridgecrest BLM, in its planning, also, decided to stop grazing in the area east of the southern portion of Darwin Road which includes a portion of the Argus Range Wilderness. Furthermore, lands north of Route 190 along Owens Lake were ceded to the Bishop BLM and areas north of Route 190 and adjacent to Hunter Mountain Allotment were left out of the reconfiguration. These parcels contain approximately 15,321 acres and an estimated 865 AUMs in carrying capacity. Subtracting these parcels out leaves approximately 149,819 acres in the allotment with approximately 8400 AUMs for a carrying capacity.
5. The earliest Environmental Assessment (2005) called for grazing 100 cow/calf pairs for 7 months with rotated grazing areas. Year one would have 4 months of grazing in the winter in the Cactus Flat-McCloud Flat area and 3 months of grazing in the spring in the Lower Centennial Flat area. In year two this rotation would have been reversed. This would have used 697 AUMs. This proposal is the same proposed in Alternative B. This plan was abandoned because of issues with the Navy over boundary fences to keep cattle from encroaching on the Navy from Centennial Flat. It also required upgrading several water improvements before it was suitable for grazing.
6. In 2009 the BLM looked for an alternative to allow the rancher to resume grazing while the BLM continued to negotiate with the Navy over the boundary fence on the south side of Centennial Flat. The proposed action of the environmental assessment calls for grazing 200 cow/calf pairs in the Lower Cactus/McCloud/western Upper Cactus Flats area for 4 months of winter grazing. This proposal calls for 790 AUMs in an area of 41,900 acres. (See Appendix 2 for the derivation of the AUMs)
7. The California Desert Conservation Area Plan of 1980 established carrying capacities for three allotments in close proximity to one another, Lacey-Cactus-McCloud, Olancha Common, and Tunawee Common. The respective stocking rates for these allotments based upon carrying capacities were 18 acres per AUM, 20 acres per AUM, and 24 acres per AUM. The carrying capacity for the Cactus Flat-McCloud Flat proposed grazing area is approximately 2300 AUMs which in 41,900 acres yields 18 acres per AUM. When the stocking rate for permitted AUMs is calculated there are 53 acres per AUM (790 AUMs in 41,900 acres) which is very light usage. By comparison, Olancha Common, across the valley, has a permitted AUM stocking rate of 26 acres per AUM and Tunawee Common, adjacent to LCM Allotment on the southwest, has a permitted stocking rate of 29 acres per AUM.
8. The grazing proposal described in the proposed action would not allow grazing during the spring growing season, only winter grazing. The current watering sites are more than a mile from a wilderness boundary. The one watering area within the wilderness would not be

maintained (it is a dirt reservoir which has an intermittent water supply). And, the rancher would be provided an alternative water site outside the wilderness boundary if it becomes necessary in the future. There would be increased utilization monitoring to assure that the forage vegetation is adequate for livestock and the Mojave Ground Squirrel.

The original Lacey-Cactus-McCloud (LCM) Allotment covered approximately 421,172 acres. The reconfigured allotment covers the acreage outside the Naval Air Weapons Station minus the area east of the Darwin road and into the Argus Range and smaller areas north of Route 190. This would exclude the Argus Range Wilderness and would leave approximately 149,819 acres (See map, Appendix 1) in the reconfigured allotment. The acreage used in the Proposed Action – Alternative A is 41,900 for one grazing area. The acreage used in Alternative B is 84,600.

2. Monitoring

The rangeland monitoring of this allotment would continue in a manner similar to the way it has in the past. The focus of monitoring would be to conduct utilization studies for short term monitoring. Rangeland Health Assessments and a continuation of the existing trend studies and exclosures for long term studies.

Short term monitoring is a tool to gauge the cause and effect of the current authorization. This type of monitoring consists of actual use, current climatic conditions and the collection of utilization data. This type of data would be collected on a yearly basis at minimum. The collection of utilization data would be carried out in three situations: (1) prior to the turnout of cattle, (2) during the time that cattle are grazing to be sure they have not exceeded the threshold Proper Use Factor (PUFs) of key forage species or the threshold for plants in the Mojave Desert range type; and (3) prior to the time that the grazing period ends on the pasture or allotment to determine the total utilization levels for the grazing season. (See table of Proper Use Factors (PUFs) for species in the Ridgecrest Field Office Area, Appendix 3.)

The collection of long term monitoring data typically occurs every ten years. The collection of trend data, both photo and measured trend is used to determine long term cause and effect of long term grazing strategies. Trend data would continue to be collected using the current quadrat frequency, line intercept, photo plots techniques and exclosures.

3. Regional Rangeland Health Standards

The collection of indicators of rangeland health information is a qualitative method that requires the formation of an interdisciplinary team that makes observations of various indicators to determine the health of rangelands and the achievement of regional standards of rangeland health. This process is also considered long term, and typically occurs every ten years. Rangeland Health Assessments were conducted on the L-C-M Allotment in 1999 and 2005. The assessments covered both uplands and riparian areas. The assessments found that the uplands met health standards and two riparian areas did not meet standards due to flood damage and salt cedar.

With the recent approval of the WMP the Regional Standards & Guidelines (Appendix 3) will be incorporated into this grazing lease and management practices without further notice, once the Secretary of the Interior approves them. Rangeland health inventory studies will be conducted and a Determination made, prior to the renewal of the next grazing permit.

4. Range Improvements

There are 19 existing & proposed range improvements within the L-C-M Allotment (See map in Appendix 1). Thirteen of these sites are concentration sites for livestock, such as dirt tanks, water troughs, and corrals. These typically are 1 acre in size and many of them date back 50 years or more. These range improvements include, fences, cattle-guards, springs, pipelines, tanks and water troughs. These range improvements support livestock management practices on the allotment and will be maintained to ensure properly functioning condition. These maintenance actions include:

a. Spring Developments – the use of specialized equipment may be necessary to cut headwalls, clean cisterns to collect water, or secure intake pipe. The vast majority of repairs would require access by motorized vehicles, using mechanized equipment.

b. Water pipeline repairs- digging/trenching along pipeline route to locate and repair leaks in existing pipelines. Up to two pickup trucks may be used to transport labor and equipment along these pipelines to accomplish this work. Specialized equipment could include a walk-behind trencher or tractor w/ backhoe.

c. Fence repairs - Although much of the minor repairs to fences can be done by foot or horseback, major repairs to fence lines may require vehicle access along fence line corridor, or follow historic tracks which were made during original construction. Up to two pickup trucks could be used to support maintenance and repairs by transporting labor, materials, and equipment.

d. Corral repairs – The replacement of posts by digging up to 12 inch wide holes, up to three feet deep by use of hand-held auger, or auger on the back of a skip loader or tractor. Replacement of corral panels as well as repairs to the water trough and associated pipeline through digging and/or trenching to find leaks and replace pipelines could occur.

e. Dirt Tank repairs – The two existing dirt tanks have existed for 30 + years without any maintenance. The expectation is that they are not going to need repairs in the next 20+ years. If maintenance is needed on the lower Cactus Flat Reservoir it would be abandoned and replaced by a haul water site. If the McCloud Flat Reservoir needs repairs in the future, it would be evaluated at that time.

f. There would be no use of motor vehicles or motorized or mechanized equipment inside wilderness without prior written approval and an additional site-specific Environmental Assessment.

The following table lists all proposed and existing range improvements located within the LCM allotment.

Table 6. Existing Range improvements

Range Improvement Name/Number *= Proposed Action	Located in Wilderness Yes/No	Functional/ Non-Functional	Required for Turn-out	Proposed for Removal
Black Springs, 5024	No	Non-Functional Repair See Alternative B	Yes, With Alt. B	No
Upper Centennial Spring, 5052	Yes	Non-Functional	No, with Alt. B	Yes, unless needed for WH&B
Lower Centennial Spring & Pipeline, & Extension 5053	Yes	Non-Functional Repair & Extension See Alternative B	Yes, with Alt. B	No
Upper Centennial Spring Storage, 5285	Yes	Non-Functional	No, with Alt. B	Yes
Lacey- Black Rock Storage, 5293	No	Functional	Yes, with Alt. B	No
Upper Centennial Spring Pipeline, 5326	Yes	Non-Functional	No, with Alt. B	Yes
McCloud Flat Reservoir, 5342 *	No	Functional	Yes, with Alt. A	No
Lacey Pipelines, Tank, & Trough, 5355	No	Non-Functional Repair See Alternative B	Yes, with Alt. B	No
Lower Cactus Flat Reservoir, 5357 [1 *]	Yes	Unreliable Functional	No ; will substitute a water haul site.	No
Black Rock Canyon Pipeline, Tank & Trough, 5381	No	Functional	Yes, with Alt. B	No
LCM Water Haul Sites, 5383	No	Proposed, 2 new water haul sites See Alternative B	Yes, with Alt. B	No

Cactus Flat Troughs & Tanks, 5384*	No	Functional	Yes, With Alt. A	No
Navy Barrier Fence, 5503*	Border	Functional	No, with Alt. A	No
LCM Exclosures, 5540*	Centennial Flat - No, Lower Cactus Flat- Yes	Functional Functional	No, with Alt. B No, with Alt. A	No No
Centennial Corral, Summit, 5583	No	Functional	No, with Alt. B	No
Reed Corral, 5589	No	Functional	Yes, with Alt. B	No
Nine Mile Corral, 5604	No	Functional	No, with Alt. B	No
Cactus Flat Road Cattleguard, 5698*	No	Non-Functional Routine Maint.	Yes, with Alt. A	No
Upper Cactus Flat Drift Fences *	No	Proposed, 3 Drift Fences	Yes, with Alt. A	No
NOTES: 1. Lower Cactus Flat Reservoir, (5357) This project is located inside wilderness. It has not needed maintenance for over 35 years, and no maintenance is anticipated in the future. However, its functionality as a watering source is contingent on water run-off. To supplement its usefulness a water haul site could be developed outside of wilderness. If reservoir becomes non-functional in the future, it will be abandoned.				

The proposed drift/boundary fences on Upper Cactus Flat will be built to prevent cattle from drifting on to China Lake NAWS. The northern most segment is less than 1/8 mile long on the boundary between NAWS and the BLM wilderness. The middle segment is at the south end of the NAWS fence and spans a gap of 120 feet to a rock outcrop. The south segment of fence closes openings in a rock outcrop located in between two NAWS fences.

2. Environmental Consequences

Impacts of Proposed Action – Alternative A

The Proposed Action re-establishes grazing in the Lower Cactus Flat & McCloud Flat area where defined grazing areas and new fencing enables drift of cattle to be controlled. Crossing the alluvial benches to the west of Coso Range Wilderness in order to reach Lower Cactus Flat is a feasible and safe route.

b. Impacts of Alternative B

The establishment of the three range improvements described in Alternative B and the establishment of the grazing regime described in Alternative B would enable to the permittee to resume grazing on the entire allotment if drift on to the Naval Air Weapons Station can be controlled. It is critical to the success of this alternative that the drift of cattle onto the Naval Air Weapons Station be controlled. Grazing under this alternative would not occur unless control of the drift of cattle can be assured. Crossing the flats south of Route 190 to reach Lower Centennial Flat and crossing the alluvial benches west of the Coso Range Wilderness to reach Lower Cactus Flat are both feasible and safe routes.

c. Impacts of No Grazing

The cancellation of grazing would have an immediate impact to the permittee. Permanent replacement forage would need to be acquired to replace the forage lost from not grazing the allotment. This would have an economic impact to the ranching operation.

B. AIR and CLIMATE

AIR QUALITY

1. Affected Environment

The management/enforcement of the air quality standards falls on several different jurisdictions. The USEPA (United States Environmental Protection Agency) has the primary responsibilities under the Federal Clean Air Act. The USEPA had transferred a number of responsibilities to the states and in most cases, regional air quality management districts. The regional Great Basin Unified Air Pollution Control District (GBUAPCD) has jurisdiction over point and area sources in the project area (ARB1992). The state Air Resources Board has jurisdiction over mobile sources.

Air quality throughout the allotment area is generally good. There are however, times that portions of the area have not met air quality standards due to locally generated and/or transported in pollutants. Currently portions of the project area are classified as nonattainment areas for PM_{10} under state standards and National Ambient Air Quality Standards (NAAQS) (ARB2006a). The area is unclassified for the new $PM_{2.5}$ standard. The L-C-M Allotment falls within the USEPA designated Owens Valley PM_{10} Planning Area (nonattainment).

An implementation plan has been prepared for the Owens Valley PM_{10} planning area which identifies sources of PM_{10} emissions and control measures to reduce emissions. Livestock grazing is not addressed in the PM_{10} plan as an important source. The emphasis in the plan is control of emissions from Owens Lake which is the largest source of PM10 emissions in the United States. Owens Lake accounts for 99.9% of the PM emissions within the planning area (GBUAPCD 2003 & 2004).

2. Environmental Consequences

a. Impacts of Proposed Action (Alternative A)

Emissions of pollutants as a result of the proposed action would be very small and are clearly deminimus. Grazing related PM_{10} emission levels are not considered significant in the PM_{10} SIP. No measurable offsite impacts are anticipated. The emissions from the proposed grazing use, including the construction of the proposed fences in Upper Cactus Flat and crossing or trailing to Lower Cactus Flat, would not exceed the deminimus emission levels and is exempt from conformity determination (40 CFR Part 93.153 (iii)) (USEPA 1993) which exempts continuing and recurring activities such as permit renewals where activities will be similar in scope and operation to activities currently being conducted. As a result no further conformity analysis or determination is necessary.

b. Impacts of Alternative B

The impacts to air quality from alternative B would be similar to the Proposed Action . A slight increase in PM10 emissions could result from the larger area grazed and from crossing or trailing between grazing areas. These increases would continue to be below deminimus levels.

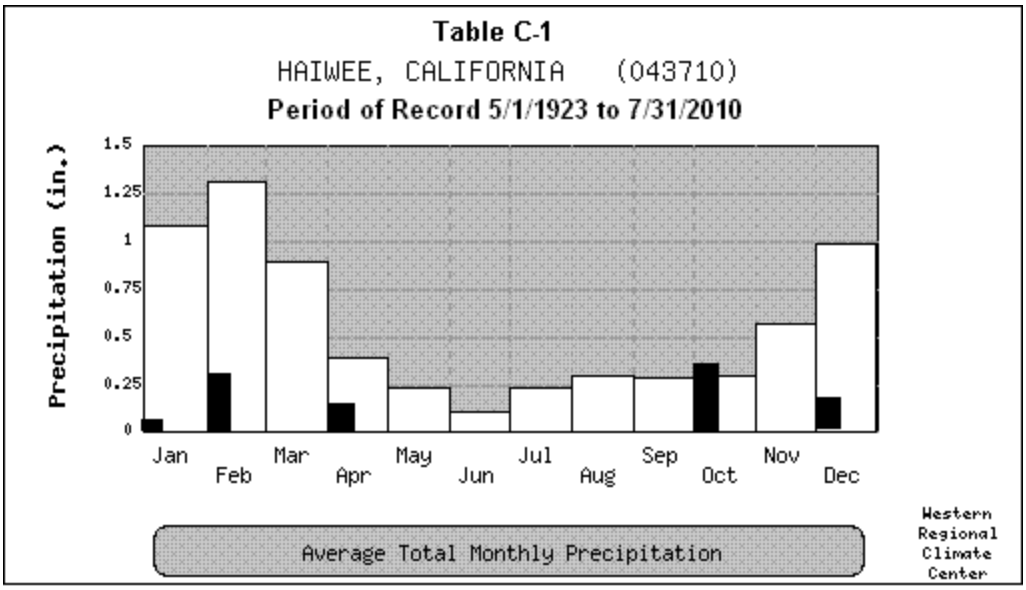
c. Impacts of No Grazing

No impacts to air would occur as a result of grazing activities.

CLIMATE

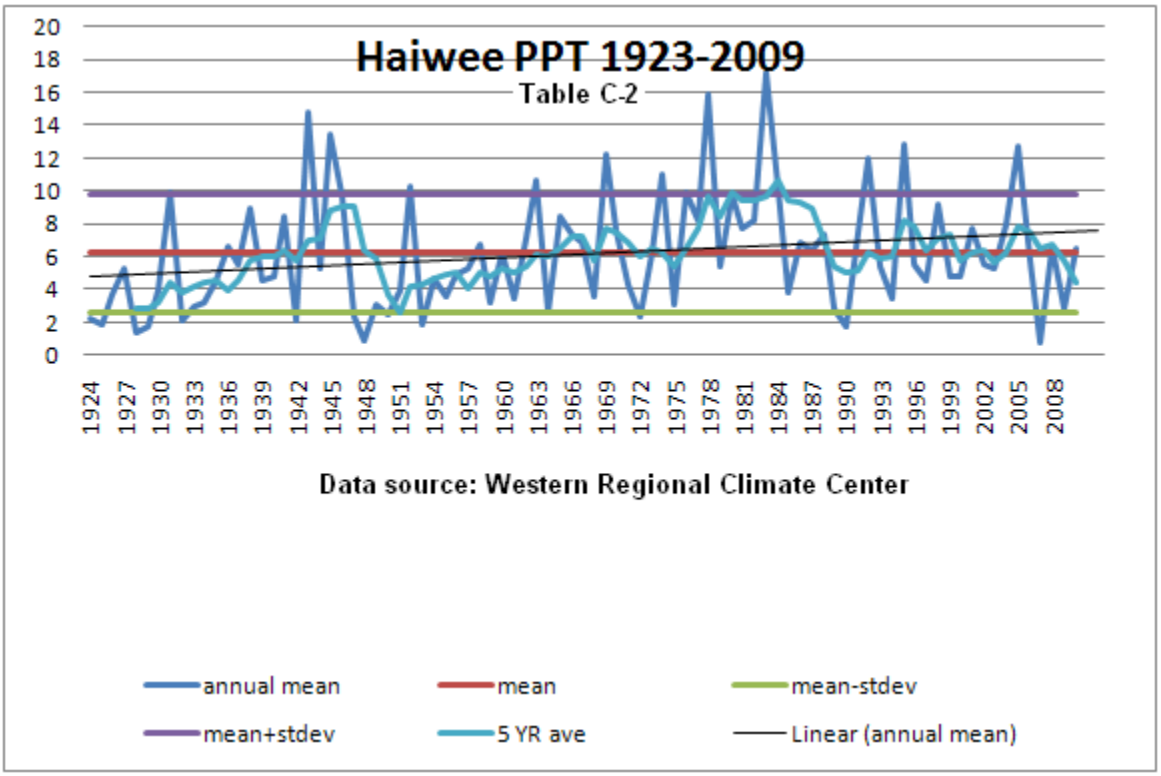
Affected Environment

The L-C-M Allotment lies between 3750 and 7493 feet elevation in the northern Mojave Desert. The Sierra Nevada Mountains are just west of the allotment and blocks much of the moisture from the west. The climate for the area is best characterized as a warm desert. The elevation and the blocking nature of the mountains have resulted in a range of precipitation values for the area. Factors such as slope, aspect, and elevation cause local variations in winds, temperatures, and rainfall. These local variations are to the regional climate with its familiar cycles of rainfall, snowfall, droughts and extreme temperatures. There is a NOAA weather station located at Haiwee Reservoir, California at the western edge of the allotment. It has climate records dating back to 1923 which give indications of the regional climate. The mean temperature for the Haiwee station is 58.7 degrees F with a standard deviation of 1.57 degrees F. The long term trend in temperatures at the weather station is down about 1 degree since the 1920s. The mean precipitation for the Haiwee station is 6.55 inches. The calendar year precipitation has ranged between 17.27 and 1.85 with a standard deviation of 2.65 inches. The data shows that the precipitation is not equally distributed throughout each month of the year, but rather it is heavily biased toward the winter cool season. In the 2007 water year, there was little rainfall (0.95 inches) which is about 14% of normal (see table c-1). The rainfall in water year 2008 was 1.91 inches which is 28% of normal. In spite of the low precipitation the last several years, the overall trend over the last 84 years has increased around 2 inches (table C-3).



White represents mean monthly PPT
Black represents PPT for water year 2007 (10/2006 to 9/2007

Ongoing scientific research has identified the potential effects of so-called "greenhouse gas" (GHG) emissions (including carbon dioxide (CO2); methane; nitrous oxide; water vapor; and several trace gasses) on global climate. Through complex interactions on a regional and global scale, these GHG emissions cause a net warming effect of the atmosphere, making surface



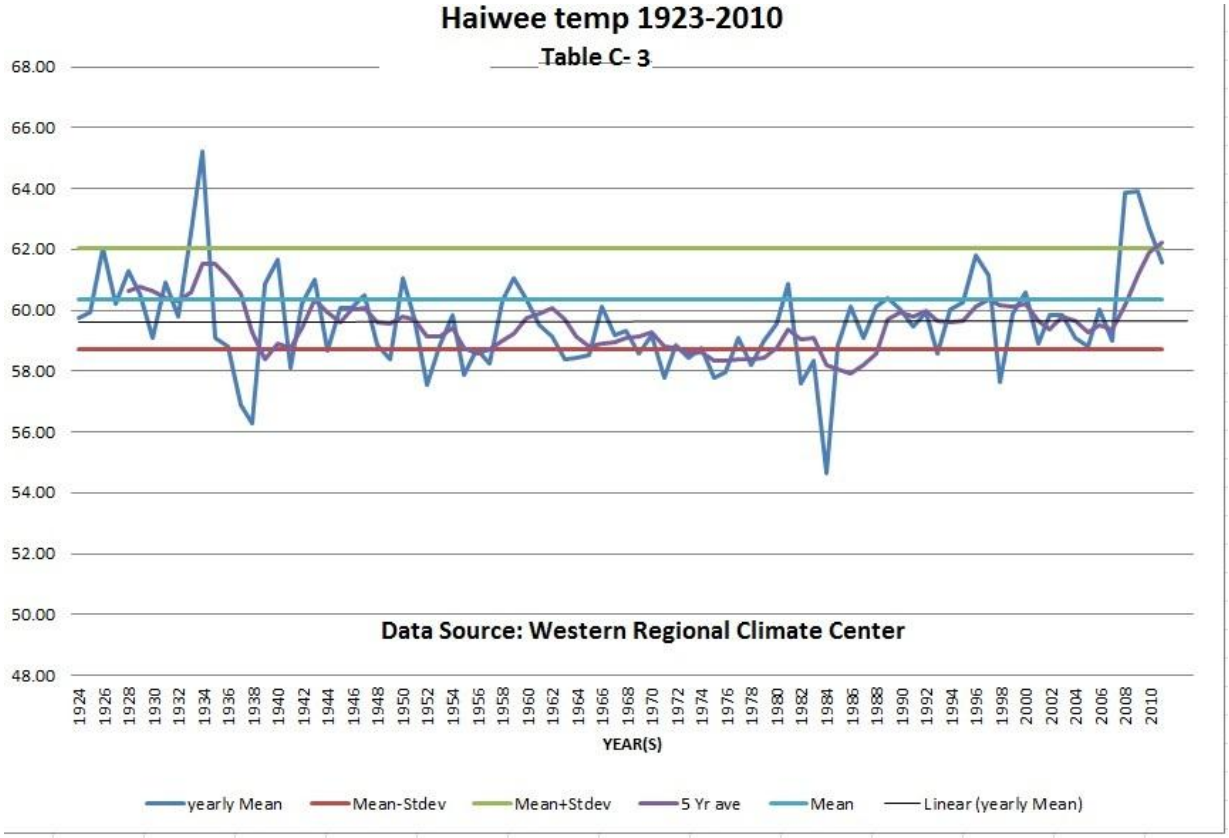
temperatures suitable for life on earth, primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG levels have varied for millennia, with corresponding variations in climatic conditions, recent industrialization and burning of fossil

carbon sources have caused CO2 concentrations to increase dramatically, and are likely to contribute to overall climatic changes, typically referred to as global warming. Increasing CO2 concentrations also lead to preferential fertilization and growth of specific plant species.

The assessment of GHG emissions and climate change is in its formative phase, and it is not yet possible to know with confidence the net impact to climate. Observed climatic changes may be caused by GHG emissions, or may reflect natural fluctuations (U.S. GAO 2007). We know that in the past the earth has gone through a number of ice ages with periods of warming and droughts between the periods. The most recent Ice Age ended around 13,000 years ago and the climate has warmed and dried since then. The warming and drying has not been continuous. As recently as 2500 years ago, the Owens river flowed into Searles Lake even though it had ceased for some time. Around 900 AD, a 200 year drought nearly dried up Mono Lake (called the Medieval Warming) (Singer, S. Fred and Dennis T. Avery. 2007). The Intergovernmental Panel on Climate Change (IPCC, 2007) recently concluded that "Warming of the climate system is unequivocal" and "Most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic [man-made] greenhouse gas concentrations."

Global mean surface temperatures have increased nearly 1.0°C (1.8°F) from 1890 to 2006 (Goddard Institute for Space Studies, 2007). However, both observations and predictive models indicate that average temperature changes are likely to be greater in the Northern Hemisphere. The data indicated that northern latitudes (above 24° N) have exhibited temperature increases of nearly 1.2°C (2.1°F) since 1900, with nearly a 1.0°C (1.8°F) increase since 1970 alone. Without additional meteorological monitoring systems, it is difficult to determine the spatial and temporal variability and change of climatic conditions, but increasing concentrations of GHG are likely to accelerate the rate of climate change. In 2001, the IPCC indicated that by the year 2100, global average surface temperatures will rise 1.4 to 5.8°C (2.5 to 10.4°F) above 1990 levels. The National Academy of Sciences (2006) has confirmed these findings, but also indicated there are uncertainties how climate change will affect different regions. Computer model predictions indicate that increases in temperature will not be equally distributed, but are likely to be accentuated at higher latitudes. Warming during the winter months is expected to be higher than during the summer.

An analysis of the Haiwee, CA temperature data from 1924 (first year with complete data) to 2010 shows that the 5 year mean temperature has declined over the last 10 years and is currently just above the long term mean temperature (table C-2). Analyses of precipitation data for the same period of time indicates that the precipitation has increased slightly over the last 84 years.



2. Environmental Consequences

a. Impacts of Proposed Action (Alternative A)

The U.S. Department of Interior (2001) issued orders to include global climate change in connection with planning efforts. It is questionable whether permit renewals fall within the order, but the point is moot as noted by the General Accounting Office (GAO) (2007). The GAO, in their report, noted that there has been no guidance issued as to how to implement the order. They also note that there is insufficient site specific information to allow managers to plan for climate change. It is generally accepted that there has been an increase in the rate of temperature increase and the likely cause is an increase in (GHG) especially carbon dioxide (CO_2). Livestock consumes vegetation and give off CO_2, methane and other GHG. Range conditions do not produce the large amounts of methane associated with dairy because the decomposition is generally aerobic rather than anaerobic. The natural decomposition of vegetation also produces GHGs. The combined GHG emissions (CO2 equivalents) from forestry and agriculture in California account for 8% of the totals (Held et al. 2007). Cattle account for around 6.1% of the agricultural products in California and consume 2,855,668,844 AUMs (USDA Census of Agriculture 2002). Based upon that, the potential maximum of 790 AUMs of cattle use in any one season under the Proposed Action would account for 0.00002% of the cattle GHG emissions in California. The volume of GHG produced by cattle in the L-C-M Allotment beyond background natural emissions is relatively very small and the proposed

cattle grazing would have little influence on the Global Climate. The rancher uses vehicles to manage his livestock and maintain the range improvements. The expected vehicle caused GHG emissions relating to the livestock grazing use on the L-C-M Allotment would be very small. Certain activities may contribute to or moderate climate change through GHG emissions/sequestrations. However, because of the vast number of sources of GHGs world-wide, it is impossible to determine the impacts of individual project emissions on global climate change. The effect of climate change on other resources is addressed in the resource specific sections.

b. Impacts of Alternative B:

Alternative B would produce approximately the same impacts to climate as the Proposed Action. The AUMs of forage consumed is 697 AUMs is slightly less than the Proposed Action. Overall GHG emissions would be approximately two millionth of a percent of the California cattle GHG emissions.

c. Impacts of No Grazing Alternative:

There would be no impact to climate from livestock grazing in the L-C-M Allotment.

C. AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

1. Affected Environment

The proposed action and alternatives would have no affect on ACECs because there are no lands so designated in the allotment.

D. BIOLOGICAL SOIL CRUSTS

1. Affected Environment

The open space between higher plants is not always bare of all life. At some sites highly specialized organisms can make up a surface community that may include cyanobacteria, green algae, lichens, mosses, micro-fungi and other bacteria. Soils with these organisms are often referred to as cryptogamic soils and form what is referred to as biological crusts. The cyanobacteria and micro-fungal 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 rhizhomes, 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 has 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-textured soils, high temperatures, little summer rain and very high potential evapo-transporation (PET). According to Jane Belnap

(2003, 2005) “less stable, coarse-textured soils often support only highly mobile, large filamentous cyanobacteria (such as Microcoleus) spp.).” She also says (2003 and 2005): “Cyanobacteria heavily dominate crusts of hot desert sites (Sonoran, Mojave, and Chihuahuan) where PET is high.” She also indicated that some hot desert sites may not support biological crusts (Belnap 2005). The latest data, Belnap (2003 and 2005) and USDI 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 assessments and field observations in the L-C-M Allotment (USDI BLM 2005, Harris 1974-2008). Soil crusts were found at 4 of the 7 upland sites sampled during the rangeland health assessments. Most of the crusts found were the large filamentous Cyanobacteria.

2. Environmental Consequences

a. Impacts of Proposed Action:

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 USDI BLM 2001). Many of the biological crust species are not mobile and cannot survive burial. However as range health assessments have found in the area, and as Belnap (2002 and 2005 and USDI 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 USDI BLM 2001b). Normally rain and moist soils occur through part of the winter grazing season. Grazing in the later part of the spring can reduce the cover of biological crusts if the soils are dry. The proposed action would graze during the moist season. These simple crusts would likely recover within days once the rain returns. Because the crusts are simple to nonexistent, site recovery should be such that the impact would not be significant. The various range improvements and associated high use sites currently occupy around 4 acres or 0.009% of the Proposed Action area and this would not change. The maintenance of range improvements would affect very small areas for very short periods of time and have no appreciable impact to biological crusts.

b. Impacts of Alternative B

The impacts from alternative B would be similar to the Proposed Action for the Cactus Flat-McCloud Flat area (the Proposed Action area). Alternative B would include the larger use area in the rotation and the same type impacts would be extended over the entire use area. As with the Proposed Action, alternative B would involve grazing primarily during the moist season with the same type rotation. The alternative B area would graze the opposite part of the season as the Proposed Action area. The use in May would be mostly a dry season use. Cattle use would be seasonally rotated such that every other year each area would be rested during the dry season which would allow additional recovery and rest. These simple crusts would likely recover within days once the rain returns. The overall stocking rate for either alternative is quite low. The additional area grazed under alternative B would have a reduced stocking rate VS the Proposed Action (214 acres/AUM) VS (53 acres/AUM). Because the crusts are simple to nonexistent, site recovery should be such that the impact would not be significant.

The various range improvements and associated high use sites currently occupy around 13 acres or 0.008% of the allotment and this would not change. The maintenance of range improvements would affect very small areas for very short periods of time and have no appreciable impact to biological crusts. The proposed new range improvements would include 2 acres of new disturbance at haul water sites. The reconstruction at Black and Lower Centennial Springs would be mostly to previously disturbed areas in washes where there are few crusts.

c. Impacts of No Grazing

Cattle grazing would no longer disturb soil crusts. As this is not a current impact, there would not be an expected change. Disturbance from other actions such as wild horses and burros, mining and geothermal development would continue.

E. CULTURAL RESOURCES

1. Affected Environment

The Allotment is wrapped artificially around the northern end of the China Lake Naval Air Weapons Station. The Pleistocene Owens River gorge forms the western boundary with the Owens Lake basin and Tertiary volcanic Malpais Mesa framing the north boundary, with the eastern boundary extending to the margins of Panamint Valley. The core of the allotment's terrain comprises the northern periphery of the Quaternary volcanic Coso Range, which is made up of Rhyolite and Obsidian structural landscape features. In addition, the Rose Valley area, to the southwest, was an important prehistoric trading center for obsidian nodule exports to other areas in southern and central California. Approximately 1,620 acres, or a little over 1% of the allotment's public lands, has been surveyed for cultural resources.

Eighty two (82) archeological sites have been recorded within the allotment. Many of them were recorded during the late 1970 and early 1980s for undertakings related to the development of the Coso Known Geothermal Area. A significant number of these sites, 94%, are prehistoric sites containing midden soils, bedrock metates and mortar pits, rock rings, rock art panels of petroglyph and pictograph elements, and lithic debitage scatters of varying density levels and materials. Just six of these sites, 5% of the total, are historic in nature, and are associated primarily with hard rock mining, 19th Century transportation routes, and homestead activities.

When these 82 sites were being recorded, between 1975 and 2007, none of their recordation forms contained any statements under the *Current Condition* sections that disturbances being caused by livestock grazing were observed.

There are no historic properties within the allotment that are listed on the National Register of Historic Places (NRHP), and none of the 82 sites have been evaluated for their eligibility for the NRHP. However, for management purposes, they are all being treated by BLM as if they were indeed eligible for the NRHP, until such time as they can be formally evaluated by BLM for their significances.

A Class III pedestrian survey of all three of the proposed fence locations in August of 2010 by BLM cultural resources specialist found one previously unrecorded cultural resource site along the access route for one portion of the fenceline: CFFS-1, a prehistoric habitation site recommended eligible for inclusion in the National Register of Historic Places. The site extends on both sides of a current boundary fence between BLM and China Lake NAWS jurisdiction. It was determined that an alternative access route through BLM wilderness using horseback and non-mdchanized equipment could be used. Additionally, a cultural resource monitor will be present during fence construction.

2. Environmental Consequences

a. Impacts of Proposed Action, Alternative A,
Under the Proposed Action, there would be no change to the cultural resource management components of the California Desert Conservation Area Plan, as amended. Cattle grazing would continue at levels pursuant to planning and management prescriptions. Proposed range improvements, repair or removal of existing range improvements, and changes in approved management plans would be reviewed pursuant to Section 106 of the National Historic Preservation Act as implemented in the *State Protocol Agreement between the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer Regarding the Manner in which the Bureau of Land Management will meet Its Responsibilities under the National Historic Preservation Act,* October 2007, (hereinafter referred to as the *Protocol*) and the Supplemental Procedures for Livestock Grazing Permit/Lease Renewals, August 2004, (hereinafter referred to as the *Supplement*).

Grazing has occurred in the California Desert since the 19th Century. Our knowledge and understanding about the effects of livestock grazing on cultural properties is limited for the California Desert, but studies of grazing impacts have been reported for other areas in California and the Great Basin region. The primary threats from grazing behavior would be damage to artifacts and site integrity resulting from the breakage, chipping, and displacement of artifacts, which might compromise the context and information potential of a historic property. Grazing threats to cultural properties would be greatest in areas where cattle congregate around springs, watercourses, shade and salt licks.

The potential threats to cultural properties would diminish significantly from current levels, due to the reduced acreage involved. Under the Proposed Action livestock trailing and grazing would be limited in the vicinity of historic properties until an assessment of effects can be completed in accordance with procedures outlined in the *Supplement*. Under the Proposed Action, BLM would continue to implement the procedures outlined in the *Supplement* to identify historic properties that may be affected by livestock grazing. Where conflicts between livestock grazing and significant cultural properties are identified, BLM would implement the appropriate Standard Protective Measures specified in the *Supplement*, or in cases where conflicts cannot be resolved, the BLM would consult with the California State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act and the *Protocol*.

The cultural resource site found along the access route to the northern segment of the proposed drift/boundary will be avoided by accessing the site through BLM wilderness by horseback and foot. No adverse impacts to cultural sites are anticipated by construction of the fence.

Trailing or crossing would require the use of standard protective measures including monitoring and monitoring for effects caused by trailing. If effects are found standard protective measures would be implemented.

As discussed in the proposed action, any cultural and/or paleonotological resources discovered by the Bureau of Land Management or any person working on the BLM's behalf, on public or Federal land, shall be immediately reported to the Authorized Officer, Field Manager-BLM, Ridgecrest, CA. The BLM or its contractors shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine the appropriate actions to follow to prevent the loss of significant cultural or scientific values. The BLM will be responsible for the cost of the evaluation. Any decision as to proper mitigation measures to be taken will be made by the Authorized Officer after consultation with California State Historical Preservation Office.

b. Impacts of Alternative B,
Under Alternative B, there would be no change to the cultural resource management components of the California Desert Conservation Area Plan, as amended. Cattle grazing would continue at current levels pursuant to planning and management prescriptions. Proposed range improvements, repair or removal of existing range improvements, and changes in approved management plans would be reviewed pursuant to Section 106 of the National Historic Preservation Act as implemented in the *Protocol* and the *Supplement*.

Grazing has occurred in the California Desert since the 19th Century. Our knowledge and understanding about the effects of livestock grazing on cultural properties is limited for the California Desert, but studies of grazing impacts have been reported for other areas in California and the Great Basin region. The primary threats from grazing behavior would be damage to artifacts and site integrity resulting from the breakage, chipping, and displacement of artifacts, which might compromise the context and information potential of a historic property. Grazing threats to cultural properties would be greatest in areas where cattle congregate around springs, watercourses, shade and salt licks.

The threats to cultural properties would not show marked change from current levels. Under Alternative B livestock trailing and grazing would be limited in the vicinity of these historic properties until an assessment of effects can be completed in accordance with procedures outlined in the *Supplement*. Under Alternative B, BLM would continue to implement the procedures outlined in the *Supplement* to identify historic properties that may be affected by livestock grazing. Where conflicts between livestock grazing and significant cultural properties are identified, BLM would implement the appropriate Standard Protective Measures specified in the *Supplement,* or in cases where conflicts cannot be resolved, the BLM would consult with the California State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act and the *Protocol*.

Prior to the trailing or crossing of cattle herds the driveway along route 190 will be assessed for cultural resources and significant sites will be protected or avoided.

A number of specific range improvements are included in Alternative B.[1] At the Lower Centennial Spring, the existing cisterns would be cleaned out so that it can be used again to store water. From the cistern, a reconstructed pipeline would travel along a new alignment, first on the ground surface down a dry streambed to a point where it meets the adjacent access road. From there the pipeline will be placed in a shallow trench excavated down the center of the road for about 0.7 mile, where it will then lead to a storage tank placed alongside the road. From the tank a short feeder pipeline will go to a nearby livestock watering trough. During February 2008 the Area of Potential Effects (APE) of this improvement was surveyed by BLM Archeologists in order to identify any historic property that might be affected, but none were found.

At Black Springs, there are two springs. The upper one is located high on the west side of a dry wash, and seeps into a existing cistern, which would be cleaned out. The lower spring is in the bottom of the main wash. This cistern would also be cleaned out and reconstructed. A short length of PVC pipe will connect this cistern with the existing Lacey Pipeline, previously buried in the adjacent access roadbed.

To supplement these spring developments, two water haul sites are also proposed. These are identified as: **Site 1**, known as Centennial Corral, located in Township 18 South, Range 39 East, Section 31; and **Site 2**, located on the pass east of Reed Corral, in Township 19 South, Range 39 East, Section 20. All legal descriptions are Mt. Diablo Base Meridian.

At each of these water haul sites there will be a 4,245 gallon water storage tank placed on a circular gravel base. Water will be delivered by motorized vehicle and pumped into the tanks, which will be located adjacent to the access roads. Each tank will have an outlet pipe that will travel a short distance to a livestock watering trough. These water haul sites will be used only when grazing is authorized during a particular grazing season.

The two springs, Lower Centennial Spring and Black Spring, have been inspected for cultural resources by BLM heritage professionals. There were no cultural resources evident at Black Spring, however, the proposed alignment of the reconstructed pipeline at Lower Centennial Spring does travel down a desert wash between two cultural resources. A Coso style petroglyph occurs on one side of the wash, and a standing structure known as the Astral Artz Cabin is on the other side. Both features have not yet been evaluated for their eligibility for the National Register, but the placement of the new pipeline within the wash channel will not cause any effects to the integrity or potential eligibility of either.

The two proposed water haul sites have also been inspected for cultural resources by BLM heritage professionals. Only a fragment of a bottle and a flattened beverage can, each at different proposed haul sites, were evident, and they are not considered significant resources.

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[1] The land south of Owens Lake was changed in 2006 from Class M to Class L (Limited Use) land in the West Mojave Plan.

Thus, the development of these two proposed sites for water tank and trough installation will not have any effect upon significant cultural resources.

The Permittee would also be required by term of the grazing permit to perform normal maintenance on all range improvements located within the Allotment, including occasional repair of fences. This normal maintenance, whether it would be walking along the fencelines using hand tools to repair broken wire strands; replacement of individual posts and side boards at corrals; or replacing broken water pipe sections, on an as needed-when needed basis; are allowed without the need for further heritage compliance review by one of the Exemption clauses contained in the Protocol's Appendix D: Activity A-34: "Modification of existing fences, gates, grills or screens".

c. c.Impacts of the No Grazing Alternative

Implementation of this alternative would eliminate the threats from grazing to the 82 recorded sites located within the boundaries of the Lacey-Cactus-McCloud Allotment. Thus, there would be no impacts to cultural resources from livestock grazing under this alternative, except for potential impacts resulting from the removal of existing range improvements.

F. ENVIRONMENTAL JUSTICE

1. Affected Environment

The grazing allotment being analyzed is located in rural Inyo County. The rural areas of this county are typically occupied by moderate to low-income households. The permittees that hold the grazing permits for the allotment being analyzed typically have moderate incomes. Seasonal laborers that may be hired by the permittee generally come from low-income households.

2. Environmental Consequences

a. Impacts of Proposed Action – Alternative A, & Alternative B

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

The grazing of livestock in rural Inyo County has been a common practice for over 100 years. Typically ranching has been performed by persons of low to moderate income, and may or may not be considered a minority. There are no Native American communities on or near any of the allotments being analyzed.

b. Impacts of No Grazing

Under the no grazing alternative there would be an affect but not a disproportionate affect with respect to low-income or minority populations. The loss of livestock grazing in rural Inyo

County could result in the loss of seasonal employment to a very small component of low-income or minority populations.

G. FARMLANDS, PRIME OR UNIQUE

1. Affected Environment

The proposed action and alternatives would have no affect on unique or prime farmlands because there are no lands so designated in the allotment

H. FLOOD PLAINS

1. Affected Environment

Flood plains are associated with all of the main drainages in the allotment. Alluvial fans occur at the mouth of nearly all drainages. Most of the flood events are associated with summer thunderstorm events. These large events tend to be localized events which may drop over 4 inches of rain in a short time. The very large events may have a return interval of 25-50 years. These large events are a result of high intensity storms and are little affected by cultural practices in the watershed. None of the flood plains in the allotment are designated FEMA 100 year flood plains.

2. Environmental Consequences

a. Impacts of Proposed Action:

The proposed action is not likely to result in impacts in flood plains. The loss of existing and future structural range improvements in flood plains would continue at irregular intervals in the future. Such damage would be limited and could be repaired by normal maintenance activities. Flood events where the flows exceed bank full flows and move onto the floodplain generally occur as a result of large summer thunderstorms where the cultural practices such as grazing have little influence on flood size.

b. Impacts of Alternative B:

Impacts are similar to what is expected from the proposed action.

c. Impacts of No Grazing

Cattle would not have an effect on flood plains located within the allotment since grazing would be eliminated under this alternative.

I. INVASIVE, NON-NATIVE SPECIES

1. Affected Environment

Peter Rowlands et al. (1982) in Brooks (1998) notes that alien species comprise a relatively small portion of the flora in the deserts. They indicate that there are approximately 1836 species of vascular plants in the California portion of the Mojave Desert of which 156 (9%) are alien to the region. This compares to the global average of 16% alien plants (Rowlands et al. 1982). Fraga (2005) studied the area south of the L-C-M Allotment and found that non-native species comprised 4% of the flora in that area. Rangeland health evaluations completed in the allotment identified four species of non-native/invasive species in the area. Species identified in the allotment include filaree (*Erodium cicutarium),* Mediterranean grass (*Schismus arabicus*), Russian thistle (*Salsola (iberica) tragus*) and salt cedar (*Tamarix spp*). The non-native species can be classified into three general groups.

The first group is invasive, non-native plants which are common across the landscape. Species in this group are common across the desert and are common in surrounding bioregions as well. In this allotments, these species occur in low numbers in portions of allotment (2of 3 sites) and combined they generally constitute less than 1 % of the total cover. Species in this group include filaree and Mediterranean grass. None of the species in this group are classified as noxious weeds.

The second group of invasive, non-native species is also common in the desert, but are more restricted in the habitats they occupy. For the most part this group is limited to road sides, some washes and other highly modified sites where there is little competition from other plants and water concentrates to provide late season soil moisture. Adequate soil moisture in the late spring and summer is important for these species. The only representative species in the allotment is Russian thistle which is found along road corridors through and adjacent to the allotment. Road maintenance practices and equipment play a strong role in maintaining the site disturbance and in spreading seeds of these type species. There is a future concern for Moroccan mustard (*Brassica tourenefortii*), Mediterranean mustard (*Hirschfedia incana*), and black mustard (*Brassica nigra*) which are spreading along road corridors in the region. Russian thistle is a state listed category "C" noxious weed.

The third group of invasive non-native species is species which occur as a series of specific infestations at specific sites. All of these species are listed noxious weeds and have active control efforts in place. Salt Cedar is the only identified representative of this group in the allotment. It was found at Lower Centennial Spring and its existence is not related to livestock grazing.

In addition to the current non-native and noxious species in the area there is concern for the introduction of new noxious weeds. One common vector for the movement of weed seeds is construction equipment that moves from infested areas to non-infested sites carrying weed seeds. The Ridgecrest BLM Office Integrated Weed Management Plan includes a detailed management plan for weed management that is proceeding independent of the grazing management program.

The introduction of invasive, non-native species, especially noxious weeds is very difficult if not impossible to reverse if not detected early. For that reason, the integrated weed management plan includes detection and prevention plans (USDI BLM 20011).

2. Environmental Consequences

a. Impacts of Proposed Action

As a generalization, livestock grazing has the potential to influence invasive, non-native species several ways. These possible influences could include transporting new species in from other regions, moving seeds from infested sites within the allotment to non infested sites and by modifying sites to be more favorable to invasive, non-native species. The movement and introduction of new species as a result of livestock grazing in the L-C-M Allotment has a low probability due to the low numbers of cattle using the area. In addition, the cattle come from areas adjacent to the allotment. Most existing invasive, non-native species are widespread and have been for a long time. Current livestock management is unlikely to cause any additional spread as most of these species occur over most of the region already. There are few intensively used sites that could provide a more favorable environment for the invasive, non-native species and the proposed action would not result in the creation of any new sites and cattle use patterns would be the same as in the past.

The construction of the fences at Upper Cactus Flat should not have any impact on existing invasive, non-native species and ongoing control activities. There is a low potential to introduce new invasive, non-native species to the site.

b. Impacts of Alternative B

The impacts of alternative B would be similar to the Proposed Action. Alternative B would involve the cattle spread over a much larger area (41,900 vs 149,800). Alternative B also includes the construction and maintenance of a number of new watering sites which become high impact sites. These new sites would provide 2 acres of potential habitat for invasive species. Based upon observations of existing sites, where there has been not new infestations of non-native invasive species, the probability appears low. The salt cedar infestation is not related to livestock grazing.

c. Impacts of No Grazing

There would not be any expected changes in vegetation composition on an overall basis (Sanders (1992) and Johnson and Meyeux (1992)). Some high impact type sites may increase their perennial cover. Based on current literature and observations of areas which are not grazed, selecting the no grazing alternative would not be expected to result in any appreciable changes in the occurrence of current invasive, non-native species. Grazing would cease to be a factor in non-native, invasive species management, but the non-native, invasive species would continue to occur in the area.

J. NATIVE AMERICAN CONCERNS

1. Affected Environment

The area encompassed by the Lacey-Cactus-McCloud Allotment was inhabited at historic contact by small family-based communities of Paiute and Shoshone Indians. These people had

familial and cultural ties with both California and Great Basin Native American communities. These groups inhabited the Owens Valley, Owens Lake, Rose Valley, Coso Range, and Panamint-Searles Valley region.

There are currently five Federally Recognized Tribes that BLM consults with, four within the Owens Valley, at Bishop, Big Pine, Fort Independence, and Lone Pine, and the Timbisha Shoshone Tribe in Death Valley.

BLM requested in November, 2007 specific comments on the proposed undertaking from all of these Tribal organizations.

2. Environmental Consequences

a. Impacts of the Proposed Action: Proposed Action

Consultation with the Native Americans Tribes and communities in the locality has been completed to determine whether there could be significant effects to tribally important locations and resources by the proposed action. No effects have been identified by the Tribes.

b. Impacts of Alternative B: Lower Centennial Flat option

Consultation with the Native Americans Tribes and communities in the locality has been completed to determine whether there could be significant effects to tribally important locations and resources by the proposed action. No effects have been identified by the Tribes.

c. Impacts of Alternative D: No Grazing

Implementation of this alternative would eliminate the threats caused by livestock grazing to known tribally important locations and resources located within the boundaries of the Lacey-Cactus-McCloud Allotment.

3. Consultation

BLM has consulted with five Native American Tribes of the locality regarding the Proposed Action. These Tribes included: Bishop Paiute, Big Pine Paiute, Ft Independence Paiute, Lone Pine Paiute-Shoshone, and Timbisha Shoshone . BLM requested comments on the proposed undertaking during November 2007, and invited the Tribes to consult under the Executive Memorandum of April 29, 1994 (Government-to-Government Consultation) and other applicable laws and regulations. No tribes have requested to initiate consultation, nor commented on this proposed action.

K. RECREATION

1. Affected Environment

The public lands in the allotment provide a wide range of outdoor recreational opportunities and experiences including backpacking/hiking, horseback riding, mountain biking, camping,

hunting upland game birds, nature study, wildlife viewing, ATV and motorcycle riding, four-wheel driving, rock climbing and target shooting. Annually a Special Recreation Permit for use within the borders of the allotment has been issued to a promoter of dual sport motorcycle tours. Additionally along the western boundary of the allotment are three popular trail heads.

2. Environmental Consequences

a. Impacts of Proposed Action – Alternative A, and Alternative B

While participating in casual and permitted recreational pursuits participants may encounter such range improvements as fence lines, closed gates, cattle guards, corrals and water developments as well as encountering herds of cattle on the public lands. While range improvements such as closed gates and cattle guards may delay ones recreational pursuits these impediments do not create a significant impact on recreational opportunities. Conversely the sighting of livestock grazing on the open range may be of interest to visitors and may enhance one's recreational experience depending upon the observer's point of view.

In general the proposed Range Improvement projects will not result in increased impacts on recreational users. The water haul sites, existing and proposed, may provide instances where cattle and visitors come in contact with each other. Although these situations exist, they should not adversely affect the recreational opportunities within the allotment. Trailing or crossing the cattle across nondesignated grazing areas to reach the grazing areas should not adversely affect recreational opportunities.

b. Impacts of No Grazing

The elimination of grazing would have little effect on recreational opportunities in the region except for eliminating the experience of seeing cattle on the open range of the "Wild West." Until all range improvements were removed recreational participants may still encounter the remnants of these developments which may delay but not prohibit pursuing one's recreational interest.

L. SOCIAL AND ECONOMIC VALUES

1. Affected Environment

The community of Olancha is a traditional rural settlement. Part of its economic base depends on ranching while another sector of the economy depends upon servicing the through traffic on Highway 395. The community of Olancha is not fully developed in the sense of offering a full array of goods and services, and many of its citizens commute long distances to work. It draws labor from other areas in the valley who work at the bottled water plant.

2. Environmental Consequences

a. Impacts of Proposed Action – Alternative A, and Alternative B

The proposed action would have no effect on the social or economic values of the community.

b. Impacts of No Grazing

The cancellation of grazing on the allotment would likely erode the social values of those in the community who see value in living in a small western ranching community. It would also impair those businesses and families in the community who count on the prospective permittee for business and employment.
(See Appendix 6, Comments & BLM Responses, pages 147 & 148)

M. SOILS

1. Affected Environment

No formal soils surveys have been conducted in the allotment. The soils occur on recent alluvial fans and are generally poorly developed, well drained and coarse textured. The soil depth ranges from deeper alluvial materials to very shallow or non-existent over the rocky substrate. The common coarse textured soils with gravely surfaces are quite stable. The finer textured soils without clays are more susceptible to accelerated erosion from wind and water especially when the surface has been disturbed. The soils in the area have been subject to periodic disturbance from historic trails, livestock grazing, and utility Right-of-way maintenance. Established watering sites have concentrated the cattle into small areas resulting in trampling impacts to those sites. The trampling has resulted in increased compaction in the soil surface, reductions of vegetative cover, and destruction or disruption of biological soil crusts at these sites. These sites cover less than 13 acres or 0.08% of the allotment.

Soil stability was evaluated in the L-C-M Allotment as part of the Rangeland Health evaluations. Seven upland sites were evaluated and the soil surface factor (SSF) in the allotment averaged 9.8 which is in the stable range. Soil impacts were noted at sites where cattle were concentrating. Most of these were developed sites at management facilities such as water developments.

2. Environmental Consequences

a. Impacts of Proposed Action
Different degrees of impacts would occur to soils from different portions of the grazing operation. The proposed action would result in continued use of existing concentration sites. Additional new impacts to soils at the established sites are unlikely.

As opposed to the intensive use at concentration areas including watering and management facilities, the general grazing use is an extensive use with the animals and their hoof action spread over large areas. This use can be best characterized as a series of small impacted spots (hoof marks) with large interspaces. This use would not result in the loss of vegetative cover or increased compaction and reduced infiltration rates. Wind and water erosion rates are not expected to increase above current levels as a result of the Proposed Action. The current stable SSF ratings for the allotment would not be expected to change as a result of the Proposed Action

The construction of the drift/boundary fences at Upper Cactus Flat will minimally impact soils from pounding T-posts and wooden posts. This impact is not considered significant. Trailing or crossing nondesignated grazing areas to reach grazing areas will minimally impact soils.

b. Impacts of Alternative B

Impacts to soils from the alternative B would be similar to those for the Proposed Action. Differences would be from the increased area grazed, impacts around additional range improvements and construction of new range improvements. Alternative B would graze a larger area, but the impacts would less intense because the same use would be spread over a larger area with a stocking rate around half of that in the Proposed Action. Impacts at existing range improvements would increase from 4 to 13 acres. Overall the impacts would be very low. The proposed new construction of range improvements could impact an additional 2 acres. Trailing or crossing nondesignated grazing areas to reach grazing areas will minimally impact soils. Corraling the herd at 9 – Mile Corral overnight going to and returning from Lower Centennial Flat would compact soil in an area that is already disturbed from previous use.

c. Impacts of No Grazing

Elimination of grazing would eliminate any potential future impacts to soils as a result of cattle grazing. Soils at concentration areas would slowly return to a more natural compaction rate, infiltration rate and stability.

N. SPECIAL STATUS PLANTS

1. Affected Environment

One special status plant species occur in the L-C-M Allotment area. Table N- 1: BLM Special Status Plant Species in the L-C-M Allotment

Common Name	SPECIES SUBSPECIES / VARIETY	STATUS CNPS	HABITAT	Location	Number of Populations in species range
Ripley's Cymopterus	Cymopterus ripleyi var saniculoides	1B	Mojave desert scrub/ Joshua tree woodland 3100-6700 ft elevation. Sandy soils often with carbonate.	NE end of Haiwee Reservoir	3 populations in CA, all in Inyo County Also occurs in Lincoln and Nye counties, NV

CNPS Status: 1B Plants rare, threatened, or endangered in CA and elsewhere

Ripley's Cymopterus is a small perennial herb that flowers in late winter through spring. Three populations of Ripley's Cymopterus occur in California and several populations also occur in 2 counties in Nevada. In California, one population is in Lee Flat northwest of the L-C-M allotment in Death Valley National Park, and it is fenced. Another population is on

private property in Sage Flats at the base of the Sierra Nevada Mountains south of Olancha. A third population grows on a bench along a north – south distance of about 4 miles from the NE end of Haiwee Reservoir at the base of the Coso Mts. Part of this population is northwest of Cactus Flat outside of the proposed grazing area. Mojave Milkvetch, *Astragalus mojavensis* var *hemigyrus,* is a BLM special status plant species, but it occurs to the east of the L-C-M allotment and is not recorded within the allotment. In 1891 Inyo Hulsea (*Hulsea vestita ssp inyoensis*) was recorded at Crystal Spring on China Lake NAWS, but has not been recorded on the allotment (CNDDB 2007)

2. Environmental Consequences

BLM manages special status species in a manner to prevent them from becoming listed as federally threatened or endangered. For plant species, there are several factors to consider when assessing the risk of a species becoming threatened or endangered. The following considerations determine the level of risk the species faces of becoming increasingly rare: the range or geographical extent of the species; the number of populations; the size of each population; the health of each population; specialized habitat requirements of the species; exposure of populations to perceived threats, considering terrain, accessibility, land ownership, and use; and susceptibility and reaction of the population to perceived threat.
When assessing the impact of a management action on a BLM special status plant species, BLM takes the factors listed above into account. If the risk is assessed to be high, BLM takes management actions to protect the population at risk.
These 2 special status species were assessed based on the 7 risk factors listed above. The assessment indicates the risk that cattle grazing poses to the existence of the species.

a. Impacts of Alternative A – Proposed Action

No BLM special status plant species or suitable sites for occurence are on the Cactus Flat/McCloud Flat portion of the allotment that would be grazed under the Proposed Action. The populations of Ripley's Cymopteris north and east of Haiwee Reservoir have been identified and can be avoided by cattle trailing or crossing on their way to and from Lower Cactus Flat (see map, Appendix 1).

b. Impacts of Alternative B:

The populations to the north and east of Haiwee Rservoir were surveyed on May 11 and May 24 of 2011, and no signs of cattle or past grazing were found in the area where Ripley's Cymopterus was growing. These populations of Cymopterus can be avoided by herding as the cattle trail to and from Lower Cactus Flat (see map, Appendix 1).

c. Impacts of No Grazing Alternative
No adverse impacts would occur to special status plant species if there were no grazing.

O. THREATENED AND ENDANGERED WILDLIFE SPECIES

1. Affected Environment

The desert tortoise is a State and Federally Threatened species. The most recent information on the desert tortoise is found in the 2008 USFWS Desert Tortoise Recovery Plan, the 2010 USFWS Five-year Reviewand the Final West Mojave Plan (U. S. Bureau of Land Management, 2006). The L-C-M allotment is entirely outside of the desert tortoise range as designated in WMP. BLM has no records of desert tortoises within the allotment. (Please see 2011 Western Watershed Project comment (#15) and BLM response from 2011-13 for updated information.)

The Mohave ground squirrel (MGS) is listed as threatened by the state of California. In April 2010, the US Fish and Wildlife Service issued a positive finding on a petition to list the Mohave ground squirrel under the Endangered Species Act. It was determined that this listing may be warranted due to destruction, modification, or curtailment of the species' habitat or range. The USFWS acknowledged that livestock grazing may have contributed to the range contraction of the MGS. (Please see 2011 Western Watershed Project comment (#16) and BLM response from 2011-13 for updated information.)

The BLM has also discussed the impacts of grazing with the California Department of Fish & Game and with Dr. Phil Leitner who has conducted several scientific studies on Mohave Ground Squirrel in the northern Mojave Desert. The result of these discussions is the monitoring regime which is stated in the Environmental Consequences section that follows.

The allotment is almost entirely within the Mohave Ground Squirrel Conservation Area as described in WMP. Ground disturbance and habitat destruction is restricted to 1% of the total area of Conservation Areas as defined in WMP. Mohave ground squirrels have been captured on Lower Cactus Flats within the allotment. They could occur along the western edge of the allotment north of Haiwee Reservoir. The MGS is typically associated with a variety of habitats, including desert scrub, alkali scrub, and Joshua tree woodland. In the northern portion of its range, the MGS feeds on the leaves, seeds, and fruits of shrubs when annual plants are not available. Male Mohave ground squirrels typically emerge from hibernation at the beginning of February, while the females emerge around mid-February. By the end of February, mating is well underway. Summer aestivation generally begins sometime between July and September, but may begin as early as April or May during drought conditions (Leitner et al., 1995). Reproductive success of the MGS depends on the amount of fall and winter rains and the resulting growth of annual forage. Leitner and Leitner (1992) suggest that a crop of about 1 gram / sq ft may be necessary for MGS reproduction. If rainfall is not sufficient, annual herbaceous plants are scarce. At such times, the MGS is unable to store enough fat and does not breed. By not reproducing, the MGS retains sufficient body fat to survive the next winter. This ground squirrel uses burrows at the base of shrubs for cover and builds its nest in the burrow system. A litter of about 6 young are born between March and May with a peak in April (Burt 1936, Recht 1977).

The areas in which the drift/boundary fences will be built are predominantly rocky but have Joshua tree desert scrub plant alliances nearby. As such, these habitats could harbor MGS populations. However, the rockiness of the immediate sites would prevent most fauna from burrowing. Therefore, it is not likely that MGS populations will be disturbed by construction. These sites are considered a little high in elevation for the desert tortoise to inhabit.

2. Environmental Consequence
a. Impacts of Alternative A – Proposed Action:
Mojave ground squirrels in the Centennial Flat pasture would not be at risk from cattle impacts since the Proposed Action does not allow grazing there.

Under the Proposed Action, water haul sites would be used in McCloud and Cactus Flats to draw the cattle to specific areas at different times during the 4 month grazing period. There would be 2 water haul sites to prevent over-use of forage. One area would be supplied with water for 2 months. Then an area at the other end of the allotment would be supplied with water to move cattle across the allotment and prevent concentration due to grazing. This action would assure availability of sufficient forage for the Mojave ground squirrel. BLM will assess forage availability through utilization studies. If the amount of forage falls below the threshold values for key species, cattle will be removed. Using 2 water haul sites would prevent excessive utilization by cattle. Enough food resources would be reserved to support the MGS if cattle are removed when threshold values of utilization are reached. The water haul sites consist of previously disturbed ground. No new disturbance would occur.

The period of grazing would be December 2 through March 31, so most of the grazing period would be while the MGS is hibernating. The Mohave ground squirrel is generally active in March through May. Since the area is located at relatively high elevations, the soil would be moist longer than at lower elevations. Therefore, the growing season for shrubs is usually late February through May unless it is a drought year. The stocking rate would be 53 acres/ AUM, which means 1 cow and her calf on 53 acres for 1 month. This is very light use. Studies conducted by Phil Leitner in the Coso Range indicate some dietary overlap between cattle and MGS, especially for shrub foliage such as winterfat and spiny hopsage. . According to Phil Leitner, a grazing system that results in light utilization of edible shrubs and does not deplete annuals would provide the squirrels with sufficient nutrition and would have minimum impacts on the MGS population.

WMP sets the thresholds of utilization during dormant season grazing at 40% for Mojave Desert range type (LG-1, pg 2-124). Many of the plants in this plant assemblage occur on the allotment. The Spiny Hopsage (Graya spinosa) threshold would be 30% because PUF threshold in the CDCA plan is lower than in WMP. The threshold for shadscale would be 10% for the same reason. The threshold for both winterfat and four-winged saltbush is 40%. When any one of the thresholds is reached, cattle would be removed from the allotment to prevent over-grazing. This strategy has been used in the past to prevent overgrazing in this allotment and should maintain shrub forage in healthy condition. Utilization monitoring would be conducted prior to turnout of cattle and at the end of January after cattle have been grazing for 2 months. If none of the utilization thresholds were reached or exceeded, cattle would continue to graze for 1 more month. At the end of February, BLM would again monitor utilization, and if thresholds were still not exceeded, cattle would be allowed to graze until March 31. This schedule means that BLM would monitor utilization before turnout of cattle, ½ way through the grazing period and then a third time ¾ of the way through the grazing period. Cattle would have to be removed from the allotment as soon as any of the utilization thresholds were met or exceeded, which may be the situation in a drought year.

Impacts of the proposed drift/boundary fences on the MGS and desert tortoise and their habitat would considered to be minimal. In addition the following measures should be adhered too.

1. The fence design will be as described in the proposed action.
2. Wooden and steel posts will be put in well away from existing burrows. Posts could be moved along the fence line to avoid damaging burrows.
3. No vegetation should be removed along fence lines vegetation may be crushed, or trimmed but not removed.
4. Shrubs with birds' nests should be avoided and only lightly trimmed if necessary.
5. Work should take place outside the breeding season (Spring), if possible.
6. The area of disturbance shall be confined to the smallest practical area.

b. Impacts of Alternative B:
The impacts of Alternative B would be greater than those for the Proposed Action because grazing would also occur in the Centennial Flat pasture, which is also within MGS habitat. Therefore, more land within the MGS Conservation Area would be affected by grazing since the period of grazing is longer (Nov 1 – May 31) under Alternetive B. The grazing period for the Proposed Alternative is Dec 2 – March 31.

c. No Grazing
No adverse impacts would occur if grazing were eliminated.

P. WASTE, HAZARDOUS OR SOLID

1. Affected Environment

Detailed surveys of hazardous or solid wastes have not been undertaken on this allotment. BLM maintains no records of reportable spills in the allotment. Although use of motorized vehicles and equipment by the livestock operator may have resulted in periodic and scattered spills or releases of fuel and petroleum products in the allotment, none are documented. For this reason we believe that the proposed action and the alternatives would have no affect on hazardous or solid waste.

Q. WATER QUALITY, SURFACE AND GROUND WATER

1. Affected Environment

The L-C-M Allotment is located on the western edge of the Mojave Desert. The climate and annual precipitation is typical for the desert environment. Large variations in yearly perception volumes are common. Most of the perception comes in the form of rain at the lower elevation and many times snow at the highest elevations. Most of the perception falls between November and mid March. Large summer rain events are not common, but can be quite large causing considerable watershed damage when they do occur. Additional climate information can be found under "B Air and Climate".

The U.S. Geological Survey identified portions of two large watersheds in the allotment. These are the Indian Wells-Searles Valley basin and the Owens Lake basin. A number of canyons

drain through the allotment from the Coso Mountains. Storm water drains to the north into the Owens Lake or west into Rose Valley or playas in Upper and Lower Cactus Flats and McCloud Flat. The Final Unified Watershed Assessment (1998) classified the Owens Lake basin as a category 1 (impaired) priority watershed and the Indian Wells-Searles Valley basin as a category 1 (impaired) low priority watershed. These impaired classifications were not related to livestock grazing.

The Lahontan Basin Plan (RWQCB 1994) identifies beneficial uses (chapter 2) and water quality objectives (chapter 3) for the surface waters in the 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 1 & 2, warm water fisheries, cold water fisheries and wildlife. The minor wetlands category has an additional beneficial use of freshwater recharge. Riparian areas are found in Centennial and Blackrock Canyons along the south edge of Lower Centennial Flat. The only surface water in the allotment occur at the two springs in those canyons which have been developed for livestock water.

The Clean Water Act and the UESEPA 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 (BPS). 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 state of *California has provided guidance called California Nonpoint Source Encyclopedia* (SWRCB 2004) updated July 2004. *Further guidance can be found in those documents.*

2. Environmental Consequences

a. Impacts of Proposed Action

There are no natural water sources within the proposed action area. Therefore there would be no impact to any natural waters as a result of the proposed action. All drinking water for the cattle would come from developed sources. It is estimated that cattle would consume approximately 0.4 acre feet of water. This would be from runoff water stored in reservoirs in Lower Cactus Flat and McCloud Flat and water hauled in from outside the allotment.

b. Impacts of Alternative B

Range inspections and Rangeland Health Assessments have documented several sites with issues affecting water quality in the allotment. Two sites were identified that did not meet

rangeland health standards. Both of the sites not meeting standards were in riparian areas and were not a result of livestock grazing. One of the sites that did not meet standards was a result of salt cedar, the other was the result of headcutting in a riparian area that resulted from a large flow event. All of the upland sites in the allotment met rangeland health standards and the proposed action is not likely to result in any degradation of water quality. The Proposed Action does not represent point source impacts to water quality and no 401 permit is necessary. Impacts from the Proposed Action represent non-point-source impacts which are controlled by the implementation of Best Management Practices (BMP). The proposed action is to provide alternate water sites, and institute better livestock management. These are BMP practices. Water consumption would not exceed 0.7 acre feet for the grazing season at full stocking rates. This is a very small percentage of the water in the area.

c. Impacts of No Grazing Alternative

No impacts to water resources would occur due to cattle grazing.

R. WETLANDS/RIPARIAN ZONES

1. Affected Environment

Three springs occur within the allotment: Upper Centennial Spring, Lower Centennial Spring and Black Spring. Rangeland Health Assessments completed in 2005 indicated that these 2 springs were below health standards because of head-cutting (unrelated to grazing) at Black Spring and the presence of salt cedar at Centennial Spring. Established range improvements exist at Lower Centennial and Black Springs, but they are in need of repair to make them functional. Black Spring supports a variety of riparian plant species, including willows and shrubs with good vertical structure important to maintaining bird species diversity. The riparian area at Black Spring covers about half an acre and is fenced to protect the vegetation. Upper Centennial Spring has abundant willows and mesquite and is the most significant riparian area in the allotment. Lower Centennial Spring does not have any woody species other than a small salt cedar. This spring is less than ¼ acre and supports herbaceous riparian plant species. Floods periodically damage some of the vegetation growing at these springs.

2. Environmental Consequences

a. Impacts of Alternative A – Proposed Action

No riparian areas exist within the proposed grazing area of Alternative A

b. Impacts of Alternative B

Established range improvements at Lower Centennial and Black Springs would be rehabilitated prior to the resumption of grazing. The water improvement at Lower Centennial Spring would be developed to serve both cattle and burros. Both of these improvements involve piping water to a trough away from the springs and riparian habitats. Cattle would not be attracted to open water at these springs since cattle could access water below the canyons in which these springs are located. The riparian habitat on which riparian wildlife species depend would not be at risk from cattle grazing. In addition, a series of water haul sites would be established throughout the allotment, preventing cattle from concentrating at springs. Piping water to a trough away

(down canyon) from Lower Centennial Spring would also protect Upper Centennial Spring by encouraging cattle to stay at the water development below the 2 springs.

c. No Grazing
No adverse impacts would occur if grazing were eliminated.

S. WILD AND SCENIC RIVERS

1. Affected Environment

The proposed action and alternatives would have no affect on wild and scenic rivers because there are no rivers so designated within the allotment.

T. WILDERNESS

1. Affected Environment

Approximately 53,832 acres or 33% of public lands within the Lacey-Cactus-McCloud Allotment lies within wilderness. Virtually all 49,296 acres of the Coso Range Wilderness lies within the allotment. About 3,860 acres or .06% of the Argus Range Wilderness and another 698 acres or .08% of the Darwin Falls Wilderness also fall within the allotment boundary. (See Map in Appendix 1)

As the Argus Range Wilderness and Darwin Falls Wilderness portions of the allotment would not be grazed under any of the proposed alternatives, they will not be analyzed further.

The 49,296 acre Coso Range Wilderness is located near the center of the reconfigured allotment. The wilderness area encompasses the northern half of the Coso Mountains, an area of extensive erosion with colorful volcanic displays along small washes, up deep canyons, and encircling several broad flats. Elevations range from 4000' to 7400.' Except for two active clay pit operations that straddle the western boundary, the area is largely natural and pristine. Most of the estimated 30 miles of old vehicle routes have been successfully closed and restored. Notable exceptions include the bulldozed vehicle route into the Lower Cactus Flat Reservoir (5357) and the old jeep trail from the NAWS boundary to Upper Centennial Spring. Several areas of cultural interest exist within wilderness. There is a well-known petroglyph site at Upper Centennial Springs. The wilderness also contains historic features, two-free standing structures, some stone ruins, vertical shafts, and other vestiges of mining and ranching activity that date back to the late 1800's and early 20th century. Opportunities for solitude and for primitive and unconfined recreation are excellent. The area is only infrequently visited due to the lack of water in the interior. Well-prepared hikers, backpackers, and equestrians will use perimeter roads as jumping off places for moderate cross-country exploration. Destinations include Centennial Canyon, Joshua Flat, Vermillion Canyon and Sugar Loaf Mountain. Upper and Lower Centennial springs along the eastern edge of the wilderness are two of only three possible springs (Thorndyke along the western boundary being the third one) capable of supplying water and supporting small riparian communities in the area. Hunters will converge on these springs during chukar and dove season. Most of the ORV-trespass occurring in the area is associated with this type of use.

Currently there are six range developments inside the Coso Range Wilderness (excluding the NAWS barrier fence), of which at least three at Upper Centennial Springs (5052, 5285, & 5326) are proposed for removal under all alternatives. The remaining three include: the Cactus Flat exclosure fence (5540), the Lower Cactus Flat Reservoir (5357), and the spring development, cistern, pipeline and trough (5053) at Lower Centennial Spring.

The Lacey-Cactus-McCloud Allotment is a perennial cattle grazing allotment which has been moderately to intensively grazed in the past. The grazing permit on the original allotment for the 10 year period from 1988-1998 authorized use of up to 448 cows and 3,136 AUMs annually over a 7 month period from November-May. During the period from 1992-1994, the allotment actually supported 254-520 cattle annually using 1,380-3,135 AUMs. The grazing permit for the original allotment expired in 1999. In 2000, the Naval Air Weapons Station terminated grazing on military lands, removing approximately 60% of the original allotment. This action resulted in the loss of four of the six grazing areas within the allotment. Cattle were removed from the remaining two areas, Lower Cactus/McCloud/western Upper Cactus Flat and Lower Centennial Flat, until a new grazing strategy could be devised. As a consequence, this allotment has not been grazed since 2000.

With respect to estimating 1994 use levels and devising a new grazing strategy for the remaining two grazing areas, it is important to note that the original six grazing areas were not grazed evenly. Former grazing strategy dictated that some areas were used more intensively as pastures and others more lightly as trailing zones between pastures. Some areas were better-watered and/or supported better forage and were used more intensively than others. Estimates of probable cattle distribution and use in 1994, and new use levels are based upon estimates of production in the CDCA Plan of 1980 which employed spectral analysis of vegetation. It is estimated that 60% of the available forage allocation or 1881 AUMs were removed from the original allotment, as a result of NAWS terminating grazing. In the reconfigured allotment, it is estimated that 40% of the available forage allocation or 1254 AUMs remain on BLM lands. This works out to proportionately 181 cows/calves per year on the allotment over a 7 month period. Under all alternatives, additional AUMs were eliminated in removing the non-use areas east of Darwin Road, within the Darwin Falls Wilderness and the Argus Range Wilderness, the area north of Route 190 adjacent to the Hunter Mountain Allotment, and the area between Owens Lake and Route 190. This leaves a balance of 1138 AUMs which would allow for 165 cow/calf pairs for 7 months or 288 cow/calf pairs for 4 months in the remaining two grazing areas. (See Appendix 2.)

Under the Proposed Action, new proposed use levels, 200 cow/calf pairs using up to 790 AUMs over a 4 month period per year in just one of these grazing areas (Lower Cactus/McCloud/western Upper Cactus Flat), would stay below combined 1994 estimated use levels for both areas. Use levels may appear to exceed numbers of AUMs historically permitted in this area alone, if use of both pastures was evenly split. However, BLM knows this was not the case in 1994. The Lower Cactus/McCloud/western Upper Cactus Flat pasture was much more intensively grazed than Lower Centennial Flat. (Lower Centennial Flat was used to transition cattle, temporarily holding and moving them on to more productive pastures on NAWS lands.) How much more intensively grazed Lower Cactus/McCloud/western Upper Cactus Flat was than Lower Centennial Flat is not documented. It is known only from

individual institutional knowledge of what was occurring and what the grazing strategy was at the time.

Under Alternative B, proposed use levels, 100 cows using a combined total of 697 AUMs per year over a 7 month period, would be lower than use levels proposed for Alternative A and lower than combined total estimated permitted use levels in 1994. However, given BLM's historical understanding of how use was distributed between the two pastures, it is more likely that use levels in Lower Centennial Flat under this alternative would exceed use levels in place here in 1994. If Cactus/McCloud/western Upper Cactus Flat can be assigned 790 AUMs, Lower Centennial Flat should be assigned only the balance of 348 AUMs. This calls into question the 50/50 rotational split between pastures (using up to 395 AUMs in both pastures in alternate years) proposed under Alternative B.

2. Environmental Consequences

Under all alternatives, BLM would not authorize grazing east of the Darwin Road or within the Darwin Falls or Argus Range wildernesses. This would eliminate all cattle grazing impacts within these areas.

Under all alternatives, three of the six range developments (5052, 5285, and 5326,) in the Coso Range Wilderness would be retired and could be removed. These developments include all developments at Upper Centennial Spring. Upper Centennial Spring and Lower Centennial Spring are the only two riparian areas with surface water in the entire Coso Range Wilderness. Cattle often visibly impact such areas. Cattle will erode stream banks, muddy water, trample vegetation, leave stubble, drop cow pies, and scar hillsides. These impacts can disrupt and alter natural processes (proper functioning stream condition), compromising naturalness and untrammeledness (wildness). Opportunities for primitive and unconfined recreation which rely on good water, attractive campsites, availability of wildlife, and unmarred scenery can become degraded. Cultural values can be put at risk by cattle which trample and modify sites by their activities. Retiring these important spring and riparian areas from cattle use would help protect and preserve these valuable and sensitive resources. Removing the structures at Upper Centennial Spring would also help restore naturalness and untrammeledness to the wilderness area by eliminating all manmade imprints and interference with the area's natural functioning condition.

The closed vehicle way to Upper Centennial Spring is a chronic vehicle trespass entry point into the wilderness, particularly during bird season when hunters converge on the area. A considerable amount of effort and some progress have been made to close this route permanently to vehicles. Reopening the route for the permittee and/or staff to service the developments there would make it more difficult to stop others from driving in illegally. Permanently retiring this vehicle route, i.e., aggressively rehabbing it and allowing it to disappear completely, would stop vehicle trespass, rather than exacerbating it. Elimination of these developments and the need to maintain them by vehicle would be of great benefit to wilderness.

Three range developments would remain inside wilderness. The Lower Centennial Spring development and pipeline (5053) would remain and could be repaired and extended (outside of

wilderness) in preparation for the resumption of grazing in the Lower Centennial Flat area. The small exclosure fence (5540) located in Cactus Flat immediately north of the open vehicle route to Thorndyke Canyon would also remain for monitoring purposes. These developments do not require a road or use of a road, or use of motor vehicles, or use of motorized or mechanized equipment to repair and keep functional. However, their presence would continue to detract from the overall naturalness of the area.

The stock pond known as the Lower Cactus Flat Reservoir (5357) would remain for use by cattle, approximately ½ mile inside wilderness off of the Cactus Flat Road. However, BLM would no longer allow this stock pond to be accessed by vehicle or maintained by the permittee. In the past, periodic maintenance could have involved use of heavy, motorized equipment (a tractor or bulldozer) to dredge-out the bottom of a small dry lake, as was done initially to create the stock pond, to keep the stock pond functional. However, the lakebed has not been dredged in over 40 years. Now BLM has decided it is inappropriate to permit modification of a natural feature, use of heavy, motorized, earth-moving equipment, and maintenance of a permanent road inside wilderness. The lake will be left undisturbed. It will be allowed to fill-in and recover, assuming a more natural appearance and function over time. In addition, the very visible and compacted route to the stock pond has attracted several vehicle users each year to trespass into wilderness. With no maintenance requirements for the stock pond, the route can be now rehabilitated and closed to vehicles. This will also result in a net improvement in wilderness character (naturalness) and values (opportunities for solitude and primitive and unconfined recreation). An additional water haul site will be developed outside of wilderness when the stock pond fills-in, if not before.

NAWs would continue to maintain existing fences (5503) along the NAWS/Coso Range Wilderness' southern and eastern boundaries.

A new short drift fence would be constructed along the western NAWS/Wilderness boundary. This would offset wilderness character gains achieved by the retirement of three of the six existing range developments inside wilderness. However, this fence would be very short (less than ¼ mile), would be located on the periphery of wilderness, and would be constructed and maintained without use of any motor vehicles, mechanical transport, or motorized equipment prohibited by the Wilderness Act.

a. Impacts of Alternative A (the Proposed Action).

Under this alternative, BLM would not immediately authorize grazing in the Lower Centennial Flat area and the area south of highway 190, encompassing more than 35,000 acres of the Coso Range Wilderness. Joshua Flats, Lower Centennial Spring and Upper Centennial Spring and the important spring and riparian areas and cultural sites associated with these areas would not be affected by grazing as they would be outside of the permitted use area.

Instead, grazing would be restricted to what has historically been the most intensively grazed portion of the allotment, the Lower Cactus/McCloud/ and western Upper Cactus Flats area, where range facilities currently exist in good repair and additional water haul sites can be easily added at some distance from the wilderness boundary to support cattle. Under this alternative, general grazing impacts (trampling, trailing, soiling, loss of vegetation) would

occur only on the western flanks of the Coso Range Wilderness, but not on its northern or eastern flanks. Cattle would not be expected to stray far into the waterless interior, particularly as the range's western escarpment is so rugged and steep. In sum, only about 14,296 acres or 29% of the Coso Range Wilderness would still be affected by cattle grazing.

However, the Lower Cactus/ McCloud/ and western Upper Cactus Flats area would be grazed more intensively than before. Fewer cow/calf pairs (200 instead of 288) would be permitted to use up to 790 AUMs per year in this one use area alone. This would exceed estimates of the number of AUMs permitted over a comparable 4-month period (708) at the time of wilderness designation (1994). Permitted AUMs would increase by about 9%.

Under BLM's grazing regulations for wilderness (43 CFR Parts 6300, Wilderness Management; Final Rule (2000)), BLM may authorize such an increase in livestock numbers only if it can demonstrate that "the additional use will not have an adverse impact on wilderness values." (Section 6304.25) BLM believes there would be no adverse impact on wilderness values as a result of this increase in permitted AUMs, because: (1) the wilderness comprises only about 1/3 (34%) of the area to be grazed; two-thirds of the area lies outside of wilderness and is available to absorb most of the impacts of more intensive use; (2) with the exception of the Lower Cactus Flat Reservoir (5357), all watering sites where cattle would be expected to concentrate are located outside of wilderness and more than a mile from the wilderness boundary; and (3) cattle would be grazing in the area for only 4 months each year and only during the winter months of the year. The last point would be a significant improvement over what was occurring in 1994, when cattle were permitted to graze up to 7 months each year and throughout the spring time. The proposed change in the grazing regime would avoid direct impacts to plants and soils during the critical spring growing season. The net effect would be positive and would help sustain the overall improvement in wilderness character and values since grazing was suspended in the area in 2000.

Proposed Mitigation: It is recommended that a new water haul site more than a mile outside of wilderness be established immediately as a substitute for the stock pond. This would ensure that more intensive use of the area would not become concentrated in wilderness. More intensive use would be directed instead outside of the wilderness boundaries. Otherwise, the stock pond area should be monitored closely for unacceptable impacts to wilderness. An alternative watering source (new water haul site) should be established immediately at some distance from the wilderness boundary if such impacts develop.

The northern segment of the proposed drift fences will be on the line dividing the Coso Range Wilderness from NAWS. It will not intrude into wilderness and will not impair the character of the wilderness experience.

b. Impacts of Alternative B

Under this alternative, BLM is proposing to graze only a little more than half the number of cattle (100) estimated to have been grazed (177) within the remaining two use areas in 1994. In addition, BLM is proposing to allow use of only a little more than half (697) of the estimated 1138 AUMs permitted in these two pastures combined over a 7 month period in 1994. The specific numbers of cattle (100) and AUMs (302-395) proposed for use on a

rotating basis within each area over a 3 or 4-month period also fall below estimated use levels (up to 150 cow/calves and 531-708 AUMs) for each of these areas in 1994.

Historically cattle have grazed the Lower Cactus Flat/McCloud Flat area intensively and the Lower Centennial Flat area much less intensively. The water developments at Upper and Lower Centennial Springs were used to move cattle from BLM land onto NAWs lands, not to sustain them in place for any significant length of time. While cattle historically grazed the waterless interior (Joshua Flats) of the Coso Range Wilderness, they did not spend much time there. These historical realities are reflected in the numbers proposed for each of the two grazing areas. The numbers for the Lower Cactus/McCloud/western Upper Cactus Flats area are suppressed to keep Centennial Flat numbers low (within their historic range) so the numbers can be used interchangeably for both areas, despite the fact that the available grazing acreage under this alternative has tripled (up to 155,677 acres from just 41,852 acres). The reductions are appropriate, given the history of use, especially when one considers that 35,000 acres lie entirely within a portion of the Coso Range Wilderness that was only lightly grazed before.

Cattle would be grazed on a two-pasture, seasonal rotational system. The first year, cattle would be turned out in one pasture in winter for 4 months and moved to the second pasture in spring for three months. In the following year, cattle would be turned out in the second pasture in winter for 4 months and moved to the first pasture in spring for 3 months. This would allow each area to be rested every other year during the critical spring growing season. This should help sustain wilderness character and values as grazing areas would be allowed at least some time to recover each year.

Several new water haul sites are proposed. These sites would be used to more evenly distribute grazing between the two use areas flanking wilderness. While fewer cattle would be grazing for shorter periods of time in each area each year, this would change the pattern of grazing from what it was in 1994, when greater numbers of cattle would be grazing longer principally in just one of these areas per year. In balancing things out, grazing impacts may actually diminish in the Lower Cactus Flat/McCloud Flat/Upper Cactus Flat area. However, they could intensify in and about the Lower Centennial Flat area.

Two new water haul sites are proposed for the Lower Centennial Flat area, in addition to two preexisting water developments at Reed Corral and Lower Centennial Spring. These sites would be located outside wilderness in formerly waterless sections to make better use of the general area and to make the rotational system between the two remaining use areas feasible (See Map in Appendix 1). Cattle would be more evenly distributed within this use area as a consequence. In addition, water sites would be used as management tools, turned on and off throughout the grazing season, to move cattle off areas when Proper Use Factors for key forage species are exceeded.

One of these new water haul sites would be located immediately outside of the wilderness boundary. The site (5383-1) would be located near an existing corral at the foot of a drainage leading up to Joshua Flats (an impressive Joshua tree forest in the interior of wilderness). As cattle will range within 5 miles of a water source, cattle impacts to this Joshua tree forest could exceed impacts in 1994 if the water was left on too long at this particular location. Visible

impacts would include trampling, trailing, soiling, and loss of vegetative cover, particularly among the Joshua trees where cattle often concentrate for shade and shelter. This area will need to be monitored for unacceptable impacts to wilderness character and values, such as naturalness and the health of the Joshua tree forest, particularly if they appear to exceed impacts occurring in 1994.

The other new water haul site would be located 3½- 4 miles away, in a location where wilderness is better buffered from an increase in cattle use in this section by intervening topography. No additional impacts to wilderness are anticipated from this outside development.

The spring and pipeline developments (5053) at Lower Centennial Spring would remain and are proposed for repair, with the pipeline extended outside wilderness to a more distant trough location. This would concentrate cattle impacts farther from the spring and riparian area, and farther outside wilderness. As the cistern, pipe, and trough are located less than a tenth of a mile inside of the wilderness area and the work would not require use of a road or motor vehicles, or motorized equipment, impacts from this work are anticipated to be light and temporary in nature. The benefits to wilderness would outweigh the losses.

The Centennial Canyon drainage which contains both springs will need to be monitored. It is narrow and steep-walled. If retiring the developments at the upper springs and relocating the trough at the lower springs do not deter cattle from using this drainage, some type of gap fencing may need to be installed along the wilderness boundary across the mouth of the canyon to keep cattle out of these important spring areas.

Proposed Mitigation: Water may need to be turned off at watering facilities close to the wilderness boundary to move cattle off sensitive areas (such as Joshua Flats or Centennial Canyon) if cattle use damages resources and undermines wilderness character and values. A new drift fence may need to be built across the mouth of Centennial Canyon to prevent cattle from drifting into and using the sensitive spring, riparian, and cultural sites at Lower and Upper Centennial springs. An alternative watering site to the stock pond in Lower Cactus Flat may need to be developed to avoid unacceptable impacts to the wilderness area there.

c. Impacts of No Grazing

The impacts of no grazing on wilderness would be to improve naturalness, untrammeledness, aesthetic and scenic qualities, specific adversely-affected resources, and opportunities for quality primitive and unconfined recreational experiences.

Lands with Wilderness Characteristics. BLM has a responsibility under Section 201 and 202 of FLPMA to maintain updated inventories for lands with wilderness characteristics (LWCs) and to consider protection of and impacts to this resource in project and RMP level planning (Instruction Memorandum No. 2011-154).

Section 201 requires BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values. The inventory requirement includes maintaining information regarding wilderness characteristics.

Section 202 of FLPMA requires BLM to rely on resource inventories in the development and revision of land use plans, including inventory information regarding the wilderness characteristics.

BLM Manual 6320 provides instructions on how to consider LWCs in BLM land use planning. Specifically, BLM must analyze the effects of (1) plan alternatives on LWCs, and (2) management of LWCs on other resources and resource uses.

1. Affected Environment

The original WIU #CDCA 131 was huge, extending 40 miles north to south. In 1994, the California Desert Protection Act designated 49,296 acres of wilderness within the original WIU #CDCA 131. The new Coso Range Wilderness encompassed all of the 26,486 acres previously determined to have wilderness character and an additional 22,810 acres more. Wilderness inventories were completed in July 2010 and in March 2012 per BLM IM-2011-154/Manuals 6310 & 6320. These inventories looked at two former WSAs, WIU #CDCA 133 (Lava Domes) and WIU #CDCA 131 (Coso), in response to the proposed Haiwee Geothermal Leasing Area. The inventories resulted in the following findings:

(1) WIU #CDCA 133 (Lava Domes) does not qualify as an LWC due to insufficient size. This unit is bounded and isolated on all sides by wilderness inventory roads: Gill Station Road, SE435, SE432, and SE433. The unit's small size (2560 acres) does not make practical its preservation and use in an unimpaired condition.
(2) WIU #CDCA 131 (Coso) contains areas that qualify as LWCs and areas that do not qualify. The more heavily-disturbed lands north of Coso Junction between Highway 395 and an unnamed mountain range did not qualify. The part of Cactus Flat between the Coso Wilderness and Cactus Flat road also did not qualify as so much of it was found to be compromised by the intensity of the road network (the hub of intersecting jeep trails) there.
(3) The area that qualified was subsequently identified as WIU #CDCA 131-1. This unit encompasses most of the rugged mountains between Highway 395 and the Coso Range Wilderness, all of McCloud Flat, and the remaining area of Cactus Flat extending west of Cactus Flat Road (SE756). The Cactus /McCloud/west of Cactus Flat pasture extends over much of this area.

2. Environmental Consequences

None of the grazing alternatives will have an appreciable effect on lands with wilderness characteristics in the area. This is true for the following reasons:

1. Grazing is a non-conforming but acceptable use within wilderness (Section 4, Special Provisions (D)(4), Wilderness Act of 1964.) Cattle grazing in itself, even an increase in cattle grazing, within acceptable resource constraints, would not undermine the area's wilderness

character with respect to size, naturalness, opportunities for solitude and primitive and unconfined recreation, or supplemental values.

2. The proposed action does not include any potentially disqualifying actions. BLM is not proposing to construct new roads or permanent facilities or installations within potentially eligible areas. Instead, BLM is proposing to use several existing water haul sites and to add one more off of the existing vehicle route network. Water haul sites are not permanent installations.

BLM is proposing to build 3 short drift fences. These could be considered "permanent," but they are very short (less than ¼ mile each) and are located along the BLM/NAWs boundary, i.e., on the periphery of the eligible unit.

For these reasons, the proposed action and all alternatives are considered to have a No Effect on Lands with Wilderness Characteristics.

U. WILD HORSES AND BURROS

1. Affected Environment

Management of wild, free-roaming horses and burros on federal lands was authorized by Congress on December 15, 1971, by the Wild Free – Roaming Horses and Burros Act (PL 92-195; 16 U.S.C. 1331-1340) (Act), as amended, by the FLPMA of 1976 (PL 94-579) and the Public Rangelands Improvement Act of 1978 (PL 95-514). The regulations found at 43 CFR Part 4700 and Part 4700 of the BLM Manual prescribe the authorities, objectives, and policies that guide the protection, management, control, and disposition of wild free-roaming horses and burros in accordance with the Act.

The areas where wild horses and burros were known to exist in the California Desert District (CDD) at the time of the passage of the Wild Horse and Burro Act are addressed in the 1980 California Desert Conservation Area (CDCA) Plan. The CDCA Plan identified the Centennial Herd Area (HA) and two Herd Management Areas (HMAs) which are adjacent and within the proposed L-C-M Allotment. There is approximately 1,030,357 acres in the HA which includes: 619,162 acres China Lake NAWS; 351,675 acres BLM; 36,480 acres private; and 15,680 acres State lands. The Death Valley National Park administered by the National Park Service, acquired approximately 7,360 acres of the HA through the 1994 California Desert Protection Act.

The CDCA Plan identified two HMAs within the Centennial HA. One is for the management of wild horses and the other is for the management of burros.

The Centennial HMA for wild horses comprises approximately 318,468 acres which includes 232,897 acres China Lake NAWS; 71,369 acres BLM; 9,121 acres private; and 5,081 acres State lands. The CDCA Plan established the appropriate management level (AML) at 168 wild horses, based on the allocation of 2020 AUMs and that a single horse consumes 1 AUM. The 2008 and 2010 aerial census counted 254 and 459 wild horses, respectively. Based on the census data, approximately 95 percent of the lands utilized by the wild horses are within the

China Lake NAWS. The census data indicates there is approximately 55-60 head of wild horses utilizing lands along the boundary of the Navy and BLM lands, which would have the potential to be in the existing L-C-M Allotment any time throughout the year. The level of use by the wild horse population with in the current L-C-M Allotment is very low. It is suspected the lack of perennial water in the area has not been conducive for the wild horses to inhabit this area.

The 1981 Amendment 24 to the CDCA plan, deleted the Centennial HMA for burros, because of the conflicts that they were imposing on the Naval Air Weapons Station. Historically, the Centennial burro HMA comprised of approximately 665,366 acres with 80 percent of the HMA within the China Lake NAWS. The CDCA Plan established the AML at 1,137 burros, based on the allocation of 9,551 AUMs and that a single burro consumes 0.7 of an AUM. Current population estimate for the Centennial HA is 120 burros. No burros were sighted during the 2008 and 2010 aerial census in the proximity of the L-C-M Allotment. There is a known population of approximately 30 burros in the Darwin Hills area, most eastern boundary of the L-C-M Allotment.

The 1994 California Desert Protection Act, Public Law 103-433-October 31, 1994, Section 805(g)(4) assigned the Secretary of Navy responsibility for the management of wild horses and burros located on the NAWS China Lake lands. This is approximately 80 percent of the Centennial HMA and approximately 95 percent of the wild horses home range. The remaining 20 percent of the HMA on BLM lands supports approximately 5 percent of the wild horse use.

The 2005 NAWS/China Lake Wild Horse and Burro Management Plan identified the goals and objectives for wild horses and burros residing within the China Lake NAWS. It identified that it will retain the HMA for wild horses at an AML of 168 animals and would continue to implement the total removal of burros from China Lake NAWS administered lands.

The China Lake NAWS is currently updating their management plan and evaluating the wild horse AML in relation to habitat, costs, reproductive rates, genetic viability, and the development of a 3 - 5 year gather plan strategy.

Upper Centennial Spring is a water source for wild horses. The site was visited on December 15, 2010. There was surface water in the drainage. The range improvement (pipeline and trough) was not functional.

2. Environmental Consequences

a. Impacts of Proposed Action – Alternative A

The current wild horse use level in the area where the proposed cattle grazing would occur is very low. The census data indicates there is approximately 3-10 wild horses utilizing lands along the boundary of the Navy and BLM lands which they would have the potential to be within the proposed L-C-M Allotment any time throughout the year. There would be no adverse impacts to wild horses. The majority of the wild horse use occurs within China Lake NAWS.

Range improvements 5342, 5357, 5384-2 and 3 would provide water for cattle which may attract some wild horses and burros into the area and allow them to stay for the duration of the grazing season. Due to the overlapping dietary needs from both classes of animals, the wild horses may contribute to reducing the grazing season if the thresholds for utilization levels on the key forage species are met.

The impacts of the proposed fencing projects at Upper Cactus Flat is that there is a slight potential the proposed drift fences could impede wild horse and burro travel, but would not restrict their ability to move between BLM and NAWS lands in the general area, due to the many areas along NAWS northern/western boundary which are not fenced.

The grazing season does occur during periods when the NAWS and BLM may conduct wild horse and burro removals utilizing the helicopter assisted gather methods. However, most of all the gather activity is conducted within the boundaries of NAWS. If it is determined that removals are necessary on BLM administered lands, it may require that if horses or burros are intermingled with some cattle, that these animals would need to be separated from the group, temporarily hazing the cattle. It is not anticipated there would any negative impacts to the cattle or gather operations.

No impacts would be expected to the wild horses and burros utilizing Upper Centennial Spring with any proposed dismantling of any part of the range improvements at the site.

b. Impacts of Alternative B

The current wild horse and burro use level in the area where the proposed cattle grazing would occur is low. The census data indicates there are approximately 45-50 wild horses utilizing lands along the boundary of the Navy and BLM lands which they would have the potential to be within the proposed L-C-M Allotment any time throughout the year. The burros found in Darwin Hills, the most eastern edge of the L-C-M Allotment, typically move northward and eastward through the Darwin Wash area and into the Argus Mountain Range. There would be no adverse impacts to wild horses or burros. The majority of the wild horse use occurs within the China Lake NAWS.

Range improvements 5342, 5357, 5383-1 and 2, 5384-2 and 3 would provide water for cattle which may attract some wild horses and burros into the area and allow them to stay for the duration of the grazing season. Due to the overlapping dietary needs from both classes of animals, the wild horses may contribute to reducing the grazing season if the thresholds of utilization levels on the key forage species are met.

The Lower Centennial Spring Reconstruction, Pipeline Extension, Tank & Trough Range Improvement (#5053) would increase the amount of water for wild horses and burros due to the removal of the tamarisk around the spring which would increase the potential for surface water and the yearlong water at the trough site. The increased availability of water may increase the wild horse and burro use in the area. This may lead to increased use on the key forage species throughout the year, which may affect the duration of the grazing season for cattle when the PUF for the key species are reached. If for some reason the tank should fail to provide water outside the grazing season, the wild horses or burros would utilize any surface

water at Black Rock, Lower and Upper Centennial Springs or move back onto the spring sources located on China Lake NAWS.

The impacts of the proposed China Lake NAWS boundary fencing projects are that there is a slight potential the proposed drift fences could impede wild horse and burro travel, but would not restrict their ability to move between BLM and NAWS lands, due to the many areas along NAWS northern/western boundary which are not fenced.

The grazing season does occur during periods when the NAWS and BLM conducts wild horse and burro removals utilizing the helicopter assisted gather methods. However, most of all the gather activity is conducted within the boundaries of NAWS. If it is determined that removals are necessary on BLM administered lands, it may require that if horses are intermingled with some cattle, that these horses would need to be separated from the group, temporarily hazing the cattle. It is not anticipated there would any negative impacts to the cattle or gather operations.

No impacts would be expected to the wild horses and burros utilizing Upper Centennial Spring with any proposed dismantling of any part of the range improvements at the site.

c. Impacts of the No Grazing

Reduce any potential for forage competition from the dietary overlap between cattle and wild horses within the L-C-M Allotment.

The proposed fence range improvements would not be implemented reducing any impacts by restricting wild horse and burro movements between BLM and NAWS administered lands.

The proposed water improvements would not be implemented, limiting the wild horses and burros to the existing waters available.

V. WILDLIFE

1. Affected Environment

Key forage species used by both wildlife and cattle include *Graya spinosa* (Hopsage), *Krascheninnikovia lanata* (Winterfat), *Ephedra nevadensis* (Mormon Tea), *Artemesia spinescens* (Bud-sage), *Atriplex canescens* (4-winged saltbush), *Elymus elymoides ssp. elymoides* (Wild Rye), Indian ricegrass (*Achnatherum (Oryzopsis) hymenoides*), and *Sitanion hystrix* (Squirreltail).

Small mammals- Rodent and rabbit populations fluctuate greatly depending on climate but can be affected by overgrazing. Some bat species occur in the area. The pallid bat (Antrozous pallidus), a BLM special status species, has been recorded at "Dirty Socks" near the northwest edge of the allotment. Bats may also occur near Black Spring and Upper and Lower Centennial Spring. Bats often forage over water where insects are abundant. Sufficient vegetation is required to provide the diversity of invertebrates that comprise the bats' diets.

Large mammals and "game" animals - Historically, mule deer have used the allotment, but most of their range has been on NAWS, with only small areas of habitat in the Argus Range and near Coso Peak. With the large reductions in the burro herd on NAWS, the deer population could increase. Desert Bighorn Sheep (*Ovis canadensis nelsoni*) occur in the Argus Range on lands that used to be in the BLM allotment but are now on China Lake NAWS. The LCM allotment does not have bighorn sheep habitat. Bighorns prefer extensive rugged, rocky areas where they can easily escape predators. Bobcats and coyotes are scattered sparsely over the allotment. Big and small game animals are hunted under CDFG regulations. The main species of upland game birds are California quail, chukar, and mourning dove. These species are mainly ground- nesting birds, so cattle could potentially crush their nests. However, nests are normally built hidden from predators, allowing some protection. These mammal and bird populations fluctuate with the weather. Rainfall influences vegetative forage production on which the prey of larger wildlife species depend. Large mammals and game birds are affected by factors that affect their food supply.

Bird species –Raptors, as a group, use the upland primarily for hunting prey. They require a vegetative community that produces abundant rodents, rabbits, reptiles, and other prey. Raptors that use the allotment include Cooper's Hawk (*Accipiter cooperii*), Golden Eagle (*Aquila chrysaetos*), and Prairie Falcon (*Falco mexicanus*), and Sharp-shinned Hawk (*Accipiter striatus*). Leconte's Thrasher (*Toxostoma lecontei*), Loggerhead Shrike (*Lanius ludovicianus*) are among the upland bird species in the allotment. Riparian bird species use the vegetation at Lower Centennial and Black Springs. Several bird species use these Black Spring during migration. A variety of bird species nest on the allotment, including sage sparrow, black-throated sparrow, Le Conte's thrasher, and cactus wren.

Reptiles - The allotment is within the range of a variety of lizard species. No special status species of lizards have been documented in the allotment.

Aquatic Invertebrates- These species require high water quality with a suitable substrate for feeding and reproduction. Aquatic invertebrates could occur at both Black and Lower Centennial Springs when there is open water. Several bird and bat species depend on the adult stages of aquatic invertebrates.

2. Environmental Consequences

For impacts to species using riparian habitat, see the section of this EA entitled "WETLANDS/RIPARIAN ZONES". For impacts to Mohave Ground Squirrel, see section on "THREATENED AND ENDANGERED WILDLIFE SPECIES".

a. Impacts of Alternative A – Proposed Action

The Proposed Action involves a one (1) pasture grazing system in which the Cactus Flat/McCloud Flat pasture would be grazed from December through March each year. This pasture system allows utilization of the range during the winter or dormant season. Cattle would be well-distributed because water haul sites would be used in conjunction with earthen water catchments to rotate cattle to specific areas within the use area at different times during the grazing season rather than over-utilizing the forage throughout the use area. These range improvements are situated to prevent over-grazing and to maintain healthy wildlife habitats. BLM would continue to monitor livestock use. Utilization levels would be set at 40% for

winterfat and four-winged saltbush and at 30% for spiny hopsage, important shrub species for wildlife. These utilization levels would ensure that 60% and 70%, respectively, of new growth would be available for wildlife. These utilization thresholds would prevent overgrazing and would maintain forage species in healthy condition. No riparian areas exist in the portion of the L-C-M allotment that would be grazed under the Proposed Action. Therefore, riparian species would not be impacted by the Proposed Action. Habitats for upland species would be healthy since BLM would assess rangeland health and insure that health standards are being met.

The proposed drift fences will have a negligible impact on wildlife. The fences as described in the proposed action will be designed to allow the movement of small animals underneath, including tortoises, and, also, designed so deer will not become entangled in the top wire. Mitigation listed in the proposed action will be followed.

Small mammals - Since BLM would monitor utilization and the condition of the allotment, rabbits, rodents, bats, and other small mammals would not be adversely impacted.

Large mammals and "game" animals – These species (chukar, quail, bobcats, and coyotes) depend on healthy rangeland since rangeland conditions affect both seed and forage production, as well as prey abundance. BLM would monitor cattle utilization to prevent depletion of food sources used by wildlife species.

Bird and Reptile species –Habitats for upland bird species and reptile species would be healthy since BLM would assess rangeland health and insure that health standards are being met. Thus, the bird and reptile species would not be adversely impacted by the proposed grazing. The allotment is outside of the desert tortoise habitat designated in WMP. The area is north of the tortoise's range.

b. Impacts of Alternative B

Impacts of Alternative B are the same as those of the Proposed Action except that Alternative B involves grazing the Centennial Flat pasture of the allotment which has riparian areas. However, watering sites and range improvements would prevent adverse impacts to riparian habitats. Water would be piped to a trough away from the springs.

c. No Grazing

If grazing is eliminated, no adverse impacts would occur.

W. VEGETATION

1. Affected Environment

The L-C-M Allotment is located at the southwestern edge of the Great Basin Floristic Province as described in the *Jepson Manual, Higher Plants of California*. It is adjacent to the California Floristic Province and the Desert Floristic Province, which results in components from all three of these provinces occurring in the area. Most of the allotment supports what Sawyer and Keeler-Wolf in *A Manual of California Vegetation* describe as vegetation series (now called alliances) dominated by shrubs. These shrub series typically support an herbaceous layer that may include less than a dozen species of perennial grasses and forbs. This herbaceous layer

usually includes an extremely diverse number of annual forbs and several species of annual grasses. The riparian vegetation series are the most complex in that they can have multiple tree layers and an aquatic vegetation layer in addition to the shrub and herbaceous layers.
The L-C-M Allotment consists primarily of a series of basins and alluvial flats plus a number of volcanic mesas along the western and northern side of the Coso Mountains. These features are scattered at different elevations ranging from 3750 feet at Owens Lake to 7493 feet at Silver Peak just north of the NAWS boundary in the Coso Mountains. This has resulted in a range of different vegetation series in the area ranging from greasewood shrub and sand dunes (site of the Olancha Greasewood Unusual Plant Assemblage) in the north west corner of the allotment to pinyon-juniper woodlands at the higher elevations. Great basin species such as big sage (*Artemesia tridentata*), spiny menodora (*Menodora spinescens*), winter fat (*Kraschenninnikovia*(*Eurotia*) *lanata*), spiny hop sage(*Grayia spinosa*), shadscale (*Atriplex confertiafolia*) and bud sage (*Artemesia spinescens*) are common species in the allotment.

Grazing tends to occur at the intermediate elevations in the allotment. Seven upland health assessments have been conducted, and sixteen different vegetation series have been identified within the LCM Allotment. Thirty-six species of perennial plants were encountered in the seven upland transects, andthe number of perennial plant species found at individual sample sites ranged from 11 to 21, while the mean number of perennial species was 14.6.. None of the sites were rated as low diversity, three as medium and four as high diversity.Twelve species were present at over 50% of the sample sites: goldenhead (*Acamptopappus sphaerocephalus),* bud sage (*Artemesia spinescens*), fourwing saltbrush (*Atriplex canescens*), Nevada Joint Fir (*Ephedra nevadensis*), Spiny Hop-Sage (*Grayia spinosa*), Cooper Goldenbush *(Ericameria cooperi Var. cooperi*), cheese bush (*Hymenoclea salsola*), winterfat (*Kraschenninnikovia(Eurotia) lanata*), Cooper's thornbush *(Lycium cooperii*), Silver cholla (*Opuntia echinocarpa*), Joshua tree (*Yucca brevifolia*), Indian ricegrass *(Achnatherum (Oryzopsis) hymenodies*). Additionally data from the Haiwee, CA weather station show little change in either temperature or precipitation trends over the last 85 years. As a result, climate change would likely result in little vegetation change over the next ten years within the LCM Allotment.
Most plants in the allotment are growing-renewable resources which can tolerate some level of use on a sustained basis. Annual (ephemeral) plant species are the most tolerant of grazing. They will continue to thrive as long as they have been allowed to set seed and the site has not been unduly modified. Many of the annuals can be completely consumed once the seed has dropped. The perennial plants have different needs that make them more susceptible to grazing. Much of the perennial plant's production is directed at maintenance of energy reserves which are necessary to sustain future years' initial growth and flowering, while the production of seeds is of secondary importance. This means that perennial plants need to maintain an adequate level of photosynthetic processes through the year until they go dormant. The amount of material that can sustainably be removed from a plant depends upon the species, the time of year, overall health of the plant and growing conditions (soil moisture and nutrients), and is referred to as the proper use factor (PUF). Each species has its own PUF,which is expressed as a percent of the current year's growth. These can range from 10% or less for some shrub species up to 50% for some grass species. These PUFs were developed for years with average rainfall and should be considered excessive in draught years.

The CDCA Plan outlines specific PUFs and states that exceeding the PUFs would result in the alteration of grazing paterns or the removal of livestock from that grazing area. Historically, the vast majority of grazing activity on the current L-C-M Allotment has been light (< 30% utilization). The West Mojave Plan establishes proper use factors for different plant assemblages, including a 40% threshold for Mojave/Sonoran Desert Scrub assemblages and 35% for Salt Desert Shrub assemblages When there is a difference in PUFs between the CDCA and West Mojave Plans, the lower value PUF will be used.

The California Desert Conservation Area Plan and Environmental Impact Statement addressed cattle grazing in the L-C-M Allotment. Among the grazing issues addressed was the estimated forage production, allocations of forage, and limits on grazing use (proper use factors). The CDCA Plan rated the carrying capacity for the L-C-M Allotment at 19 acres per AUM. Past monitoring and observations noted large numbers of Wild Horse and Burro used the allotment and had made very heavy use. The CDCA Plan originally allocated nearly 7,000 AUMs to Wild Horse and Burro use prior to a plan amendment which removed the heard management areas (see Wild Horse and Burro section). Currently most of the animals have been removed, but animals continue to drift off the NAWS and are a continuing concern at some sites which could be shared with cattle.

The sites for the proposed drift/boundary fences at Upper Cactus Flat have no known special status plant species and none have been found at the sites.

2. Environmental Consequences

a. Impacts Alternative A – the Proposed Action

The vegetation removed by grazing is renewable on a sustained basis at moderate grazing levels. Proposed livestock use levels are very low and use would be very dispersed. The proposed stocking rate is over 50 acres per AUM. Based upon the CDCA Plan carrying capacity estimates of 19 acres per AUM, the Cactus Flat-McCloud Flat area would produce approximately 2,200 AUMs. Alternative A proposes to graze a total of only 790 AUMs within a single grazing seasons. Monitoring would continue to evaluate utilization and stocking rates,and if modifications are required, they will be made. Under this alternative, cattle would avoid any grazing during the critical growing season, and therefore be consuming dormant vegetation. The most recent rangeland health determination concluded that the allotment met health standards, and under Alternative A, the allotment would continue to meet standards. Existing improvements currently occupy about 4 acres in the Proposed Action area, and maintenance of existing range improvements would cause very little impact to vegetation.

The construction of the drift/boundary fences at Upper Cactus Flat may cause some vegetation to be trimmed back but plants will not be removed (see T & E Species section). Impacts will be minimal. Disturbance to plants will be minimal because specific fence sites are in rocky habitats that do not support much vegetation.

b. Impacts of Alternative B

Impacts to vegetation would be similar to the Proposed Action. Fewer AUMs would be allocated over an area twice the area. Stocking rates and impacts for the Proposed Alternative B area would be lower (108--141 acres per AUM). Unlike Alternative A, cattle would graze portions of the allotment during the growing season. Due to the very low stocking rate and the rotation of animals, there should not be any adverse impacts to vegetation from this alternative. The various range improvements within Alt B occupy approximately 13 acres. The maintenance of range improvements would affect very small areas for very short periods of time and have no appreciable impact to vegetation. The proposed range improvements would consist of 2 acres of new disturbance at haul water sites. Impacts at these sites would be restricted to the initial construction and to several entries during the grazing season to haul water. The reconstruction at Black and Lower Centennial Springs would predominantly use previously disturbed areas in washes.

c. Impacts of No Grazing
No annual or perennial vegetation would be trampled or removed by cattle. There would not be any expected large scale changes in vegetation composition. Both cover and vigor of key species and standing biomass levels could increase due to the removal of grazing.

X. CUMULATIVE IMPACTS

There are a number of cumulative resource disturbing activities in the western Mojave Desert. Many of these are documented in the West Mojave Plan (USDI BLM 2005a) and are incorporated by reference. These include paved and unpaved roads, OHV activities, mining, rights-of-ways, residential and commercial development, military activities and livestock grazing. The roads, mining, rights-of-ways and development activities tend to be permanent dedication of sites and constitute a total loss of the site productivity. OHV activities can be short duration, but are generally repeated throughout the year. Military activities currently occur at major ranges in the region including the Navy's China Lake and Mojave B ranges, the Air Force Edwards AFB and the Army at Fort Irwin.

Historically most of the area was used by the military during WW2 and additional bases existed at Mojave and Cuddeback. Mining in the area dates back to the late 1800s and continues to today. Impacts to resources are the obvious mine spoils, open shafts, pits and buildings. This allotment has seen over 130 years of grazing. In the 60 years prior to the Taylor Grazing Act (1934), large herds of cattle, sheep, horses and burros used the area with no regulation. Table 7 below described cumulative impacts associated with some resources found in the allotment.

Land use - → Resource	Alternative A	Alternative B	No Grazing	Paved Roads	Unpaved Roads	OHV	Mining	Rights of Ways	Military
Air Quality	Minimal Impact less than .01% of regional emissions no long term impact	Same as A	No impact	6.7% of regional PM10 emissions excluding Owens Lake	51% of Regional PM 10 emissions excluding Owens Lake	13% of regional emissions in 1990 excluding Owens Lake	9% of regional emissions excluding Owens Lake	Unknown*	Unknown *
Biological Soil Crusts	Minimal impact resource renewable at first rain.	Same as A	No impact	Paved roads are a total dedication of resources	unpaved roads are a total dedication of resources	separate from unpaved road travel use limited to existing routes and the Olancha Dunes open area	Casual use in / area also some Sand, clay and Gravel and pumice represent partial to total loss of habitat	major corridors along highway 190 which form northern and northeast boundary. total dedication of sites	
Invasive, Non-Native Species	Intense use sites favor some non-native invasive species Historic very heavy use Current use around	Same as A	Historic use sites will recover to resemble surroundi ng specie mix and densities Historic	Roadsides and associated maintenance are a major vector for introduction of new species	Roadsides and associated maintenanc e are a major vector for introduction of new species	Intense use sites favor some non-native invasive species	Intense use sites favor some non-native invasive species Constructio n equipment is a major vector for	Intense use sites favor some non-native invasive species Constructio n equipment is a major vector for introduction	

	25% of historic use		very heavy use Current use around 25% of historic use				introductio n and spread of new species	and spread of new species	
Soils	small surface disturbance especially in concentrati on areas	Same as A	none	Paved roads are a total dedication of resources	unpaved roads are a total dedication of resources and amount to approximat ely 1000 miles on BLM in allotments (1200acres)	separate from unpaved road travel use limited to Spangler Hills, Dove Springs and Jawbone Canyon Open Areas (69,000 acres)	Pumace and clay mining in area also some Sand and Gravel represent partial to total loss of habitat	major corridors through Cantil, Monolith, Boron, Bissel, Spangler, Rudnick and Hansen allotments total dedication of sites	
Land use - → Resource	Alternative A	Alternative B	No Grazing	Paved Roads	Unpaved Roads	OHV	Mining	Rights of Ways	Military
Special Status Plants Species – Lupinus magnificus &	None	Very Low potential	No potential	No paved roads - any new construction would require Environmen	Road maintenanc e and travel could cause impacts at NE edge of Haiwee	Very little OHV use in the area	No observed impacts from current mining	No observed impacts from current ROWs	None

Cymopterus ripleyi				tal Clearances	Reservoir				
Water Quality	None	Very Low potential	None	some from runoff	some from runoff and surface erosion also channeling water		Possible from toxics and erosion	Problems from poor drainage at a number of sites	problems with past hazmat dumping
Wetlands & Riparian Zones	None	Low potential	none	none	none	none	none	no impacts	noise
Wilderness	Smaller and/or more evenly distributed impacts to wilderness. Impacts would be less than what was occurring in 1994.		Improvement in wilderness character and values from no grazing.	N/A	N/A	Moderate impacts from ORV's trespassing into wilderness, particularly during hunting season.	Residual impacts from large ground disturbances caused by 2-3 inactive claypits straddling the wilderness boundary.	No ROWs exist inside wilderness.	Aircraft noise is a disturbance to wilderness character (naturalness) and values (solitude).
Wildlife, including T & E Species	Low potential	Same as A	none	none	Negligible	Very little OHV use in the area	Minor impacts from old mining	Power line right of way- minor impacts	Noise and potential of aircraft crashes damaging habitat
Vegetation	Moderate to renewable	Same as A	none Historic	total dedication of sites	total dedication of sites	Series of short duration	can result in long term total	can result in long term total	

	vegetation recovery in one growing season Historic very heavy use Current use around 25% of historic use		very heavy use Current use around 25% of historic use			uses that especially physically impact smaller plants repeatedly and can remove all vegetation at camping and staging areas	dedication of site	dedication of site	

Air Quality:

The cumulative effect area for air resources for the Proposed Action is the Coso Junction and the Owens Valley PM_{10} planning areas. The Owens Lake Bed is identified as the major source of PM10 emissions in the PM10 planning areas as it contributes over 99.9% of the regional PM10 emissions. The expected emission levels are within the levels in the attainment demonstrations in the SIPs and the cumulative NAAQS 24 hour and one year $PM_{2.5}$ and PM_{10} emission standards and the one and eight hour ozone emission standards and are not likely to result in or contribute to incidences where the National Ambient Air Quality Standards are exceeded.

Soil Crusts:

There are a number of soil disturbing activities in the allotment area. These include paved and unpaved roads, mining, rights-of-ways and livestock grazing. The roads and rights-of- tend to be permanent dedication of sites and constitute a total loss of the crustal community. Grazing activities are low intensity, short duration activities and allow for yearly recovery. Evidence indicates that the complex crust communities that exist in the area will continue with grazing and the allotments will continue to meet health standards for soil crusts.

Invasive non-native species

There are a number of activities that result in site modifications and/or are vectors to move invasive/non-native species in the region. Construction and road maintenance activities can disturb large areas and construction equipment is a well known carrier of seeds as it moves from infested areas to non infested area. The Ridgecrest Field Office Integrated Weed Management Plan includes a weed prevention section that addresses a number of prevention activities (BLM 2006b).

Soils

The existing grazing activities would contribute little to any soil losses occurring on a regional basis. Many of the existing grazing intense use sites have been used for many years. Most of the regional erosion problems come from poor drainage on and adjacent to roads and rights-of ways.

Special Status Plants

One special status plant occurs on the allotment, *Cymopterus ripleyi*. Cattle are very unlikely to be impact this species since they would not be in the vicinity of *Cymopterus ripleyi* because of the plants' distance from drinking water. A BLM biologist visited this area of the Ripley's Cymopterus population and saw no evidence of past cattle use. Human activities contribute very few cumulative impacts to this plant species within the allotment. However, vehicles and road maintenance could adversely impact *Cymopterus ripleyi* (CNDDB Occurrence #2) on a dirt road in the south western part of the allotment (CNDDB 2007). Allotment permit renewal does not contribute adverse impacts to Ripley's Cymopterus because cattle do not graze where the plants grow.

Water

There are a number of activities in the region which degrade water quality. Grazing represents only a very small portion of the non-point-source pollution in the watersheds. Other sources include paved and unpaved roads, rights-of-ways, mining and highway construction. Overall grazing would be cumulatively unnoticeable.

Vegetation

Grazing activities are short duration and allow for yearly recovery. Grazing consumes a portion of the renewable production and the rest and restrictions on use allow for recovery. Grazing is one of several land uses that result in impacts to vegetation. Nearly 1/3 of the renewable forage production is allocated to deer. Other impacting uses include paved and unpaved roads, rights-of-ways and mining which result in a total removal of vegetation from areas. The removal of grazing would still allow the other uses to continue to impact vegetation.

Cultural Resources

The degree of potential cumulative impacts and effects to cultural resources, to a large degree, depends upon which allotment is at issue. The size, location relative to the prehistoric and historic uses of it, along with other BLM approved uses within the allotment, including pending development applications, all factor into the cumulative determinations.

The combination of grazing with other on-going activities in the area, such as maintenance and use of State Highway 190, access roads associated with power transmission lines, along with day-use recreation and OHV activities within the area, is not at significant levels. Due to the limited and difficult nature of access to the allotment locale, there is currently little development interest or intentions regarding this area. Thus, the cumulative effects of the renewal of livestock grazing permits for the allotment would not be a significant issue.

Native American Concerns

There will be no cumulative impact effects to those areas, locations, and resources valued by Native American communities because there are minimal impacts and effects occurring presently. Grazing would not cause any increased impacts to these concerns.

Socio-Economic

The loss of grazing privileges by any one ranch is probably negligible to the local economy as a whole. Cumulative impacts would be felt in the community of Olancha, California however, not to a degree of significance.

Wetlands/Riparian

The riparian areas would not be affected by grazing because water would be piped away from the springs. Drought and flood would be the main contributors to cumulative impacts.

Wilderness
Cattle grazing would have some impact on wilderness character and values, but these impacts would be reduced and/or would be more evenly distributed from what they were at the time of designation. Specific sensitive resources (springs, riparian areas, and cultural sites) would benefit from removal of existing developments and/or new proposed range developments. The stock pond (5357) at Cactus Flat would remain available for cattle use, but would not be maintained. As a consequence, the road to the stock pond could be reclaimed and closed to the general public, preventing chronic vehicle trespass into the wilderness area.

Wildlife
Cattle-grazing would be a minor impact on upland and riparian species of wildlife since cattle would be distributed across the allotment through the use of watering sites. Drought would contribute to the cumulative impacts that affect wildlife. Desert climate tends to vary significantly from year to year. Burro and horse grazing are additional impacts. There are a few roads with very low traffic that pass through the allotment which decrease the habitat to a minor extent. Vehicles could kill some animals, but not enough to affect any of the wildlife populations.

4. CHAPTER 4 - CONSULTATION AND COORDINATION

Consultation, Cooperation, & Coordination

1. Interdisciplinary Team Members:

Sam T. Fitton, Interdisciplinary Team Coordinator & Grazing Management
Donald J. Storm, Cultural Resources, Native American Concerns
Jeff Gicklhorn, Soil, Air, & Water Resources, & Vegetation
Glenn Harris, Botany, Soil, Air & Water Resources, Vegetation & Grazing Management
Shelley Ellis, Wildlife Management, Riparian Management
Martha Dickes, Wilderness
Craig Beck, Recreation
Robert W. Pawelek, Resources Branch Chief

The BLM consulted with the following individuals, Federal, state and local agencies, tribes and non-BLM persons during the development of this environmental assessment.

2. Consultation, Coordination, and Cooperation (CCC)

Consultation, Coordination, and Cooperation with Affected Interests groups, Interested Public groups, and other Government Agencies has taken place from November 20, 2007 through the present in the September 2010. The Affected Interest groups consist of the prospective permittee, and the Navy (NAWS) who have both offered comments. Government agencies included the US Fish and Wildlife Service, the California Department of Fish & Game, the Lahontan RWQCB, and the California State Lands Commission. To date, only the CDF&G has responded in relation to potential impacts to the Mohave ground squirrel. BLM also consulted Phil Leitner, an expert on

the Mohave ground squirrel; he supplied recommendations on a monitoring schedule for plant utilization. Interested public groups to which the document was submitted included environmental groups and a few individuals. Initially, The Western Watersheds Project responded with comments. Native American tribes in the area have been contacted but have not responded. The Paiute Tribes of Lone Pine, Fort Independence, Big Pine, and Bishop, and the Timbisha Shoshone Tribe of Death Valley will be sent copies of the EA for the public comment period.

Consultation with the State Historic Preservation Officer regarding the range permit renewal process is accomplished pursuant to the procedures outlined in the *Supplement* to the *Protocol*. Grazing permit renewals have been scheduled for review in accordance with the *Supplement*. BLM Ridgecrest has submitted a schedule for the phased identification and evaluation of historic properties that might be threatened by continued grazing within the allotment. The Supplement provides a systematic long term management strategy to accomplish the identification and evaluation of cultural properties, as well as Standard Treatment Measures that may be utilized when BLM determines that significant historic properties would be affected by livestock grazing. In cases where BLM identifies that conflicts cannot be resolved, the BLM would consult with the California State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and the *Protocol*.

The *Supplement* applies to the renewal of grazing permit authorizations and existing range improvements. All proposed undertakings for range improvements or changes in management prescription would be reviewed for effects to cultural properties pursuant to procedures set forth in the in the *Protocol* and in accordance with Section 106 of the National Historic Preservation Act (NHPA).

BLM has consulted with five Native American Tribes regarding the proposed action. The Tribes include the Bishop Paiute Tribe, the Big Pine Paiute Tribe, the Fort Independence Paiute Tribe, the Lone Pine Paiute-Shoshone Tribe and Timbisha Shoshone Tribe. BLM requested comment on the proposed undertaking during November 2007, and invited the Tribes to consult under the *Executive Memorandum of April 29, 1994* (Government-to-Government Consultation) and other applicable laws and regulations. No tribes have requested to initiate consultation or have commented on this proposed action.

Below is listed the CCC with the permittee/lessees and other interested public that have been completed for this action.

Affected Interests:

Scoping Document sent November 20, 2007
NOPA sent December 20, 2007
Consultations with Anheuser Busch, Cabin Bar Ranch, & China Lake Naval Air Weapons Station, January and February 2009
EA sent out for comment, July 22, 2009
EA & proposed decision sent out for protest period, August 8, 2010
Protest period amended August 17, 2010

Protests received August 2010
Proposed Decision vacated, September 8, 2010
NOPA sent out, September 2010
EA sent out for comment, July 2011
Comments received, August 2011

Interested Public:

Scoping Document sent November 20, 2007
NOPA sent December 20, 2007
Comments received from Western Watersheds Project, January 14, 2008
EA sent out for comment, July 22, 2009
EA & proposed decision sent out for protest period, August 8, 2010
Protest period amended August 17, 2010
Protests received August 2010
Proposed Decision vacated, September 8, 2010
NOPA sent out, September 2010
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Protest period amended August 17, 2010
Protests received August 2010
Proposed Decision vacated, September 8, 2010
NOPA sent out, September 2010
EA sent out for comment, July 2011
Comments received, August 2011

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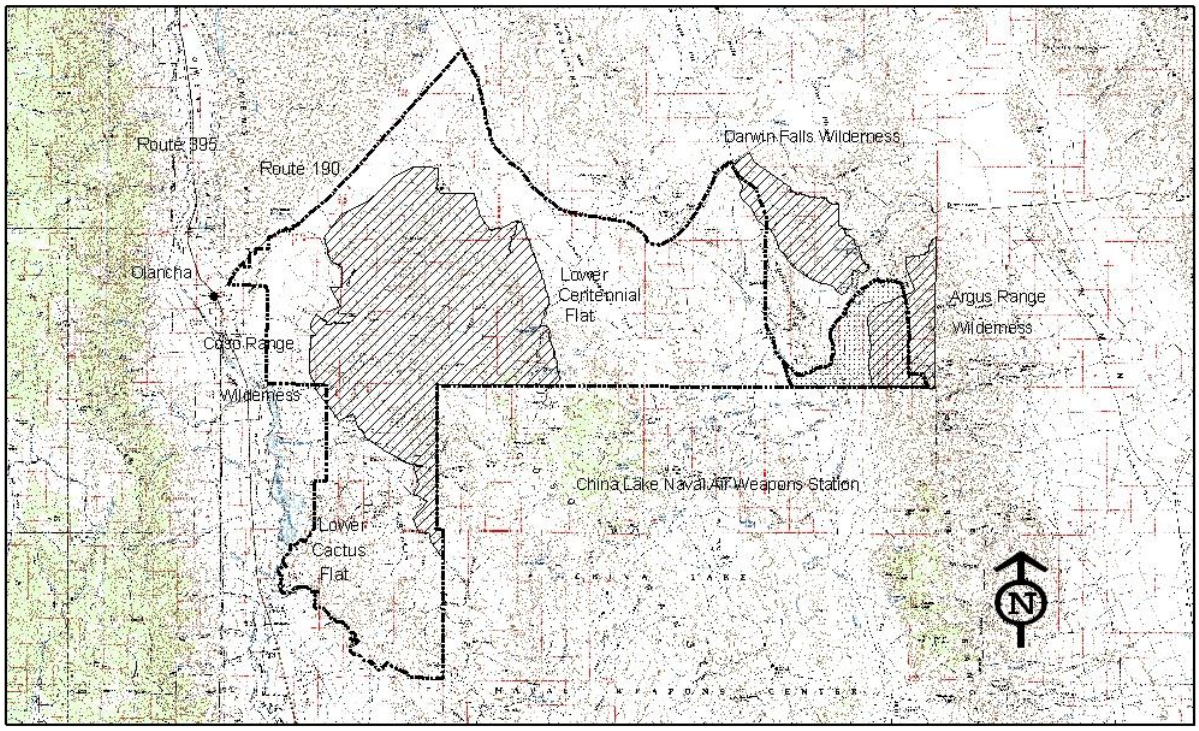
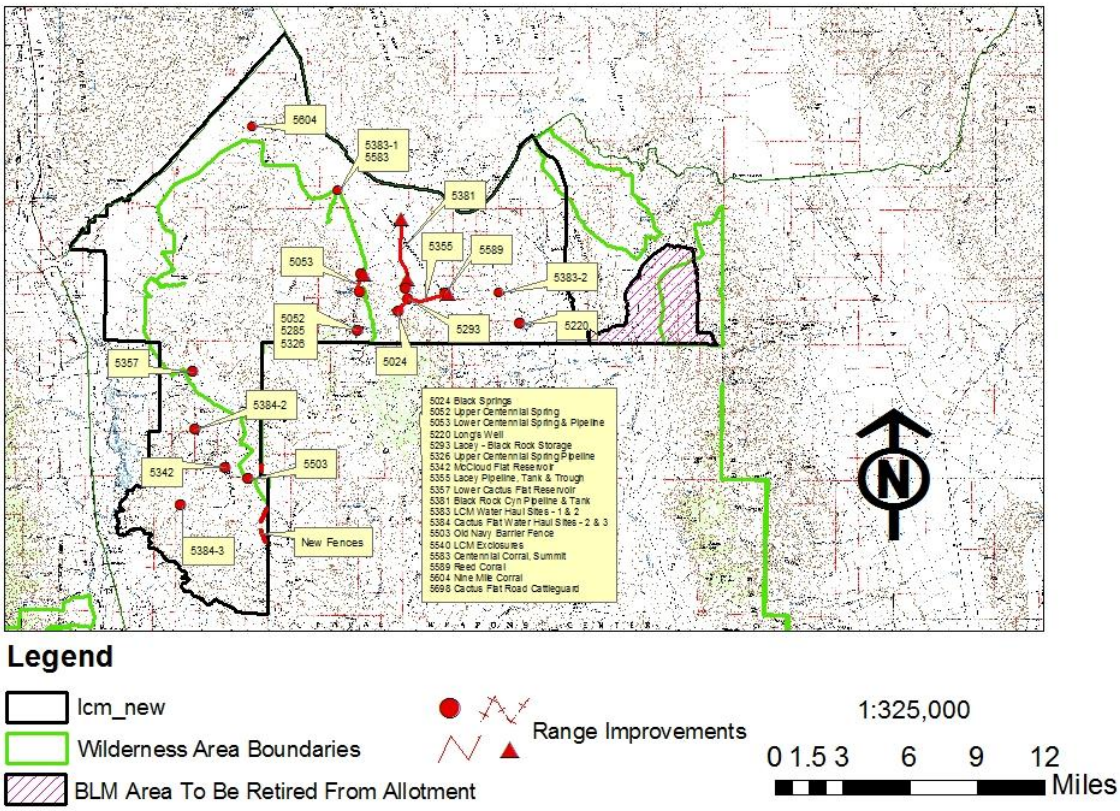
APPENDIX 1

ALLOTMENT MAPS

Lacey-Cactus-McCloud Allotment & Wilderness Areas



Lacey-Cactus-McCloud Allotment with Range Improvements



Legend

lcm_new

Wilderness Area Boundaries

BLM Area To Be Retired From Allotment

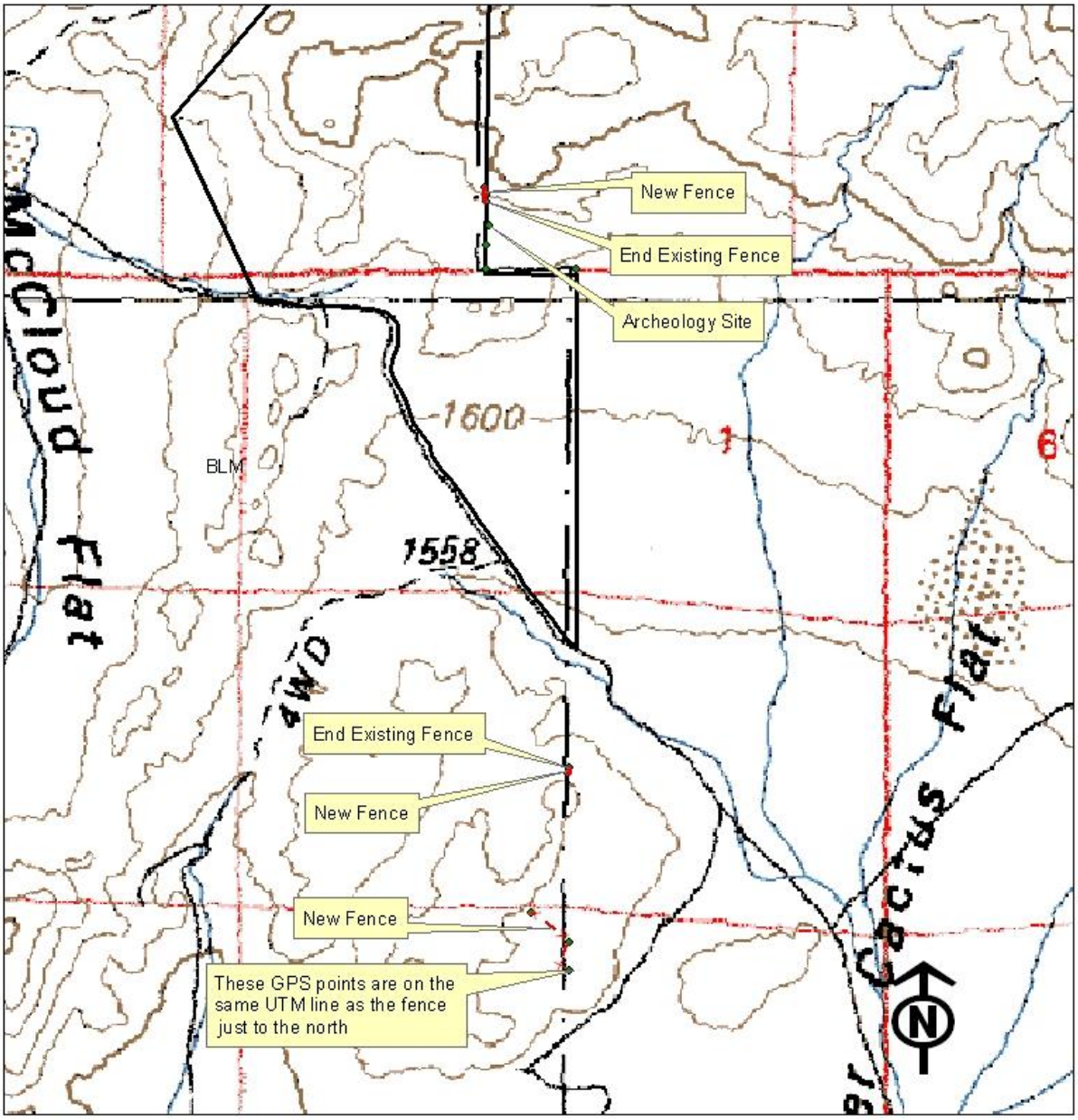
Range Improvements

1:325,000

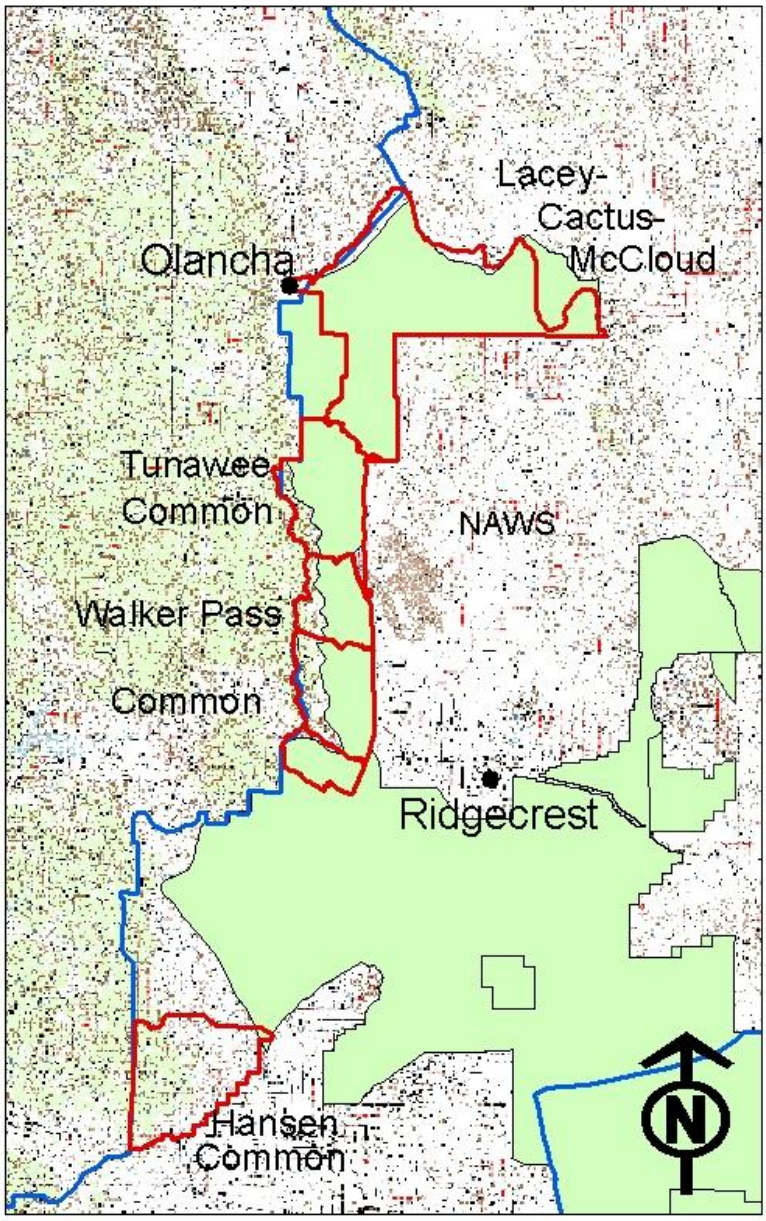
0 1.5 3 6 9 12

Miles

Upper Cactus Flat Fences



Mohave Ground Squirrel Range in
Relation to Allotments Assessed In 2008



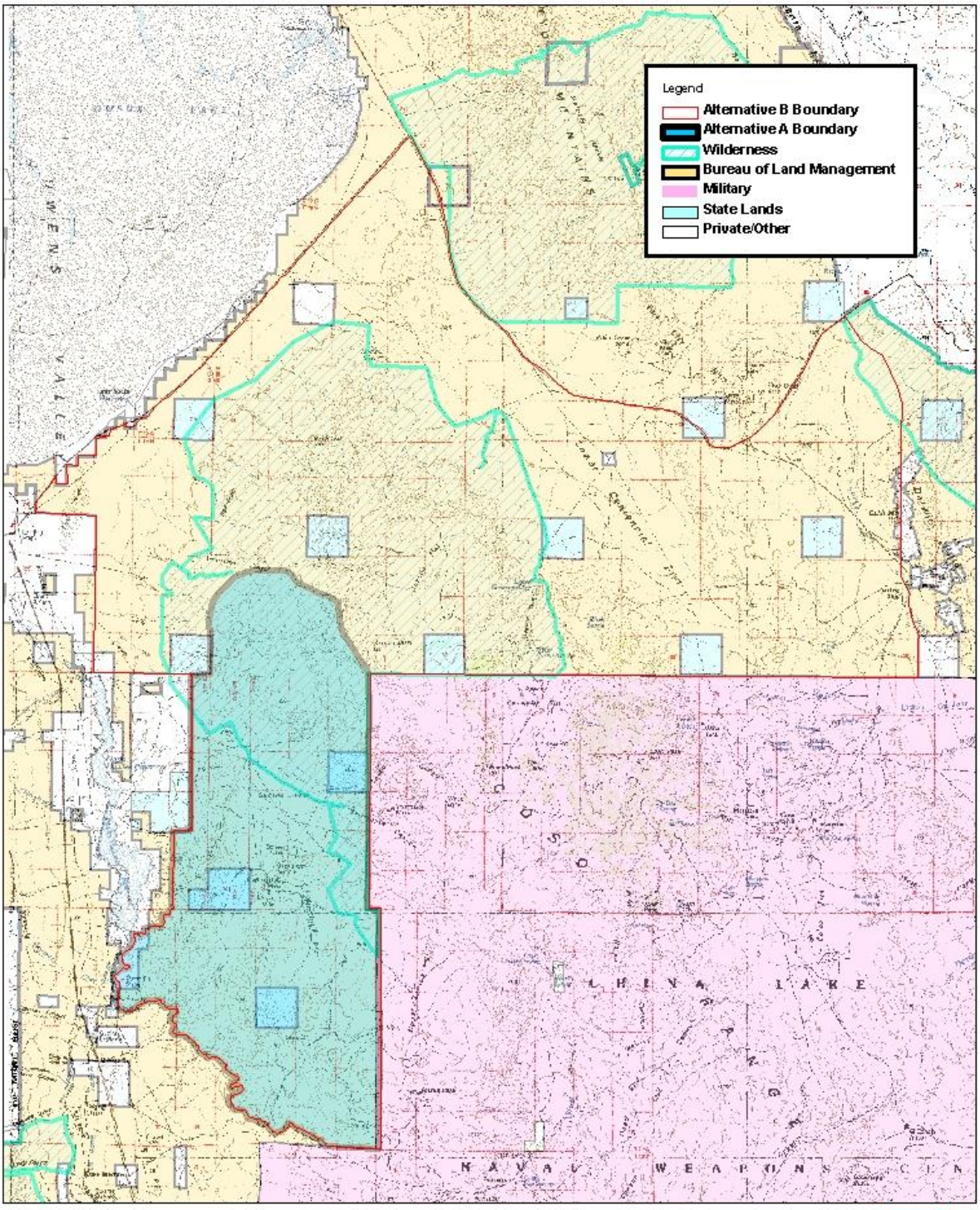
Allotment Boundaries

Mohave Ground Squirrel Range

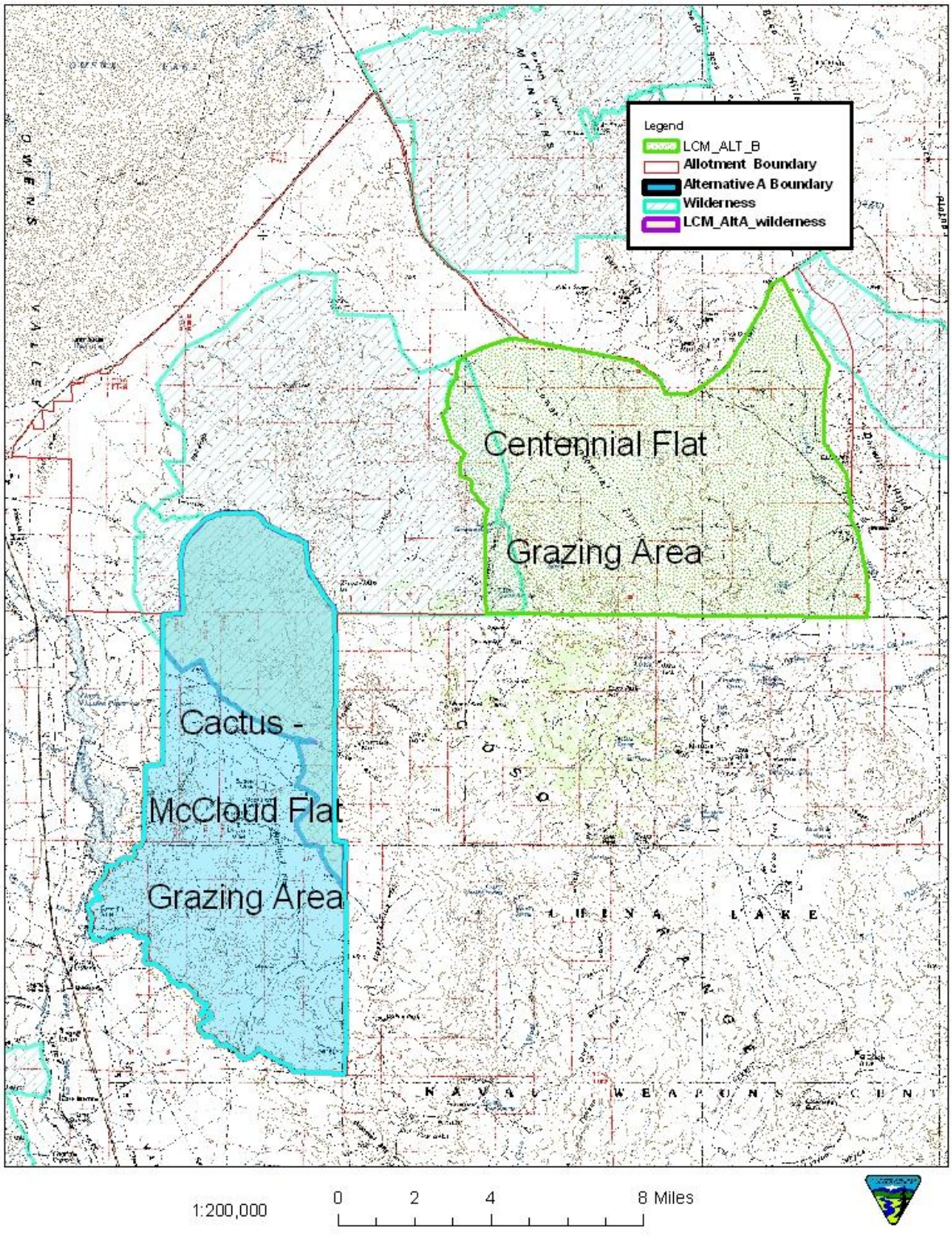
1:900,000

0 3 6 12 18 24
Miles

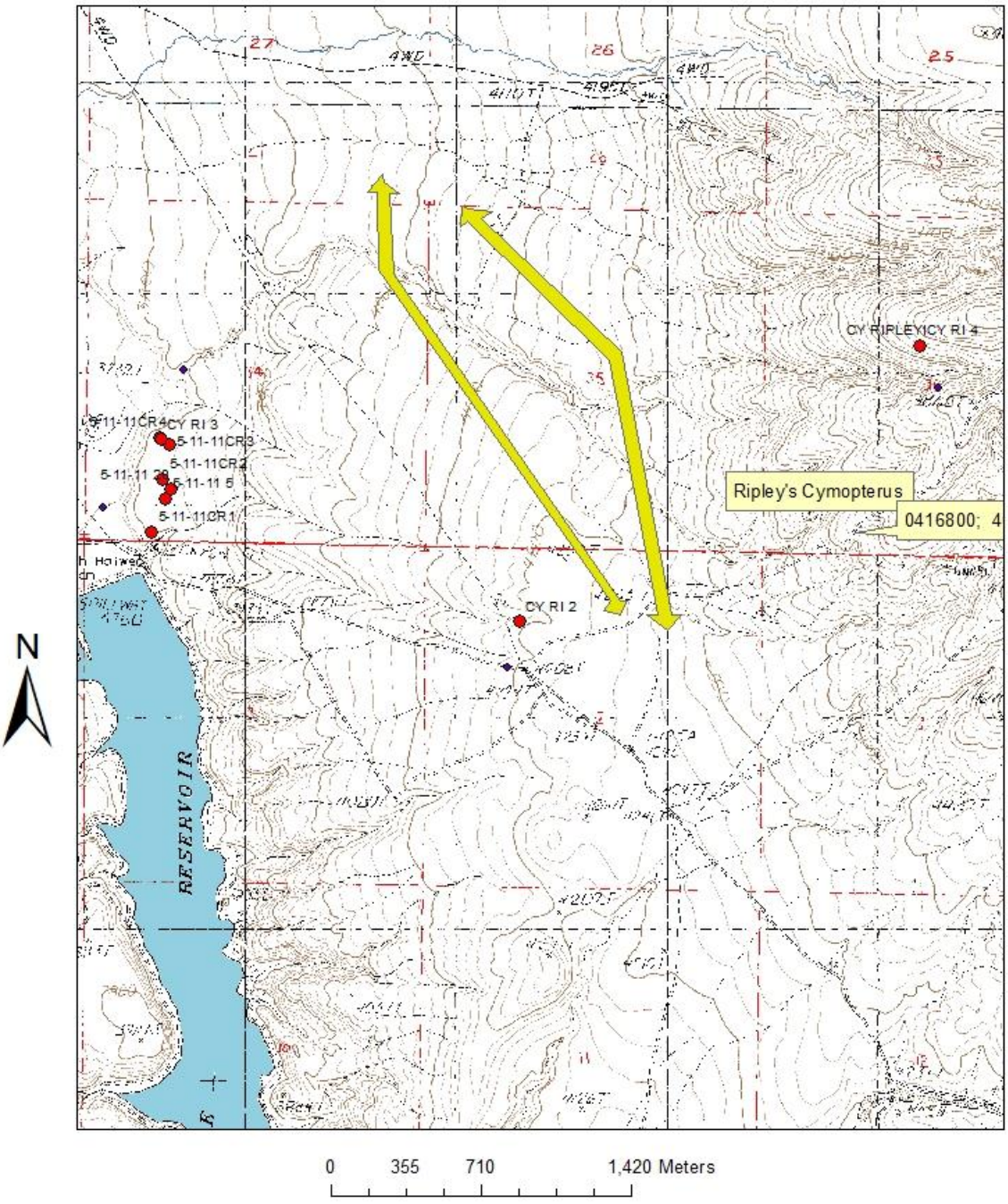
Lacey-Cactus-McCloud Allotment



L-C-M Allotment Alternative B Grazing Areas



Ripley's Cymopterus North of Haiwee Dam
May 24, 2011
With Trails to the Grazing Area



APPENDIX 2

DERIVATION of AUMs

Lacey-Cactus-McCloud (LCM) Allotment
Derivation of AUMs available for grazing

The California Desert Conservation Area (CDCA) Plan of 1980 established the area of the LCM Allotment at 421,172 acres. A subsequent correction to the plan moved an area in LCM to the Tunawee Allotment. The area switched was 5,618 acres. This left 415,554 acres in the LCM Allotment. The CDCA Plan and a subsequent adjustment of 280 AUMs established a carrying capacity of forage on the LCM Allotment of 23,307 Animal Unit Months (AUMs).

To understand the process of estimating the carrying capacity of the LCM allotment, an understanding of the terms , their definitions, and their relationships is important. The CDCA Plan and other documents discuss these terms and relationships. From the CDCA Plan we find that in a vegetation community the weight all of the above ground vegetation is called the total standing biomass. The CDCA Plan indicates that approximately 14% of that biomass is renewed each year and that is termed renewable production. It is recognized that only a portion of the total renewable production consists of species that livestock would consume. Further, we know that only a portion of the production can be utilized by livestock on a sustained yield basis. This sustained yield and livestock forage preferences is the basis of the proper-use factors. The proper-use factor is a species-by-species list of forage species with the amount of the current year's growth (renewable production) that can be safely removed. When the renewable production, the livestock forage preferences and the proper-use factors are combined, the renewable livestock forage production is derived. According to the CDCA Plan, this renewable livestock forage production represents approximately 1% of the total standing biomass and less than 10% of the renewable production. From the total renewable livestock forage production value, various allocations such as wildlife, wild horses and burros and other resource needs are subtracted. This results in the available livestock forage production. The total standing biomass and the renewable production are expressed in weight while the remaining figures can be expressed in weight or AUMs (Animal Unit Months). An AUM is the amount of dry forage that is consumed by an adult cow and its calf in one month. This weight is defined in the CDCA Plan as 450 kilograms or 990 pounds of forage. A forage allocation is the maximum amount of the available livestock forage that BLM would allocate to livestock use. Such factors as grazing preference, demand, slope, distance to water, operator needs and restriction such as wilderness are considered in the allocation. On an annual basis the allocation could be restricted due to such factors as animal movement, weather conditions and vegetation responses. Active monitoring of the allotment and weather conditions are considered in any yearly adjustments deemed necessary.

The numbers presented from the CDCA Plan used the landsat data and is referenced as the Landsat technique. The Landsat technique is actually a multispectral-multi-stage technique. With this technique, Landsat images of the CDCA were collected and analyzed to produce a classification that represented vegetation reflection classes. Large scale (1:1000) air photos and ground transects were acquired then analyzed to generate regional data on species and production by spectral class. When the data sets were combined along with allotment boundaries, BLM was able to generate information on renewable production and renewable livestock forage production by allotment. As noted in the EA, the CDCA Plan shows the original allotment as having 415,554 acres. Based on the CDCA Plan, that used the Landsat data, a renewable livestock forage production of 23,307

AUMs was obtained for the original L-C-M Allotment. This calculates out to 17.8 acres per AUM. As noted in the EA, other allotments in the area were rated at 20 acres per AUM (Olancha Common Allotment, just west of the L-C-M Allotment) and 24 acres per AUM (Tunawee Common Allotment, just south of the L-C-M Allotment) by the CDCA Plan. This would indicate that the AUM production estimates for the L-C-M Allotment is similar to other allotments in the area.

In 2000 the Naval Air Weapons Station (NAWS) at China Lake cancelled grazing on the base portion of the LCM allotment. Using GIS, an analysis of the changes to the LCM allotment was undertaken. The area in the LCM Allotment outside of NAWS contains approximately 165,140 acres. The 165,140 acres is approximately 40% of the original allotment. Carrying capacity for the area in LCM outside of NAWs computes to 9260 AUMs using the 40% correction factor. Further reductions in the size of the LCM Allotment total 15,321 acres has also been implemented. This occurred in three areas – the area east of Darwin and into the Argus Range; the area north of highway Route 190 that is adjacent to the Hunter Mountain Allotment; and, an area north of highway Route 190 and south of Owens Lake which is in the BLM Bishop Field Office. These reductions in grazing area leave 149,819 acres in the reconfigured LCM Allotment. This reduction in size leaves 149,819 acres and 8,401 AUMs of carrying capacity in the reconfigured allotment.

Alternative A, the Proposed Action, proposes grazing the Cactus Flat-McCloud Flat area within the allotment of approximately 41,900 acres with a proportionate carrying capacity of 2350 AUMs. This works out to stocking rate of 18 acres per AUM. There are reductions for wildlife, wild horses, and condition class applied to this carrying capacity which reduces the AUMs available for grazing to 1588 AUMs for the proposed grazing area. The 1966 adjudication inventory rated the Cactus Flat-McCloud Flat area carrying at approximately 2,000 AUMs. The 1966 data was generated from extensive ground transects. This calculates to approximately 21 acres per AUM. All of estimated carrying capacities for all of the allotments in the area fall within a few AUMs per acre of each other. The BLM is proposing, in alternative A, to allocate 790 AUMs which is 40% of the estimated carrying capacity. This computes to a stocking rate of 53 acres per AUM.

ALTERNATIVE B

1) The areas proposed for grazing in this alternative are Cactus and McCloud Flats, and Centennial Flat. These areas contain approximately 84,600 acres (computed by GIS).

2) The proportionate carrying capacity for both grazing areas is 4718 AUMs. This is a stocking rate of 18 acres per AUM. The whole allotment is comprised of 149,819 acres with a carrying capacity of 8,401 AUMs (see above).

3) With subtractions for wildlife, wild horses, and condition class the AUMs available for allocation to livestock is 3209.

4) Under this alternative the BLM is proposing to permit 697 AUMs which represents 22% of the available forage. This is a stocking rate of 121 acres per AUM.

Adjustments To Avaliable AUMs Due To Wilderness Regulations For Grazing

The Wilderness Act of 1994 allows grazing in wilderness as a permitted but nonconforming activity. In general grazing is permitted at the same level that existed at the time of wilderness designation. The two alternatives propose to use portions of the Coso Range Wilderness. The Cactus Flat-McCloud Flat area contains approximately 41,850 acres which includes approximately 14,000 acres of the Coso Range Wilderness. The Centennial Flat area contains approximately 43,800 acres and includes approximately 3,500 acres of the Coso Range Wilderness. The total acres proposed for grazing under the alternatives is 85,650 acres with approximately 17, 500 acres in the Coso Range Wilderness. On an overall basis, 20% of the acres within the entire proposed grazing areas would be within wilderness. This breaks down to 33% of the Cactus Flat- McCloud flat area and 8% of the Centennial flat area being within the Coso Range Wilderness area.

1) At the time of wilderness designation in 1994 there were 3136 AUMs active use permitted for the entire LCM allotment (Livestock numbers varied between 200 and 550 head). The reconfigured allotment is approximately 40% of the original and the AUMs are also allocated 40% of the original. Therefore, the reconfigured allotment would have had 1254 AUMs of active use.

2),The carrying capacity in the allotment outside of NAWS was calculated at 9210 AUMs and the number of AUMs after the three areas were excluded from the allotment was calculated to be 8,398 AUMs which is 90.7% of 9,210 AUMs.

3) Applying the reduction factor (90.7%) to the estimated 1254 AUMs of active use for the BLM portion of the reconfigured allotment leaves 1138 AUMs of active preference attributed to the allotment. As the allotment is approximately 20% wilderness, this would assign approximately 228 AUMs of active preference to the wilderness portion of the allotment. All of these 228 AUMs would be within the Coso Range Wilderness. As it is not possible to regulate the wilderness use separately, the BLM has chosen to limit the preference available for grazing in the entire reconfigured allotment to 1138 AUMs based upon the wilderness restriction.

4) In all of the alternatives, the proposals are to graze less than half of the available forage and less than 70% of the estimated 1138 AUMs of active preference.

APPENDIX 3

PROPER USE FACTORS

FOR FORAGE PLANT SPECIES

In The Ridgecrest Field Office Area

Proper Use Factors (P.U.F.'s) are related as a percentage of plant that is allowed to be grazed. Usually an average is taken from sampling a local population at a site.

PLANT- SCIENTIFIC NAME	COMMON NAME	P.U.F.
	TREES & SHRUBS	
Acamptopappus sphaerocephalus	Goldenhead	10
Ambrosia dumosa	Burrobush	10
Artemesia spinescens	Budsage	20
Artemesia tridentata	Great Basin Sage	<5
Atriplex canescens	Four-wing Saltbush	40
Atriplex confertifolia	Shadscale	10
Atriplex hymenelytra	Desert Holly	<5
Atriplex polycarpa	Cattle Spinach	20
Chrysothamnus nauseosa	Rubber Rabbit Brush	<5
Chrysothamnus viscidiflorus	Green Rabbit Brush	<5
Coleogyne ramosissima	Blackbrush	<5
Encelia farinosa	Brittlebrush	<5
Ephedra nevadensis	Nevada joint fir, Mormon Tea	30
Ephedra viridis	Mountain joint fir	20

Ericameria cooperi	Goldenbush	0
Ericameria linearifolius	Linear-leaved Goldenbush	<5
Eriogonum fasiculatum	California buckwheat	20
Eriogonum wrightii	Wright's buckwheat	40
Grayia spinosa	Spiny Hopsage	30
Gutierrezia sarothrae	Snakeweed	0
Hymenoclea salsola	Cheesebush	<5
Isomeris arborea	Bladder-pod	10
Juniperus californica	California Juniper	0
Juniperus occidentalis	Western Juniper	0
Juniperus osteosperma	Utah Juniper	0
Krascheninnikovia lanata	Winter Fat	40
Larrea tridentate	Creosote bush	0
Lepidium fremontii	Desert Alyssum	<5
Lepidospartum squamatum	Scale-broom	<5
Lycium andersonii	Anderson thornbush	10
Lycium cooperi	Peach thornbush	10
Machaeranthera tortifolia	Desert aster	20
Menodora spinescens	Spiny menodora	20
Opuntia basilaris	Beavertail cactus	0
Psorothamnus fremontii	Indigo brush	10
Salazaria mexicana	Paperbag bush	10
Salix lavaegata	Red Willow	10

Salvia dorii	Purple Sage	10
Senna armata	Desert cassia	<5
Stephanomeria pauciflora	Desert Straw	30
Tetradymia spinosa var. *longispina*	Cotton felt-thorn	0
Yucca brevifolia	Joshua tree	<5
	FORBS	
Mirabilis bigelovii	Wishbone bush	40
Sphaeralcea ambigua	Desert Mallow	40
	GRASSES	
Achnatherum hymenoides	Indian Rice Grass	50
Achnatherum speciosa	Desert Needlegrass	50
Distichilis spicata	Saltgrass	30
Erioneuron pulchellum	Fluffgrass	20
Hilaria jamesii	Galleta grass	50
Poa scabrella	Pine bluegrass	50
Sitanion hystrix	Squirrel-tail	40
Sporobolus airoides	Alkali Sacaton	40

References:
Appendix XIII, Volume F of Final Environmental Impact Statement and Proposed Plan for the California Desert Conservation Area, Sept. 1980
Plant Checklist for BLM Ridgecrest, CA Field Office Area, 2006

APPENDIX 4

STANDARDS & GUIDELINES

APPENDIX 4

PROPOSED REGIONAL STANDARDS & GUIDELINES
&
FALLBACK STANDARDS & GUIDELINES

PART I

The following standards & guidelines are the proposed regional standards which the BLM must meet to assure public rangeland health. These standards and the guidelines may not be implemented until approved and signed by the Secretary of the Interior.

Regional Standards and Guidelines

With the recent approval of the Western Mojave Desert Plan Amendment the following Standards and Guidelines are incorporated into the grazing Permit & management practices.

Standards:

Soil

Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate geology, landform, and past uses. Adequate infiltration and permeability of soils allow accumulation of soil moisture necessary for optimal plant growth and vigor , and provide a stable watershed as indicated by:

Canopy and ground cover are appropriate for the site;
There is diversity of plant species with a variety of root depths;
Litter and soil organic matter are present at suitable sites;
Maintain the presence of micro biotic soil crusts that are in place;
Evidence of wind or water erosion does not exceed natural rates for the site;
Hydrologic and nutrient functions maintained by permeability of soil and water; infiltration are appropriate for precipitation.

Native Species

Healthy, productive and diverse habitats for native species, including special status species (Federal T&E, federal proposed, federal candidates, BLM sensitive, or California State T&E, and CDD UPAs) are maintained in places of natural occurrence as indicated by:

Photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes;
Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment;

Plant communities are producing litter within acceptable limits;
Age class distribution of plants and animals are sufficient to overcome mortality fluctuations;
Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events;
Alien and noxious plants and wildlife do not exceed acceptable levels;
Appropriate natural disturbances are evident;
Populations and their habitats are sufficiently distributed to prevent the need for listing special status species.

Riparian/Wetland and Stream Function

Wetland systems associated with subsurface, running, and standing water, function properly and have the ability to recover from major disturbances. Hydrologic conditions are maintained as indicated by:

Vegetative cover will adequately protect banks, and dissipate energy during peak water flows;
Dominant vegetation is an appropriate mixture of vigorous riparian species;
Recruitment of preferred species is adequate to sustain the plant community;
Stable soils store and release water slowly;
Plants species present indicate soil moisture characteristics are being maintained;
There is minimal cover of invader/shallow-rooted species, and they are not displacing deep-rooted native species;
Maintain shading of stream courses and water sources for riparian dependent species;
Stream is in balance with water and sediment being supplied by the watershed;
Stream channel size and meander is appropriate for soils, geology, and landscape;
Adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.

Water Quality

Surface and groundwater complies with objectives of the Clean Water Act and other applicable water quality requirements, including meeting the California State Standards, as indicated by:

The following do not exceed the applicable requirements: chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment, and dissolved oxygen;
Achievement of the Standards for riparian, wetlands, and water bodies;
Aquatic organisms and plants (e.g., macro invertebrates, fish and algae) indicate support of beneficial uses;
Monitoring results or other data that show water quality is meeting the Standard.

Guidelines for Grazing Management

Manage grazing activities with the following regional guidelines.

Facilities are to be located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland functions.

The development of springs and seeps or other projects affecting water and associated resources will be designed to protect the ecological functions and processes of those sites.
Grazing activities at an existing range improvement that conflict with achieving proper functioning conditions (PFC) and resource objectives for wetland systems (lentic, lotic, springs , adits, and seeps) will be modified so PFC and resource objectives can be met, and incompatible projects will be modified to bring them into compliance. The BLM will consult, cooperate, and coordinate with affected interests and livestock producer(s) prior to authorizing modification of existing projects and initiation of new projects. New range improvement facilities are to be located away from wetland systems if they conflict with achieving or maintaining PFC and resource objectives. Supplements will be located a sufficient distance away from wetland systems so they do not conflict with maintaining riparian wetland functions.
Management practices will maintain or promote perennial stream channel morphology (e.g., gradient, width/depth ratio, channel roughness, and sinuosity) and functions that are appropriate to climate and landform.

Grazing management practices are to meet State and Feral water quality standards. Where impoundments (stock ponds) and troughs that have a sustained discharge yield of less than 200 gallons per day to surface or groundwater are exempted from meeting State drinking water standards per SWRCB Resolution Number 88-63.
In the California Desert Conservation Area all wildfires in grazing allotments will be suppressed. However, to restore degraded habitats infested with invasive weeds (e.g., tamarisk) prescribed burning may be utilized as a tool for restoration on a case-by-case basis. Prescribed burns may be used as a management tool for chaparral plant communities in the South Coast Region, where fire is a natural part of the regime.
In years when weather results in extraordinary conditions seed germination, seedling establishment and native plant species growth shall be allowed by modifying grazing use.
Grazing on designated ephemeral (annual and perennial) rangeland is allowed to occur only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established, and adverse effects on perennial species are avoided.
During prolonged drought, range stocking will be reduced to achieve resource objectives and/or prescribed perennial forage utilization. Livestock utilization of key perennial species on year-long allotments will be checked about March 1 when the Palmer Severity Drought Index/Standardized Precipitation Index indicates dry conditions are expected to continue.
Through the assessment process or monitoring efforts, the extent of invasive and/or exotic plants and animals will be recorded and evaluated for future control measures. Methods and prescription will be implemented, and an evaluation will be completed to ascertain future control measures.
Restore, maintain or enhance habitats to assist in the recovery of federally listed threatened and endangered species. Restore, maintain or enhance habitats of special status species including Federal proposed, Federal candidates, BLM sensitive, or California State T&E to promote their conservation.

Grazing activities will support biological diversity across the landscape, and native species and micro biotic crusts are to be maintained.

Experimental and research efforts will be encouraged to provide answers to grazing management and related resource concerns through cooperative and collaborative efforts with outside agencies, groups, and entities.

PART II

These are the Fall Back Standards and Guidelines which will be in effect until the Secretary of Interior signs the new Regional Standards and Guidelines.

43 CFR 4180.2 Standards and Guidelines for Grazing Administration

(1) Fallback standards.
Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform.
Riparian – wetland areas are in properly functioning condition.
Stream channel morphology (including but not limited to gradient width/depth ratio, channel roughness and sinuosity) and functions are appropriate for climate and landform.
Healthy, productive and diverse populations of native species exist and are maintained.

Fallback Guidelines
Management practices maintain or promote adequate amounts of ground cover to support infiltration, maintain soil moisture storage, and stabilize soils;

Management practices maintain or promote soil conditions that support permeability rates that are appropriate to climate and soils;

Management practices maintain or promote sufficient residual vegetation to maintain, improve or restore riparian-wetland functions of energy dissipation, sediment capture, groundwater recharge, and stream bank stability;

Management practices maintain or promote stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions that are appropriate to climate and landform;

Management practices maintain or promote the appropriate kinds and amounts of soil organisms, plants and animals to support the hydrologic cycle, nutrient cycle, and energy flow;

Management practices maintain or promote the physical and biological conditions necessary to sustain native populations and communities;

Desired species are being allowed to complete seed dissemination in 1 of every 3 years (Management actions will promote the opportunity for seedling establishment when climatic conditions and space allow.);

Conservation of Federal threatened or endangered, Proposed, Category 1 and 2 candidate, and other special status species is promoted by the restoration and maintenance of their habitats; Native species are emphasized in the support of ecological function;

Non-native plant species are used only in those situations in which native species are not readily available in sufficient quantities or are incapable of maintaining or achieving properly functioning conditions and biological health;

Periods of rest from disturbance or livestock use during time of critical plants growth or re-growth are provided when needed to achieve healthy, properly functioning conditions (The timing and duration of use periods shall be determined by the authorized officer.);

Continuous, season-long livestock use is allowed to occur only when it has been demonstrated to be consistent with achieving healthy, properly functioning ecosystems.

Facilities are located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland function;

The development of springs and seeps or other projects affecting water and associated resources shall be designed to protect the ecological functions and processes of those sites; and

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

APPENDIX 5

LIVESTOCK GRAZING CULTURAL AMENDMENT

APPENDIX 5 CULTURAL RESOURCES

SUPPLEMENTAL PROCEDURES

FOR
LIVESTOCK GRAZING PERMIT/LEASE RENEWALS

A CULTURAL RESOURCES AMENDMENT
TO
THE STATE PROTOCOL AGREEMENT

BETWEEN

CALIFORNIA BUREAU OF LAND MANAGEMENT
AND
THE CALIFORNIA STATE HISTORIC PRESERVATION OFFICER

The purpose of this amendment is to address the National Historic Preservation Act (NHPA) Section 106 compliance procedures for processing approximately 400 grazing permit/lease (hereafter "permit") renewals scheduled for 2004 through 2008. This amendment shall cover grazing permit renewals for livestock as defined in 43 CFR 4100.0-5 as "….domestic livestock – cattle, sheep, horses, burros, and goats." The following procedures will allow for renewal of the permits while maintaining compliance with the NHPA. Alternative approaches to this amendment may be developed by individual Field Offices, but such approaches shall fall under the Section 106 regulations of the NHPA (36 CFR Part 800) and shall require individual Field Office consultation with the SHPO.

These supplemental procedures are an amendment to the State Protocol dated April 6, 1998, which is scheduled for termination on October 25, 2004. These supplemental procedures will remain in effect when that Protocol is terminated and will become an amendment to a successor Protocol document.

This amendment deviates from the Protocol in Section VI. Thresholds for SHPO Review, which states, "BLM shall complete the inventory, evaluation and assessment of effects and document all findings, including negative inventories and no effect determinations, in BLM files before proceeding with project implementation." This amendment would allow for renewal of an existing grazing permit prior to completing all NHPA compliance needs as long as Protocol direction, the BLM 8100 Series Manual guidelines (Protocol Amendment F), and the following specific stipulations are followed:

I. Planning

Grazing permit renewals of any acreage size shall be scheduled for cultural resource compliance coverage over the next ten years. Such long term management includes scheduling for inventory, evaluation, treatment, and monitoring, as appropriate. Schedules for inventories of all renewals to be covered by this amendment shall be delineated by each participating Field Office and submitted to the SHPO and the State Office at the first annual reporting cycle for FY 2004.

This amendment shall only apply to the reissuance of grazing permit authorizations and existing range improvements. All new proposed undertakings for range improvements shall follow the established procedures within the Protocol or 36 CFR 800, the implementing regulations for Section 106 of NHPA.

II. Inventory Methodology

To address the impacts of grazing on cultural resources, a Class II sampling or reconnaissance survey strategy shall be devised by the cultural resource specialist in consultation with range staff which focuses inventory efforts on areas where livestock are likely to concentrate within areas of high sensitivity for cultural resource site locations. Congregation areas where it has been shown that the greatest levels of impact are likely to occur are generally around springs, water courses, meadows, and range improvement areas such as troughs and salting areas.

All existing range improvements within areas of high sensitivity for the location of cultural resource sites shall be inventoried. However, due to the fact that cattle trailing occurs along fence lines and the area of impact is limited to a one meter wide swath and impacts to cultural resources are generally restricted to this corridor, existing linear improvements will not be inventoried except in areas of high sensitivity for the location of cultural resource sites.

Salting areas may change from season to season making locating these areas problematic. Salting locations will be assessed by the cultural resource specialist in consultation with range staff and the permitee. The permitee will be asked to provide a map designating salting areas and these locations will be inventoried if they occur in areas where the probability for the occurrence of cultural resources is high. All livestock loading and unloading areas and corral areas will also be inventoried within areas of high sensitivity for the location of cultural resources.

A Class I records search will also be conducted for each allotment to ascertain previously recorded site locations and areas of prior survey coverage which can be accepted as meeting current standards. Sites located within livestock congregation areas will be visited to evaluate grazing impacts.

All areas identified for inventory in the survey strategy shall be covered intensely. All unrecorded site locations will be recorded and a report of findings for each allotment will be completed. These investigations shall only address public lands administered by BLM. Private, state and county in-holdings will not be evaluated.

III. Tribal and Interested Party Consultation

Field Offices will be responsible for contacting and consulting with Tribes and interested parties as outlined in 36 CFR 800 and the 8120 manual guidelines. This will also meet BLM government-to-government responsibilities for consultation.

IV. Evaluation

Determinations of eligibility to the National Register of Historic Places shall only be undertaken on sites or properties where it can be reasonably ascertained or it is ambiguous that range activities will continue to impact sites and further consultation with SHPO could be required.

V. Effect

A. Range undertakings where historic properties are not affected may be implemented under the Protocol without prior consultation with SHPO. These undertakings shall be documented in the Protocol Annual Report.

B. Range undertakings where historic properties are identified within APEs, and where historic values are likely to be affected or diminished by project activities, require consultation with SHPO, and ACHP if necessary, on a case-by-case basis, pursuant to 36 CFR 800.5-6.

VI. Treatment

Standard Protective Measures can include but are not limited to:

A. Fencing or exclosure of livestock from the cultural resource sufficient to ensure long-term protection, according to the following specifications:
1. the area within the exclosure must be inventoried to locate and record all cultural resources; and
2. the exclosure (i.e.) fence must not divide a cultural resource so that a portion is outside of the fence; and
3. the cultural resource specialist will determine the appropriate buffer to be provided between the cultural resource and its exclosing fence.
B. Relocation of livestock management facilities / improvements at a distance from cultural resources sufficient to ensure their protection from concentrated grazing use.
C. Removal of natural attractants of livestock to a cultural resource when such removal, in the judgment of the cultural resource specialist, will create no disturbance to the cultural resource (e.g. removing vegetation that is providing shade).
D. Removal of the area(s) containing cultural resources from the allotment.
E. Livestock herding away from cultural resource sites.
F. Use salting and/or dust bags or dippers placement as a tool to move concentrations of cattle away from cultural sites.
G. Locating sheep bedding grounds away from known cultural resource sites.
H. Other protective measures established in consultation with and accepted by SHPO.
The Standard Protective Measures defined above may be used to halt or minimize on-going damage to cultural resources. If the standard protection measures can be effectively applied, then no evaluation or further consultation with SHPO on effects will be necessary. The adopted Standard Protective Measures shall be added to grazing permit "Terms and Conditions" as appropriate for each grazing permit issued or reissued as fully processed permits (completed NEPA analysis, consultation, and decision). The "Terms and Conditions" for each permit may be modified by the addition, deletion, or revision of Standard Protective Measures as described in Section VII of these Supplemental Procedures.
VII. Monitoring
A. Field Offices shall adopt the following monitoring guidelines:
1. monitoring shall be conducted yearly and documented to ensure that prescribed treatment measures are effective; and
2. when damaging effects to cultural resources from grazing activities are ambiguous or indeterminate, Field Offices shall conduct monitoring, as necessary, to determine if degrading effects are resulting from grazing activities and if they are continuing to affect the characteristics that may make properties eligible to the NRHP or if they are otherwise adversely affecting the values of cultural resources.
B. When monitoring has yielded sufficient data to make effect determinations, the following apply:
1. When no additional degrading damage will likely occur because standard treatment measures are adequate to prevent further damage from rangeland management activities, SHPO consultation on a case-by-case basis is unnecessary.
2. When no additional degrading damage will likely occur, even without implementation of standard treatment measures, then no further treatment consideration of those resources is necessary, even if past grazing impacts to the ground surface are evident.
3. When additional degrading damage will likely occur, mitigation of adverse effects shall be addressed on a case-by-case basis, pursuant to 36 CFR 800.5-6.

When monitoring results or case-by-case consultation result in a determination concerning addition or deletion of Special Treatment Measure(s) for a specific allotment, then that Measure(s) will be added to, or deleted from, the Terms and Conditions of the fully processed permit for that allotment.

VIII. Disagreements

When a Field Office Cultural Heritage staff and Field Office Manager fail to agree on inventory, evaluation, monitoring, and application of Special Treatment Measures, then the Field Office Manager shall initiate consultation with the SHPO.

IX. Reporting and Amending

A. Each participating Field Office shall report annually to the SHPO and the State Office, a summary of activities carried out under this amendment to the Protocol during the previous fiscal year. The reporting shall be included in the Protocol Annual Report.

B. Annual reports shall summarize activities carried out under this amendment. These reports are not meant to be compilations of the individual project reports prepared for the range projects; they are meant to be programmatic summaries of data and significant findings.

C. Annual reporting shall include at least three major sections:

1. schedules and status of accomplishments in meeting schedules for cultural resource activities in relation to the range management program as identified in Stipulation I; and

2. results, as annual summaries of accomplishment and significant findings resulting from rangeland management cultural resource activities; and

3. appendices to the report that would include project, coverage and cultural resource location maps and tabular summaries of total number of cultural resources located, new cultural resources located, cultural resources evaluated, types of treatment measures employed at each location, and cultural resources monitored.

Annual reports may contain recommendations for new or revised treatment measures.

Either party to this agreement may initiate a process to negotiate new or revised treatment measures or to revise the schedule of inventories. When such a process is initiated, the parties to this agreement shall negotiate new or revised treatment measures or schedule of inventories and such revisions or additions shall be issued as Attachments to these Supplemental Procedures.

STATE DIRECTOR, BUREAU OF LAND MANAGEMENT, CALIFORNIA

_/s/ james wesley abbott *for*_____

By Mike Pool Date: 8/17/04

STATE HISTORIC PRESERVATION OFFICER, CALIFORNIA

_/s/ milford wayne donaldson_____

By Milford Wayne Donaldson Date: 8/18/2004

APPENDIX 6

PUBLIC COMMENTS & BLM RESPONSES

COMMENTS & RESPONSES

Comments from Cabin Bar Ranch (February 7, 2009) with BLM Responses

Comment 1: *The Cabin Bar Ranch prefers Alternative Plan B to Plan A.*

However, a third choice would be to use Centennial Flat, Dirty Sox, and Reed Corral areas one year and the next year use Cactus and McCloud. With water haul sites to be the same as Plan B. Time of use would be the same as it was prior to the year 2000. This would give the permittee the ability to use the allotment as it historically was used, matching it with times of use with other permits, leases, and private ground held by Cabin Bar Ranch.

BLM Response: The BLM believes that alternating grazing areas from one grazing year to the next is a valid idea, however, there are issues to be addressed with the Navy and the management of the wild horse herd that currently prevent grazing in the Lower Centennial Flat and Reed Corral area. If these issues are resolved this suggestion will be considered.

Comment 2: *Regarding Alternative A: Trying to stagger the time of use and portions of the McCloud and Lower Cactus area would not work very well, if at all, due to the close proximity and lack of natural or man made barriers. There would be an immediate drift and consolidation of cattle to areas that they prefer. There may be some success in the first season but as cattle become familiar to the area, they would travel back to the areas prefer within hours. These two areas need to be used in the same rotation as one unit.*

BLM Response: Turning on and off waters is a useful tool in rotating livestock through a large area. It is likely that it will require repeated herding to establish cattle at each new water location.

Comment 3: *The catch water hole in Lower Cactus should have the option of hand tool use to maintain. The same should apply to upper Centennial and all existing facilities in wilderness.*

BLM Response: The catch water hole in Lower Cactus Flat has never needed cleaning or other maintenance work. If the catch water hole would need repair the BLM is willing to offer a haul water site outside of wilderness to fulfill the permittee's watering need.

Comment 4: *I have contacted the Naval Weapons Center regarding cattle straying on to the NWC base. I was told it would be handled in one of two ways.*

1. *Issue keys to the permittee and telephone for the clearance times and dates.*
2. *Escort on/escort off depending on the areas involved.*

BLM Response: The BLM must let the Naval Weapons Center environmental department determine the risk and efficacy of allowing a permittee on to the base to gather cattle. Their concern is allowing cattle to get on the base in the first place.

Comment 5: *There will be a low rate of drift onto the NWC base, as cattle do not know Crystal Springs, Haiwee, China Gardens, etc. The feed along the drift fences is not substantial enough to entice cattle to push through the fence. Drift fences are in place in the most accessible areas. More drift fences could be built if needed.*

BLM Response: The BLM's and the Navy's assessment of their security fence is in contradiction with the commentor's assessment. The BLM has not ruled out the possibility of grazing Lower Centennial Flat if the fence is brought up to standard.

Comment 6: *With the low number low number of cattle proposed in the alternative plans the holding tanks could be reduced in size 1/3 to ½. There should be Section 3 funds for the fence and the tanks.*

BLM Response: The BLM will take this into account.

Comment 7: *The 1,597 AUMs of the allotment east of Darwin seems incredibly high. These AUMs were deducted from the LCM allotment.*

BLM Response: See Appendix 2, Derivation of AUMs for correction.

Comments from Western Watersheds Project (August 21, 2009) with BLM Responses

Comment 1: *The purpose of an EA is to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or issue a finding of no significant impact. [CEQ NEPA ImplementingRegulations, 40 C.F.R. § 1508.9]. Here, the Lacey-Cactus-McCloud allotment includes 158,532 acres of public land, and grazing on the allotment will impact a number of listed and sensitive species, and will have impacts on 14,000 acres of federally-designated Wilderness Areas [EA at 10]. The Lacey-CactusMcCloud allotment has not been grazed in ten years since the boundaries of the allotment were drastically altered [EA at 4]. Reopening this allotment to livestock use is controversial, and the effects likely to be highly significant. Given the scale and scope of the proposed action we believe that preparation of a full EIS is merited.*

BLM Response: As the commenter suggests, one of the purposes of the EA is to determine if the impacts are expected to be significant and if an EIS would be necessary. In the Lacey Cactus McCloud Allotment, the EA did not identify significant impacts with the proposed action that would require the preparation of an EIS. The CDCA Plan and the West Mojave Plan amendments both included EISs which evaluated the suitability of grazing along with kinds of livestock, forage allocations, seasons of use and resource conflicts. Those decisions are a matter of record and their review is not the purpose of this EA. The CDCA Plan and EIS as amended are incorporated by reference into this EA.

Comment 2*: NEPA requires that the agency devote substantial treatment to each alternative and adequately disclose the details of the proposed action. BLM Grazing Regulations require the disclosure of mandatory terms and conditions that specify the kind and number of livestock, the period(s) of use, the allotment(s) to be used, and the amount of use, in animal unit months, for every grazing permit or lease. 43 C.F.R. § 4130.3-1. Here, the BLM has not specified precisely what the proposed action is. Instead, the BLM summarizes the "typical" grazing schedule and proposed authorizations based on current conditions [EA at 10]. However, the EA also states that this authorization could be increased to include the Lower Centennial Flat area when range improvements are completed [EA at 10]. It does not specify what the expected increase will be or what the effects of this proposed increase will be. In the absence of an analysis of the total planned action on this allotment, the BLM will not be able to increase grazing use without an additional EA and further estimations of carrying capacity on the newly opened acres.*

BLM Response: The proposed action in the EA provides a typical grazing schedule with set maximum numbers of livestock and maximum AUMs. The stipulations also state that programmed rest would be required. The schedule is labeled "typical" because the permittee may not start the schedule the exact year shown on the table, he may decide to start late or remove early, or drought or other conditions may preclude grazing at times. The EA addresses mandatory terms and conditions. It also lists the kind and number of livestock, 100 cattle, the season of use, winter, and AUMs, 395 early use or 302 late use. The proposed action only includes the Cactus Flat and McCloud Flat area. The discussion of use in the Centennial Flat area is in alternative B. As noted in the EA (alternative B), the Centennial Flat area has a number of issues that remain unresolved. At this time, the Centennial Flat area remains a portion of the allotment.

Comment 3: *The BLM is using the same authorization level (100 cattle) for the entire allotment under Alternative A (41,900 acres) or Alternative B (149,800 acres) [EA at 10, 12]. This suggests that the authorization is arbitrary and not based on resource availability, in violation of FLPMA's provisions regarding carrying capacity. 43 C.F.R. § 4110.2-2(a) The BLM asserts that carrying capacity was determined using satellite images of vegetation, etc, but does not explicitly state that this was site specific to the two areas proposed for use under the proposed action [EA at 10, 78]. It also does not say whether when the estimation was conducted and whether corrections for drought conditions have occurred [EA at 10]. The Appendix of the EA seems to indicate that the BLM is using the 1980 spectral data to estimate forage production [EA at 77]. This is insufficient given the two decades of grazing use and drought, in addition to changes in nonnative species abundance and recreational impacts, which have occurred in the interim. Clearly then, the carrying capacity of the present configuration of the Lacey-Cactus McCloud allotment is unclear, and even more so for the areas proposed for use under the proposed action.*

BLM Response: Both alternative A and B authorize 100 head of cattle. The difference is that the cattle would be rotated between the two areas seasonally with 7 months of grazing and 697 AUMs rather than the 395 or 305 yearly AUMs and a maximum of 4 months shown in alternative A.

The vegetation production estimates do date to the CDCA Plan. There is no indication that the basic vegetation communities have changed to warrant a rejection of the forage estimates from the CDCA Plan. The current process is to not rely on a one time inventory, but to rather to utilize regular monitoring during the grazing season and make adjustments as necessary. It is especially important in arid climates with large swings in production to be able to track the effects of weather on production rather than restocking strictly on an estimated production from a one time inventory.

Comment 4: *The scoping document stated that the Little Cactus Flat and McCloud Flat areas suffered from grazing pressure in the 1980s and 1990s. [Scoping Notice at 8]. Here, the BLM is proposing to continue pressure on these same two areas [EA at 10]. It is unclear why the BLM is proposing this, especially since the EA does not indicate whether the rangeland health assessment reflects the condition of these areas. [EA 7] Indeed, the EA does not indicate where the RHA was completed, period.*

BLM Response: The grazing pressure during the 1980s and 1990s was primarily from unregulated year around grazing by wild horses and burros (WH&B). Population control on the WH&B populations started in the 1980s. Most of the animals today are on the Navy base and that pressure is gone. The range health assessments conducted in the Cactus Flat McCloud Flat areas indicated that the area meets health standards. The EA states that the area meets health standards.

Comment 5: *The Rangeland Health Assessment which has been completed for the allotment indicates that the Lacey-Cactus McCloud is not meeting the standards of rangeland health. The impacts of head cutting and the presence of non-native invasive species prevent attainment of 3 of 4 standards [EA at 7]. However, the BLM attributes this not to cattle but to flood damage [EA at 7]. What the BLM neglects to provide is an analysis of how livestock grazing in the uplands accelerates erosion and facilitates flood events. Livestock grazing, even at modest levels, in upland areas of watersheds produces soil erosion (reviewed by Belsky et al. 1999; Jones, 2000). This effect is greatest when the grazing occurs during a rainy season, as proposed here [EA at 22;*

Smiens 1975]. The discussion of soils in the EA does not extend to the effects that compaction and damage in the uplands may have on riparian health [EA at 28].

BLM Response: The EA states that the areas that did not meet standards for rangeland health were not as a result of cattle grazing. One site (Lower Centennial Spring) had salt cedar. The occurrence of salt cedar was not a result of cattle grazing. The other site has had a flood event that resulted in a head cut into Black Rock Spring. The watershed behind the spring is very steep and rocky and extends into the Navy base. Cattle have not grazed in that area. Both of these sites border onto Lower Centennial Flat and would only be in the grazing area of alternative B. The proposed range improvements for alternative B would include the removal of the salt cedar and the stabilization of the head-cut.

Comment 6: *The EA states that RHAs were conducted on the allotment in 1999 and 2005 [EA at 17]. The 2005 RHA cannot be used to justify grazing, only not grazing, since livestock had not been on the allotment in five years and upland health conditions have recovered in the absence of cattle. The EA should contain comparisons of the two data sets and also explain whether the 1999 RHAs were conducted on areas proposed for grazing now. Earlier versions of the EA stated that China Lake Naval Air Weapons Station withdrew grazing from its portion of the allotment due to downward trends. In general, the summaries of the RHA determinations are insufficient to explain resource conditions on the Lacey-Cactus-McCloud allotment.*

BLM Response: The issue of suitability for grazing was addressed in the CDCA Plan and the West Mojave Plan Amendments. Those documents are incorporated by reference into this EA. Seven range health assessments were conducted in the Cactus Flat- McCloud Flat area over a several year period. The assessments all indicated that the area met range health standards. The EA contains extensive discussions of resource conditions in addition to the range health determination. BLM believes that the information provided in the EA is sufficient.

The issue of downward trend on the China Lake Naval Air Weapons Station was driven by numbers of horses and burros that were well above management levels. In addition to the resource concerns the Navy expressed they expressed concerns for security and conflicts with their mission.

Comment 7: *The BLM has not adequately justified a need for the proposed action. The CEQ regulations require "a brief discussion of the need for the proposal." 40 C.F.R. § 1508.9(b). Because the permittee on the Lacey-Cactus-McCloud allotment has apparently not needed grazing use on this allotment in the last decade, and because the BLM itself admits that either of the grazing alternatives would have no affect on the social or economic values of the community [EA at 38], the BLM has failed to demonstrate the grazing use is necessary.*

BLM Response: The land within the Lacey-Cactus-McCloud Allotment was classified as suitable for grazing by the California Desert Conservation Area Plan of 1980. This designation has not changed. The prospective permittee has stated their intention to graze. The section "Purpose and Need" [EA at 6] states that the EA is for the purpose of "whether or not to authorize grazing within the allotment and what stipulations are necessary." The need is to authorize grazing within the framework of laws and policies governing grazing on public land.

Comment 8: *It is unclear what range developments need repair under the proposed alternative [EA at 19]. The EA should have disclosed the costs associated with the range developments under each of the alternatives. We respectfully remind the agency that new waterhaul sites and developments proposed under Alternative B will require preparation of separate EAs. These EAs need to be prepared prior to any grazing decision beingmade so that the NEPA analysis for the grazing decision can fully determine the cumulative impacts of these incremental components of the decision.*

BLM Response: Table 6 in the EA [p. 19] has been revised to distinguish which range improvements need to be repaired before the turnout of cattle can take place. The table also distinguishes to which alternative the range improvements are pertinent.

Comment 9: *The scoping document stated that there are approximately 18,025 acres of desert tortoise habitat on the Lacey-Cactus-McCloud Allotment. The EA states that there are none [EA at 4]. The EA states that there are no CNDDB records on the allotment. However, there are records immediately adjacent to the allotment boundary south of Haiwee Reservoir, as well as in the Rose Valley to the south. The EA should explain the discrepancy between the scoping document and subsequent EA, and the surveys that support it. The west side of the allotment is near the northern range for the species, and with climate change tortoise numbers may increase in this area. The BLM needs to formally consult with FWS before any turnout of cattle can be authorized on the allotment to ensure that the FWS agrees that the allotment does not contain suitable habitat, and the EA revised to include a discussion of effects to this species.*

BLM Response: The scoping document is in error according to the maps and records which we have and as defined by the West Mojave Plan. CNDDB reports sites outside the allotment to the southwest below Haiwee Reservoir. These are at a lower elevation and separated from the grazing area of the allotment by a ridge of steep hills.

Comment 10: *Lacey-Cactus McCloud Allotment includes 50,520 acres of the Coso Range Wilderness and about 5 square miles of the Argus Range Wilderness Areas. It is unclear, based on the numerous changes in livestock authorizations and the lack of information about water haul sites or other range improvements, whether grazing use would increase in the Wilderness areas under the proposed alternative and Alternative B.*

BLM Response: In the reconfigured allotment (minus the NAWS lands withdrawn in 2000), it is estimated that 43.6% of the available forage allocation or 1367 AUMS remain on BLM lands. This works out to proportionately 195 cows/calves per year over a 7 month period. Under the proposed action, an additional 131 AUMS would be removed from the allotment by non-use of areas east of Darwin Road and within the Argus Range Wilderness. This would leave a balance of 1236 AUMs for the portion of the allotment proposed for grazing. New proposed use levels (100 cow/calf using up to 697 AUMs per year) over a 3, 4, or 7 month period would be significantly lower than use levels established in 1994.

NOTE: The Argus Range Wilderness is not proposed for grazing under either alternative.

Under Proposed Alternative A, about 70% of the Coso Range Wilderness (35,000 acres out of the total 49,296 acres comprising wilderness) would not be grazed. These acres are in Lower Centennial Flat and in the upper interior of the Cosos accessed by this flat.
Approximately 29% of the wilderness or 14,296 acres would be grazed in the Cactus Flat and McCloud Flat area. Under the Proposed Alternative A, about 100 cow/calf pairs using 395 AUMS would be permitted to graze here annually. Grazing would occur on a one pasture rotation strategy that would alternate seasons of use between winter (4 months) and spring (3 months) and would extend intervals between periods of use to 5 months or 1 year. This would result in a marked reduction in grazing use from what was permitted in 1994 when nearly twice as many cow/calf pairs using nearly twice as many AUMs were allowed to graze here each year continuously from November – May (7 months).

Under Proposed Alternative B, all 49,296 acres or 100% of the Coso Range Wilderness would be available for grazing as would 698 acres or 0.8% of the Darwin Falls Wilderness. Use levels would still fall well short of permitted use levels in 1994 at the time of wilderness designation. In 1994, the permittee was permitted to graze nearly twice as many cattle using both pastures simultaneously and continuously over a 7 month period. Under Alternative B, the permittee would be grazing only 100 cow/calf pairs per year. However, he would be grazing the allotment over a 7 month period instead of a 3 or 4 month period as in Alternative A and would be using up to 697 AUMs each year instead of 395 AUMs. Grazing would occur on a two pasture-deferred rotation system. The permittee would be permitted to graze 100 cow/calf pairs per year in one pasture for 4 months before moving them to the next pasture for 3 months. In the following year, cattle would resume grazing where they left off before being moved to the other pasture. This would allow both pastures to be rested every other year during the critical spring growing season. Implementation of Alternative B is dependent on the construction of several new range developments outside and in some cases, immediately adjacent to wilderness. Historically the Lower Centennial Flat area has been used as a pasture and as a trailing area to better pastures on NAWS. The construction of new range developments is predicated on using the area in a more managed way in a rotational system. Water will be made available and turned off to facilitate movement of cattle from one place to the next. This would change the pattern and intensity of grazing in the Lower Centennial Flat area, including its wilderness portions. Wilderness will need to be monitored for unacceptable impacts and corrective actions taken if impacts appear to exceed what was occurring in 1994.

Comment 11: *Lacey-Cactus McCloud Allotment includes the entire Olancha Greasewood Unusual Plant Assemblage (UPA IA3). The CDCA Plan mandates that identified Unusual Plant Assemblages be considered when the BLM conducts site specific analyses to ensure that impacts are minimized. [CDCA Plan at 16]*.

BLM Response: The Olancha Greasewood Unusual Plant Assemblage (UPA) occurs completely outside the proposed alternative A grazing area and only in the trailing portion of alternative B. There would not be any expected grazing use in that UPA . Even if cattle did get into the area, greasewood is not considered palatable for cattle and in the UPA, it is located on hummocks which would preclude cattle trampling the plants.

Comment 12: *The allotment is Mohave Ground Squirrel habitat and lies entirely within the BLM's Mohave Ground Squirrel Conservation Area. [WMP Map 2-15]. The allotment is close to the Coso "core area" in the north of the Mohave Ground Squirrel's range. There have been few comprehensive surveys of Mohave Ground Squirrel populations in the area. However, Mohave Ground Squirrels have been trapped at a number of locations northeast of the allotment including one at Lee Flat in spring 2007 (despite it being such a dry year) as well as in the core area to the immediate southwest. The Field office must not confuse a paucity of survey data with an absence of the species. The BLM's West Mojave Plan planning team recognized this when it designated the Mohave Ground Squirrel Conservation Area in 2006. The EA's analysis of effects of the proposed action on this species is limited to a discussion of how utilization limits will limit competition [EA at 43]. Surprisingly, this section of the EA is the first to discuss rotations using water haul sites and earthen water catchments [EA at 43]. The description of the proposed alternative elsewhere in the EA describes only a "one pasture rotation grazing strategy" and does not provide any plan for moving cattle around the pastures. The BLM must clarify what it really intends for management of MGS habitat.*

BLM Response: Under the Proposed Action (Alternative A), Mojave ground squirrels in the Centennial Flat pasture would not be at risk from cattle impacts since Alternative A does not allow grazing there. Under the Proposed Action (grazing Cactus and McCloud Flats), watering sites would be used to move cattle to specific areas. This strategy would allow use of different parts of the allotment at different times rather than grazing all areas all the time. Under Alternative B, grazing would not be allowed until watering sites were developed to move cattle throughout the allotment. Cattle would be well distributed because water haul sites and earthen water catchments would be utilized to move cattle. This action would assure availability of sufficient forage for the Mojave ground squirrel. Moving water haul sites would prevent excessive utilization by cattle, and enough food resources would be reserved to support the MGS. The BLM will edit the EA to clarify these management practices.
As discussed in the EA, utilization levels would be set at 40% for winterfat, 30% for spiny hopsage, 40% for shadscale, and 40% for 4-wing salt bush. This strategy has been used in the past to prevent overgrazing in this allotment and is expected to maintain important shrub forage in healthy condition.

Comment 13: *A number of other rare and localized sensitive species occur on the allotment. This includes one the few known occurrences of Ripley's Cymopterus, Cymopterus ripleyi. The only occurrences in the West Mojave of this CNPS list 1B plant are on the Lacey-Cactus-McCloud Allotment. There are fewer than 10 populations in the state and populations are at risk from cattle grazing (CNPS, 2007). Without providing any supporting data, the EA claims that cattle are not likely to be in the area where Ripley's cymopterus occurs because there is no access to water. If this area is not used by cattle, the BLM should have proposed a minor boundary adjustment to exclude the plant since there is no need to include the location in the allotment.*

BLM Response: Ripley's cymopterus occurs northeast of Haiwee Reservoir. Under the Proposed Action (Alterntaive A), this area is outside of the proposed grazing area. Under alternative B, cattle are not likely to be in the area, because there is no access to water. The chances of cattle trampling Ripley's cymopterus are very small since there would be no reason for cattle to be in that area.

Comment 14: *The Panamint Mountains Lupine also occurs on the allotment. The EA cites the 1998 CNDDB record as evidence that there are no grazing impacts. Where is the BLM's monitoring data on the current status of this population, and how will it be affected by the proposed action? The population is close to cattle watering sites.*

BLM Response: There is no evidence of cattle using the site where these 10 plants were found. Under the Proposed Action (Alternative A), cattle would not be grazing anywhere near Cantennial Flat. Alternative B requires rehabilitation of a range improvement at Lower Centennial Spring, encouraging cattle to stay out of the area near the spring. The range improvement consists of a pipeline that takes water to a trough away from the spring. This range improvement would benefit Panamint Mountains Lupine by offering water to the cattle at a distance away from the spring. If Alterative B is selected, BLM would monitor the area to be sure this strategy works. If cattle are found to be at the spring, BLM would consider fencing it.

Comment 15: *The EA did not address the cumulative effects of grazing and drought or global climate change, despite the reasonable expectation that these will affect the allotment during the proposed permit term.*

BLM Response: The EA contains an extensive climate discussion (page 22-27). The text states that the specific impacts from climate change on a site specific area such as the allotment are not well known. In addition the text presents and discusses local weather station data that indicated that the temperatures have generally stayed within one standard deviation of the mean since the 1920s and the current temperatures are nearly one standard deviation below the mean. The yearly variations in temperature exceed any prediction in warming trends for the next ten years and beyond.

Comment 16: *The analysis of the cumulative effects of livestock grazing and invasive species is scant, at best [EA at 65]. Livestock spread non-native species and this effect increases in livestock watering sites (Belsky and Gelbard 2000; Brooks et al 2006). Drought years increase the relative abundance of invasive species, making drought management more important (Brooks and Berry, 2006). The analysis of the effects of the proposed action on the distribution of invasive species depends upon no new sites of disturbance [EA at 36]. Elsewhere, the BLM describes rotating the location of water haul sites [EA at 43]. Thus, the BLM is simultaneously stating that there will be no new sites and the new distribution of water sites will reduce impacts. The proposed action must be clarified and consistently analyzed in the EA before any decisions can be made.*

BLM Response: The impact of grazing on non-native invasive species is discussed in the non-native invasive species section in the EA. The analysis concluded that the proposed grazing would have very little impact on non-native invasive species. The proposed grazing would then not cause cumulative impacts as noted in the cumulative impact section.

Under Alternative A there would be no new water haul sites proposed. Existing water haul sites are sufficient to move the cattle from one portion of the grazing area to another [EA at 43]. The new water haul sites [EA at 15] are proposed under Alternative B. They are proposed to assist in

trailing cattle back and forth between grazing areas in Lower Cactus Flat and Lower Centennial Flat, and to distribute cattle once they are in the Lower Centennial Flat area.

DEPARTMENT OF THE NAVY
NAVAL AIR WEAPONS STATION
1 Administration Circle
CHINA LAKE, CALIFORNIA 93555-6100

IN REPLY REFER TO:
5090
Ser OPDK/166
March 3, 2009

Mr. Hector Villalobos Mailed Hand 3/19/09
Bureau of Land Management
300 South Richmond Road
Ridgecrest, CA 93555

Dear Mr. Villalobos:

China Lake personnel have reviewed the draft of the Lacey-Cactus-McCloud Environmental Assessment received on 21 January 2009. We appreciate this opportunity to comment on this document and provide the following comments for your consideration.

The reissuance of cattle grazing along the western and northern border of the Station's North Range test complex raises a number of potentially significant safety, security and environmental concerns. Although some of the boundary line between Bureau of Land Management lands and Station property are fenced there are many areas without fencing. In addition, there are many areas where fencing is broken or otherwise in a state of disrepair due to age or having been damaged by cattle, horses and burros which have used or continue to use these areas. Many of the damaged fence sections continue to be actively traversed by horses as noted by Navy and BLM personnel during last years helicopter survey of the fence line.

Because these areas are easily accessible by cattle it is considered highly likely that cattle drift onto Station land will occur. Intact fencing is notably absent along the northern boundary of the Station in the Upper and Lower Centennial Flats areas. At this time the Station does not have the ability to install new fencing or repair existing fencing, particularly in the more rugged, remote and roadless areas along our contiguous properties.

Navy weapons test, evaluation and training missions in the Coso Peak, Coles Flat, Darwin Wash and Etcherron Valley areas continue to change in scope and use intensity in response to mission requirements. All of these areas were routinely accessed by cattle prior to termination of grazing on the Station in 2000. Many of the activities at these sites are, at times, classified or otherwise sensitive and could be significantly impacted by cattle intruding into such an area. In addition to such mission disruptions intrusion of cattle would present significant security concerns to whatever extent the Station would need to allow ranchers access to these areas to retrieve stray animals (including any cattle that might become lost or die after drifting onto Station property).

The increase in mission activity on the North Range has also resulted in increases in vehicle traffic by personnel accessing the remote test sites. Interactions between vehicles and cattle, particularly at night, raise an additional safety concern, particularly insofar as Station personnel

would likely be unaware of any cattle that might have drifted into the area.

Alternative A, the Preferred Alternative, would restrict cattle to the western portion of the Station's boundary. Fencing along this stretch of our shared boundary is mostly intact and continuous except in the more rugged terrain near the northwest corner of the Station. If cattle grazing is allowed to be reestablished on the LCM Allotment it is suggested that grazing only be allowed in this area and that water sources and other cattle attractants be placed as far from the fence line as possible to minimize the potential for drift on to the Station. While Alternative A is clearly preferable to Alternative B, the analysis of Alternative A should nonetheless be expanded to incorporate discussion of the nature and extent of any potential impacts within the Station boundary, including discussion of measures to reduce or avoid any such impacts. What if any action would be taken for restoration and/or continuing maintenance of fencing (to include measures to prevent damage to the fence by cattle or other animals, or to repair any such damage)? Additionally, there should be consideration given to developing safety/security protocols and any other arrangements that might be necessary to provide for access to the Station for purposes of retrieving any stray cattle.

From the Station's perspective, Alternative B presents similar concerns as Alternative A, but to a considerably greater extent. The discussion of impacts associated with implementation of Alternative B, which would allow grazing along the Station's northern border, indicates that grazing would not be allowed to occur in this area unless "control of drift of cattle can be assured". However, since fencing along this area is known to be in a state of disrepair or entirely lacking, and given the acknowledged history of cattle using this area to access the Station, and the proximity of water sources just north of the boundary line, it would appear that control of drift through this area cannot be assured. The Station concurs with the Environmental Assessment's conclusion that allowing grazing to occur in this area is not a Preferred Alternative and that approval of Alternative B would create safety, security and environmental consequences beyond the scope of an Environmental Assessment.

We concur that Alternative A is the preferred alternative. We recommend that this alternative be selected for this undertaking provided that additional analysis, to include consideration of measures to reduce or avoid impacts on Station property, is developed in accordance with the discussion above. In particular, we recommend that the BLM consider requiring that fencing be installed (and maintained) on BLM land to preclude cattle drift onto the Station.

Sincerely,

JOHN O'GARA
Head, Environmental Management Division
By direction of
the Commanding Officer

DEPARTMENT OF THE NAVY
NAVAL AIR WEAPONS STATION
1 Administration Circle
CHINA LAKE, CALIFORNIA 93555-6100

IN REPLY REFER TO:
5090
Ser OPDK/717
August 31, 2009

Mr. Hector Villalobos
Bureau of Land Management
300 South Richmond Road
Ridgecrest, CA 93555

Dear Mr. Villalobos:

China Lake personnel have reviewed the final Environmental Assessment (EA), Livestock Grazing Assessment for the Lacey-Cactus-McCloud (LCM) Allotment. We appreciate the opportunity to review this document and provide the following comments and recommendations for your consideration.

As noted in our prior comments on this document, cattle grazing along the north-western portion of the Station's North Range presents a number of potentially significant safety, security and environmental concerns to the Naval Air Weapons Station (NAWS) mission. During discussions between our respective staffs, both agree that controlling cattle drift onto the Station will be impossible along the northern boundary of the Station and will likely occur along portions of the western boundary line as well. For this reason we concur that Alternative A, the Proposed Action, appears to be the most reasonable grazing proposal. This Alternative will only allow for resumption of grazing in the Cactus Flat-McCloud Flat portion of the LCM.

Alternative A provides for the "conditional" construction of a drift fence from "the south end of the fence separating NAWS from LCM Allotment at the Upper Cactus Flat boundary and run west to the ridge bordering McCloud Flat". The document indicates that this fence would only be constructed if circumstances (cattle drift) indicate that it is necessary. Even though there is Navy fence along most of the area proposed in Alternative A, there are portions that are not fenced and cattle drift onto the Station is highly likely. This portion of the NAWS ranges continues to be used extensively for weapons test and training activities. Cattle trespass and related recovery efforts would have a negative effect on security and safety aspects of our mission, as well as potentially adverse impacts to riparian areas and historic properties located in this part of the Base.

For these reasons we are recommending that the drift fence be constructed prior to permitting cattle turn-out and that routine fence inspection and maintenance be made a permit condition for this allotment. This proactive effort would minimize the Station's operational and compliance concerns cattle trespass would create.

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Ser OPDK/717
August 31, 2009

Thank you for the opportunity to comment on the Environmental Assessment for reactivation of grazing on the LCM allotment. Should you have any questions or require additional information please contact Mr. Tom Campbell at (760) 939-3222 or at tom.campbell@navy.mil.

Sincerely,

JOHN O'GARA
Head, Environmental Management Division
By direction of
the Commanding Officer

The following comments were submitted by interested public organizations or individuals. The BLM has endeavored to answer the issues raised by the commenters. The comments were submitted by Western Watersheds Project, the Center for Biological Diversity, and one individual, Janet Westbrook during July and August of 2011. In addition brief comments were submitted by e-mail by 3 individuals and the California State Lands Commission submitted comments, also.

Comments submitted by Western Watersheds Project, Michael J. Connors

COMMENT 1: *The Purpose and Need statement does not include any information as to whether there has been an application from a qualified operator to use the allotment, and thus whether there is any need to even consider re-authorizing grazing on the allotment lands. EA at 6-7. Cabin Bar Ranch is now owned by Crystal Geyser. The NEPA document should disclose whether there is a qualified operator who has applied to graze on the allotment, and whether there are base waters or base property to sustain the livestock operation when the allotment conditions are unsuitable for livestock grazing (i.e. during a drought year, after fire, etc.). This is an important context for decision-making when the BLM is considering opening this Mojave Desert landscape to livestock use after a decade-long reprieve.*

RESPONSE 1: There is a qualified, long-time Owens Valley operator who currently controls the base property who has applied to graze on the allotment. This operator has sustained his herd on private property and by using Olancha Common at its scheduled time, for more than a year.

COMMENT 2: *The BLM's grazing regulations require that grazing authorizations comply with the governing land use plan. Under the 2006 West Mojave Plan Record of Decision ("ROD") the entire allotment lands outside designated wilderness were re-designated as multiple-use Class L. The California Desert Conservation Plan ("CDCA Plan") allows grazing to occur in multiple-use Class L lands "subject to the protection of sensitive resources". CDCA Plan at 17. Thus, the BLM has the burden of showing that it is protecting the allotment's sensitive resources if it is to comply with the CDCA Plan. As we discuss below, the proposed action does not protect important resources. The EA admits that cultural resources would continue to be threatened (EA at 30) and that grazing would increase in wilderness (EA at 51). The EA fails to establish that sensitive plant and animal species will be protected. The BLM needs to revise its NEPA analysis to comply with the CDCA Plan's requirements. The BLM must take the "hard look" at impacts to sensitive resources that is required by NEPA in the context of ensuring that any authorized actions will protect the allotment lands' sensitive resources and not place them risk, as required by the CDCA Plan.*

RESPONSE 2: The commenter is concerned with grazing disturbing resources on newly classified Class L lands on the allotment. On the LCM allotment the commenter is particularly concerned about protective measures for cultural, wilderness and sensitive plant and animal species.

Cutlural Resources: It should be evident from the EA that of the 82 recorded sites there were no statements noting that grazing had disturbed the sites. This may be a small sample over the whole allotment but it is a large enough number of sites to gage where cattle have grazed. Furthermore, if

sites were found to need protection this is accounted for by the Supplement which mandates the implementation of Standard Protective Measures.

Threatened & Endangered Animal Species: While acknowledging that there is some dietary overlap between the Mohave Ground Squirrel (MGS) and cattle, it should be noted that flowering for annuals, in good years, begins in late March. The proposed dates of grazing (December – March) overlaps with the period of MGS use to a very limited extent. The bulk of annual production does not begin until April. In drought years MGS may use more perennial forage but new growth on shrubs begins after the grazing period is finished.

Furthermore, the EA (p 43) outlines a very stringent vegetation utilization monitoring schedule during the grazing period (3 times in 4 months) which would work to limit overuse of perennials even during the dormant season before "green-up" occurs. Utilization is generally done on current year's growth. Therefore, the utilization would be done on the previous spring's growth after the MGS had already foraged.

Rare Plant Species: The concern of the commenter is primarily for Ripley's Cymonpterus and Mojave Milkvetch. The Ripley's Cymopterus is located outside the grazing area. Even if the cattle grazed the area northeast of Haiwee Reservoir they would not be grazing during the flowering and seed setting periods for the plant. The Mojave Milkvetch has only been recorded twice, one occurrence was on steep slope and the other site no longer supported specimens. Furthermore, Milkvetch is poisonous to livestock which is a protection from being consumed. Moreover, monitoring by bureau plant specialists has been ongoing.

Wilderness: Although Alternative A allocates 8 – 9% more AUMs more over a 4 month period than was allocated over a 7 month period in 1994 there are factors which suggest that this allocation is not a breach of wilderness regulations regarding adverse impacts. (1) The 8 – 9% increase was based on the AUMs being spread evenly over two pastures. The BLM knows that the Lower Cactus-McCloud Flat was grazed more heavily than the Lower Centennial Flat, the BLM just does not know by how much because records were not kept on a pasture by pasture basis. (2) When original allocations of AUMs were made in the CDCA Plan, 30% of the AUMs were allocated to wild horses and burros and 22% were allocated to livestock. It is no longer necessary to allocate anywhere near that high a percentage to wild horses and burros nowadays. The herds of wild horses and burros have been substantially reduced. This means a higher percentage may be safely be allocated to livestock. (3) Switching the grazing from 7 months to 4 months and allowing only winter grazing would have, despite the commenter's opinion, a positive effect on the vegetation primarily because of the timing of the grazing. The commenter argues that cattle would be more likely to graze in the wilderness in winter because winter rains would fill the earthen stock pond in the wilderness and the cattle would be drawn to it. However, the winter rains are not the rains that fill the stock pond. Spring rains and summer thunderstorms generate the overland flows which fill the pond. Though there may be more over all rains in the winter they occur over a wider area and enable the cattle to disperse over a wider area, both outside and inside the wilderness. In the winter the cattle are less dependent on centralized water sources and more spread out within the forage area.

From the examples of protections offered for resources the BLM feels it is meeting the Class L land use requirements put forth in the CDCA Plan of 1980.

Two people commented on Carrying Capacity:
COMMENT 3 (WWP): *Carrying Capacity: "In this latest version of the EA, the BLM has abandoned its earlier recalculation of the carrying capacity using satellite data collected in the 1970s and instead has simply concluded that: (a) the carrying capacity determined in 1980 was correct and is still representative of today's conditions, and (b), that productivity is uniform across the allotment and thus calculates the carrying capacity for specific areas by prorating from the carrying capacity stated in the 1980 CDCA Plan.*

The BLM provides no data that its 1980 determination of carrying capacity is still valid. In fact, the BLM's initial scoping letter stated that the Little Cactus Flat and McCloud Flat areas suffered from grazing pressure in the 1980s and 1990s. Scoping Notice at 8. This is highly indicative of long-term grazing above the carrying capacity for the area. In addition, changes in non-native species abundance, changes in recreational impacts, changes in species status, and changes in climate have occurred. Yet the proposed action would increase authorized use in the Cactus Flat area, which includes designated wilderness, by some 9%. EA at 51.

Nor does the BLM have data to support the proposition that productivity is uniform across the allotment and so can simply pro-rate AUMs. To the contrary, the breakdown of the spectral analysis presented in the 2009 EA clearly establishes that productivity is localized and highly variable. 2009 EA at 78. The EA itself in its analysis of impacts to Wilderness notes that forage production is uneven1. EA at 47.

Clearly then, the carrying capacity of the present configuration of the Lacey-Cactus McCloud allotment is unclear, and even more so for the areas proposed for use under the proposed action. The proposed action's grazing authorization is thus arbitrary and not based on resource availability, in violation of FLPMA's provisions regarding carrying capacity. 43 C.F.R. § 4110.2-2(a) "

1 And, curiously, the Wilderness section continues to use the spectral data in its analysis!

2 Lesica, P. and Miles, S. 2004. Ecological strategies for managing Tamarix on the C.M. Russell National Wildlife Refuge, Montana, USA. Biological Conservation, 119: 535-543.

COMMENT 1 (Westbrook*): "Carrying Capacity - has been done with maps, GIS, but no indication that anyone has ground-checked the area in question to check forage, plant health, etc. How scientific is it to have a stocking rate of 18 or 19 acres per AUM?"*

RESPONSE to Carrying Capacity:
From the comments it is apparent that several individuals don't understand the process of determining an AUM allocation or the relationship between some of the terms used in the process. The comments also feel that by BLM presenting additional data to support the forage allocations, the entire process is then illegal. The commenters also feel that BLM has no scientific basis for the

estimates of forage production and allocations presented in the EA. The comments chastise BLM for "abandoning" the use of the landsat analysis described in previous documents. The same time, comments also question the validity of such "old" data.

First, to understand the process, an understanding of the terms , their definitions, and their relationships is important. The CDCA Plan and other documents discuss these terms and relationships. From the CDCA Plan we find that in a vegetation community the weight all of the above ground vegetation is called the total standing biomass. The CDCA Plan indicates that approximately 14% of that biomass is renewed each year and is termed renewable production. It is recognized that only a portion of the total renewable production consists of species that livestock would consume. Further, we know that only a portion of the production can be utilized by livestock on a sustained yield basis. This sustained yield and livestock forage preferences is the basis of the proper-use factors referenced in the EA. The proper-use factor is a species by species list of forage species with the amount of the current year's growth (renewable production) that can be safely removed. When the renewable production, the livestock forage preferences and the proper-use factors are combined, the renewable livestock forage production is derived. According to the CDCA Plan, this renewable livestock forage production represents approximately 1% of the total standing biomass and less than 10% of the renewable production. From the total renewable livestock forage production value, various allocations such as wildlife, wild horses and burros and other resource needs are subtracted. This results in the available livestock forage production. The total standing biomass and the renewable production are expressed in weight while the remaining figures can be expressed in weight or AUMs (Animal Unit Months). An AUM is the amount of dry forage that is consumed by an adult cow and its calf in one month. This weight is defined in the CDCA Plan as 450 kilograms or 990 pounds of forage. A forage allocation is the maximum amount of the available livestock forage that BLM would allocate to livestock use. Such factors as demand, slopes, distance to water, operator preference and restriction such as wilderness are considered in the allocation. On an annual basis the allocation could be restricted due to such factors as animal movement, weather conditions and vegetation responses. Active monitoring of the allotment and weather conditions are considered in any yearly adjustments deemed necessary.

BLM has not abandoned the landsat data. The discussion in the EA was meant to present additional information and discuss the production and allocations on a regional basis to validate the estimates of production and proposed allocations. The numbers presented in the EA from the CDCA Plan used the landsat data. The landsat technique is actually a multispectral-multi-stage technique. With this technique, landsat images of the CDCA were collected and analyzed to produce a classification that represented vegetation reflection classes. Large scale (1:1000) air photos and ground transects were acquired then analyzed to generate regional data on species and production by spectral class. When the data sets were combined along with allotment boundaries, BLM was able to generate information on renewable production and renewable livestock forage production by allotment. As noted in the EA, the CDCA Plan shows the original allotment as having 415,554 acres. Based on the CDCA Plan, that used the landsat data, a renewable livestock forage production of 23,307 AUMs was obtained for the original L-C-M Allotment. This calculates out to 17.8 acres per AUM. As noted in the EA, other allotments in the area were rated at 20 acres per AUM (Olancha Common Allotment, just west of the L-C-M Allotment) and 24 acres per AUM (Tunawee Common Allotment, just south of the L-C-M Allotment) by the CDCA Plan. This would indicate that the AUM production estimates for the L-C-M Allotment is similar to other allotments in the area. The reconstructed landsat production estimates for the Cactus Flat-McCloud Flat area (41,900 acres) is 2193 AUMs. This calculates out to 19 acres per AUM. The

1966 adjudication inventory rated the Cactus Flat-McCloud Flat area production at approximately 2,000 AUMs. The 1966 data was generated from extensive ground transects. This calculates to approximately 21 acres per AUM. All of these estimates fall within a few AUMs per acre of each other. BLM proposes to allocate approximately 40% of the estimated available livestock forage to livestock in the proposed alternative A.

As can be seen from the above data, several approaches to estimating production have produced similar results. There is no evidence that estimates of forage production need to be revised regularly as advocated by the comments. The current science leans away from conducting new inventories to establish new production estimates. The current science is to use past inventories and actual use information along with monitoring actual vegetation responses to grazing and to adjust use as necessary.

Comments suggests that BLM has only conducted a paper exercise with maps and average production in the office to estimate production that ignored site to site variations in production. As discussed in the EA and above, BLM has looked at several sources to evaluate the forage production for the allotment. As noted above, both the landsat inventory and the 1966 inventory relied on ground transects as part of their input. In addition to evaluating past range surveys and the CDCA Plan data, Rangeland Health evaluations have been conducted which found no grazing related issues. Utilization studies carried out both when cattle grazed the area and since cattle were removed were also looked at in addition to professional field checks. None of this indicated that BLM should start over and ignore 75 years of experience in managing the area.

Michael J. Connor of the Western Water Shed Project l commented on the Rangeland Health Assessments. . This comment is noted below:

COMMENT 4: *The Rangeland Health Assessment (RHA) is already six years old. EA at 7. At the time, BLM attributed failure to meet rangeland health standards to flood damage. Ibid. The BLM should have revisited the site and reevaluated the current conditions of the allotment to determine whether there has been sufficient recovery from floods to support the action alternatives.*

The BLM insists without evidence that the salt cedar infestation on the allotment is not related to livestock grazing. EA at 36. Because salt cedar responds to hydrologic disturbance, the BLM should consider the impacts of water developments for livestock being a contributing or cumulative effect. Disturbance associated with livestock grazing may provide tamarisk with its bare-soil regeneration niche, and cattle will selectively browse on willows and other native riparian shrubs thus facilitating salt cedar spread and establishment (Lesica and Miles, 20042).

RESPONSE 4: Rangeland Health Assessments are long term assessments designed to evaluate whether an allotment meets rangeland health standards or not. The Rangeland Health Assessments are not to be used as trend monitoring studies where the same site would be resampled regularly. The assessment is conducted by an ID (interdisciplinary) team. The team determines the number and location of areas to be evaluated and sites to sample for an evaluation or a reevaluation. The purpose of the process is to determine whether the allotment meets rangeland health standards. The bureau requires having rangeland health assessments in place prior to renewing a permit. This

works out to approximately every ten years . In this allotment, there would not be any deterioration expected as a result of grazing because there has been no grazing use since the assessment was completed. BLM continues to conduct regular inspections in the area to assess current conditions.

The site reference in the range health assessment with flood damage is Black Spring. The flood was a large 20+ year summer storm event which caused damage throughout several drainages in the area. Impacts included road damage which led to the closing of Highway 190 near Owens Lake and extended through the drainage all the way up through Black Spring and the canyon above the spring. Black Spring is located in a narrow canyon and is fenced to exclude livestock and burros from the main spring and the canyon above. The flood caused damage inside and above the exclosure, and damaged the fences, the water development and portions of the pipeline below the spring. Black Spring is within the Centennial Flat area and would not be used under alternative A. Under alternative B, repairs to the spring area and pipeline are noted in the EA. These repairs would be completed prior to livestock use in the area under alternative B.
The salt cedar noted in the Rangeland Health Assessments and EA was located at Lower Centennial Spring. According to the site write-up prepared by the ID team, three small salt cedar plants were found at the site. They also noted young willow and cottonwood at the site. They also noted flood damage and that the water diversion had been destroyed. Cattle had not been at the site for a number of years. The ID team concluded that cattle were not a factor in the presence of salt cedar at the site. Salt cedar is a very aggressive non-native invasive species that will invade into nearly any wet or moist area. BLM finds that salt cedar infestations follow drainages and many new infestations are found after summer flood events which scatter seeds and plant parts. It is believed the infestation at Lower Centennial Spring resulted from the flood event bringing in seed. The EA proposes under alternative B the reconstruction of the water diversion at Lower Centennial Spring. The removal of the salt cedar will occur independent of the grazing decisions. As noted in the EA, the proposed reconstruction would also move the watering site away from the spring area. Cattle would only graze the Lower Centennial Spring area under alternative B.

COMMENT 5: *The EA does not describe how cattle will be moved on and off the allotment, nor does it explain how cattle will be moved between the proposed Cactus – McCloud Flat and Lower Centennial grazing areas for Alternative B. The EA provides no analysis of impacts from cattle being herded across either wilderness or non-wilderness lands. Presumably the cattle will be trucked in although truck access to the Cactus Flat area is limited. The revised NEPA document should explain this key component of grazing management and analyze its environmental impacts.*

RESPONSE 5*:* The cattle will be trailed across parts of the allotment not designated as grazing areas. See the evaluation of impacts to these areas in the proposed action, Alternative B, and in the critical elements (Chapter 3). For the proposed action the trailing or crossing will consume 7 AUMs going over and coming back (14 total) which will be part of the 790 AUMs allotted for the grazing season because they will be used on the first and last days of the grazing period. For Alternative B, there will be 16 AUMs total used in trailing. There will be 4 AUMs consumed going to Lower Cactus Flat and 4 AUMs consumed going to Lower Centennial Flat plus the return from each area.

Actual consumption of AUMs while crossing or trailing will be less than what is estimated because cattle will consume less while on the move.

COMMENT 6: *Because the proposed action would be contingent upon range developments, the EA should have analyzed and disclosed the impacts of those developments. EA at 11. The analysis should have specified the cost/benefit of these range developments, indicated potential impacts to cultural and ecological resources, and provided a range of alternatives. Here, the BLM has merely postponed analysis of a clearly related action, in violation of NEPA.*

Use of two water hauls sites at Cactus - McCloud Flat are proposed in the Mohave ground squirrel section (EA at 43) but there is no mention of these sites elsewhere in the document and they are not shown on the Range Improvements map. Irrespective of whether the BLM considers waterhaul sites to be nonpermanent they do have impacts that must be addressed.

The revised NEPA document should clearly document where the range improvements are located, which of the range developments will be retained, and which will be decommissioned under each alternative.

RESPONSE 6: The three fences on Upper Cactus Flat are presented and analyzed in Chapters 2 & 3.

The two water haul sites in the Cactus-McCloud Flat grazing area, referred to by the commentor, are numbers 5384-2 and 5384-3. These water haul sites were established in 1991 and they do appear on the Range Improvement map in Appendix 1. Project 5384-1 was a site which was never developed because of its proximity to private land and its proximity to the allotment boundary. This site is not depicted on the range improvement map in Appendix 1. Three other water haul sites are depicted on the map (5383-1, 2, 3) as well. These water haul sites are proposed for use of the allotment under Alternative B and were not fully examined at this time.

COMMENT 7: *The EA vacillates between analyzing three or four alternatives, the proposed action (Alternative A), Alternative B, the "No Action" alternative (Alternative C), and the "No Grazing" alternative (Alternative D). EA at 10-17. The "No Action" alternative, which would preserve "current" management practices, is ostensibly not analyzed in the EA. EA at 17. Except that it is. EA at 32, 37, 53, etc.*

Similarly, while the proposed action analyzes an alternative that removes grazing from the Lower Centennial Flat area, the EA also admits that this may or may not be the case. EA at 11. The BLM states that grazing might occur in this area if there is fence repair. Ibid. The EA should therefore examine and disclose the costs and impacts of this expanded use. It is especially confusing because, while the proposed action contains this ambiguous language about use of this area, the EA distinguishes the proposed action from Alternative B based on this very criterion. For example, the BLM calls Alternative B the "Lower Centennial Flat Option." EA at 37. The EA concludes that impacts to Mohave ground squirrel will be greater under alternative B than A because the Lower Centennial area will be grazed. EA at 43.

RESPONSE 7*:* The EA states (p 16) in the presentation of the No Action Alternative that this alternative will not be further analyzed because conditions surrounding the administration of grazing have changed and cannot be implemented.

For the response to the comment concerning grazing on the Lower Centennial Flat see the Proposed Action page 11.

COMMENT 8: *The proposed action would increase livestock use in parts of the Coso Range Wilderness. The BLM now calculates this to be an increase of about 9%. EA at 50. The BLM claims that this additional use will not have an adverse impact on wilderness values. EA at 50-51. The BLM justifies this no adverse effects claim by stating (1) the wilderness comprises only about 1/3 (34%) of the area to be grazed; two-thirds of the area lies outside of wilderness and is available to absorb most of the impacts of more intensive use; (2) with the exception of the Lower Cactus Flat Reservoir (5357), all watering sites where cattle would be expected to concentrate are located outside of wilderness and more than a mile from the wilderness boundary; and (3) cattle would be grazing in the area for only 4 months each year and only during the winter months of the year. The last point would be a significant improvement over what was occurring in 1994, when cattle were permitted to graze up to 7 months each year and throughout the spring time. The proposed change in the grazing regime would avoid direct impacts to plants and soils during the critical spring growing season. Ibid.*

The BLM's justifications are without foundation. First, the proposed grazing period is December 2 - March 30. This means that cows will not only be turned out during the winter rainy season when they are less dependent on developed water sources, but also that the Lower Cactus Flat Reservoir will be more likely to be full and will lure the cows into the Wilderness. The two-fold increase in cattle numbers will be occurring during the crucial plant germination and growth periods, and many of the annuals are flowering well before March 30 (e.g. see Jennings, 20013). The two-fold increase in cattle numbers will also be occurring when the soil is wet and most susceptible to compression, erosion and disturbance.

3 Jennings, W. B. 2001. Comparative flowering phenology of plants in the western Mojave Desert. Madroño, 48:
162-171.

The proposed placement of a new waterhaul site immediately adjacent to the Wilderness in alternative B will increase impacts on the Coso Range Wilderness and is completely unjustified in the EA.

The governing land use plan, the CDCA Plan, requires the Field Office to consider valid nonconforming resource uses and activities in the management of wilderness so as to have the least possible adverse effect and/or wherever possible a positive effect. CDCA Plan at 50, (actually at p 55), emphasis added. Increasing livestock use in the Coso Range Wilderness does not meet the have the least possible adverse effect criterion. Thus, the proposed action does not conform to the governing land plan.

RESPONSE 8:

The permit to graze during the period spanning wilderness designation did not assign numbers of cows or AUMS on a pasture-by-pasture basis. As a result, BLM can only make reasonable estimates of what the permitted use numbers may have been in the two remaining pastures of the reconfigured allotment. Grazing in wilderness is predicated on what the estimated permitted use levels were in 1994. BLM has stated that it believes a total of 1138-1238 AUMs were in use in the two pastures at the time of designation. Original estimates of AUMs remaining within the allotment after NAWS withdrew its lands have been lowered. BLM estimated there were 1254 AUMS of active preference in 1994. When the three dropped portions of the allotment are considered, the revised estimate is 1138 AUMS of active use for the revised allotment. This exuates to 165 cow/calf pairs over 7 months or 288 cow/calf pairs over 4 months. Numbers were lowered in part due to refinements in the forage estimates. (Also see comment 1 above) The lower numbers also reflect the loss of additional lands (and AUMs) from the allotment, specifically, the area north of Highway 190 adjacent to Hunter Mountain and the area between Owens Lake and Highway 190, as well as the withdrawals of the Darwin and Argus areas.

Under Alternative A, the permittee would be allocated up to 790 AUMs or approximately 70% of the total number of permitted AUMs allowed by the wilderness restrictions to graze 200 cow/calf pairs over a 4 month period. This is also about half of the estimated available livestock forage. These numbers are below estimates of the total number of AUMs (1138) and cow/calf pairs (288) permitted in the remaining two pastures of the allotment over a comparable 4-month period in 1994. In 1994, cattle were grazed over a 7 month period from November-May rotating among 6 pastures comprising 3 primary use areas. These use areas were: Lower Cactus/McCloud Flats, Lower Centennial Flat, and the most productive pastures on NAWS lands immediately south of Lower & Upper Centennial Flats.

Under Alternative A, cattle would be permitted to graze in just one of the two remaining use areas. They would be in Lower Cactus/McCloud Flats from December-March each year. Two-hundred cow/calf pairs would be grazing in the area over a shorter (4 month instead of 7 month) period of time. However, cattle would graze here only during the dormant, least sensitive part of the year. Cattle would not be grazing here in the springtime. Seven months of use would be compressed into 4 months. However, BLM thinks this is supportable, given that numbers of cow/calf pairs and AUMs are still well below total numbers of estimated AUMs and cow/calf pairs for both pastures over a comparable period in 1994 and below the estimated carrying capacity for the area. (More cow/calf pairs will consume more AUMs faster than fewer cow/calf pairs, hence the shorter season.) In addition, grazing would occur at a time of year when cattle use would have the least impact on resources. In contrast, Alternative B would run just half as many cows (100) over a longer 7-month period, including springtime, and would alternate and more evenly split use between the Lower Cactus/McCloud Flat area and the Lower Centennial Flat area.

The number of AUMs proposed for the Lower Cactus/McCloud Flats area alone over a 4-month period may exceed numbers of AUMs historically permitted in the area in 1994, based upon the assumption that use of both pastures was evenly split. However, BLM knows this was not the case in 1994. The Lower Cactus/McCloud Flat area was much more intensively grazed than the Lower Centennial Flat pasture. How much more intensively grazed Lower Cactus/McCloud was than Lower Centennial Flat is not documented. It is known only from

individual institutional knowledge of what the prevailing use levels and grazing strategy was at the time.
At this point, it may only be possible for BLM to determine with certainty now and in the future that the total number of permitted AUMS for both areas does not exceed the total estimated to have been permitted for these areas in 1994. Under Alternative A, the proposed permitted amount for the Cactus Flat-McCloud Flat pasture, even at 790 AUMs, falls well below the estimated total of 1138 AUMs for both pastures in 1994. Theoretically, this leaves a balance of 348 AUMs available for the Lower Centennial Flat pasture should grazing be permitted there someday, based upon estimated use levels in 1994. Alternative B proposes total use levels (697 AUMs) under this alternative which is lower than those proposed for Alternative A and even lower than total estimated permitted use levels in 1994.
The following mitigating circumstances mentioned in the Wilderness section of the EA still hold true.

(1) The wilderness comprises only about one-third of the area to be grazed; two-thirds of the area lies outside of wilderness and is available to absorb most of the impacts of more intensive use.
(2) With the exception of the stock pond, all watering sites where cattle concentrate are located more than a mile from the wilderness boundary.
(3) Cattle would be grazing only 4 months of the year during the winter, rather than 7 months of the year during the winter and critical spring growing season.

The comments disputes the claim that 4 months of grazing during the winter time would be a significant improvement over 7 months of grazing during the winter and critical spring growing season. The comment feels cattle would be more likely to graze in wilderness during the winter time than during the spring time as water would be more generally available throughout the range in winter and the stock pond would be more likely to be full of water. Cattle may be less tied to water developments in winter time. As a consequence, they may be more likely to disperse throughout the range, including the wilderness portions of the range. This would not, however, in itself significantly increase numbers of cattle inside wilderness. Cattle would be just as likely to forage farther outside of wilderness. At least half of the wilderness portion of the proposed Alternative A grazing area consists of steep uplands with slopes ranging from 30% to 50 % which further restricts or eliminates grazing from much of the wilderness. At the time of wilderness designation (the ten-year grazing period spanning 1994), cattle were grazing in the area in winter time, as well as in spring time.

The stock pond is a point water source located approximately ½ mile inside wilderness. It was constructed in 1964 as a dugout in an existing playa to increase the depth and storage capacity. It was estimated to hold less than ¼ acre feet of water. It may draw and keep more cattle in this portion of the wilderness area when it is full, but the ¼ acre feet of water would only provide water for the 200 head for around 20-30 days. Water flow into the stock pond normally occurs as a result of summer thunderstorms. Winter storm events rarely generate overland flows into the pond. The summer storm events that are large enough to fill the tank are not regular occurrences and many times are several years apart. In addition, BLM does not believe cattle like to use this water source, perhaps because of the chemistry of

the playa. There has been little to no evidence of cattle use here in the past. This is why BLM is proposing to retire this development, i.e., no further maintenance would occur.

A new water haul site has been proposed outside of wilderness to replace the stock pond if management deems it necessary for proper management in the future. The water haul site would be located outside of wilderness – how far outside of wilderness it would be located has not been determined. It certainly would have less impact on wilderness the farther it is located from the wilderness boundary. This water haul site has been proposed as something that might happen in the future, but it is not part of the current proposal at this time and would require an additional EA and decision to be authorized.

There are numerous studies documenting that annual wildflowers will start flowering in March in some areas. The literature also agrees that the flowering period is delayed at sites of higher elevation or farther north. One accepted rule of thumb is that the flowering is delayed approximately two weeks per 1000 feet of elevation gain. Much of the proposed grazing area is 3000 to 5000 feet higher than the Indian Wells Valley where annual wildflowers start flowering in late March. This would project flowering on L-C-M Allotment to occur in May and June. Most of this period would be avoided by the proposed alternatives. The CDCA Plan directs BLM to manage wilderness in a manner to have the least possible adverse effect and the most beneficial effect on wilderness values whenever possible. However, the CDCA Plan does not trump law and regulation. The Wilderness Act provides for grazing, a non-conforming but authorized use, where it was occurring at the time of designation (Section 4(d)(4)(2) of the Wilderness Act of 1964). Wilderness regulations regarding grazing are found in 43 CFR Parts 6300 and 8560 Wilderness Management; Final Rule (12/14/2000). These rules contain restrictions on authorizing new support facilities in wilderness and on authorizing increases in livestock numbers in wilderness. Again, because the permit to graze during the period spanning wilderness designation did not assign numbers of cows or AUMS on a pasture-by-pasture basis (or on a wilderness or non-wilderness basis), BLM can only make a reasonable estimate of what the approximate permitted use levels may have been in 1994 in the two remaining pastures of the reconfigured allotment which span wilderness.

The reference to wilderness guidance in the CDCA Plan is taken out of context. The actual text discusses the need to manage wilderness"… in accordance with the provisions of the 1964 Wilderness Act, the specific legislation approving the wilderness designation and approved Wilderness Management Plans. These individual Wilderness Management Plans will require creative measures to structure the Bureau's actions to meet the requirements of the Wilderness Act. Generally these plans will contain actions that: … (8) Consider valid nonconforming resource uses and activities in the management of wilderness so as to have the least possible adverse effect and/or whenever possible a positive effect; and…" No Wilderness Management Plans have been prepared for the area of the L-C-M allotment so that portion of the text has not been articulated.

However, this does not mean that BLM can abrogate its responsibilities under the Wilderness Act until wilderness management plans are completed. BLM has an ongoing

responsibility to monitor and manage wilderness for wilderness character and values and to take steps to preserve and maintain wilderness quality and to improve on it as needed and whenever possible. The resumption of grazing in an area that has not been grazed in more than 10 years will have noticeable impacts. Cattle can impact soils, trample the land and remove vegetation as noted in the EA. Impacts will be particularly noticeable in wilderness where higher standards tied not just to rangeland health but to wilderness character must be applied. Wilderness character is defined by: untrammeledness, naturalness, opportunities for solitude or primitive and unconfined recreation, and unique (or supplemental) values. These qualities will be monitored and factored into subsequent range decisions if grazing is resumed. Even in the absence of a wilderness management plan, BLM may find grazing impacts on wilderness to be unacceptable if:

(1) Wilderness character is found to be deteriorating below thresholds established at the time of wilderness designation in 1994;
(2) The wilderness area is unable to meet rangeland health standards, proper functioning condition, or new WEMO grazing prescriptions;
(3) Grazing causes unacceptable impacts to critical, threatened, and/or sensitive resources for which the wilderness was established and from which the wilderness accrues value.

COMMENT 9: *The EA claims that there will be no difference to recreational users of the Lacey-Cactus-McCloud Allotment between Alternatives A and B. EA at 37-38. This cannot be true given the differing lengths in seasons of use and the impact on wildflowers and wildlife that affects recreational enjoyment and use of the allotment's lands.*

RESPONSE 9: Recreational visitors to the public lands desire and enjoy many different experiences from the public lands. Some of the many recreational pursuits and experiences do have an interconnection between enjoyment and the presence of wildflowers and wildlife found on the public lands. Refer to the Wildlife and Vegetation sections of the EA for a discussion of the affected environments and impacts of both Alternatives A & B upon these resources.

COMMENT 10: *The EA uses average soil stability of the upland sites to support its proposed action. EA at 39. These ratings apparently include areas where livestock do no congregate, therefore skewing the information pertaining to the impacts of the proposed action. The BLM should indicate what the ratings were by site, and whether or not there was livestock use of the site, before it draws any conclusions about the impacts of the proposed action.*

RESPONSE 10: The EA notes that the concentration sites are designed the to meet management goals that recognize concentrated use and associated impacts. As noted in the EA, the concentration areas comprise approximately 0.08% of the allotment. The significance of the concentration areas on an overall basis is small and are analyzed on their own in the EA. The term upland is used to classify sites outside riparian areas. In conducting Rangeland Health evaluations, different criteria and techniques are used for uplands vs. riparian areas. Rangeland Health Evaluations are not intended to evaluate impacted sites such as roads, mines or livestock concentration areas where the management goals do not

include meeting Rangeland Health Standards. The Soil Surface factor (SSF) analysis developes a numerical rating for a sample area. The rating can range from 0 (very stable) to 100 (very bad). Values in the range of 0 to 20 are ranked as stable, 21-40 as slight, 41-60 as moderate, 61-80 as critical and 81 to 100 as severe. As quoted in the EA, the SSF in the allotment averaged 9.8 which is in the stable range. Actual sites ranged from 2 to 23.

COMMENT 11: *The analysis of impacts to cultural resources relies on an inaccurate characterization of the alternatives. Under the description of the proposed action, the EA claims that potential threats to cultural properties would continue but would be diminished significantly because of reduced acreage. EA at 30; emphasis ours. Alternative A reduces the currently available acreage (165,140 acres; EA at 4) to 148,819 acres (EA at 10), a reduction of ten percent. Still, no matter how few acres are really being reduced, the measure of effects to cultural sites cannot be estimated using this kind of basic math; cultural sites are not distributed homogeneously over the landscape and, as the BLM itself states, grazing threats would be greatest in areas where cattle congregate. EA at 30. Therefore, in order to assess impacts to cultural resources, the EA should contain an analysis of the extent to which sensitive areas will be off limits under each alternative.*

RESPONSE 11: The BLM believes this comment was answered in the discussion pertaining to the Cultural Resource Element.

COMMENT 12: *The BLM mentions but then dismisses the substantial evidence that livestock are vectors of invasive species infestations by arguing that low numbers of cattle using the area. EA at 35. But the grazing intensity is increased under the proposed action number (EA at 50) and so the risk of spread of invasive species within the allotment lands will increase. The EA claims that cattle come from areas adjacent to the allotment (EA at 36) but fails to connect this with the risk of spreading Brassica infestations from the nearby roads (EA at 35-36). Massive roadside Brassica infestations are clearly evident to anyone driving along Route 395.*

Given that the allotment hasn't been used in ten years, an analysis of current conditions (with species cover and composition) of non-native and invasive species compared to adjacent grazed lands is essential to predict the impacts that the proposed action alternatives might have.

RESPONSE 12: The EA discusses the role of livestock in the spread of invasive non-native species. It also discusses the existing invasive non-native species their locations and their biology. The EA concludes that in spite of the potential, the threat is low.

The comments express concern about the Brassica infestations. The EA discusses the mustards (not all are in the Brassica genus) and their biology. It notes that the primary vector is road maintenance activities. It also notes that the mustards require late season moisture. In this area, this limits the occurrences to sites with late season moisture which are typically roadsides where moisture concentrates from the road and there is little competition for moisture. The potential for the cattle to spread and establish these mustards is low given the phenology, seed characteristics and site requirements of these species.

The idea that BLM should embark on a long term study to model the possible impacts of invasive non-native species is not practical. The current weed management plan calls for a process of early detection and rapid response for invasive non-native species rather than use a predictive model to guide management actions.

COMMENT 13: *The Lacey-Cactus McCloud Allotment includes one of the few known populations of Ripley's Cymopterus, Cymopterus ripleyi var. saniculoides. This CNPS list 1B plant is susceptible to impacts from cattle grazing (CNPS, 2007). Because the 2006 West Mojave Plan and EIS failed to consider Ripley's Cymopterus, the BLM must fully analyze the direct, indirect and cumulative impacts to the plant in its NEPA analysis. BLM must also demonstrate that it has complied with H-6840-1-Special Status Plant Management.*

Without providing any supporting data, the EA claims that the occurrences on the allotment would not be impacted by cattle because there are no occurrences or suitable habitat on the Cactus Flat/McCloud Flat portion of the allotment. EA at 41. However, the EA does not explain how drift of cattle into the known Ripley's Cymopterus occurrences will be prevented, what monitoring will be done, and what management actions will be taken if cattle do impact the plant. Lack of water will not reduce cattle drift in to the habitat because grazing is proposed for the winter/spring season when most of the precipitation falls.

The EA states that the Ripley's Cymopterus population north and east of Haiwee Reservoir was surveyed on May 11 and May 24, 2011 "and no signs of cattle or past grazing were found". EA at 41. But this would be expected if cattle have not been grazed in the area for over ten years. The EA provides no information on population trends. Nor does the EA explain what surveys were conducted and which methodologies were used to reach the conclusion that suitable habitat for the species is absent from the Cactus Flat/McCloud Flat portion of the allotment.

There are occurrences of the Mojave milkvetch (Astragalus mohavensis var. hemigyrus) both to the east and to the immediate north (CNDDB Occurrence 2) of the Lower Centennial Grazing Area. The EA should describe the surveys that were conducted to determine that the species and suitable habitat are absent from the allotment.

Without any explanation at all, the BLM has ignored the Panamint Mountains Lupine, Lupinus magnificus, which occurs just above Lower Centennial Spring on the Centennial Flat portion of the Lacey-Cactus-McCloud Allotment. (see 2009 EA at 41).

RESPONSE 13: Ripley's Cymopterus has not been recorded from the Cactus Flat/McCloud portion of the allotment, but no recent surveys were conducted to determine if it is present. Population trends in north and east of Haiwee Reservoir are difficult to assess since the plants may not send up leaves in years of severe drought. Cymopterus plants are known to remain alive underground with no evidence of life above ground in dry years. In 2011 an ample number of plants were in evidence at the site visited since moisture was plentiful this past winter and spring.

Mojave milkvetch (Astragalus mohavensis var. hemigyrus) occurs in calcareous soil. Only 2 occurrences are documented in CNDDB, one from 1941 and one from 2001. The area of the 1941 occurrence has been searched more recently and none were found. The 2001 occurrence was on a

steep talus slope. The allotment has not been surveyed for this species. However, Astragalus is poisonous to livestock, and it is unlikely that grazing would endanger this species. Mining of talc and pumice is more of a threat to Mojave milkvetch. In 2006, RareFind showed an occurrence of Panamint Mountains Lupine as occurring just above Lower Centennial Spring, but this occurrence is no longer in the data base. Apparently the plant was mis-identified. All the occurrences in the data base now are from Death Valley National Park and from Pleasant Canyon in the Panamints.

COMMENT 14: *BLM Manual 6840 requires the BLM to manage Bureau sensitive species and their habitats to minimize or eliminate threats affecting the status of the species or to improve the condition of the species habitat, by determining, to the extent practicable, the distribution, abundance, population condition, current threats, and habitat needs for sensitive species, and evaluating the significance of BLM-administered lands and actions undertaken by the BLM in conserving those species.*

The BLM sensitive pallid bat, Antrozous pallidus, has been recorded on the allotment. EA at 57. The West Mojave Plan planning process identified the allotment as including significant bat hibernation roosts (West Mojave Evaluation Report Map Volume - Bat Roosts, 1999). Despite the pallid bat's sensitive species status and the importance of the bat roosts, all the BLM's has to say about bats in the EA is a general statement that, "Bats often forage over water where insects are abundant. Sufficient vegetation is required to provide the diversity of invertebrates that comprise the bats' diets." Ibid. However, the pallid bat is a "gleaner" and is largely a ground forager (Hermanson and O'Shea, 19834; Lenhard et al., 20105). This behavior renders them susceptible to injury and predation (Hermanson and O'Shea, 1983). Grazing by cattle may degrade foraging areas reducing prey diversity and density. The NEPA document must be revised to comply with the procedures outlined in Manual 6840 for BLM sensitive species that use the allotment including the pallid bat, other bat species, the burrowing owl, LeConte's thrasher, and loggerhead shrike.

RESPONSE 14: BLM policy addresses special status species that may be affected by BLM activities. One of the objectives of the BLM special status species policy is: "To initiate proactive conservation measures that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA." (BLM Manual 6840: Special Status Species Management 12/12/2008).

Two species which are listed as BLM Sensitive Animal Species occur on the LCM allotment: the burrowing owl (Athene cunicularia) and the pallid bat (Antrozous pallidus). LeConte's thrasher and loggerhead shrike are not on the most recent (2006) list. Townsend's big-eared bat (Corynorhinus townsendii), a BLM sensitive species, has been documented just south of the allotment.

Burrowing owl habitat is characterized by low-growing vegetation in areas with suitable soil for stable burrows. Burrowing owl habitat also includes Joshua tree woodlands and shrub lands if the canopy cover is less than about 30 percent of the ground surface. These small, diurnal owls typically use burrows made by mammals, such as ground squirrels or badgers, or by desert tortoises. Most of the LCM allotment provides suitable habitat for burrowing owls. Burrowing

owls eat a large variety of prey, including small mammals, insects, and lizards. Over-grazing could result in collapsed burrows and reduced prey.

The pallid bat is documented as occurring in the Vermillion Canyon and the Cactus Peak USGS quads. A maternity colony of Townsend's big-eared bats is located south of Haiwee Reservoir, which is just south of the allotment, and a maternity colony of pallid bats has been documented in the southeast part of the allotment.

To prevent adverse impacts to the burrowing owl and bat populations, cattle would be distributed sparsely across the allotment and removed when thresholds of use are reached. Timely monitoring and utilization studies described in the permit renewal EA are essential to proper management.

COMMENT 15: *The EA's treatment of the Mojave desert tortoise, Gopherus agassizii, is both confused and inadequate. The EA at 41 states, The desert tortoise is a State and Federally Threatened species. The most recent information on the desert tortoise is found in the Desert Tortoise Recovery Plan Assessment Draft (Tracy, et al, 2004) and the Final West Mojave Plan (U. S. Bureau of Land Management, 2004). The L-C-M allotment is entirely outside of the desert tortoise range as designated in WMP. BLM has no records of desert tortoises within the allotment. And the EA at 58 states, The allotment is outside of the desert tortoise habitat designated in WMP. The area is north of the tortoise's range.*

Aside from the fact that a draft revised recovery plan and a number of important research papers have been released in the seven years since the referenced 2004 assessment, the West Mojave Plan variously states that the allotment includes 1,800 acres of desert tortoise habitat (WMP at 3- 214); 18,000 acres of desert tortoise habitat (WMP Table 3-45); and, approximately 18,025 acres of non-critical habitat for desert tortoise (WMP Appendix habitat O.2). The signed 2006 West Mojave Plan Record of Decision ("ROD") states that, "Table 3-45 on page 3-215 contains a misprint for the acreage of desert tortoise habitat on the Lacey-Cactus-McCloud grazing allotment. The correct acreage of desert tortoise non-critical habitat is 1,800 acres." ROD at 8. Thus, although the 2006 West Mojave Plan is a land use plan – and as such did not designate the range of any species – it clearly identifies that there is desert tortoise habitat on the allotment.

The EA provides no survey data to confirm presence or absence of desert tortoise from the habitat identified in the West Mojave Plan ROD. Nor has the EA addressed our prior comments that because the allotment is near the northern range for the species, with climate change tortoise numbers may increase in this area.

4 Hermanson, J. W., and T. J. O'Shea. 1983. Antrozous pallidus. American Society of Mammalogists. Mammalian Species. No. 213: 1-8.

5 Lenhart, P. A., Mata-Silva, V. and Johnson, J. D. 2010. Foods of the Pallid Bat, Antrozous pallidus (Chiroptera: Vespertilionidae), in the Chihuahuan Desert of Western Texas, The Southwestern Naturalist, 55(1): 110-115.

6 Not least of which is recent description of the Mojave desert tortoise population as a distinct species. See Murphy R. W., Berry K. H., Edwards, T., Leviton, A. E., Lathrop, A., and Riedle, J. D.

2011. The dazed and confused identity of Agassiz's land tortoise, Gopherus agassizii (Testudines: Testudinidae) with the description of a new species and its consequences for conservation. ZooKeys, 113: 39-71.

RESPONSE 15: The LCM allotment contains about 1800 acres of desert tortoise habitat, according to the WMP. The EA is incorrect in saying that the allotment is entirely outside of the tortoise's range. The northern portion of the desert tortoise's range could become more important to the survival of the species since climate change puts the lower elevations and southern portions of the desert tortoise's range at risk of increased frequency of drought. Droughts greatly reduce the availability of annual forage. The tortoise would be more likely to persist in cooler, moister areas as the climate continues to warm. Therefore, more than 1800 acres of the LCM allotment could become tortoise range as climate change progresses. Cattle could crush tortoise burrows. Young tortoises could be crushed either inside of the burrow or outside of it since cattle will be grazing from December through March which is during both the hibernation period and the emergence period of tortoises. Cattle do not eat annuals that the desert tortoise relies on for forage, but they do crush annual vegetation. In drought years, when very little annual forage is able to germinate, tortoises have a hard time finding enough to eat. If cattle stocking rates are too high or cattle congregate too densely, they could trample and crush the sparsely occurring annual plants and reduce the amount of forage available to the tortoise. Cattle can reduce the shrub cover if the herd is not distributed sparsely across the allotment and if cattle are not removed when thresholds of forage use are reached. That is why timely monitoring and utilization studies are essential to proper management.

It should be noted that no tortoise locations that lie within the allotment have been reported to the California Natural Diversity Data Base. However, the BLM will be enforcing the tortoise stipulations applicable to grazing which are found in the Fish & Wildlife Service's B.O. (1-8-03-F-58) & WMP (Vol 1A, pp 2-124 – 2-128). Please see the Proposed Action at page 13 & critical element, "Threatened and Endangered Wildlife Species," page 47 .

COMMENT 16: *The BLM established the Mohave Ground Squirrel Conservation Area in 2006 with the signing of the West Mojave Plan ROD. Public lands within the Mohave Ground Squirrel Conservation Area were designated as a BLM Wildlife Habitat Management Area and public lands south of Owens Lake were reclassified from multiple-use Class M to multiple-use Class L.*

The plan restricts cumulative ground disturbance within the Mohave Ground Squirrel Conservation Area to 1%. According to the West Mojave Plan, the conservation area was established for the long-term survival and protection of the Mohave ground squirrel through "implementation of specific controls over uses such as off-highway vehicles, grazing, and commercial activities."

The West Mojave Plan ROD at 13 reiterates the following goals for Mohave Ground Squirrel ("MGS") conservation: Approval of the MGS wildlife habitat management area and implementation of specific controls over uses such as off-highway vehicles, grazing, and commercial activities ensures that the following goals are achieved:

Goal 1: ensures long-term protection of MGS habitat throughout the region

Goal 2: ensures long-term viability of the MGS throughout its range

In April 2010, the Fish and Wildlife Service issued a positive 90-day finding on a petition to list the Mohave ground squirrel under the Endangered Species Act and concluded that listing the Mohave ground squirrel may be warranted due to destruction, modification, or curtailment of the species' habitat or range. 75 FR 22063-22070. In the 90-day finding, the U.S. Fish and Wildlife Service acknowledged that livestock grazing may have contributed to the range contraction of this species, and may continue to threaten the squirrel because of shrub removal, soil disturbance, and habitat degradation. Ibid. at 22068.

The Lacey-Cactus-McCloud Allotment lies within the Mohave Ground Squirrel Conservation Area. The EA proposes a number of new range developments for both Alternatives A and B. The EA acknowledges that there is a 1% cap on ground disturbance in the Conservation Area but fails to report the cumulative ground disturbance to date. Nor does the cumulative effects section discuss the many industrial-scale energy projects within the Mohave ground squirrel's range that the BLM is currently considering.

The Cactus-McCloud Flat grazing area lies in the center of the important Coso-Range-Olancha core area, the most northerly of the four identified Mohave ground squirrel core areas (Leitner, 20087). These core areas 4 core areas continue to support relatively abundant Mohave ground squirrel populations and thus their protection is of key importance in conserving the species. The EA fails to even mention the core areas. The status quo obviously isn't working to protect the Mohave ground squirrel from serious threats to its existence from livestock such as competition for food, shrub removal, soil disturbance, and habitat degradation (see the USFWS 2010 finding). The BLM's plan to limit adverse impacts from grazing to the Mohave ground squirrel depends on limiting utilization of shrubs species to levels "used in the past to prevent overgrazing on the allotment." EA CA-650- 2008-27 at 43. Given the statement in BLM's initial scoping letter that the Little Cactus Flat and McCloud Flat areas suffered from grazing pressure in the 1980s and 1990s it is unclear what this means. Certainly, a review of the prior monitoring would be valuable in informing the likely success of any proposed monitoring. At a minimum, the BLM must clarify where the monitoring sites are located and which of the various utilization levels will be used to trigger removal of the cattle.

The EA states that for the proposed action two water haul sites would be used in McCloud and Cactus Flats to draw the cattle to specific areas at different times during the 4 month grazing period to prevent over-use of forage. However, these water haul sites are not mentioned anywhere else in the EA and are not listed in the list of range improvements. On page 49 the EA states that the BLM is proposing to use several existing water haul sites and to add one more off of the existing vehicle route network. The BLM also states that water haul sites are not permanent installations. Ibid. That may be true, however water haul sites do have environmental impacts and those impacts must be addressed in the NEPA analysis.

The EA ignores such impacts from livestock as trampling and collapse of burrows, increased predators due to water availability and cattle presence, and in changes in soil and vegetative structure, and accelerated erosion.

The BLM is legally obligated to avoid actions that will propel a species listing. The Field Office needs to take a "hard look" at the direct, indirect and cumulative impacts of livestock grazing on Lacey-Cactus-McCloud in the light of both current knowledge and the current status of the species. The Field Office is also mandated by the goals described in the West Mojave Plan which includes ensuring long-term viability of the Mohave ground squirrel population.

RESPONSE 16: In April of 2010, the U.S. Fish and Wildlife Service announced that a petition to protect the Mohave ground squirrel (MGS) under the Endangered Species Act (ESA) contains substantial information indicating that listing the species may be warranted. The Service will conduct an in-depth review (a 12-month finding) of all the biological information available on the species to determine whether the Mohave ground squirrel warrants listing as a threatened or endangered species under the ESA. BLM Washington Office Instruction Memorandum IM 97-118: Guidance on Special Status Species Management (6840 Manual) was issued in April of 1997 in response to the February 28, 1996 Fish and Wildlife Service (FWS), "Notice of Review of Plant and Animal Taxa That Are Candidates For Listing as Endangered or Threatened" (61 FR 7595). IM 97-118 reiterates BLM policy: "Consistent with existing laws, the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed."

To prevent excessive adverse impacts to the MGS, stocking rates need to be low, cattle need to be well distributed, and monitoring of forage must be timely in order to catch the moment that thresholds are reached. In dry years, few annual forage species germinate. Then the MGS must rely on the fresh growth of preferred shrub species; and cattle and MGS compete for forage. During drought years, shrubs are not able to put on much new growth. In such years, the 60% of the new growth left for the wildlife to eat may be a small amount. MGS are not the only wildlife competing with cattle for new growth. Jack rabbits are also major competitors for forage.

In early June of 2009, BLM recognized drought conditions on the Olancha allotment and terminated grazing before the end of the authorized period which was June 30. In 2007 and 2008, the rancher did not graze the Olancha allotment because he recognized that drought conditions prevented production of adequate forage for his cattle. This rancher is also the permitee for the LCM allotment. The combination of BLM and the rancher acknowledging lack of forage has prevented overgrazing on the Olancha allotment, and the same situation could apply to the LCM allotment.

Proper management includes distributing the herd sparsely across the allotment and removing them when thresholds of use are reached. Monitoring and utilization studies must occur in time to recognize that forage has reached the critical threshold that requires removal of cattle. In dry years during which cattle are allowed to graze, monitoring needs to be frequent since new growth is minimal and cattle could reach the 40% threshold in a short time period. Timely monitoring depends on availability of the BLM range specialist and his assigned priorities. Threats to the MGS, such as competition for food, shrub removal, soil disturbance, and habitat degradation, could potentially be prevented with frequent, thorough monitoring of cattle movement and forage condition. Competition for food could only occur from time of MGS emergence in mid-late February through March 30 since that is the end of the grazing period. In a year of average rainfall,

the MGS may be active into July. Thus, for several months, the squirrels would not be competing with cattle for forage and should be well nourished before going into hibernation.

Cumulative disturbance in the designated WMP Conservation Areas could occur in 1% of the total area (the 1% limit set forth in the WMP) within the next 5 to 7 years if most of the proposed projects are approved and implemented. These impacts would occur from activities related to energy development (geothermal, solar, wind), fiber optic lines, mining, and grazing. The cumulative ground disturbance to date might be between 100 and 200 acres since the large projects are not yet approved.

The Coso Range/Olancha core area for the Mojave ground squirrel is the northern most of the 4 MGS core areas. These core areas are important for conservation of the species since the main populations contract and expand from these areas of optimal habitat in response to changes in annual precipitation. These core areas allow the MGS populations to recover from periods of drought. It is essential to maintain connectivity among the 4 core areas to allow genetic flow and maintain genetic diversity. The health of this northern core MGS population depends heavily on careful monitoring to recognize when utilization thresholds have been reached. These considerations are discussed in the EA.

COMMENT 17: See Westbrook for Response --- Comment 17 included in responses to Westbrook Comment 8.

The BLM needs to demonstrate a substantial support for the claims made regarding social and economic values in the EA, or should substantially revise them. There has not been an active permit on the Lacey-Cactus-McCloud Allotment since 2000. EA at 5. It is therefore inexplicable that the BLM claims that the selection of the "No Grazing" alternative would "likely erode the social values of those in the community who see value in living in a small western ranching community. It would also impair those businesses and families in the community who count on the Cabin Bar Ranch for business and employment." EA at 38. If there are still people in the community who "count" on a business that has been inoperable for over ten years, Olancha is more tenacious than it appears. As mentioned above, Crystal Geyser now owns Cabin Bar Ranch.

In reality, the social and economic makeup of Olancha is very different from that portrayed in the EA. For example, the detailed draft analysis8 conducted by Cal-Trans in preparation for the Olancha/Cartago Four-Lane Project (the Route 395 widening project) indicates that few if any Olancha residents are employed in the livestock business. Almost 100% of residents are employed in the retail/service, light industry, industry, and commercial sectors (see Olancha/Cartago Four-Lane Project, page 47: Table 2-8 Businesses in Project Study Area). The more accurate statement is that there would be "no affect to a slight positive effect to on the social or economic values of the community." EA at 38.

7 Leitner, P. 2008. Current Status of the Mohave Ground Squirrel. Transactions of the Western Section of the Wildlife Society. 44: 11-29.

8 Available on-line at: http://www.dot.ca.gov/dist9/projects/olancha/docs/draft_olancha-cartago_envir_doc.pdf

RESPONSE 17: The BLM, as a member of the Executive Branch of the government, implements the laws the Congress has passed. The grazing fee was established by Congress. Its intent was not to pay for the grazing program. The law spells out the division of the collected funds. Part of the fees that are collected are deposited in the general fund, part are allocated to the counties and part are placed in a range improvement fund. The BLM budget is independently determined by Congress as part of the federal budget. Few of our programs are self-funded. As an example recreation, hunting, wildlife, endangered species, weed management and many other programs do not generate revenue. Congress has determined that it should provide funds to manage public lands and that many programs, including grazing will be authorized.

The current permittee is a long time Owens Valley rancher who depends on grazing as his sole support. He has gotten by for several years by reducing his herd and purchasing feed. Income from his operation and his payroll all get spent in the local economy and pay county taxes. BLM's role in the process is to administer the grazing program based upon the laws and directives given by congress. It is not BLM's role to decide that a particular rancher and his family and employees are not important and should be eliminated.

COMMENT 18: *Despite our repeated requests to do so, the BLM has failed to assess the cumulative impacts of solar energy, wind energy, and geothermal energy developments on the same resources, such as the Mohave ground squirrel, that will be impacted by the proposed action alternatives. The Ridgecrest Field Office is heavily involved with industrial energy development projects. The effects of livestock grazing on the resources of Lacey-Cactus-McCloud Allotment must be considered in that context. The EA makes no mention of this type of intensive development. EA CA-650-2008-27 at 61. The agency is required to consider the cumulative impacts to the environment. 40 CFR § 1508.7.*

RESPONSE 18: BLM is involved in the evaluation of a number of projects. Those evaluations will include a look at cumulative impacts. The West Mojave Plan also looked heavily at cumulative impacts and included a number of mitigations which included offsets and limits on disturbance to Mohave ground squirrel (MGS) habitat to limit the cumulative impacts. A number of the originally proposed projects in the area have been dropped from consideration. It would be very speculative as to what the future impacts may be and it would be beyond the scope of this document to evaluate the cumulative impacts to the MGS from all possible developments over its entire range. As noted in the EA, the expected impacts to the MGS as a result of the alternatives is minimal. The proposed alternatives would therefore result in very little cumulative increase in impacts to the MGS.

COMMENT 19: *"Certainly, a review of the prior monitoring would be valuable in informing the likely success of any proposed monitoring. At a minimum, the BLM must clarify where the monitoring sites are located and which of the various utilization levels will be used to trigger removal of the cattle."*

RESPONSE 19: Past monitoring records are incomplete. Monitoring locations for utilization would have to be established to obtain a diversity of vegetation. Utilization levels on key forage species would follow the guidelines established by the WMP (Table 2-17, Chapter 2, page 124 and see page 12). Where proper use factors are lower than those thresholds stated in the WMP the proper use factors will be used. Fourwing Salt Bush and bunchgrasses are the most likely candidates to trigger removal of the cattle.

COMMENT 20: *"these water haul sites are not mentioned anywhere else in the EA and are not listed in the list of range improvements. On page 49 the EA states that the BLM is proposing to use several existing water haul sites and to add one more off of the existing vehicle route network. The BLM also states that water haul sites are not permanent installations. Ibid. That may be true, however water haul sites do have environmental impacts and those impacts must be addressed in the NEPA analysis."*

RESPONSE 20: The new water haul sites pertain to Alternative B and are not analyzed in this EA. A separate EA would be prepared to assess these sites. (See range improvement map in Appendix 1, page 84)

Comments submitted by Janet Westbrook

COMMENT 1: *Carrying Capacity - has been done with maps, GIs, but no indication that anyone hasground-checked the area in question to check forage, plant health, etc. How scientific isit to have a stocking rate of 18 or 19 acres per AUM?*

RESPONSE 1: See response to Carrying Capacity under Western Watersheds Project Comments, #3.

COMMENT 2: *Does anyone have any accurate data on just how much grazing of the plants occurs from "wildlife, wild horses, burros" to justify reducing the AUM numbers?*

RESPONSE 2: The section of the EA describing the impacts of wild horses and burros estimates that 95% of the wild horse use occurs on the Navy base. Several gathers of wild horses and burros has drastically reduced the populations of wild horses and burros. The heaviest use has always been on the Navy base and when the Navy discontinued grazing it also took the biggest part of the grazing areas which would reduce the number of AUMs needed for wildlife, and wild horses and burros.

COMMENT 3: *Proper Use Factors for Forage Plant Species - numbers on the list range from 5 to 40% to 50% for grasses)- does anyone explain this to the cows? Does anyone actually field*

check to see what and how much the cattle are eating?? What do the wild horses and burros eat as opposed to the cattle? How about deer?

RESPONSE 3: In the Proposed Action the BLM states that it will use the Proper Use Factors (PUF's) for the plant assemblages found in the West Mojave Plan except when the PUF's found in Appendix 3 are lower. The PUF's for the plant assemblages found in the WMP range from 35 – 40% for dormant season grazing. This is well below the 40 – 50% listed for most key forage species listed in Appendix 3.

There is no current record of how much the cattle eat because the allotment has not been grazed for 11 years. In the section of the EA discussing impacts to wild horses and burros the specialist indicated that horse and burro use in the area was very light.

COMMENT 4: *Mojave Ground Squirrels ARE in the area. This alone should be a good reason to keep cattle out. A 1000-pound animal smash ground squirrel burros at a time when they are hibernating. Cattle and squirrels both like to eat Winterfat and Spiny hopsage, but you're saying that the cattle can eat 40% of these plants. Can they recover enough to provide food for the MGS? MGS also collect seeds from the grasses, but can't if the cattle eat them first.*

RESPONSE 4: In April of 2010, the U.S. Fish and Wildlife Service announced that a petition to protect the Mohave ground squirrel under the Endangered Species Act (ESA) contains substantial information indicating that listing the species may be warranted. The Service will conduct an in-depth review (a 12-month finding) of all the biological information available on the species to determine whether the Mohave ground squirrel warrants listing as a threatened or endangered species under the ESA. BLM Washington Office Instruction Memorandum IM 97-118: Guidance on Special Status Species Management (6840 Manual) was issued in April of 1997 in response to the February 28, 1996 Fish and Wildlife Service (FWS), "Notice of Review of Plant and Animal Taxa That Are Candidates For Listing as Endangered or Threatened" (61 FR 7595). IM 97-118 reiterates BLM policy: "Consistent with existing laws, the BLM shall implement management plans that conserve candidate species and their habitats and shall ensure that actions authorized, funded, or carried out by the BLM do not contribute to the need for the species to become listed."

As you mention, MGS eat the seeds of desert needle grass. To prevent excessive adverse impacts to the MGS, stocking rates need to be low, cattle need to be well distributed, and monitoring of forage must be timely in order to catch the moment that thresholds are reached. Proper management could leave enough grass plants to produce seed for MGS. MGS burrows may be crushed under the feet of cattle, and individuals could be killed. When a species is a candidate for federal listing, that species' habitat should be managed in a manner that prevents loss of individuals to the extent possible.

When cattle take 40 % of the new growth on a shrub, the amount of cover is reduced to some extent. In dry years, few annual forage species germinate. Then the MGS must rely on the fresh growth of preferred shrub species; and cattle and MGS compete for forage. In dry years, shrubs are not able to put on a lot of new growth. In such years, the 60% of the new growth left for the wildlife to eat may be a small amount. MGS are not the only wildlife competing with cattle for new growth. Jack rabbits are also major competitors for forage. The grazing of cattle should not be

authorized in dry years during which important forage shrubs are not able to put on much new growth. In addition, proper management includes distributing the herd sparsely across the allotment and removing them when thresholds of use are reached. Monitoring and utilization studies must occur in time to recognize that forage has reached the critical threshold that requires removal of cattle. In dry years during which cattle are allowed to graze, monitoring needs to be frequent since new growth is minimal and cattle could reach the 40% threshold in a short time period. Timely monitoring depends on availability of the BLM range specialist and his assigned priorities.

COMMENT 5: *"The Wild West" - the public that I deal with on regular field trips to the area get excited about searching for wild horses and burros, not looking at cattle stomping desert lands and springs.*

RESPONSE 5: Recreational visitors to the public lands desire and enjoy many different experiences from the public lands. It is true that some people get excited and enjoy searching for wild horses and burros while others find it intriguing to see that ranching still occurs on the desert range. While other people are concerned over the impacts that all of these types of animals have on the natural environment found in the desert environs.

COMMENT 6: *No one has addressed winter snows. It snowed rather heavily several times on the areas in question the winter of 2011, and I've seen it do that before. What happens to the poor cattle then? What if it's a very, very dry winter, as we have occasionally? That's going to be very hard on the plants and the springs.*

RESPONSE 6: Snow is a regular occurrence in the area. The weather records From Haiwee Reservoir show that the average yearly snowfall is 4.9 inches with snow falls recorded from November through April. The current rancher has grazed in the Owens Valley for several generations and has encountered snow before. The historic use in the LCM Allotment has included the winter season for over 70 years. There are emergency provisions in the regulations to allow supplemental feeding and other measures if necessary. There are also provisions in the rules and the EA to restrict or cancel grazing due to poor forage conditions.

COMMNET 7: *Cattle grazing is known to aid in the spread of non-native species. It can't help but destroy the cryptogamic/cyanobacteria soils that have probably recovered in the past lo years. (this area is NOT a "hot" desert and crusts &form.) Grazing does have cumulative impacts on vegetation! - especially around water sites.*

RESPONSE 7: Also see comments for Western Watersheds; The EA discusses vectors affecting the spread of Non-native invasive species on the LCM allotment. It also discusses the biological soil crusts. The EA notes that crusts were found during the Rangeland Health Assessments. The EA notes that the reference from Belnap (2003 and 2005) noted that the hot deserts were the areas where there were high temperatures and high PET (potential evapotranspiration). Data from the Haiwee weather station shows that the mean summer high temperature is 104 degrees and the high is 117 degrees. The EA also references the role of

biological crusts in restricting germination of annual weeds. The EA also discussed the impact to resources around watering sites.

COMMENT 17: The BLM needs to demonstrate a substantial support for the claims made regarding social and economic values in the EA, or should substantially revise them. There has not been an active permit on the Lacey-Cactus-McCloud Allotment since 2000. EA at 5. It is therefore inexplicable that the BLM claims that the selection of the "No Grazing" alternative would "likely erode the social values of those in the community who see value in living in a small western ranching community. It would also impair those businesses and families in the community who

7 Leitner, P. 2008. Current Status of the Mohave Ground Squirrel. Transactions of the Western Section of the Wildlife Society. 44: 11-29.

count on the Cabin Bar Ranch for business and employment." EA at 38. If there are still people in the community who "count" on a business that has been inoperable for over ten years, Olancha is more tenacious than it appears. As mentioned above, Crystal Geyser now owns Cabin Bar Ranch.

In reality, the social and economic makeup of Olancha is very different from that portrayed in the EA. For example, the detailed draft analysis8 conducted by Cal-Trans in preparation for the Olancha/Cartago Four-Lane Project (the Route 395 widening project) indicates that few if any Olancha residents are employed in the livestock business. Almost 100% of residents are employed in the retail/service, light industry, industry, and commercial sectors (see Olancha/Cartago Four-Lane Project, page 47: Table 2-8 Businesses in Project Study Area). The more accurate statement is that there would be "no affect to a slight positive effect to on the social or economic values of the community." EA at 38.

8 Available on-line at: http://www.dot.ca.gov/dist9/projects/olancha/docs/draft_olancha-cartago_envir_doc.pdf

COMMENT 8: *Economics - (which are NOT discussed in the **EA1** -the Government charges $1.35 per **AUM** per month. So if the permittee grazes loo cow-calf pairs for 4 months, or even 7 months on these lands, the government will get $533.25 total, or $940.95. That's a great deal for the permittee, but surely not a good deal for our cash-strapped Government in times of tight budgets. How can BLM afford to have anyone check on the grazed lands to make sure regulations are being followed? The Alternatives call for BLM putting in drift fences - that surely can't be done for $533. It's time that the*

Bureau of Land Management STOP subsidizing such uses of PUBLIC lands. Cattle grazing has never made any money for the Government, (nor has logging on BLM lands). I'd rather have you use my tax money for other causes like restoration of damages caused by years of grazing, particularly around water sources.

Since this permittee has not grazed cattle for 11 years, there aren't any jobs "being lost" - those cowboys have moved on, nor will there be any loss for socioeconomic considerations to the community of Olancha. Therefore, if the permit is denied,

conditions will not be changed over what they have been for the past 11 years. "The cancellation of grazing on the allotment would likely erode the social values of those in the community who see value in living in a small western ranching community. It would also impair those businesses and families in the community who count on the Cabin Bar Ranch for business and employment." Not really. There are still plenty of cattle in the area, and not all that many people depend upon the Cabin Bar for full-time employment.

RESPONSE 8: The BLM, as a member of the Executive Branch of the government, implement the laws the Congress has passed. The grazing fee was established by Congress. Its intent was not to pay for the grazing program. The law spells out the division of the collected funds. Part of the fees that are collected are deposited in the general fund, part are allocated to the counties and part are placed in a range improvement fund. The BLM budget is independently determined by Congress as part of the federal budget. Few of our programs are self-funded. As an example recreation, hunting, wildlife, endangered species, weed management and many other programs do not generate money. Congress has determined that it should provide funds to manage public lands and that many programs, including grazing will be authorized.

The current permittee is a long time Owens Valley rancher who depends on grazing as his sole support. He has gotten by for several years by reducing his herd and purchasing feed. Income from his operation and his payroll all get spent in the local economy and pay county taxes. BLM's roll in the process is to administer the grazing program based upon the laws and directives given by congress. It is not BLM's role to decide that a particular rancher and his family and employees are not important and should be eliminated.

COMMENT 9: *"Monitoring - The rangeland monitoring of this allotment would continue in a manner similar to the way it has in the past." Oh dear- there hasn't been much monitoring in the past. " The focus of monitoring would be to conduct utilization studies and Rangeland Health Assessments." You won't have funds to do this, certainly not from the permittee's fees.*

RESPONSE 9: Timely monitoring depends on availability of the BLM range specialist and his assigned priorities.

COMMENT 10: *The laws do allow for grazing on public lands, but common sense should prevail. Just because you think you have 1236 AUM's worth of forage left doesn't mean you need to use that, or even half of it. What about the native animals? The Owens Valley, and all the valley to the south like Rose and Indian Wells and Fremont, used to be "belly high to a horse" in grasses- which is why the Mexican's brought cattle up here from LA in the early 1800's. It was uncontrolled grazing of cattle and sheep that has changed, most likely forever, the species composition of these valleys. However, plants are quite resilient and given the chance - i.e. no big herbivores eating them - they show recovery.*

I do see grasses now showing up on Centennial Flats. The Joshua Trees no longer get nibbled. Just because grazing on public lands has been going on for more than loo years doesn't make it right. Times and markets change. Just because we can graze most all

the desert lands doesn't mean we should! This is a fine time to permanently rest the grazing on these fragile lands south of Owens Lake.

Center for Biological Diversity…..Ileene Anderson

COMMENT 1: *The DEA Should Not Tier Off the Flawed West Mojave Plan----*
*In 2009, the federal court remanded the West Mojave Plan (WMP) back to BLM to consider a host of factors, including the inadequacy of the NEPA review regarding the impacts of grazing. CBD et al. v. BLM et al., 2009 U.S. Dist. LEXIS 90016, *89 n. 33 (alternatives) *103 (impacts to soils), *109 (impacts to water resources, UPAs and riparian areas) (N.D. Cal. September 28, 2009). Therefore, tiering the DEA to the invalidated WMP is unlawful. Further, in January 2011, the court ordered that BLM to reconsider any grazing decisions that had been adopted based on the WMP within six months after the revised FEIS and ROD are adopted by the BLM in March, 2014. CBD et al. v. BLM et al, Case No. C 06-4884 SI (N.D. Cal. January 29. 2011) Order Re: Remedy at 11. Thus, even if BLM could tier to the invalidated WMP regarding grazing which it cannot, it would also be required to undertake future reconsideration of the project as well after the new WMP is issued in March, 2014 which would result in the present process being a waste of agency time and resources. The BLM should, instead, use a full NEPA review using an EIS to evaluate this proposal as a "stand alone" project.*

RESPONSE 1: NEPA guidance requires BLM to reference and show conformance with existing land use plans. For the LCM allotment, the land use plan is the CDCA Plan with the West Mojave Plan (WEMO)amendments, Although the WEMO Plan was challenged, only portions were invalidated. None of the judge's orders effect the LCM allotment.

COMMENT 2: *Purpose and Need and Project Description are Unclear ---*
The actual purpose and need on why the proposed grazing is required is unclear. Because no grazing has occurred in the proposed Action area for over a decade, it is unclear why it now needs to be grazed. No compelling reasons of need are identified. Please clarify why the reconfigured allotment needs to be grazed.

RESPONSE 2: Since the grazing permit expired in 2000 there has been a need to determine what to do with the allotment. Since allotment is classified as suitable for grazing and there was a qualified applicant some of the alternatives have been to determine if grazing was to be re-authorized or not.

COMMENT 3: *The DEA Fails to Include a Full Range of Alternatives ----*
The DEA includes the Proposed Action, Alternative B, a no-grazing alternative and a no action alternative. It should also consider an alternative that would allow permanent relinquishment and retirement of the allotment. This alternative is feasible, based on the significant acreage reduction of the allotment and potential conflicts with established conservation objectives in the WMP.

RESPONSE 3: Since it was not designated for relinquishment in the WMP it would require a plan amendment. Relinquishment is a voluntary process. The no grazing alternative analyzes the same situation as an alternative to relinquish would.

COMMENT 4: *The DEA Fails to Adequately Analyze Alternatives -----*
Project description of the Proposed Alternative purports to include the 49K acres, of the 149K acre reconfigured allotment. The DEA analyzes the impacts associated with the Proposed Alternative but leaves open the option of expanding the area to be grazed (DEA at pg.11) if additional range improvements are done. However the DEA fails to analyze the expansion of grazing.

In the Environmental Analysis section inconsistently evaluates the no-grazing and no-action alternatives under the different resource sections. While it is likely that the analysis would be similar if not the same for these two alternatives, a consistent analysis throughout this section is useful.

RESPONSE 4: Correction: the Proposed Action includes approximately 41,900 acres, not 49K acres. Alternative B analyzes the expansion of grazing into the Lower Centennial Flat area. In the presentation of the No Action Alternative (p. 16) it says that this alternative will not be further analyzed because management practices could not be implemented. The analysis has been removed in critical elements where specialists have analyzed the No Action Alternative.

COMMENT 5: *A New Allotment Management Plan Must Be Included in the DEA ----*
While the DEA notes that "The existing Allotment Management Plan would terminate" (DEA at pg. 11), the DEA fails to require a new allotment plan. If in fact the allotment needs to be grazed, a new allotment management plan needs to be in place prior to any grazing, and that allotment management plan should be included for review as part of this NEPA process.

RESPONSE 5: The BLM believes that the environmental assessment and the terms and conditions of any subsequent permit provide sufficient guidelines to manage grazing until an allotment management plan (AMP) can be written.

COMMENT 6: *Rangeland Health Assessment Is Not Current ---*
Two rangeland health assessments from 1999 and 2005were used as a basis for determining the health of the allotment (DEA pg. 19). Therefore, most recent rangeland health assessment was done 6 years ago, and after 5 years without domestic stock grazing. Therefore it is not indicative of an evaluation of potential impacts from grazing.

RESPONSE 6: The 1999 Rangeland Health Assessment (RHA) was done while cattle were still grazing on the allotment and, therefore, would be indicative of what the impacts of grazing would be. The 2005 RHA reflects the state of the range after cattle were removed. The most critical tool for monitoring grazing impacts would be utilization which has not been done because there have been no cattle. Nine sites were assessed for rangeland health.

COMMENT 7: *Unclear Monitoring Requirements ---*

While the DEA discusses continued rangeland health monitoring (DEA at pg. 11), and short-term utilization monitoring (DEA at pg. 12), the DEA indicates that "Cattle would have to be removed from the allotment as soon as any of the utilization thresholds were met or exceeded" (DEA at pg. 43). We agree that quantitative utilization monitoring is essential, but it remains unclear the methodology to be used to assess utilization. Will there be exclusion areas in order to quantitatively evaluate utilization? What is the metric – the WMP community threshold for dormant season grazing (except some of the grazing will not occur in the "dormant" season) or is it the PUF threshold by key species? What is the actual methodology to be used to evaluate these essential factors? Absent a much more thorough analysis of the monitoring methodologies and triggers for action, the DEA fails to clarify how the monitoring is actually going to be implemented.

RESPONSE 7: Under section A.2.c the EA states that the utilization guidelines to be used would be those for "plant assemblages in the WMP", "unless thresholds (Proper Use Factors (PUF'S)) listed in Appendix 2 are lower." It also states that while plant assemblages found in the WMP do not correspond directly to the plant groups found on the LCM allotment most of the plants would be found in the Salt Desert Shrubland and the Mojave/Sonoran Desert Scrub assemblages. The threshold used would be for dormant season grazing. The method of assessing utilization would be the Key Forage Species method.

COMMENT 8: *Adequacy of Proposed Fencing ---*
While the DEA describes fencing that is needed to prevent drift onto NAWS, it does not clarify if the proposed fencing is adequate to prevent drift onto NAWS. If grazing is expanded (DEA at pg. 10), it is unclear if additional fencing is required. The DEA needs to address these fencing issues.

The EA fails to describe the type of fencing to be installed. Wildlife friendly fencing should be required.

RESPONSE 8: The north end, and south end fence lines correspond to an assessment with Navy personnel which established the need for additional fencing in the estimation of the Navy. The southernmost segment of the fence was deemed necessary when the BLM and the rancher found that cattle could get from the allotment to the Navy land through gaps in a large rock outcrop area.

Wildlife friendly fencing calling for 3 strands of barbed wire on the top with a smooth wire on the bottom, 16" above the ground is called for. The space between the top wire and the second wire is 12" so that deer do not get tangled while leaping. The overall height of the fence is 42".

COMMENT 9: *Rare Plants ----*
Numerous other rare plant species have potential to occur on the lands included in the proposed allotment1, including four 1B species, which are considered BLM sensitive species.

These species include:

.Astragalus atratus var. mensanus – California 1B.1
.Camissonia boothii ssp. boothii - – California 2.3
.Lupinus magnificus var. magnificus - – California 1B.2
.Penstemon fruticiformis var. amargosae– California 1B.3
.Trifolium dedeckerae – California 1B.3

These species should also be disclosed and evaluated for potential impact from the

proposed grazing. We also note that the DEA fails to use the most recent rarity rating scheme for plants as adopted by the State of California, which identifies Cymopterus ripleyi as a California 1B.2 species.

1 CNDDB 2011 http://www.dfg.ca.gov/biogeodata/cnddb/

RESPONSE 9: *Astragalus atratus var. mensanus* has not been documented as occurring on the allotment, although this species was recorded in 1930 as occurring 19 miles SW of Darwin near Devil's Kitchen, which is on China Lake NAWS. Several other occurrences are recorded on China Lake Naval Base to the east. *Lupinus magnificus var. magnificus* is also not recorded as occurring in the allotment, according to the data in RareFind. The closest occurrence of *Trifolium dedeckerae* is SW of Crystal Spring off the NE slope of Coso Peak. This species occur in Pinyon/Juniper Woodland and in coniferous forest, which is not present in the allotment. It has not been recorded in the allotment. *Penstemon fruiticiformis var. amargosae* has been recorded on China Lake Naval Base near Cactus Peak, east of the southern part of the allotment. *Camissonia boothii ssp. boothii* was recorded in 1931 west of the southern portion of the allotment. Neither of these 2 species have been recorded as occurring on the allotment. The EA should refer to *Cymopterus ripleyi* as a 1B.2 species in order to follow the recent California rarity rating scheme. The EA was originally written in 2006, and up-dates may have accidentally been over-looked.

COMMENT 10: *Rare Animals ----*
While the DEA states that no federally or state threatened desert tortoise have been identified on the grazing allotment (DEA at pg. 42), parts of the Proposed Action alternative include modeled habitat for desert tortoise as identified by the U.S. Geological Survey2. In light of global climate change and modeled changes anticipated in the Mojave Desert, this area is and could become even more important for desert tortoise. The DEA should include an analysis of impacts to desert tortoise in its analysis of environmental effects particularly since the proposed action is to continue for the next decade.

While the DEA mentions that the all the grazing allotment alternatives are within the boundaries of the Mohave Ground Squirrel Conservation Area (DEA at pg. 42), the DEA fails to identify that the Proposed Alternative basically bisects the northern core area for Mohave ground squirrel (MGS)3, potentially fragmenting the core area.

The Proposed Alternative overlaps the key emergence from hibernation time for MGS during February, setting up competition for resources between MGS and livestock. It also fails to evaluate impact from cattle on burrow damage to MGS burrows. Because the MGS is already a state-listed threatened species and has been petitioned for federal Endangered Species Act protection, the DEA fails to provide adequate data on the potentially detrimental effects to the MGS from increased competition from cattle, especially during the important early spring reproductive window. The BLM should revisit the DEA to adequately analyze this threat to the Mohave ground squirrel and its core habitat.

Additional rare animal species are known to occur in the area, but are not included in the affected environment analysis. Species include: Lasionycteris noctivagans, Pyrgulopsis wongi, and Microtus californicus vallicola.

RESPONSE 10: The LCM allotment contains about 1800 acres of desert tortoise habitat, according to the WMP. The northern portion of the desert tortoise's range could become more important to the survival of the species since climate change puts the lower elevations and southern portions of the desert tortoise's range at risk of increased frequency of drought. Droughts greatly reduce the availability of annual forage. The tortoise would be more likely to persist in cooler, moister areas as the climate continues to warm. Therefore, more than 1800 acres of the LCM allotment could become tortoise range as climate change progresses. Cattle could crush tortoise burrows. Young tortoises could be crushed either inside of the burrow or outside of it since cattle would be grazing from December through March, which is during both the hibernation period and the active period for tortoises. Cattle do not eat annual plants that the desert tortoise relies on for forage, but they do crush annual vegetation. In drought years, when very little annual forage is able to germinate, tortoises have a hard time finding enough to eat. If cattle stocking rates are too high or cattle congregate too densely, they could trample and crush the sparsely occurring annual plants and reduce the amount of forage available to the tortoise. Cattle can reduce the shrub cover if the herd is not distributed sparsely across the allotment and if cattle are not removed when thresholds of forage use are reached. That is why timely monitoring and utilization studies are essential to proper management. These considerations are discussed in the EA.

The Coso Range/Olancha core area for the Mojave ground squirrel (MGS) is the northern most of the 4 MGS core areas. These core areas are important for conservation of the species since the main populations contract and expand from these areas of optimal habitat in response to changes in annual precipitation. These core areas allow the MGS populations to recover from periods of drought. It is essential to maintain connectivity among the 4 core areas to allow genetic flow and maintain genetic diversity. The health of this northern core MGS population depends heavily on proper management of grazing, which requires close and careful monitoring to be sure that cattle are well distributed and that forage has not reached the utilization threshold. BLM does not expect this northern core area to be fragmented from the other 3 core areas if cattle are removed from the allotment as soon as utilization thresholds are reached.

To prevent excessive, adverse impacts to the MGS, stocking rates need to be low, cattle need to be well distributed, and monitoring of forage must be timely in order to catch the moment that thresholds are reached. MGS burrows may be crushed under the feet of cattle, and individuals could be killed. When a species is a candidate for federal listing, that species' habitat should be managed in a manner that prevents loss of individuals to the extent possible. Threats to the MGS, such as competition for food, shrub removal, soil disturbance, and habitat degradation, could potentially be prevented with frequent, thorough monitoring of cattle movement and forage condition. Competition for food could only occur from time of MGS emergence in mid-late February through March 30 since that is the end of the grazing period. In a year of average rainfall, the MGS may be active into July. Thus, for several months, the squirrels would not be competing with cattle for forage and should be well nourished before going into hibernation.

No suitable habitat is present on the allotment for Wong's spring snail (*Pyrgulopsis wongi*) and the Owen's Valley vole (*Microtus californicus vallicola)*. Wong's spring snail requires running water. It lives in perennial seeps and small to moderate-sized springs and spring runs and is commonly found associated with watercress (*Rorippa*), travertine deposits, and/or stones. The Owen's Valley vole lives in mesic environments, preferring dense herbaceous vegetation.

Beardless wildrye, (*Leymus triticoides*), rushes, and reeds are its preferred habitat. These types of habitats would be too small on the allotment to support a population of Owen's Valley voles since the allotment has very little mesic habitat.

The silver-haired bat, (*Lasionycteris noctivagans*), prefers to roost in trees. It uses hollow snags, beneath bark, and in abandoned woodpecker holes. Sometimes it roosts in the foliage of the trees. Females establish maternity colonies in hollow trees where the pups are raised. This species is primarily a forest dweller, feeding over streams, ponds, and open brushy areas. It probably occurs in the riparian woodland near Haiwee Reservoir, but the LCM allotment does not have suitable habitat.

COMMENT 11: *Global Climate Change ----*
The DEA identifies that "As a result, climate change in the LCM Allotment would likely result in very little vegetation change over the next ten years. Vegetation would rather be driven by the normal yearly weather variations" (DEA at pg. 62). In fact, studies over the last 30 years in the California deserts have identified that the average elevation of the dominant plant species rose by approximately 65 m4. So actually, it is very likely that through the duration of the proposed permit, there will be significant changes in vegetation on the allotment. The DEA should more accurately evaluate the change in conditions due to climate change on the allotment and then evaluate impacts from the proposed action.

RESPONSE 11: The quotation noted in the comments is from the EA. It is based upon the climate analysis from the weather station locate just a few miles from the allotment. That analysis showed that the climate at that location is not changing. If anything the regression line for the temperature shows a slight decline in temperature. The data shows that the temperature has been varying between one standard deviation below the mean to one standard deviation above the mean for many years. We have not observed any appreciable changes in vegetation over the last 35+years and don't anticipate great changes over the next ten years. The proposed grazing is based upon the use of short term and long term monitoring to yearly adjust grazing to the anticipated normal variations in rainfall and temperature. If there is a change in vegetation, the monitoring would reflect that and changes would be made

2 http://pubs.usgs.gov/of/2009/1102/
3 Leitner 2009.
4 Kelley and Goulden 2008.

COMMENT 12: *Analysis of Cumulative Impacts Inadequate ---*
The DEA fails to include an evaluation of the proposed Haiwee Geothermal Leasing Area (HGLA) which includes approximately 22,040 acres of land in the general area (it is unclear how much of an overlap exists) that could be targeted for geothermal leases. In addition, three pending geothermal lease proposals that total approximately 4,500 acres of federal mineral estate within the boundaries of the HGLA are currently under review for permitting, and those reasonably foreseeable projects are also not mentioned in the DEA. It is also unclear how the proposed action affects the Rose Spring ACEC. There may be additional actions proposed in the area that need to be included in the cumulative impacts section.

RESPONSE 12: The outcome of the HGLA process is unknown and speculative at this time. The grazing area as proposed would have little physical or biological overlap with the HGLA. The

HGLA is primarily within the Tunawee Common Allotment. When the HGLA EIS is completed, it will address the cumulative impacts of that proposal. It would be premature to speculate as to what impacts may occur as a result of the HGLA process. Those impacts will be addressed as necessaryin the HGLA EIS. Rose Springs is along the north western boundary of the Tunawee Common Allotment and is a considerable distance from the proposed LCM grazing area. There is no reason to address items that are outside the allotment and would not be impacted.

COMMENT 13: *Conclusion ----*
BLM is responsible for ensuring its actions comply with the ESA, NEPA, and FLPMA. BLM is also responsible for ensuring legal compliance with the Clean Water Act, the Clean Air Act, and all other pertinent federal laws and regulations. Based on the inadequacies that currently occur in the DEA, the BLM must go back and include the missing issues and more thoroughly address the insufficient issues identified above through a more comprehensive EIS. If the BLM chooses not to, it can only select the no grazing alternative. Thank you for your consideration of these comments. Please feel free to contact me with any questions and send all future correspondence regarding the grazing allotments to the Center for Biological Diversity.

RESPONSE 13: The LCM EA is prepared in compliance with applicable laws, regulations, policies and guidance. BLM's guidance for preforming a NEPA analysis is found in the BLM National Environmental Act Handbook H-1790. In the handbook is guidance on information needed in the affected environment including a citation from the EEQ (Council On Environmental Quality) which reads: The CEQ regulations require the BLM to obtain information if it is "relevant to reasonably foreseeable significant adverse impacts" if it is "essential to a reasoned choice among alternatives." (40 CFR 1502.22) BLM's interdisciplinary team has reviewed the proposed alternatives, relevant information and public comments to determine the inclusions into the affected environment. The Ridgecrest Field Office resources staff has over 70 years working in the area and is very knowledgeable to make recommendations on resource issues. Applicable provisions of FLPMA, NEPA, ESA, the Clean Water Act, the Clean Air Act, and all other pertinent federal laws and regulations are addressed in the EA. The EA did not find significant impacts that would require the preparation of an EIS.

"Cindy K"
<cakuller@msn.com>
08/12/2011 05:19 PM

To <stfitton@blm.gov>
cc
bcc
Subject Proposed Grazing Allotment in Inyo County

Mr. Fitton,

The Wild Free-Roaming Horses & Burros Act gives OUR wild mustangs the right to graze on OUR federal lands.

In my opinion, the Wild Free-Roaming Horses & Burros in Inya County should have grazing rights BEFORE the cattle.

<deeandbruce@cox.net>
08/16/2011 01:44 PM

To <stfitton@blm.gov>
cc
bcc
Subject Comment on Grazing Allotment

Dear Sir – If there are any wild horses that would be removed from this land in Inyo County to allow grazing permit for ten years, I am against granting this permit. I feel that the BLM has done enough damage to wild mustang herds of the West. Thank you. Deadra Ullman, Williamsburg, Virginia

Susan Fanning
<fanning_susan@yahoo.com
>
07/30/2011 09:19 AM

To stfitton@blm.gov
cc
bcc
Subject

What about the wild horses? It seems that the livestock industry is always catered too. I guess money talks, right??

STATE OF CALIFORNIA
CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Su~te1 00-South
Sacramento, CA 95825-8202

EDMUND G. BROWN JR., *Governor*
CURTIS L. FOSSUM, *Executive Officer*
(916) 574-1800 FAX (916) 574-181 0
Califomia Relay Service From TDD Phone **1-800-735-2929**
from Voice P hone **1-800-735-2922**

***Contact Phone:* (916) 574-1 890**
***Contact* FAX: (916) 574-1 885**

August 15, 2011

File Ref: SD # 2006-05-1 5.1

Hector Villalobos
Bureau of Land Management
Ridgecrest Field Office
300 S. Richmond Road
Ridgecrest, CA 93555

Subject: Environmental Assessment (EA) for the Livestock Grazing Authorization, Lacey-Cactus-McCloud Allotment, lnyo County (CA-650-2008-27)

Dear Mr. Villalobos:

Staff of the California State Lands Commission (CSLC) has reviewed the subject EA for the Livestock Grazing Authorization, Lacey-Cactus-McCloud (L-C-M) Allotment (Project), which is being prepared by the Bureau of Land Management (BLM) as the federal lead agency under the National Environmental Policy Act (NEPA) (42 U.S.C. 3 4321 et seq.). At this time, no state lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) has been identified. The CSLC has prepared these comments because of its jurisdiction over state school lands located within the allotment area as well as its trust responsibility for any and all projects that could directly or indirectly affect state owned sovereign lands andlor school lands, and their resources or uses (pursuant to State CEQA Guidelines, §§ 15381 and 15386, subd. (b)).'

CSLC Jurisdiction

In 1853, the United States Congress granted to California millions of acres of land for the specific purpose of supporting public schools. In 1984, the State Legislature passed the School Land Bank Act (Act), which established the School Land Bank Fund (SLBF) and appointed the CSLC as its trustee (Pub. Resources Code, § 8700 et seq.). The Act directed the CSLC to develop school lands into a permanent and productive resource base for revenue generating purposes. The CSLC manages approximately 469,000 acres of school lands held in fee ownership by the State and the reserved mineral interests on an additional 790,000+ acres where the surfaces estates have been sold. Revenue from school lands is deposited in the State Treasury for the benefit of the Teachers' Retirement Fund (Pub. Resources Code, 5 6217.5).

' The State CEQA Guidelines are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Based on information contained on the maps provided in the EA, staff has identified 14 parcels of fee-owned school lands within the area of the
allotment. CSLC staff is concerned about the potential for unauthorized grazing on school lands and, therefore, requests that the BLM require the applicants to apply for and obtain a grazing lease for these lands from the CSLC.

BLM Reponse: *There are of three full sections plus a quarter section of state lands within the area proposed for grazing in the proposed action. Only one half of one section will likely be grazed because of topographic considerations. The BLM will encourage the prospective permittee to contact the California State Lands Commission and apply for grazing privileges on state lands at the appropriate time.*

The state lands in question are: T20S, R38E, Sec 16; T20S, R37 ½ E, Sec 36;
T20S, R37E, ¼ SE Sec 36; T21S, R38E, Sec 16

In Alternative B where it is proposed that the Lower Centennial Flat be grazed there are three full sections and one quarter section of state land that are proposed for grazing. These lands are: T18S, R39E, ¼SW Sec 36; T19S, R39E Sec 16; T19S, R39-40E, ½E Sec36 + ½W Sec 31; and, T19S, R40E, ½W Sec 15 + ½E Sec 16.

These 6½ sections of state land are the only ones proposed for grazing under either the proposed action or Alternative B.

Proposed Proiect and Location

The BLM is proposing to issue one 10-year-term permit on the L-C-M Allotment to authorize livestock grazing (cattle) on approximately 165,140 acres of land (162,756 acres of public land and 2,375 acres of private land). The L-C-M Allotment is located east of Olancha, in lnyo County. U.S. Route 190 borders the allotment its north side and the China Lake Naval Air Weapons Station (NAWS) borders the allotment on the southern and eastern side.

Environmental Review

Cultural Resources: Chapter 3, Section E of the EA (Page 31) states that

approximately 1,620 acres (a little over 1 percent of the allotment's public lands) have been surveyed for cultural resources and that when conflicts between livestock grazing and significant cultural properties are identified and cannot be resolved, the BLM would consult with the California State Historic Preservation Officer (SHPO). In the event cultural resources are identified on public lands under the jurisdiction of the CSLC, we request that the BLM also consult with CSLC staff to ensure compliance with state law.

BLM Response: *In the event that cultural resources are identified on state lands the BLM would be pleased to notify the State Lands Commission as well as SHPO to assure compliance with state law. If the State Lands Commission becomes aware of cultural resources on state lands with proximity to BLM lands the BLM would like to be notified as well.*

Please send copies of future Project-related CEQA andlor NEPA documents or refer questions concerning environmental review to Joan Walter, Environmental Scientist, at (916) 574-1310 or via e-mail at joan.walter@slc.ca.gov. Please contact Jim Porter,
Public Land Management Specialist, at 916-574-1 865 or via email at
jim.porter@slc.ca.gov for information concerning the management and leasing of state school lands or Senior Staff Counsel Pam Griggs at (916) 574-1 854 (e-mail:pamela.griggs@slc.ca.gov) if you have questions concerning archaeological or historicresources under CSLC jurisdiction.

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
J. Porter, LMD, CSLC
P. Griggs, Legal, CSLC

FINDING OF NO SIGNIFICANT IMPACT

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
Lacey-Cactus-McCloud Grazing Permit Renewal Environmental Assessment
CA-650-2008-27

Finding of No Significant Impact:

The proposed action, as analyzed in the attached Environmental Assessment CA-650-2008-27, is not a major federal action, as defined in Title 40 Code of Federal Regulations (CFR) 1508.18, and will have no significant impacts on the human environment; therefore preparation of an Environmental Impact Statement (EIS) pursuant to Title 40 CFR 1508.13 is not required.

Rationale for Finding of No Significant Impact:

The primary purpose for conducting an environmental assessment is to determine whether or not a proposed action will have a significant impact on the human environment and therefore will require the preparation of an EIS. As defined in 40 CFR 1508.13, the Finding of No Significant Impact (FONSI) is a document that briefly presents the reasons why an action will not have significant effect on the human environment. The regulations further define the term "significantly" in 40 CFR 1508.27 and require that the context and intensity of impacts be considered in analyzing significance. The following provides an analysis of the significance of impacts of the proposed grazing actions in terms of context and intensity as defined in the regulations.

Context: The selected alternative is limited in geographic context (40 CFR 1508.27 (a)). The area that is proposed for grazing is a relatively small portion of the existing livestock grazing throughout the California Desert. There is one Federally listed threatened and/or endangered species present on the allotment – the desert tortoise. The discussion of significance criteria that follows applies to the intended action and is within the context of local importance. The Environmental Assessment (CA-650-2008-27) details the effects of the project and is incorporated by reference into this FONSI. None of the effects identified including direct, indirect and cumulative effects, are considered significant based on the stocking rate, minimal impacts to the

native vegetative community, and on conformance with the overall West Mojave Plan (WMP) desert plan amendment.
Intensity: This issue is addressed through the ten "significance" criteria described in 40 CFR 1508.27, and discussed below:

1) *Beneficial and adverse Impacts.*

Due to the design features of the approved Environmental Assessment, the predictive effects would include no infringement in habitat protection for the local fauna compared to the current conditions. A slight increase in protection for cultural and archeological resources is predicted as well. However, of all the alternatives, the proposed action provides the best balance between the livestock use and conservation of natural and environmental resources. Details concerning the effects of the proposed action are included in the Environmental Assessment.

2) *The degree to which the proposed action affects public health or safety.*

Adverse effects to the public health and safety anticipated to result from the implementation of the proposed action are minor and unlikely. Public health and safety was not identified as an issue.

3) *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park areas, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.*

The allotment contains unique cultural and archeological sites within the project area however, impacts to cultural resources may be minimized where appropriate by applying Standard Protective Measures listed in the Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. The project area does contain non-critical habitat for the desert tortoise a federally listed threatened and/or endangered species. Stipulations outlined in USFWS B.O. 1-8-03-F-58 and the West Mojave Plan should minimize impacts to tortoise habitat.

4) *The degree to which the effects on the quality of the human environmental are likely to be highly controversial.*

The nature of potential effects on the human environment from the proposed action is well established and not likely to be highly controversial. While the public may perceive this issue to be controversial, there are no known scientific controversies over the impacts of the decision. The effects of the proposed action on the quality of the human environment were addressed in the Environmental Assessment.

5) *The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.*

The proposed action is not unique or unusual. BLM has authorized livestock grazing on the Lacey-Cactus-McCloud Allotment since before the 1980's. The effects on the human environment from the proposed action are not uncertain and do not involve unique and unknown risks. All proposed actions are standard practices that have been previously implemented with known cause and effect relationships outlined in the Environmental Assessment.

6) *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.*

The proposed action does not set a precedent for future actions that may have significant effects, nor does it represent a decision in principle about a future consideration. The proposed action continues a traditional use of the public lands with consideration for sensitive species and the native plant community. Any future grazing lease renewals will be evaluated through the National Environmental Quality Act process, consistent with current laws and regulations.

7) *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.*

The proposed action was evaluated in the context of past, present, and reasonably foreseeable actions. These cumulative effects are identified in the Environmental Assessment and the WMP EIS from which this Environmental Assessment tiers. Significant cumulative effects are not predicted from the proposed action, based on the grazing permit renewal that would occur as a result of the decision herein.

8) *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.*

The proposed action will not adversely affect districts, sites, , structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor will the proposed action cause loss or destruction of known significant scientific, cultural, or historical resources. The cultural resource survey strategy and subsequent conservation strategies that are identified in the cultural critical element will help in the identification and conservation of both documented and undocumented cultural and paleontological resources.

9) *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.*

According to the West Mojave Plan Amendment to the California Desert Conservation Area Plan of 1980 there are 1800 acres of non- critical desert tortoise habitat out of approximately 165,000 total acres. The WMP contains grazing stipulations that were imposed by the USFWS. The BLM would be following those grazing stipulations as noted in the proposed action. The proposed action is designed to limit impacts to desert tortoise habitat.

10) *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.*

The approved action does not violate any known Federal, State or local law or requirement imposed for the protection of the environment. The Environmental Assessment and supporting project record contain discussions pertaining to the Endangered Species Act, National Historic Preservation Act, Clean Water Act, Clean Air Act, and Executive Order 12898 (Environmental

Justice). Furthermore, the approved proposed action is consistent with applicable land management plans, policies, and programs.

Approved: _____ _____
Ridgecrest Field Manager Date

Attachment:
Lacey-Cactus-McCloud Allotment CA-650-2008-27 EA