

# ENVIRONMENTAL ASSESSMENT

CA-690-EA06-25

Issuance of 10-Year Grazing Lease for Horse Thief Springs Allotment

U.S. Department of the Interior  
Bureau of Land Management  
Needles Field Office

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## CHAPTER 1: PURPOSE AND NEED

### A. Introduction

This Environmental Assessment (EA) is being prepared to disclose and analyze the environmental consequences of re-authorizing a livestock grazing lease for 10-years on the Horse Thief Springs Allotment. The 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. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any “significant” impacts could result from the analyzed actions. “Significance” is defined by NEPA and is found in regulation 40 CFR 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of “Finding of No Significant Impact” (FONSI). If the decision maker determines that this project has “significant” impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record may be signed for the EA approving the selected alternative, whether the proposed action or another alternative. A Decision Record (DR), including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in “significant” environmental impacts (effects).

### B. Background

#### Summary of current information:

Land Ownership acres in the allotment:

Public:	150,135
Private:	823
State:	7,666
Total:	158,624

Kind of livestock:

Cattle

Current authorized Use:

2,424 animal unit months (AUM)

Ephemeral or perennial:

Perennial/Ephemeral

Plan area:

NEMO

Identified for voluntary relinquishment:

No

### C. Purpose and Need for the Proposed Action

In 1999, the grazing lease for the Horse Thief Springs Allotment expired. The grazing lease was renewed under the authority of Public Law 106-113. The grazing lease was renewed for a period of 5 years and contained the same terms and conditions as the expiring grazing lease. Public Law 106-113 required compliance with all applicable laws and regulations, which include the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). Following the analysis of environmental impacts this grazing lease may be approved, canceled, suspended or modified, in whole or in part, to meet the requirements of such applicable laws and regulations.

On September 30, 2004 the grazing lease issued in 1999, for the Horse Thief Springs Allotment expired. Livestock grazing is allowed to continue under provisions of the Administrative Procedures Act (APA).

The purpose of the proposed action is to complete a site-specific evaluation of a 10-year grazing lease on the Horse Thief Springs Allotment. The activity is part of BLM's rangeland management program administered in accordance with the 1934 Taylor Grazing Act ("TGA"), 43 U.S.C. § 315 et seq., the Federal Land Policy and Management Act (FLPMA) of 1976, as Amended (43 USC 1752), regulations for the NEPA (40 CFR Part 1500), BLM grazing regulations (43 CFR Part 4100), and Public Law 106-113 section 325 to determine whether to authorize grazing within this allotment and whether changes are necessary to current management of the allotment. Additionally, livestock grazing is recognized as an appropriate use of public lands in the CDCA Plan as amended by the Northern and Eastern Mojave Desert Plan Record of Decision dated December 2002 (NEMO) that provides additional management direction for the Horse Thief Springs Allotment, which reduces impacts on desert tortoise and its habitat, other resources and activities.

The need for the proposed action is to authorize grazing for the Horse Thief Springs Allotment in compliance with the prescriptions prescribed in the NEMO Plan, the *Biological Opinion on the California Desert Conservation Area Plan [Desert Tortoise] {6840 CA930(P)} {1-8-04-F-43R}* (CDCA BO) dated March 31, 2005, and the proposed Regional Rangeland Health Standards

#### **D. Land Use Plan Conformance**

The proposed action is subject to and in conformance with the California Desert Conservation Area Management Plan of 1980 (as amended) in accordance with Title 43 Code of Federal Regulations 1610.5-3.

#### Tiering to Existing Land Use Plan/EIS

This EA is tiered to the NEMO Plan Final EIS of June 2002, and provides site-specific analysis on the allotment. Tiering focuses this EA on the issues related to grazing on the allotment while relying on the NEMO Plan for guidance. Analysis of environmental issues previously considered and addressed in the NEMO Plan will be incorporated by reference.

A summary of the NEMO Plan amendment analysis tiered to this EA is as follows:

1. The NEMO Plan is an amendment to the California Desert Conservation Area (CDCA) Plan developed expressly to address special status plant and animal species and to establish conservation strategies for those species within the multiple use context required for the CDCA by section 601 of the Federal Land Management and Policy Act (FLPMA). As part of the conservation strategy BLM determined which public lands will be available or unavailable for livestock grazing. 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 NEMO Plan established programmatic management prescriptions including regional land health standards and guidelines for grazing management; utilization prescriptions for perennial species; restrictions on cattle grazing within tortoise habitat; monitoring requirements; and specific management prescriptions for Desert Wildlife Management Areas (DWMAs) such as the elimination of ephemeral authorizations and the implementation of an ephemeral forage production threshold of 230 pounds per acres (NEMO Plan, section 2.2.3 pg. 2-27 and 2-28). This EA analyzes the specific application of the programmatic management prescriptions of the NEMO Plan and considers alternative means to achieve the purpose and need on this allotment as described in section C of this chapter.

2. The NEMO Plan considered a range of alternatives to the public land livestock grazing program. The alternatives considered more restrictive and less restrictive management approaches, and were addressed at a regional level for the approximately 3.8 million acres of public lands in the NEMO planning area). This EA analyzes the range of alternatives for grazing consistent with the NEMO Plan, including a proposed action and continuation of current management (No Action). A temporary reduced grazing alternative is included where a lower level of grazing than under the proposed action would be considered. Chapter 2 of this EA describes the alternatives analyzed in detail and identifies the alternatives considered but dismissed from detailed consideration.

3. NEMO balances conservation with public use, occupancy, and development on a regional level. For example, Areas of Critical Environmental Concern/DWMAs are established, routes of travel on public lands designated open, limited or closed to motorized vehicles, and other management prescriptions are provided to guide multiple use management. Within the context of the CDCA Plan as amended by NEMO, BLM is proposing specific lease terms and conditions to ensure that an appropriate multiple use balance is maintained on this allotment while providing for conservation in accordance with NEMO and the associated biological opinion. In addition, BLM may use its authority to closure an area of the allotment to grazing use or take other measures to protect resources if needed. Therefore, issuance of a fully processed grazing lease with such applicable terms and conditions is necessary to manage the public's use, occupancy, and development of the public lands and prevent unnecessary or undue degradation of the lands. (43 USC 1732(b)).

### Voluntary Relinquishment

The NEMO Plan does not identify this allotment for voluntarily relinquishment.

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

## **E. Authority and Regulatory Relationships:**

The alternatives are in compliance with the following laws and/or agency regulations, other plans are consistent with Federal, State, and local laws, regulations, and plans to the maximum extent possible.

Authority for the proposed action includes:

- The Taylor Grazing Act of June 28, 1934 as amended (43 United States Code 315, 315a through 315r).
- The Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.).
- The Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.). Public land orders, executive orders, and agreements authorize the Secretary to administer livestock grazing on specified lands under the Taylor Grazing Act or other authority as specified.
- Endangered Species Act (ESA) of 1973 as amended.
- Code of Federal Regulations (43 CFR) 4100 Grazing Administration – Excluding Alaska
- Section 106 of the National Historic Preservation Act of 1966 (as amended)Regulatory Relationships

### **Regulatory Relationships**

1. State Historic Preservation Officer Protocol Amendment for Renewal of Grazing Leases: In August 2004, the State Director, California Bureau of Land Management and the California State Historic Preservation Officer (SHPO) addressed the issue of the National Historic Preservation Act (NHPA) Section 106 compliance procedures for processing grazing permit lease renewals for livestock as defined in 43 CFR 4100.0-5. The State Director and the SHPO amended the 2004 State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Officer with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed. (see Appendix III).

### **2. CDCA Biological Opinion (BO)**

Pursuant to 50 CFR 402, BLM will ensure compliance with the incidental take statement of the biological opinion on the CDCA Plan as amended. BLM will immediately report any injuries or mortality to desert tortoises as a result of grazing to the Fish and Wildlife Service (USFWS). Should take occur, the BLM and USFWS will review the circumstances of the incidental take 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 combined annual level of take reaches five tortoises for all allotments in the NEMO and Northern and Eastern Colorado Desert 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 DESCRIPTION OF THE ALTERNATIVES

### A. Proposed Action

The proposed action is to issue a 10-year fully processed lease in conformance with NEPA, the CDCA Plan, and the NEMO Plan Amendment. The proposed action balances environmental protection with continued use of the allotment for livestock grazing

#### 1. Livestock Numbers and Season of Use

Allotment Name	Cattle Number *	AUMs**	Season of Grazing Use	
			From	To
Horse Thief Springs	202	2424	March 1	February 28

\* The number of cattle authorized to graze during the season of use.

\*\* Animal Unit Month (AUM) the amount of forage necessary for the sustenance of one cow or its equivalent for a period of 1 month.

#### 2. Livestock Management

Grazing management in the Mojave Desert must have the flexibility to accommodate climatic conditions that can be extremely different from one year to next as well as within a single year. Distribution of cattle in an area or pasture requires the manipulation of water developments, and the use of topographic barriers.

The Horse Thief Springs Allotment lessee would manage cattle grazing in the allotment by manipulating water developments, utilizing topographic barriers and existing fences. The lessee would utilize three distinct pastures (Appendix 1, map 3) in the allotment that would allow a grazing strategy based on climatic variability and pasture condition which would accommodate a cycle of pasture deferment during spring to allow forage plants to rest and set seed. During the period in which each pasture is used the lessee will place 15 to 20 head of cattle at each water development. The cattle would graze in a dispersed pattern throughout the pasture.

#### 3. Terms and Conditions

##### a. NEMO Provisions Applicable

*Desert Tortoise*

1. Utilization of key perennial forage species shall not exceed 40 percent in the Horse Thief Springs Allotment. No averaging of utilization data among perennial key forage species or key areas shall occur. When utilization approaches authorized limits in any key area, steps shall be taken to redistribute or reduce cattle use for that key area.
2. Cattle shall be evenly dispersed throughout their area of use, and herding shall be limited to shipping and animal husbandry practices. Grazing use shall be managed according to grazing regulations, allotment management plans, CDCA Plan as amended, and the current biological opinion. Feeding of roughage, such as hay, hay cubes, or grains to supplement forage quantity is prohibited. Grazing use shall be curtailed to protect perennial plants during severe or prolonged drought. These steps may include removal of cattle or, where feasible, turning off water at troughs (especially when livestock are not present) to reduce adjacent grazing use.
3. All cattle carcasses found within 300 feet of any road shall be removed and disposed of in an appropriate manner. No prior notification to the BLM is necessary if off-road vehicle use is required outside of wilderness, but permission from the authorized officer is required to remove animals within wilderness with the use of motorized or mechanized equipment.
4. The authorization to use temporary, non-renewable perennial forage above permitted grazing use shall be for no longer than three-month increments in desert tortoise habitat.
5. Authorization for ephemeral forage (annual grasses and forbs) in non-DWMA desert tortoise habitat shall occur when 230 pounds or more by air-dry weight per acre of ephemeral forage is available. Ephemeral production data shall be collected when necessary if requests are made for ephemeral grazing use. Any cattle authorized to use ephemeral forage shall be removed whenever threshold for grazing is reached.
6. Construction and maintenance of range improvements in tortoise habitat are limited to existing and proposed facilities listed in the NEMO plan and as detailed in Biological Opinions 1-6-92-F-19 and 1-8-94-F-17. All proposed range improvements would receive NEPA and USFWS review as needed. The incidental take statement for the March 31, 2005 BO (1-8-04-F-43R) does not extend to specific range improvements that the Bureau will authorize on a case-by-case basis. For all construction, operation, and maintenance of range improvements involving land disturbance in desert tortoise habitat the following requirements apply:

- i. Surface disturbance during construction of range improvements shall occur on previously disturbed sites and/or shall be minimized whenever possible. Routine vehicle use shall be limited to existing roads and disturbed areas, and off-road vehicle activity shall be held to a minimum. Construction of new roads shall be minimized. Construction of new or replacement facilities shall be carried out only from October 15 to March 15, unless specifically authorized due to safety or emergency considerations. After completion of the project, the disturbed soil shall be blended and contoured into the surrounding soil surface.
- ii. To reduce attraction of desert tortoise predators, debris and trash created during construction or maintenance of a facility will be removed immediately.
- iii. Range improvement construction, operation, and maintenance shall be modified as necessary to avoid direct impacts to desert tortoises and their burrows e.g., construction of fences or pipelines near tortoise burrows shall be avoided. All proposed range improvement projects shall be designed and flagged to avoid impacts to tortoises and their burrows. Preconstruction desert tortoise surveys of project sites shall be conducted by a qualified biologist. Existing access and areas of disturbance shall be utilized when trenching a section of new pipe or during performance of maintenance. Any hazards to desert tortoises that may be created, such as auger holes and trenches, shall be monitored by biological monitor at least twice daily for desert tortoises that become trapped. These hazards will be eliminated before workers leave the site.
- iv. Prior to land-disturbing activities, a field contact representative (FCR) will be designated to ensure compliance with protective measures stipulations for the desert tortoise and will be responsible for coordinating with the Service. A FCR will have the authority and responsibility to halt activities in violation of the Service stipulations.
- v. Only authorized personnel are permitted to handle desert tortoises. If construction or maintenance of range improvements endangers the life of a desert tortoise, then authorized persons may move the animal a short distance away or hold the animal overnight to release it in the same area the next day.
- vi. All construction and maintenance workers shall strictly limit their activities and vehicles to areas flagged or cleared by persons authorized by the Service. When off-road use with equipment is required, the lessee is to notify the BLM two working days prior to construction or maintenance of a facility.

## *Proposed Regional Standards for Public Land Health and Guidelines for Grazing*

Implementation of regional standards for public land health and guidelines for grazing management as shown in the NEMO Plan cannot occur until the Secretary of the Interior approves them. Until that time, the nationally developed fallback standards and guidelines would continue as the basis for public land health. The terms and conditions listed below are the regional guidelines for grazing management that are applicable to the lessee. A complete list of Regional and fallback standards and guidelines are listed in Appendix II.

7. Natural water sources developed as range improvements will be modified and maintained to ensure there is no excessive loss of water.
8. The lessee will place supplements a minimum of 1/4 mile from any natural water source such wetlands, riparian areas, and springs.
9. In years when weather results in extraordinary conditions the BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species.
10. During prolonged drought the BLM would require the lessee to reduce stocking rates.
11. When utilization levels of 25% are met or exceeded, the lessee will be required to remove livestock from the use or key areas.

### **b. Other Management**

Management prescriptions listed below are those not generated through FWS consultation or the Plan Amendment process detailed in the NEMO Plan.

#### *General*

12. Maintenance of range improvements would be the responsibility of the lessee.
13. Submission of actual use reports would be required within 15 days after the end of the grazing authorization. Actual use reports would be required to provide detailed location and number of livestock.

#### *Fallback Guidelines*

The terms and conditions listed below are the national fallback guidelines that are applicable to the lessee. A complete list of Regional and fallback standards and guidelines are listed in Appendix II.

14. Natural water sources developed as range improvements will be modified and maintained to ensure there is no excessive loss of water.
15. During prolonged drought the BLM would require the lessee to reduce stocking rates.
16. The BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species.
17. 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. See DWMA terms and conditions.

*Motorized or mechanized vehicles and/or equipment in wilderness*

18. The lessee and his agents would be issued specific authorization for the use of motorized or mechanized vehicles and/or equipment in wilderness. The lessee would be required to carry a copy of the access authorization letter when using motorized or mechanized vehicles or equipment within wilderness to complete repair and maintenance activities. All motorized vehicle travel would be restricted to routes that have existed previous to the passage of the Desert Protection Act. Use of routes that have been restored would not be permitted except in cases of emergency.
19. Motorized vehicles shall only be used when activities can not be reasonably and practically be accomplished on horseback or foot. The lessee and his agents would be encouraged to make every effort to avoid traveling along the routes during periods of inclement weather.
20. Motorized and/or mechanized vehicles would be limited to no larger than a pickup truck and trailer. Any vehicle larger would require prior written approval by the Needles Field Office.
21. The lessee and his agents would make every effort to access wilderness during periods when impacts to wilderness visitors would be at a minimum.
22. The lessee and his agents would be responsible for keeping gates locked when not in actual use.
23. The lessee and his agents would be responsible for all maintenance necessary for continued use of this route. Motorized/mechanized vehicles/equipment would not be used for routine road maintenance. Routine maintenance would

be defined as that maintenance which can be completed by one to four individuals using hand tools (such as shovels, pulaskis, McClouds). Any maintenance requiring the use of motorized or mechanized vehicles and equipment would require prior written approval by the BLM and will be evaluated under a separate site-specific environmental review.

24. Upon completion of activities, the lessee and his agents would be responsible for:
  - i. Obscuring vehicle tracks visible from the wilderness boundary up to 100 feet upon exiting from the wilderness (a broom would be carried specifically for this purpose).
  - ii. Reporting any needed or completed repairs on the gate, barriers or fences;
  - iii. Reporting any needed or completed route maintenance
  - iv. Removing all effects of repair and maintenance activities, such as equipment, tools, supplies, trash.
25. These stipulations may be modified to meet the future needs of the lessee and his agents only with approval of the authorized officer of the BLM.
26. When, in an emergency, it is necessary to use motorized and/or mechanized vehicles and/or equipment on a route that has been previously restored to a natural appearance, the lessee would be required to notify the Needles Field Office as soon as possible after the emergency access is conducted and will be responsible for returning the route to the pre-emergency condition.
27. At the end of each grazing year when the lessee is required to submit their actual grazing use report, the lessee would also be required to submit a wilderness access log report, which will be provided by the Needles Field Office.

#### Cultural

28. An enclosure fence would be constructed and maintained by the lessee in cooperation with BLM, around archaeological site CA-SBR-2652. Fencing would protect existing cultural resources from being impacted as a consequence of cattle grazing activities. The existing corral complex located within the boundaries of CA-SBR-2652 would be removed.

### **B. No Action (Current Management) Alternative**

This alternative would authorize grazing under the terms and conditions consistent with

current management under applicable BLM authority in the Horse Thief Springs Allotment.

1. Livestock Numbers and Season of Use

Same as proposed action

2. Livestock Management

Same as proposed action

3. Terms and Condition

**a. Biological Opinions**

1. Utilization of key perennial forage species shall not exceed 40 percent in the Horse Thief Springs Allotment. No averaging of utilization data among perennial key forage species or key areas shall occur. When utilization approaches authorized limits in any key area, steps shall be taken to redistribute or reduce cattle use for that key area.
2. Cattle shall be evenly dispersed throughout their area of use, and herding shall be limited to shipping and animal husbandry practices. Grazing use shall be managed according to grazing regulations, allotment management plans, CDCA Plan as amended, and the current biological opinion. Feeding of roughage, such as hay, hay cubes, or grains to supplement forage quantity is prohibited. Grazing use shall be curtailed to protect perennial plants during severe or prolonged drought. These steps may include removal of cattle or, where feasible, turning off water at troughs (especially when livestock are not present) to reduce adjacent grazing use.
3. All cattle carcasses found within 300 feet of any road shall be removed and disposed of in an appropriate manner, and no prior notification to the BLM is necessary if off-road vehicle use is required, but permission from the authorized officer is required to remove animals within wilderness.
4. The authorization to use temporary, non-renewable perennial forage above permitted grazing use shall be for no longer than three-month increments in desert tortoise habitat.
5. Construction and maintenance of range improvements in tortoise habitat are limited to existing and proposed facilities listed in the NEMO plan and as detailed in Biological Opinions 1-6-92-F-19 and 1-8-94-F-17. All proposed range improvements would receive NEPA and USFWS review as needed. The incidental take statement for the March 31, 2005 BO (1-8-04-F-43R) does not

extend to specific range improvements that the Bureau will authorize on a case-by-case basis. For all construction, operation, and maintenance of range improvements involving land disturbance in desert tortoise habitat the following requirements apply:

- i. Surface disturbance during construction of range improvements shall occur on previously disturbed sites and/or shall be minimized whenever possible. Routine vehicle use shall be limited to existing roads and disturbed areas, and off-road vehicle activity shall be held to a minimum. Construction of new roads shall be minimized. Construction of new or replacement facilities shall be carried out only from October 15 to March 15, unless specifically authorized due to safety or emergency considerations. After completion of the project, the disturbed soil shall be blended and contoured into the surrounding soil surface.
- ii. To reduce attraction of desert tortoise predators, debris and trash created during construction or maintenance of a facility will be removed immediately.
- iii. Range improvement construction, operation, and maintenance shall be modified as necessary to avoid direct impacts to desert tortoises and their burrows e.g., construction of fences or pipelines near tortoise burrows shall be avoided. All proposed range improvement projects shall be designed and flagged to avoid impacts to tortoises and their burrows. Preconstruction desert tortoise surveys of project sites shall be conducted by a qualified biologist. Existing access and areas of disturbance shall be utilized when trenching a section of new pipe or during performance of maintenance. Any hazards to desert tortoises that may be created, such as auger holes and trenches, shall be monitored by biological monitor at least twice daily for desert tortoises that become trapped. These hazards will be eliminated before workers leave the site.
- iv. Prior to land-disturbing activities, a field contact representative (FCR) will be designated to ensure compliance with protective measures stipulations for the desert tortoise and will be responsible for coordinating with the Service. A FCR will have the authority and responsibility to halt activities in violation of the Service stipulations.
- v. Only authorized personnel are permitted to handle desert tortoises. If construction or maintenance of range improvements endangers the life of a desert tortoise, then authorized persons may move the animal a short distance away or hold the animal overnight to release it in the same area the next day.

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

**b. Other Management**

*General*

6. An enclosure fence would be constructed by the lessee in cooperation with the BLM, around archaeological site CA-SBR-2652. Fencing would protect existing cultural resources from being impacted as a consequence of cattle grazing activities. The existing corral facility within the boundaries of CA-SBR-2652 would be removed.
7. Maintenance of range improvements would be the responsibility of the lessee.
8. Submission of actual use reports would be required within 15 days after the end of the grazing authorization. Actual use reports would be required to provide detailed location and number of livestock.

*Fallback Guidelines*

9. Natural water sources developed as range improvements will be modified and maintained to ensure there is no excessive loss of water.
10. During prolonged drought the BLM would require the lessee to reduce stocking rates.
11. The BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species.
12. 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. See DWMA terms and conditions.

**C. Temporary Reduced Grazing Alternative**

Same as the proposed action with the exception that cattle would be temporary reduced in numbers from 202 head of cattle to 135 (33%) until the riparian enclosure fences for Horse Thief Springs and Chrystal Springs, being analyzed under separate site specific environmental assessments, are completed. These projects are designed to exclude cattle

from Horse Thief and Crystal Springs which are not meeting rangeland health standards.

**D. No Grazing Alternative - Alternative Considered But Not Analyzed in Detail**

This alternative would not authorize grazing. It would initiate a process in accordance with the 43 CFR 4100 regulations to eliminate grazing and make the allotment unavailable for grazing. This alternative would require a land use plan amendment and is not within the scope of the purpose and need of this document.

**CHAPTER 3 ENVIRONMENTAL ANALYSIS**

General Setting

The Horse Thief Springs Allotment is located in the Kingston Range, Nopah Range, Mesquite Valley, and California Valley areas. The elevation range is between 1,900 to over 7,200 feet. The dominant vegetation communities are creosote-white bursage, big galleta, Joshua tree woodlands, blackbush and riparian areas.

Land Health Assessments

**Table 1: 1999 Rangeland Health Assessment**

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

**Table 2: 2004 Rangeland Health Assessment**

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Impacts from Livestock Yes or No	Remarks
Soils	X	n/a	n/a	

Riparian		X	X	Horse Thief and Crystal Spring are currently in Non-functional condition, due to the presence of tree of heaven, a non-native species. In addition, exclosure fences have been inadequate to prevent cattle from impacting the riparian areas. The lessee is currently replacing old fences with new fences at Horse Thief Springs and will be installing a new exclosure fence at Crystal Spring in the fall of 2007. These new construction activities will effectively exclude cattle from the riparian areas and are being analyzed under separate site specific environmental assessments.
Stream Channel	X	n/a	n/a	
Native Species	X	n/a	n/a	

### Elements Analyzed

A. Elements that are not present and will not be further analyzed:

1. Farmlands, Prime or Unique
2. Flood plains
3. Wild and Scenic Rivers
4. Wild Horses and Burros

B. Elements present that will be analyzed:

5. AIR QUALITY

Affected Environment:

The Mohave Desert Air Quality Management District (MDAQMD) has state air quality jurisdiction over the area associated with the proposed action. The MDAQMD has rules that apply to this project along with permitting requirements. Much of the time, air quality throughout the project area is generally good. There are, however, times that the area does not meet air quality standards due to locally generated and/or wind transported pollutants. The vicinity in which all subject grazing allotment is located is currently classified as a federal non-attainment area for ozone and PM-10 under national standards. The area is within the Mojave Desert PM-10 Planning Area and the South East Desert Ozone non-attainment area. The State Implementation Plan (SIP) identifies sources of PM-10 emissions and control measures to reduce emissions. The SIP emphasizes controls and management.

Environmental Consequences:

A. Impacts of Proposed Action.

Soil disturbance from the trampling action of the livestock when soil moisture levels are low would result in increased fugitive dust emissions (PM10) in the allotment. In addition, vehicles used in association with livestock operations on the access roads would also generate small additional amounts of PM10 emissions and various precursor emissions for ozone.

However, the overall effect on air quality would be slight due to the generally wide distribution of livestock movement patterns in the allotment. Occasionally, livestock will be concentrated in corrals or temporary holding areas for short periods or up to several weeks to move livestock on or off an allotment. Emissions would be higher during this time but would not likely exceed standards. Excluding any future range improvements, PM-10 and ozone emissions within the allotment is de minimis and no further conformity determination is required.

B. Impacts of No Action (Current Management).

Same as proposed action

C. Impacts of Temporary Reduced Grazing.

Same as proposed action.

Consultation:

Consultation with Mojave Desert Air Quality Management was not undertaken as emissions are expected to be de minimis and air quality is not expected to be impacted.

6. AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Affected Environment:

The Kingston Range (Floral, Faunal and Scenic Values) Area of Critical Environmental Concern (ACEC) covers a portion of the Horse Thief Springs Allotment. The ACEC was designated through the California Desert Conservation Area (CDCA) Plan in 1980. The Kingston Range ACEC was created to protect wildlife habitat and, floral and scenic values. Specific natural resource values in this ACEC include desert bighorn sheep (*Ovis canadensis*). This ACEC totals 14,452 acres.

Environmental Consequences:

A. Impacts of Proposed Action.

The Kingston Range ACEC activity plan allows for livestock use of the area. Implementation of the proposed terms and conditions, including Standards and Guidelines, forage utilization levels at no more than 25 to 40%, and biological opinion stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season, with the Kingston Range ACEC management prescriptions would aid in sustaining native plant communities, and would ensure that cattle grazing would have only a low potential of impacting the Kingston Range ACEC.

#### B. Impacts of No Action (Current Management).

The Kingston Range ACEC activity plan allows for livestock use of the area. Implementation of the proposed terms and conditions, including Standards and Guidelines, and biological opinion stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season, with the Kingston Range ACEC management prescriptions would aid in sustaining native plant communities. Cattle grazing would have only a low potential of impacting the Kingston Range ACEC.

#### C. Impacts of Temporary Reduced Grazing.

Although this alternative would reduce the potential for distribution and over utilization impacts the terms and conditions of proposed action would effectively accomplish the same goal. Grazing use would be restricted to 25 to 40% regardless of stocking rate.

#### Maps:

Appendix 1, Map 2

## 7. CULTURAL RESOURCES

#### Affected Environment:

In the late 1970s BLM archaeologists and contractors conducted extensive Class I cultural resource surveys (records search and literature reviews) and Class II cultural resource pedestrian surveys (intuitive and random sample) within the eastern Mojave Desert. The Class I and II surveys provided the BLM with a large data base for analysis of extant cultural resources within the boundaries of the California Desert District. The results of the eastern Mojave Desert records and literature surveys and archaeological field surveys were reported within a series of BLM archaeological and historic resource publications prepared by Gallegos et al. (1980); King, Casebier et al. (1981); Hall (1981); Warren et al. (1981); Rector (1981). The areas surveyed included

the Horse Thief Springs grazing allotment. These surveys provide the BLM with a significant historic and archaeological data base for cultural resource studies within the eastern Mojave Desert. Based on the above cultural surveys, the density and location of historic and prehistoric archaeological sites may be predicted (e.g., presence/absence of water sources; naturally occurring lithic or stone materials for tool and weapons manufacture; floral and faunal resources available for subsistence [food, medicines, ceremonies, and shelter]; historic period roads, minerals, and other resources).

The acreage of public lands within the Horse Thief Springs grazing allotment is 150,135. Numerous range improvements (e.g., ground disturbing activities such as cattle guards, windmills, wells, water tanks, water troughs, water embankment reservoirs, developed spring sites, water pipelines, corrals, etc.) have been constructed on the subject range allotment (see list of individual range improvements constructed on the allotment). Approximately 2½% of the public lands within the boundaries of the grazing allotment have been surveyed for cultural resources. Less than half of the range improvements have been surveyed for cultural resources by federal, private consultants, and vocational archaeologists within the past fifty (50) or sixty (60) years. These surveys include eight (8) 1 mileX1/8 mile survey blocks conducted as part of the 1978-80 Class II survey of the eastern Mojave Desert, one linear utility electrical transmission corridor survey, and several linear pipeline surveys, and 5 acre or less pedestrian surveys for recreational, mining, range, and land actions.

The Kingston Range Area of Critical Environmental Concern (ACEC), is located within the Horse Thief Springs grazing allotment. This 14,452 acre ACEC, designated in the California Desert Conservation Area Plan of 1980, was intended to protect wildlife, floral and scenic values present within the designated ACEC boundaries. In addition to the Kingston Range ACEC, four Wilderness Areas are also partially located within grazing allotment boundaries.: the Kingston Range Wilderness (36,724 acres), Nopah Range Wilderness (7,680 acres), North Mesquite Mountains Wilderness (32,209 acres), Pahrump Valley Wilderness (40,240 acres), and South Nopah Range Wilderness (3,200 acres).

Prehistoric and historic Native American populations, 19<sup>th</sup> Century EuroAmerican explorers, emigrants, ranchers, miners and homesteaders have lived and/or traveled through the regions occupied by the Horse Thief Spring allotment, exploiting the abundant natural resources (e.g., plant, animal, and mineral) present. The region which comprised the grazing allotment is an area of high sensitivity to Native American values (ca. 1989, Management Plan for Kingston Range Natural Area, an Area of Critical Environmental Concern, Barstow Resource Area, Bureau of Land Management). Site types known to be present within the boundaries of the grazing allotment include prehistoric trails, habitation sites, lithic reduction and tool manufacture sites, resource

procurement sites, rock rings/alignments, rock shelters, rock art, traditional ritual sites, historic era mines, emigrant trails, historic roads, ranching facilities, and habitation sites. While a number of recorded archaeological sites located within the allotment are considered eligible for inclusion on the National Register of Historic Places (NRHP), no sites within the allotment have been formally nominated or listed on the NRHP. All sites without formal determinations of eligibility for inclusion on the NRHP are presumed eligible for planning purposes. Current site condition and trends are unknown. An intensive archaeological survey of existing locations where cattle congregate within the grazing allotment was completed by the BLM in May, 2007.

Fifty-nine (59) prehistoric and historic archaeological sites have been identified and formally recorded within the overall Horse Thief Springs grazing allotment. Type sites are identified and characterized in Appendix V, Table 2. Geographic locations (e.g., Mountain, Valley, Transition Zone, or Spring) where prehistoric and historic resources have been recorded within the grazing allotment are identified and characterized in Appendix IV, Table 3.

As Table 3, Appendix IV documents, the majority of the prehistoric sites (predominantly lithic scatters, habitation and food procurement) are located within the Transition Zone. Linear transportation sites (e.g., historic roads and emigrant trails) and electrical transmission lines traverse the valleys, transitional zones, and mountains. Of the 59 archaeological sites recorded within the boundaries of the Horse Thief Spring grazing allotment, forty-one, or 69%, are located within the Transitional Zone (i.e., upper bajadas, lower mountain slopes, canyons, and/or in proximity to springs). An additional eight (8), or 13% of the recorded sites, are located within alluvial valley floors. Sites found in the valleys include prehistoric lithic sites and temporary campsites (5), and three historic transportation routes (3). Ten (10) archaeological sites, or 16%, are located on hill sides, mountain slopes and ridges. Three of the sites located in the mountains are historic mining sites, the remaining five sites are prehistoric.

The archaeological records and literature search indicated that one multi-component site (prehistoric and historic loci within the site boundaries), had been impacted by cattle grazing and rangeland improvement facilities.

## Environmental Consequences:

### A. Impacts of Proposed Action

Soil hardness, moisture, and vegetation cover are factors that influence the level and types of impacts attributable to cattle grazing activities. Erosion is a secondary impact resulting from grazing that can also have impact cultural sites. In zones where livestock are more dispersed, such as upland locations away from water sources, impacts would be restricted to surface displacement and

impacts are anticipated to be minimal and would not impair site eligibility. In rock areas and zones without sufficient feed minimal impacts to cultural resources are likely to occur (ASPPN 1990; Roney 1977).

Although cattle use on the allotment is generally dispersed, cattle may congregate near springs, water sources and other facilities (e.g., wells, tanks, troughs, and corrals) where cultural resources are known to occur. Potential impacts to cultural resources (e.g., artifact damage, artifact displacement, loss of site integrity and soil erosion) will be highest in these congregation areas where range improvement projects have been constructed and lowest in open range areas. Consequently, livestock grazing has the potential to impact important cultural resources within a grazing allotment, particularly at developed springs, corrals, wells and water troughs, and salt lick locations where archaeological sites and grazing activities may co-occur. One archaeological site, CA-SBR-2652, has documented impacts due to grazing and construction of range improvement facilities.

The archaeological record indicates that one site, CA-SBR-2652, a large multi-component prehistoric campsite with a developed midden deposit, has been impacted as a consequence of cattle grazing activities, construction of range improvements (construction of water tanks, buried water lines, grading of vehicle and trailer storage areas, etc.), and vehicular traffic associated with range management. The site has also been impacted by road grading activities not directly related to cattle grazing activities. The initial site record form, prepared in January 1963, describes the site as a village and quarry site with a trail that transects the site boundaries. An active spring is also located within the archaeological site boundaries. The initial 1963 site record form noted that the site had not been impacted as of January 1963. (“Possibility of destruction None”).

The archaeological site record for CA-SBR-2652 was updated in April 1980. A significant Anasazi component was identified within the site boundaries. Additionally, the location of the “site area” was reconfigured, and an aircraft landing strip, wire fence, graded road w/gate (listed as a “main road”), and a water [tank] tower were mapped around and outside the perimeter of the re-recorded site boundaries. Additionally, two separate loci were drawn south of the main site deposit, the main road, water storage tanks, and the landing strip. Much of the site was described as “Destroyed” as a consequence of being bladed flat.

CA-SBR-2652 continues to be impacted by grazing (and human activity associated with ranching activities). Sometime in the mid 1990s a large cattle corral facility was placed within the boundaries of the site. A rectangular area on a gentle sloping surface adjacent to the existing water tanks has been graded flat for use as a trailer/vehicle parking location. Existing short utility

access roads provide vehicular access to the parking area in front of the trailer parking location. Because of cattle grazing activity (and artifact collectors) most of the surface artifacts associated with the site have been obliterated. In November 2006, archaeologists from the BLM and the Harry Reid Center, University of Nevada, Las Vegas (UNLV) conducted a preliminary site re-survey and re-recording of CA-SBR-2652, attempting to identify and map site boundaries and the presence/absence of visible midden. The areal extent of the deposit will be determined. Additionally, UNLV was tasked with making a preliminary assessment of impacts to the site, determining appropriate site stabilization and mitigation measures, and making a recommendation of CA-SBR-2652's eligibility for nomination to the National Register of Historic Places.

Based on the reconnaissance data provided by UNLV, the BLM determined that an enclosure fence around the site would prevent future impacts to the site caused by cattle grazing activities. Placing an enclosure around the site would be implemented within one year. Additional measures to be implemented include, but are not limited to, archaeological testing to determine the extent of the previous impacts to the site, identify cultural resources existing on site, determining the areal and subsurface extent of the site, and make recommendations for nomination to the National Register of Historic Places as either an individual site or as an archaeological district. The site would be monitored on a yearly basis. If monitoring of the enclosure fencing reveals that the enclosure fence(s) does not adequately protect this site complex, alternative measures may also be implemented (e.g., shifting cattle use by moving water tanks/troughs).

#### B. Impacts of No Action (Current Management) Alternative

Same as the Proposed Action. Impacts to cultural resources with the No Action alternative would remain the same as the Proposed Action for the Horse Thief Springs grazing allotment. The Grazing Amendment stipulations of the Protocol Amendment, Supplemental Procedures for Livestock Grazing Lease Renewals (Grazing Amendment), to The State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Office, would be applicable under the No Action alternative. Active grazing leases would be scheduled for cultural resource compliance coverage, in consultation with the SHPO, over the next ten years. As stipulated in the Grazing Amendment, the BLM has notified the State Historic Preservation Officer that the Section 106 survey of the Horse Thief Springs Allotment would be implemented in fiscal year 2007.

#### C. Impacts of Temporary Reduced Grazing Alternative

Same as proposed Action.

## Consultation

See Appendix IV, Tribes, Individuals, Organizations, or Agencies Consulted

## References

See Appendix VIII for References Cited

## 8. ENVIRONMENTAL JUSTICE

### Affected Environment:

The grazing allotment being analyzed is located in rural San Bernardino and Inyo Counties. The rural area of the counties is typically occupied by moderate to low-income households.

No minority communities or low-income communities are located within or adjacent to the proposed project areas. Further, the proposed action would not impact the Native American's distinct cultural practices or result in disproportionately high or adverse human health or environmental effects on minority communities.

### Environmental Consequences:

#### A. Impacts of Proposed Action.

The implementation of the proposed action would have an affect but not a disproportionate affect on low-income or minority populations living on or near the allotment being analyzed. The grazing of livestock in rural San Bernardino and Inyo Counties has been a common practice for over 100 years.

#### B. Impacts of No Action (Current Management).

Same as proposed action.

#### C. Impacts of Temporary Reduced Grazing.

Same as proposed action

## 9. HEALTH AND SAFETY

### Affected Environment: Affected Environment:

The proposed allotment is subject to multiple-use in that the public visits the range lands during grazing periods. Ever increasing public recreation use during grazing activities indicates the potential for greater contact between cattle and

man. The potential for public visitation proximal to grazing operations presents potential hazards to the public.

The specific language addressing the grazing lessee's due diligence in these areas and that of BLM's responsibility to annually inspect each allotment for health, safety, and environmental issues in the proposed action sufficiently provides for public safety and health.

#### Environmental Consequences:

##### A. Impacts of Proposed Action

The impact of livestock grazing on public health and safety is primarily the increased risk associated with the human-cattle interface such as vehicular accidents, injuries caused by excessively close contact with each other, and rarely infectious diseases and vectors which may pass from cattle to humans. The facilities required for management, such as water sources, corals, windmills, pumps and generators, may pose a health and safety risk due to the operational system, environmental contamination (such as hydraulic fluids), and/or the risks involved in the public visiting these facilities. The proposed action would necessitate periodic inspections of multi-use areas to ensure for the public safety where the grazing operations and public visitation share sites.

##### B. Impacts of No Action (Current Management)

Unsafe conditions will be mitigated or interim measures utilized to ensure safety, health, and environmental protection of the visiting public to the degree possible given the current contract language for each allotment. This approach is more arduous because it requires evaluation of each allotment to determine what authorities are presently contained in the lessee's contract. The "No Action" alternative limits appreciably the BLM's ability to ensure safety of visiting public due to our limited influence on the safety of range improvements.

##### C. Impacts of Reduced Grazing

The impact of livestock grazing on public health and safety is primarily the increased risk associated with the human-cattle interface such as vehicular accidents, injuries caused by excessively close contact with each other, and rarely infectious diseases and vectors which may pass from cattle to humans. The facilities required for management, such as water sources, corals, windmills, pumps and generators, may pose a health and safety risk due to the operational system, environmental contamination (such as hydraulic fluids), and/or the risks involved in the public visiting these facilities. The proposed action would necessitate periodic inspections of multi-use areas to ensure for the public safety where the grazing operations and public visitation share sites.

## 10. LIVESTOCK GRAZING

### Affected Environment:

The Horse Thief Springs Allotment #9007 is an ephemeral/perennial allotment with potential forage production to enable the Bureau of Land Management (BLM) to authorize cattle grazing on ephemeral forage when it meets threshold criteria and an established perennial forage allocation of 202 head of cattle year long for 2424 AUMs. The allotment encompasses 150,135 acres of BLM (public lands).

Grazing management in the Mojave Desert must have the flexibility to accommodate climatic conditions that can be extremely different from one year to next as well as within a single year. Distribution of cattle in an area or pasture requires the manipulation of water developments, and the use of topographic barriers.

The Horse Thief Springs Allotment lessee would manage cattle grazing in the allotment by manipulating water developments, utilizing topographic barriers and herding the cattle. The lessee would utilize three distinct pastures (Appendix 1, map 3) in the allotment that would allow a grazing strategy based on climatic variability and pasture condition which would accommodate a cycle of pasture deferment during spring to allow forage plants to rest and set seed. During the period in which each pasture is used the lessee would place 15 to 20 head of cattle at each water development. The cattle would graze in a dispersed pattern throughout the pasture.

### Environmental Consequences:

#### A. Impacts of Proposed Action.

During periods of drought the lessee may be required to remove cattle from all or part of the allotments. If the lessee was required to remove cattle from the allotment it would be necessary to transport, feed and hold the cattle somewhere off the allotments until conditions on the allotments improve and sufficient forage is available to sustain grazing. There could be a potential loss of cattle due to stress involved in transport (pregnant cows may abort calves, young calves may sustain injuries from larger animals, and/or older cows may perish). If cattle had to be sold during this time, there is potential that the lessee would be impacted to some extent financially by purchasing the cattle needed to start a new herd. The lessee may not have sufficient finances to purchase cattle to re-establish a viable herd, which may, cause the lessee to go out of business. There is potential of slight to moderate impacts associated with the removal of

cattle from the allotments due to drought, however it is unlikely that the lessee would be forced to sell his cattle or that the lessee would not have the revenue to replace them.

B. Impacts of No Action (Current Management).

Same as the proposed action.

C. Impacts of Temporary Reduced Grazing.

The lessee would be required to remove a portion of the cattle from the allotment. It would be necessary to transport, feed and hold the cattle somewhere off the allotment until conditions on the allotment improve and sufficient forage is available to sustain grazing. There could be a potential loss of cattle due to stress involved in transport (pregnant cows may abort calves, young calves may sustain injuries from larger animals, and/or older cows may perish). If cattle had to be sold during this time, there is potential that the lessee would be impacted to some extent financially by purchasing the cattle needed to bring the herd to its full numbers. There is potential of slight impacts associated with the removal of cattle from the allotment, however it is unlikely that the lessee would be forced to sell his cattle or that the lessee would not have the revenue to replace them.

Maps:

Appendix 1, map 3

## 11. NATIVE AMERICAN RELIGIOUS CONCERNS

### Affected Environment:

There are five Native American Tribes that historically occupied the grazing allotment. The Tribes include the Las Vegas Paiute, Pahrump Paiute Tribe, Colorado River Indian Tribes, the Chemehuevi Indian Tribe, and the Fort Mojave Indian Tribe. None of the Tribes are currently on the allotment. There are no treaty rights (e.g., hunting, fishing, etc.) associated with any of the communities on the allotment. Some tribal members hunt game, conduct subsistence and resource collection of materials from the public lands (such as gathering mesquite beans, basket weaving materials, medicinal plants, clay, etc.) within the allotment. Sacred sites and ceremonial use of small areas are also known to occur within the allotment area. A majority of the lands within the allotment have been identified as possessing traditional Native American values. The Kingston Mountain Range is of particularly high sensitivity (ca. 1991, Draft Management Plan for Kingston Range Natural Area – An Area of Critical Environmental Concern, prepared by the Barstow Resource Area Office, Bureau

of Land Management). A named Paiute village site, variously referred to as *Moqua*, *Mo-quats*, or *Mokwats*, is located within the allotment.

The Needles Field Office conducted Nation to Nation coordination and consultation with the aforementioned Native American Tribes. In the consultation letter the Field Manager requested information about Tribal concerns over issues associated with cattle grazing, water and range developments, spring rehabilitation projects, and any other issues or concerns that the Tribes may have with the BLM's management of the grazing allotment.

#### Environmental Consequences:

##### A. Impacts of Proposed Action.

No specific concerns were identified by the potentially affected Tribes. In general, Native Americans are concerned about both cultural and natural values, implementation of the Rangeland Health Fall Back Standards and Guidelines for Livestock Grazing will address much of these concerns. If Native American Traditional Values, or cultural uses may be impacted, appropriate mitigation would be identified in consultation with the Tribes who ascribe these values to the area.

##### B. Impacts of No Action (Current Management).

Same as proposed action.

##### C. Impacts of Temporary Reduced Grazing.

No impacts to Native American religious concerns would occur in association with the no grazing alternative.

#### Consultation:

The Las Vegas Paiute Tribe, Pahrump Paiute Tribe, Colorado River Indian Tribes, Chemehuevi Indian Tribe, and the Fort Mojave Indian Tribe were contacted by letters in October and December 2004, with additional information provided in April 2005. Additionally, follow-up telephone calls were made with these Native American Tribes to determine their concerns with the grazing program and their desire to participate in the assessment progress. A consultation meeting between the Needles Field Office and the Fort Mojave Tribal Council occurred in June 2005. No specific comments on the proposed action and/or alternatives were received from these Tribes.

## 12. RECREATION

### Affected Environment:

A number of dispersed recreational activities occur throughout the Horse Thief Springs Allotment located in the Eastern Mojave Desert. This wide range of recreational interests include hiking, camping, geo-caching, boulder and rock climbing, off-highway vehicle (OHV) activities, scenic and pleasure driving, recreational vehicle touring (RV), site-seeing, mountain and road bicycling, horseback riding, wildlife watching, photography, target shooting, hunting, and rock collecting.

Recreational activities are more concentrated along and in proximity to the roads and routes system than within the wilderness boundaries.

Segments of the Old Spanish Trail, Kingston Road, Excelsior Mine Road, Smith Talc Road, Pahrump Valley Road and Kingston Wash Trail are located in the allotment. These routes are popular OHV routes and are published in the BLM California's *Kingston Wash OHV Trail Guide and Map brochure* and numerous OHV Guide and Map books. Special Recreation Permits (SRP) are issued annually for commercial OHV activities, wilderness camping, hiking, and commercial hunting guide services in the Clark Mountains, Kingston Mountains, and Mesquite Mountains Wilderness areas. Dumont Dunes OHV Recreational Area (managed by the Barstow Field Office) is an open area that exhibits more types of dunes than any other dune system in the California Desert and borders the allotment on the southwest. Due to the remoteness of this area, most dispersed recreational use within this allotment, is in conjunction with site seeing or camping activities.

Recreation use levels in the area are low to moderate receiving the highest recreational visits during the late fall, winter and early spring with most activities occurring on weekends, holidays and during permitted events. Future planning strategies include development of dispersed recreation sites; visitor uses guides and informational brochures and kiosks. The current multi-year project is the development of the Horse Thief Spring Recreational Site, which would include a camping area with horse shoe-pit, kiosk, and vault toilet, a wildlife viewing observation platform with picnic tables, kiosk and interpretive signs, and hiking trail with trailhead kiosk. Currently the allotment is being grazed and interactions between cattle and visitors are a common occurrence but at infrequent intervals and minimally impact recreational activities.

### Environmental Consequences:

#### A. Impacts of Proposed Action.

Locations on the Horse Thief Allotment where conflicts may occur depend on the area of grazing use and dispersed recreation use near water sources. Water sources such as springs and riparian areas serve as points of discovery and interest for recreational users because of the diversity of flora and fauna found within the Mojave Desert. This could lead to human-cattle interaction. Although most cattle would try to avoid human contact, the same can not be said for people; impacts from encounters may happen. These encounters can range from slight to severe and depend largely on the actions taken by the human(s).

The presence of cattle dung, especially near corral facilities, is common in a ranching environment. Dispersed recreational camping typically does not occur around or near corral facilities.

OHV users may be slightly inconvenienced in locations where visitors may have to open and close gates to proceed on an open route or too points of discovery. This could lead to a human-cattle interaction only when livestock are present. Most open routes of travel within the allotment are categorized as OHV and 4-wheel drive roads and have a 30 mph speed limit. Driving on back roads within grazing allotments could increase the chance for vehicle-cattle interaction.

B. Impacts of No Action (Current Management).

Same as the proposed action.

C. Impacts of Temporary Reduced Grazing.

Temporary reduction of livestock would increase dispersal of grazing cattle and decrease the chances of interactions. Fewer cattle would be present to congregate near corral facilities and the decrease in dung would improve the aromatic and aesthetic aspects of the recreational experience. Impact from reduction of grazing on recreation would be minimal.

### 13. SOCIOECONOMICS

Affected Environment:

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

Approximately \$15,000 to \$25,000 of the Bureau's grazing fees collected are returned to San Bernardino County annually depending on the price of an AUM

for that year and the number of AUMs utilized. The Horse Thief Springs Allotment contributes approximately 8 to 10 percent of the total grazing fees for San Bernardino and Inyo Counties.

The contribution of the allotment to the goods and services of the local community is nominal. The sale of calves at the stock yard by the lessee benefits the financial needs of the lessee and provides capital to purchase goods and services for continuation of the grazing operation and personal needs.

Environmental Consequences:

A. Impacts of Proposed Action.

During periods of drought the lessee may be required to remove cattle from all or part of the allotment which may cause a loss in revenue to the lessee.

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

Overall there would be slight or no impact economically to the lessee or the regional economy of San Bernardino County. The operation is generally small and the effect on the local economy is low or minor.

B. Impacts of No Action (Current Management).

Same as the proposed action.

C. Impacts of Temporary Reduced Grazing.

The lessee would be required to remove cattle from the allotment. It would be necessary to transport, feed and hold the cattle somewhere off the allotment until conditions on the allotment improve and sufficient forage is available to sustain grazing. There could be a potential loss of cattle due to stress involved in transport (pregnant cows may abort calves, young calves may sustain injuries from larger animals, and/or older cows may perish). If cattle had to be sold during this time, there is potential that the lessee would be impacted to some extent financially by purchasing the cattle needed to start a new herd. There is potential of slight to moderate impacts associated with the removal of cattle from the allotment.

14. SOILS

## Affected Environment:

Detailed soil surveys have not been conducted for the region encompassing the subject grazing allotment. In general, soils of the region are predominately aridisols (calcids and durids) and entisols (ordents and psamments). Accurate classification below these subgroups requires more detailed study. However, some generalizations can be made.

The region in which the subject grazing allotment is located includes two major soil types. Areas of low topographic relief are mapped as light colored, red, desert alluvial, sandy soils. The mountain slopes consist of alluvium, colluvium and residuum from bedrock erosion.

The U.S. Department of Agriculture, Natural Resources Conservation Service (formerly the Soil Conservation Service) classifies soils into four hydrologic groups based on infiltration rates obtained for bare soil after prolonged wetting. Those four soil groups are described as follows:

### Group A Soils

Group A soils have a low runoff potential and high infiltration rate. These soils generally consist of deep, well-drained sands and gravels. USDA soil textures normally included in this group are sand, loamy sand and sandy loam. Soils in this group have an infiltration rate of more than 0.3 inch per hour. Most of the areas underlain by undifferentiated alluvium and dune sand are mapped as Group A soils. This group of soils predominates in areas that are grazed.

### Group B Soils

Group B soils have a moderate runoff rate and moderate infiltration rate. These soils generally consist of moderately deep to deep, moderately well- to well-drained sandy loams with moderately fine to moderately coarse texture. These soils have an infiltration rate between 0.15 and 0.3 inch per hour. These soils are very limited in the region.

### Group C Soils

Group C soils have a moderate runoff rate and slow infiltration rate. These soils generally consist of silty loam with a layer that impedes the downward flow of water or has a moderately fine to fine texture. The soils have an infiltration rate of 0.05 to 0.15 inch per hour. Group C soils in the area occur in the lower part of the alluvial valleys and in the playa deposits.

### Group D Soils

Group D soils have a high runoff potential and very slow infiltration. These soils consist of clay with high swell potential, soils with a permanent high water table, soils with a clay pan or clay layer near the surface or shallow soils above nearly impervious material such as bedrock. Soil textures in this group include clay loam, silt loam, sandy clay, silty clay and clay. The soils have a very low infiltration rate, at 0.05 inch per hour. Group D soils in the region are present in the areas mapped as bedrock.

### Erosion and Sensitivity to Disturbance

Due to the sandy or loamy nature of the soil and the sparse vegetation in most of the region, the soil is susceptible to wind erosion. According to mapping by the BLM (1982), the sensitivities of soils in the area to disturbance can be classified as high, medium or low, corresponding generally to mountainous areas with shallow bedrock, alluvium on the flanks of the mountain ranges, and playa/lakebed deposits, respectively. Erosion potential of these soils ranges from slight to moderate.

BLM assessed the allotment in June 1999 to determine if the rangeland health standards were being met. Specific soils standards relate to permeability and infiltration. All sites examined were found to meet the standards for soils. Minor soil compaction and loss of vegetation occurs in the immediate area of some watering locations. Many of these watering sites are frequented by burros which contribute to this disturbance.

Impacts to soils occur in the immediate vicinity of watering sources, corrals, and attendant access areas. An estimated sixty-two (62) acres of compacted soils currently exist due to forty-one existing range improvements within this allotment.

#### Environmental Consequences:

##### A. Impacts of Proposed Action.

Impacts to soils are anticipated to continue in the immediate vicinity of existing watering sources and corrals. Compaction of soils at new and existing watering sites and corrals would continue to occur.

##### B. Impacts of No Action (Current Management).

Same as proposed action.

##### C. Impacts of Temporary Reduced Grazing.

Same as proposed action.

## 14. WASTES, HAZARDOUS OR SOLID

### Affected Environment:

Range improvements such as generators and pumps, and with associated fuel storage are known to be associated with the allotment. Since the proposed use of these sites is consistent with past range land use, the previous existence of hazardous material contamination may exist, although the extent of such contamination has not been quantified. It is unlikely that continued use will exacerbate the current conditions. The mitigating actions defined in the proposed action should be sufficient to ensure responsible management of sold waste and hazardous materials.

### Environmental Consequences:

#### A. Impacts of Proposed Action

There is potential for releases of hazardous and/or solid waste. Affects to resources include air, soil, and water (including surface and ground water) contamination, and increased risk to public health and safety. The specified mitigating actions in the proposed action for Public Health and Safety and Solid and Hazardous Materials will sufficiently reduce the affects to health, safety and the environment.

#### B. Impacts of No Action (Current Management)

In the event that the no action alternative is adopted, the facility improvements currently in place will need to be assessed to the degree possible with the lessee. The assessment would include site characterizations and review for current solid and hazardous waste including the handling and disposal practice.

#### C. Impacts of Temporary Reduced Grazing

The impacts of temporary reduced grazing would be similar to those of renewed grazing: potential for releases of hazardous and solid waste.

See Appendix VIII for References Cited

## 16. WATER QUALITY, SURFACE AND GROUND

### Affected Environment:

The subject grazing allotment is located in the Pahrump, Mesquite, Amargosa,

and Mojave watersheds. Surface water exists primarily as runoff during storm events and no perennial streams exist in the region encompassing the subject grazing allotments. Groundwater aquifers underlie the basin areas at depths up to several hundred feet. Some water wells exist in each allotment and produce a few acre-feet of water per year, collectively. Only those wells which are used for livestock watering have potential for impacting groundwater under this proposed action.

Too little information exists to determine groundwater recharge rates for the groundwater basins which underlie the grazing allotment. However, water use for grazing is low and draw down of the water table of any specific basin has not been observed. Water quality is suitable for domestic use in most areas although elevated TDS levels are common. Evapo-transpiration exceeds percolation in all areas surrounding water wells used for livestock. Some springs exist in the allotments with small accompanying riparian areas. See Critical Element Wetlands and Riparian Zones for additional discussion.

#### Environmental Consequences:

##### A. Impacts of Proposed Action.

No impacts to surface water are anticipated as surface water exists only as runoff during storm events.

No impacts to ground water are anticipated as water well production is minimal within any particular ground water basin.

##### B. Impacts of No Action (Current Management.

Same as above.

##### C. Impacts of Temporary Reduced Grazing.

Same as above.

## 17. WETLANDS/RIPARIAN ZONES

#### Affected Environment:

Water sources in the Mojave Desert are rare and occur as seeps and springs. Springs are generally small and are associated with prominent mountain ranges. Vegetation associated with these springs generally consists of small herbaceous plants.

Springs provide much needed water to wildlife species that require a perennial water source. Both game and non-game species routinely visit springs in the desert. Endemic

micro fauna can also be found inhabiting these rare water sources.

Springs Information:

Name	Inventory Date	PFC Rating	Weeds	Cattle/Burro Accessible	Fenced
Horse Thief	2004	NF	Yes	No	Yes
Crystal	2004	NF	Yes	Yes	Yes
Tule	1994	NF	Yes	No	Yes
Wild horse	2004	NF	Yes	Yes	Yes

Environmental Consequences:

A. Impacts of Proposed Action.

Cattle may trample vegetation resulting in a decrease in vigor or elimination of some vegetation from the riparian areas. Hoof action typically creates divots in wet soils, can increase erosion, and can create poor water quality at riparian areas.

Cattle grazing on the Horse Thief Springs Allotment would have slight impacts on riparian areas located in the allotment. Horse Thief and Crystal Spring are currently in Non-functional condition, due to the presence of a non-native plant known as the tree of heaven. In addition, the exclosure fences are inadequate to prevent cattle from impacting the riparian areas. Exclosure fences and a new set of cattle guards have been placed at strategic areas away from Horse Thief Springs to prevent livestock from entering the riparian zones. Also, a new exclosure fence will be installed at Crystal Spring in the fall of 2007, which would effectively exclude cattle from the riparian areas. The Crystal Spring project will be analyzed under a separate site specific environmental assessment.

Tule Spring is non-functional due to the presence of tamarisk, and has a well maintained exclosure fence that prevents cattle from accessing the riparian area. Wild horse Spring is non-functional due to the presence of tree of heaven, and although it has an associated cattle water facility, it is rarely used and cattle are not impacting the riparian area. Rabbit Holes is located in rugged terrain in an area where cattle do not graze.

The overall impacts from cattle grazing on riparian areas under the proposed action would be slight because associated range improvement facilities designed to supply water for cattle are designed to ensure that there is no excessive water loss from the riparian area. The improvements include spring boxes with water piped to troughs. The troughs have floats installed to ensure there is no excessive water lost from the riparian areas. Escape ramps are installed to ensure wildlife do not get trapped in troughs. The terms and conditions would require the lessees to maintain range improvements, and

mineral supplements would not be authorized within 1/4 mile of any natural water source. The Needles Field Office monitors and evaluates riparian areas and when necessary implements projects such as installing enclosure fences and aggressively works to remove non-native/invasive species such as tamarisk and giant arundo in riparian areas.

B. Impacts of No Action (Current Management).

Same as proposed action

C. Impacts of Temporary Reduced Grazing.

A decrease in the stocking rate of cattle on the allotment would reduce the damage to Crystal Spring by reducing the amount of activity at the spring. Horse Thief Spring would be fenced by June 2007, which will exclude cattle from the riparian area.

Maps:

Appendix 1, Map 5.

19. WILDERNESS

Affected Environment:

Livestock grazing in wilderness is in conformance with the Wilderness Act of 1964 and the California Desert Protection Act of 1994 (CDPA). Section 4(D)(4) of the Wilderness Act states, "the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agricultural." Section 103(c) of the CDPA has similar language in reference to livestock as that of the Wilderness Act. The grazing of livestock in BLM wilderness areas is regulated under 43 Code of Federal Regulations (CFR) 6304.25, and guided by BLM manual 8560.15 (G). BLM manual 8560.15 (G) states, "Congressional guidelines regarding "Grazing in National Forest Wilderness Areas," published in House Report 96-1126, dated June 24, 1980, must be implemented in all BLM-administered wilderness with pre-existing grazing." These guidelines state, "The maintenance of supporting facilities, existing in an area prior to its classification as wilderness, is permissible in wilderness. Where practical alternatives do not exist, maintenance or other activities may be accomplished through occasional use of motorized equipment." The grazing of livestock in BLM wilderness areas located in the California Desert is guided by Annex 1 of the management policy *Principles for Wilderness Management in the California Desert*.

## Environmental Consequences:

The Horse Thief Springs Allotment encompasses 157,794 acres of public lands and 7,040 acres of State and private lands. The grazing use level at the time of designation for the Horse Thief Springs Allotment was 2,424 animal unit months (AUMs). The allotment is located in the Kingston Range, Nopah Range, Mesquite Valley, and California Valley areas and includes portions of the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas. The elevation range is between 1,900 to over 7,200 feet. The dominant vegetation communities are creosote-white bursage, big galleta, Joshua tree woodlands, blackbush and riparian areas.

### *Kingston Range Wilderness*

The Horse Thief Springs Allotment includes 36,724 acres of the Kingston Range Wilderness. The Kingston Range Wilderness was designated in 1994. Cattle grazing in the Horse Thief Springs Allotment occurs in the northeastern portion of the wilderness. A few range improvements are located within the wilderness area (refer to Appendix 1, Map 1).

### *Nopah Range Wilderness*

Approximately 7,680 acres of the wilderness are covered by the Horse Thief Springs Allotment. The Nopah Range Wilderness was designated in 1994. Cattle grazing from the Horse Thief Springs Allotment occurs in the southeastern corner of the wilderness. The only Horse Thief Springs range improvements located in the wilderness are two sections of allotment boundary fencing (refer to Appendix 1, Map 1).

### *North Mesquite Mountains Wilderness*

The Horse Thief Springs Allotment includes 32,209 acres of the North Mesquite Mountains Wilderness Area. The North Mesquite Mountains Wilderness was designated in 1994. Cattle grazing in the Horse Thief Springs Allotment occurs in the western portion of the wilderness. The only range improvements located within the wilderness is 7.8 miles of boundary fencing and a water development just inside the eastern boundary (refer to Appendix 1, Maps 1).

### *Pahrump Valley Wilderness*

Approximately 40,240 acres of the wilderness are covered by the Horse Thief Springs Allotment. The Pahrump Valley Wilderness was designated in 1994. Cattle grazing from the Horse Thief Springs Allotment occurs in the western portion of the wilderness. Several range facilities are located within the

wilderness area including water developments, pipelines, and fencing (refer to Appendix 1, Map 1).

### *South Nopah Range Wilderness*

Approximately 3,200 acres of the wilderness are covered by the Horse Thief Springs Allotment. The South Nopah Range Wilderness was designated in 1994. Cattle grazing from the Horse Thief Springs Allotment occurs in the eastern portion of the wilderness. The only range improvement located in the wilderness is a water development on the eastern boundary (refer to Appendix 1, Map 1).

#### A. Impacts of Proposed Action.

##### *Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas*

*Kingston Range Wilderness Area:* The naturalness of ~36,724 acres of the Horsetheif Springs Allotment within the Kingston Range Wilderness is being affected by the presence of a non-native species (cattle) and the existing range improvements. The opportunity to experience an area without evidence of man is also affected by the presence of cattle and range improvements. The wilderness character and the opportunity for solitude are affected by the sights and sounds associated with cattle grazing and range improvement maintenance. Motor vehicle use occurs in the allotment for emergency purposes (i.e., cattle's life at stake). This use very rarely occurs, but it does affect wilderness character and solitude.

*Nopah Range Wilderness:* The naturalness of ~ 7,680 acres within the North Nopah Range Wilderness is being affected by the presence of a non-native species (cattle) and the existing range improvements. The opportunity to experience an area without evidence of man is also affected by the presence of cattle and range improvements. The wilderness character and the opportunity for solitude are affected by the sights and sounds associated with cattle grazing and range improvement maintenance including occasional motorized equipment use in wilderness. Motor vehicle use in wilderness also occurs for emergency purposes (i.e., cattle's life at stake). This use very rarely occurs, but it does affect wilderness character and solitude.

*North Mesquite Mountains Wilderness:* The naturalness of ~32,209 acres of the Horse Thief Springs Allotment within the North Mesquite Mountains Wilderness Area is being affected by the presence of a non-native species (cattle) and the range improvements. The opportunity to experience an area without evidence of man is also affected by the presence of cattle and range improvements. The wilderness character and the opportunity for solitude are

affected by the sights and sounds associated with cattle grazing and range improvement maintenance including occasional motorized equipment use in wilderness. Motorized equipment use very rarely occurs, but it does affect wilderness character and solitude.

*Pahrump Valley Wilderness Area:* The naturalness of ~40,240 acres within the Pahrump Valley Wilderness Area is being affected by the presence of a non-native species (cattle) and the existing range improvements. The opportunity to experience an area without evidence of man is also affected by the presence of cattle and range improvements. The wilderness character and the opportunity for solitude are affected by the sights and sounds associated with cattle grazing and range improvement maintenance including occasional motorized equipment use in wilderness. Motor vehicle use in wilderness also occurs for emergency purposes (i.e., cattle's life at stake). This use very rarely occurs, but it does affect wilderness character and solitude.

*South Nopah Range Wilderness Area:* The naturalness of ~3,200 acres within the South Nopah Range Wilderness Area is being affected by the presence of a non-native species (cattle) and the existing range improvements. The opportunity to experience an area without evidence of man is also affected by the presence of cattle and range improvements. The wilderness character and the opportunity for solitude are affected by the sights and sounds associated with cattle grazing and range improvement maintenance including occasional motorized equipment use in wilderness. Motor vehicle use in wilderness also occurs for emergency purposes (i.e., cattle's life at stake). This use very rarely occurs, but it does affect wilderness character and solitude.

If cattle grazing were to occur on the allotment, the restriction of utilization on perennial forage to 40% would be beneficial to the naturalness of the affected wilderness areas by helping to protect the natural composition of vegetation communities, which would consequently benefit native wildlife such as the desert tortoise.

The stipulation that requires a threshold of 230 lb/acre ephemeral forage production to authorize perennial preference in DWMA's would also be beneficial to the naturalness of the portions of the affected wilderness areas containing DWMA's. The threshold would help protect native vegetation and consequently native wildlife by helping to prevent excessive use in dry years.

If the allotment was voluntarily relinquished, the wilderness areas would substantially benefit. The naturalness of the areas would no longer continue to be impacted by the presence of a non-native species (cattle). The opportunity to experience an area without evidence of man would no longer be impacted by the presence of cattle. The wilderness character and the opportunity for solitude would no longer be affected by the sights and sounds associated with range

improvement maintenance including occasional motorized equipment use in wilderness. In addition, there would not be any future potential to graze cattle in the area and range improvements could be removed to improve the areas' naturalness and provide a greater opportunity to experience an area without evidence of man.

The impacts associated with the proposed action would comply with and cause no unacceptable impacts as defined under the Wilderness Act of 1964, the California Desert Protection Act of 1994, 43 Code of Federal Regulations 6304.25, and BLM manual 8560.15 (G)

B. Impacts of No Action (Current Management).

Impacts would be the same as the proposed action.

C. Impacts of Temporary Reduced Grazing.

If a reduced grazing alternative is selected for the Horse Thief Springs Allotment it will enhance the wilderness characteristics of the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness Areas on a temporary basis by reducing the number of a non-native species (cattle), improve the naturalness of the area by reducing the need and number of cattle improvements, and improve opportunities for solitude and a primitive type of recreation by reducing the need for ranchers and BLM employees to operate, maintain and administer cattle grazing in wilderness. Overall, a reduced grazing alternative would move the affected wilderness areas toward a more natural condition than presently exists only as long as the temporary reduction.

Maps:

Appendix 1, Map 1

See Appendix VIII for References Cited

20. WILDLIFE HABITAT

Affected Environment:

*Threatened and Endangered Species:*

The Mojave population of the desert tortoise (*Gopherus agassizii*) was listed as federally threatened by the U.S. Fish and Wildlife Service (Service) on April 2, 1990. Changes in resource and management conditions and disease have resulted in the range wide decline in desert tortoise populations in the past two

decades. Critical habitat for the desert tortoise was designated by the Service in portions of California, Nevada, Arizona, and Utah on February 8, 1994. Desert tortoises are most active during the spring and early summer when annual plants are available for forage. Additional activity occurs during fall months and on warm days when it is overcast or raining.

The NEMO Plan amendment included the establishment of Desert Wildlife Management Areas (DWMA) as recommended by the Desert Tortoise Recovery Plan (Service 1994). The Recovery Plan also established Recovery Units, which correspond generally to genetically distinct population segments. The allotment is located within the Eastern Mojave Recovery Unit. This recovery unit contains two separate critical habitat units (Piute-Eldorado and Ivanpah) and three separate DWMA's (Shadow Valley, Piute-Fenner, and Ivanpah). The Horse Thief Springs Allotment is not located within the critical habitat units or the DWMA's. However, this allotment is located within Category III desert tortoise habitat, indicating relatively low-density populations of desert tortoises. Data on desert tortoise on a permanent study plot in the Shadow Valley DWMA were collected in 1988, and 1992; the densities of desert tortoises of all sizes per square mile were 50, and 58, respectively (Berry 1996).

#### *Special Status Wildlife*

Portions of the Horse Thief Springs Allotment contain desert bighorn sheep (*Ovis canadensis*) habitat. Desert bighorn sheep are a BLM sensitive species. Bighorn sheep typically occupy steep, mountainous, open terrain, although migration between mountain ranges through valleys has been documented (Bleich et al. 1990).

#### *General Wildlife*

Other mammals occurring in the area include cottontail rabbit (*Sylvilagus auduboni*), black-tail jackrabbit (*Lepus californicus*), mule deer (*Odocoileus hemionus*), kit fox (*Vulpes macrotis*), antelope ground squirrel (*Ammospermophilus leucurus*), coyote (*Canis latrans*), kangaroo rats (*Dipodomys* spp.), western pipistrel (*Pipistrellus hesperus*), and woodrats (*Neotoma* spp.). BLM sensitive bat species occurring in the area include myotis bats (*Myotis* spp.), pallid bat (*Antrozous pallidus*), California leaf-nosed bat (*Macrotus californicus*), and Townsend's big-eared bat (*Plecotus townsendii*).

The banded gila monster (*Heloderma suspectum cinetum*), listed as a species of special concern by the CDFG and a BLM sensitive species, has been sighted in rare instances in the Horse Thief Springs Allotment. The gila monster typically occupies rocky outcrops and natural crevices. Banded gila monsters have not been seen in this area in many years.

The allotment includes potential habitat for common reptilian species, such as side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), leopard lizards (*Gambelia* spp.), rattlesnakes (*Crotalus* spp.), western whiptail (*Cnemidophorus tigris*), desert horned lizard (*Phrynostoma platyrhinos*), and various other snake and lizard species.

The habitat types found in the allotment can contain a wide range of bird species, such as black-throated sparrow (*Amphispiza bilineata*), common raven (*Corvus corax*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's sparrow (*Spizella breweri*), red-tailed hawk (*Buteo jamaicensis*), Western kingbird (*Tyrannus verticalis*), black-tailed gnatcatcher (*Polioptila melanura*), blue-gray gnatcatcher (*Polioptila caerulea*), phainopepla (*Phainopepla nitens*), northern mockingbird (*Mimus polyglottos*), Gambel's quail (*Lophortyx gambelii*), American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), verdin (*Auriparus flaviceps*), mourning dove (*Zenaidura macroura*), lesser nighthawk (*Chordeiles acutipennis*), horned lark (*Ermophila alpestris*), Poorwill (*Phalaenoptilus nuttallii*), rock wren (*Salpinctes obsoletus*), canyon wren (*Catherpes mexicanus*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), and house finch (*Carpodacus mexicanus*). Habitat for burrowing owl (*Athene cunicularia*), and gray vireo (*Vireo vicinior*), which are BLM sensitive species, may also occur within the proposed allotment. The gray vireo is known to nest in the Kingston Mountains.

Important springs containing small riparian habitats are found at several locations within the Needles Field Office jurisdiction. These riparian habitats, although of limited size and length, contains habitat for neotropical migratory birds. An example of this on the Horse Thief Springs Allotment is Horse Thief Spring.

#### Environmental Consequences:

##### A. Impacts of Proposed Action.

###### *Threatened or endangered species*

Densities of the desert tortoise that inhabit the Horse Thief Springs Allotment are generally quite low because the entire allotment is within non-DWMA habitat. The highest densities are found in the creosote-white bursage and big galleta vegetation types, in the 1900 to 4000 foot elevation, whereas the Joshua tree woodlands, and blackbrush vegetation types are generally too high to support the desert tortoise. Therefore, with low stocking rates and very well-distributed use by cattle, direct impacts to the desert tortoise in the form of trampling of animals above-ground or in their burrows would be even less likely than under the no-action alternative (see below in no-action alternative analysis). Indirect impacts such as competition for forage would be minimized

because of the 230-pound turnout threshold, which saves forage in low-production years for the desert tortoise. The already-present type conversion of vegetation at or near cattle watering sources would continue, but would continue to occur on a very small area compared to the total acreage of the allotment.

### *Special Status Wildlife*

Desert bighorn sheep do not typically occupy the same habitat as cattle. Cattle generally inhabit alluvial fans and washes and extend into higher elevations on gentle, less rocky slopes than those preferred by bighorn sheep. Some interactions may occur between bighorn sheep and cattle at water sources (Wehausen and Hansen, 1986). Interactions between cattle and bighorn sheep on the Horse Thief Springs Allotment is unlikely because the man-made water sources on this allotment utilized by bighorn sheep occur in high mountainous areas where cattle do not go. The exception would be when desert bighorns migrate from one mountain range to another, and if they water at a source that cattle use in the lower areas while in transit. The locations where this is possible are: Horse Thief Spring, Wild Horse Spring, and any of the undeveloped springs between the Clark Mountains and the Kingston Range, and the man-made water sources at Crystal, Chaparral, Dagger, Excelsior, Kingston, Main, Middle, and South corrals (see Maps 1 and 6).

### *General wildlife*

Few studies have been done to document the extent of competition between small mammals and cattle. It is generally assumed that burrowing mammals and the nests of birds can be trampled by cattle on this allotment. However, the adherence to grazing strategies that require proper cattle distribution and periodic rest of individual grazing areas should minimize the impact to burrowing mammals and birds. Livestock have the potential to cause damage to nesting sites for birds, particularly where the nests are built on the ground or in grasses, or in the lower branches of trees. The 230-pound threshold for cattle turnout would minimize this effect during the drier years because cattle would not be in the area when the threshold is not met, thus freeing up all available resources to on-site wildlife.

Southwestern bat species typically roost in abandoned mines shafts, caves, rock crevices, and on trees. Therefore, roosting locations would not be impacted by cattle grazing. Some bats forage over and within riparian areas; bat foraging riparian habitat could be impacted by cattle grazing if wholesale removal of riparian trees and shrubs occurs and flowering parts of these plants no longer draw insects (or plant eating bats) to affected riparian areas. However, the 1999 Rangeland Health Assessments did not show any riparian areas failing to meet standards as a result of livestock activity (see section on

Wetlands/Riparian Zones). Periodic Needles Field Office staff visits, and the 2005 proper functioning condition analysis at Horse Thief Springs Allotment and to the riparian zone at Crystal Spring, indicate that these springs are not meeting standards because of invasive plant species, but that wholesale removal or destruction of riparian vegetation has not occurred. Tree-of-heaven control at Horse Thief Spring is scheduled for the spring of 2007.

Overall, in years when cattle do turn out, grazing could result in a reduction in forage and shelter sites for wildlife through degradation of habitats. Disruption of behavioral patterns could also result from the proposed action. Impacts to wildlife would be greatest around concentrated areas of use such as range improvements (i.e. cattle troughs), riparian areas, salt licks, and roads. Given the small size of the cattle concentration areas on this allotment in relation to the allotment size, these impacts to wildlife would be minor.

#### B. Impacts of No Action (Current Management)

##### *Threatened or endangered species*

Conversion of vegetation from the mixed-shrub-dominated vegetation type to creosote bush-only shrub type with non-native invasive annuals occurs under the existing grazing regime. Type conversion is limited to a radius of less than a half-mile adjacent to cattle watering sources. The suitability of this impacted habitat to the desert tortoise is less than that of the more pristine mixed shrub vegetative types, plus competition for overlapping forage needs are greatest in these areas. Overall, type conversion is not occurring on a large portion of the allotment because cattle are well-distributed throughout the allotment at a low stocking rate. Direct impacts from crushing animals above-ground or in their burrows are very minimal, with no documented loss of desert tortoises to trampling above-ground on this allotment.

##### *Special status wildlife*

For the desert bighorn, the effects of current management are the same as those analyzed in the proposed action except that without the 230-pound forage threshold, cattle may be present on the allotment with more frequency.

##### *General wildlife*

Effects are similar to those described for the proposed action, except that the extent of disturbance to wildlife such as burrowing mammals, ground nesting birds, and birds that nest in the lower branches of trees or in shrubs may be more constant because the 230-pound threshold would not be in effect.

### C. Impacts of Temporary Reduced Grazing.

#### *Threatened or endangered species*

A 33% reduction in the amount of grazing should be beneficial to desert tortoises and associated habitat. These benefits would result, in part, from a reduction in competition for forage. However, given the dispersed level of grazing (202 cattle) over a large area (97,848 acres) in the Horse Thief Springs Allotment, a 33% reduction in cattle may not result in readily evident change in desert tortoise habitat conditions.

#### *Special Status Wildlife*

There may be short-term benefit to the desert bighorn if fewer cattle were to use the allotment on a temporary basis. However, in the long-term, the potential for adverse interactions between cattle and desert bighorn at the lower undeveloped springs at the developed cattle watering sources would be just as likely (or unlikely) at a reduced stocking rate as they would be at the full stocking rate.

#### *General wildlife*

A reduction in the amount of cattle allowed to graze the allotment would presumably also be beneficial to general wildlife species, particularly birds (especially during nesting season), and several reptile species. Less animal burrows would be trampled and fewer nests would be disturbed if grazing levels were reduced. However, similar to its effects on the desert tortoise, given the dispersed level of grazing over a large area in the allotment, a 33% reduction in the number of cattle may not result in readily evident improvement to the habitat of general wildlife species.

Maps: See maps 1 and 6.

See Appendix VIII for References Cited

## 21. VEGETATION

### Affected Environment:

The Horse Thief Springs Allotment contains a variety of vegetation series, such as creosote-white bursage, big galleta, Joshua tree woodlands, blackbush, and riparian areas. Shrub and tree species noted in the allotment include creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), ratany (*Krameria* spp.), rabbitbrush (*Chrysothamnus* spp.), blackbush (*Coleogyne ramosissima*), paperbag bush (*Salazaria mexicana*), Joshua tree (*Yucca brevifolia*), big

sagebrush (*Artemisia tridentata*), California juniper (*Juniperus californica*), winterfat (*Ceratoides lanata*), desert willow (*Chilopsis linearis*), desert lavender (*Hyptis emoryi*), ephedras (*Ephedra* spp.), cheesebush (*Hymenoclea salsola*), box-thorn (*Lycium* spp.), and saltbushes (*Atriplex* spp.). Predominant succulent species in the allotment include chollas and prickly-pears (*Opuntia* spp.), Mojave yucca (*Yucca schidigera*), cottontop cactus (*Echinocactus polycephalus*), and California barrel cactus (*Ferocactus cylindraceus*). Annual and perennial herbaceous species and grasses include species such as: big galleta (*Hilaria rigida*), galleta grass (*Hilaria jamesii*), buckwheats (*Eriogonum* spp.), plantain (*Plantago* spp.), Indian ricegrass (*Oryzopsis hymenoides*), wire-lettuce (*Stephanomeria* spp.), penstemon (*Penstemon* spp.), wild rhubarb (*Rumex* sp.), and spineflower (*Chorizanthe* spp.). This allotment contains the Kingston Range relict white fir stands Unusual Plant Assemblage (UPA) and the Kingston Range giant nolina UPA.

Key species and other palatable species utilized by cattle on this allotment include needle grass and Indian ricegrass (*Achnatherum* spp.), brome (*Bromus* spp.), Mediterranean grass (*Schismus* spp.), ephedra (*Ephedra* spp.), fluff grass (*Erioneuron pulchellum*), galleta grass (*Hilaria* spp.), alkali sacaton (*Sporobolus airoides*), white bursage (*Ambrosia dumosa*), ratany (*Krameria* spp.), saltbush (*Atriplex* spp.), winterfat (*Ceratoides lanata*), brittlebush (*Encelia farinosa*), yerba mansa (*Anemopsis californica*) and desert willow (*Chilopsis linearis*).

*invasive/non-native*

Invasive non-native species, such as Sahara mustard (*Brassica tournefortii*), filaree (*Erodium cicutarium*), red brome (*Bromus rubens*), and Mediterranean grasses (*Schismus* spp.), have been established on upland sites on this allotment for many years.

Salt cedar (*Tamarisk ramosissima*), giant cane (*Arundo donax*), and tree of heaven (*Ailanthus altissima*) have invaded several riparian springs. Eradication efforts have been on-going since 1992. These riparian non-native/invasive species reduce the amount of water available for native riparian plants and wildlife species.

Table 3: Springs with Non-native/Invasive species

Spring Name	Acres
Tule	1
Horse Thief	2
Wild horse	1
Crystal	2

### *Unusual Plant Assemblages (UPA)*

The Horse Thief Springs Allotment contains 264 acres of the White Fir UPA and 22,977 acres of the Nolina UPA.

### *Sensitive Species*

The following California BLM sensitive plants could potentially occur in the Horse Thief Springs Allotment: Kingston bedstraw (*Galium hilendiae* ssp. *Kinstonense*), Kingston Mountains ivesia (*Ivesia patellifera*), Stephen's beardtongue (*Penstemon stephensii*) and Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*).

### Environmental Consequences:

#### A. Impacts of Proposed Action.

The allotment was assessed for rangeland health in 1999. The allotment was determined to be meeting all standards at that time.

On the Horse Thief Springs Allotment the impacts from cattle grazing under the proposed action would be slight with the Implementation of the proposed terms and conditions, including Standards and Guidelines, forage utilization levels at no more than 40%, maintenance of range improvements, and biological opinion stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season.

#### Invasive/non-native

It is undetermined how much grazing practices contribute to the introduction and/or spread of non-native invasive species. It is possible that livestock can spread the seeds of invasive species through seeds sticking to their hide, or deposition of seed through their digestive system. Improper grazing practices reduce the diversity, and reproductive abilities of native, desert plant communities. This in turn promotes the establishment and spread of non-native invasive species that now occupy habitat once inhabited by native species. Grazing practices that allow for periodic recruitment opportunities commonly have lower densities of non-native species and are more compatible with sustaining native plant communities.

Overall, the current densities of non-native invasive species on the allotment being analyzed in this document are considered moderate. Annual fluctuations in densities are directly influenced by the amounts of late winter, early spring precipitation.

Implementation of the proposed terms and conditions, including Standards and Guidelines and biological opinion stipulations, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season would aid in sustaining native plant communities, and would ensure that cattle grazing would have only a slight risk of introducing and/or spreading non-native/ invasive species on the Horse Thief Springs Allotment.

Currently the Needles Field Office has an aggressive program to remove non-native/invasive species such as tamarisk and giant arundo in riparian areas. Where the non-native/invasive species have been removed, water levels have increased and native riparian vegetation has begun to recover and return.

#### *UPAs*

There would be no impact to the Kingston Range relict white fir stands UPA and the Kingston Range giant nolina UPA. The white fir is in such high elevations that cattle would not graze in that region and, the giant nolina is unpalatable to cattle.

#### *Sensitive Species*

Although not much is known about Kingston bedstraw (*Galium hilendiae* ssp. *Kinstonense*), Kingston Mountains ivesia (*Ivesia patellifera*), and Stephen's beardtongue (*Penstemon stephensii*) which may be found on the Horse Thief Springs Allotment, it is unlikely that they would be impacted by cattle grazing as they grow in rocky terrain in higher elevations where there is very low densities of cattle grazing. Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) which may be found on the Horse Thief Springs Allotment, grows at lower elevations and would be a desirable forage plant and may potentially be impacted by cattle grazing.

### **B. Impacts of No Action (Current Management).**

Same as the proposed action.

### **C. Impacts of Temporary Reduced Grazing.**

Although this alternative would reduce the potential for damage of riparian vegetation there would be no impact to other vegetation. The terms and conditions of proposed action restrict utilization to 25 to 40% regardless of stocking rate.

### **Maps:**

Appendix 1, maps 2 and 4.

See Appendix VIII for References Cited

## **CHAPTER 4: CUMULATIVE IMPACT ANALYSIS**

Cumulative impacts, as defined by Council of Environmental Quality regulations in 40 CFR 1508.7, are “the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or persons undertakes such other actions.” The cumulative impact analysis for the Horse Thief Springs Allotment is tiered to the analysis of the NEMO plan as described below.

### **NEMO Plan - Other past, present, and reasonably foreseeable future actions**

The NEMO Plan specifically recognized the cumulative conservation benefits of other past actions by Congress in setting aside large areas within the CDCA for parkland, military use, and wilderness; benefits derived from designation by US Fish and Wildlife Service of millions of acres of critical habitat in the CDCA; and benefits resulting from the implementation of management actions established under BLM land use planning for six regional plan areas in the CDCA. For example, NEMO identified cumulative conservation benefits resulting from the restrictions BLM places on OHV use throughout the CDCA (which reduced by 5 % the routes available for OHV use in the NEMO plan area), elimination of most wild burro herds, elimination of ten grazing allotments and reallocation of forage on remaining allotments including elimination of ephemeral allocations, and substantial restrictions on grazing within DWMAs.

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

The current situation is also largely the result of passage or implementation of several laws since the CDCA Plan in 1980. These include implementation activities under the California and Federal Endangered Species Acts for listed species in the region, designation of BLM wilderness areas as a result of the California Desert Protection Act

of 1994, and the transfer of lands from BLM management as a result of the California Desert Protection Act of 1994, the Timbisha Shoshone Homeland Act (P.L. 106-423), and the Fort Irwin National Training Center expansion legislation (P.L. 106-554). All of these activities are broad enough in scope that they include cumulative impacts relevant to grazing, either directly or indirectly.

### **NEMO Plan – Cumulative Impact**

The NEMO Plan analyzed the impacts to air quality, water quality, soils, biological resources, wilderness, livestock grazing, cultural, and socio-economic conditions. The main conclusion was that the NEMO plan, as well as other CDCA plan amendments, provides new conservation strategies for plant and animal species that have an overall beneficial cumulative impact on many resources.

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

### **Horse Thief Springs Allotment – Other past, present, and reasonably foreseeable future actions**

The BLM's multiple use mission typically results in a variety of activities that are authorized to occur on the same lands. Grazing of cattle in the Mojave Desert has occurred continuously since the mid-1800's (Lovich, J.E., and D.A. Bainbridge 1999). Early grazing in the Mojave occurred on public lands and was unrestricted. In response to deteriorating conditions, the Taylor Grazing Act was passed in 1934. Three years later, the BLM was created when the Government Land Office and the Grazing Service merged in 1946. However, it was not until the 1970's that grazing was seriously regulated by the BLM. The listing of the desert tortoise in 1990 and designation of critical habitat in 1994, lead to even greater restrictions on grazing to protect desert tortoises and their habitat. The CDCA land use plan, as amended by the NEMO Plan, has further increased regulations on grazing.

Past activities include mining, recreational off-highway vehicle (OHV) use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity and natural gas transmission lines), livestock grazing, military training maneuvers, construction and vehicle use of paved and unimproved roads, mining,

grazing, and wildlife water developments. Grazing has been reduced and/or eliminated in the Mojave National Preserve.

Present activities include grazing, primitive camping, and sight seeing. Other activities that may overlap the allotment include utility corridors (e.g., electricity and natural gas transmission lines), general recreation (e.g., hunting, picnicking, camping, and rock hounding), scientific study, and off-highway vehicle (OHV) activities. These activities impact riparian areas to varying degrees from increasing the potential for the introduction and/or spread of non-native/invasive species to removal of riparian vegetation by cattle grazing and human use.

Future activities may include development of range improvements, continued grazing, authorized and unauthorized vehicle use, maintenance and construction of utility corridors, and activation of additional mining claims.

### **Cumulative Impact of the Proposed Action**

The following resources, ecosystems, and human communities of concern are not associated with conditions where additional stresses associated with the proposed action will have consequential cumulative effects: air quality, areas of critical environmental concern, environmental justice, recreation, and water (surface and ground). There will be no cumulative impact and no further discussion of these resources is required.

Cumulative impacts addressed in this EA include impacts to cultural resources, health and safety, livestock grazing, Native American religious concerns, socioeconomic, soils, waste (solid and hazardous), wetlands/riparian zones, wildlife, wilderness and vegetation.

Impacts are short term (for example, impacts resulting from construction of new range facilities) and long term (impacts resulting from the use of the range facilities). Both the short term and long term impacts are consistent with the analysis of the NEMO plan. Incremental impacts of livestock grazing are not increasing cumulative impacts because most of the impacts have occurred in the past. When added to effects identified in the NEMO Plan and effects of other actions on the allotment, the cumulative impact of the proposed action would be limited as summarized below:

#### **Cultural Resources:**

As discussed in this , in chapter 3 of this EA, grazing is known to cause movement and mixing of cultural resources in areas where livestock congregate on the allotment, including riparian areas (springs), corrals, and water facilities. Approximately 1% of the known sites are found in livestock congregation areas and have been impacted by grazing activities. In much of the allotment where livestock are more dispersed, or in

rock areas without sufficient forage, impacts would be restricted to surface displacement and impacts are anticipated to be minimal.

Past, present, and reasonably foreseeable future actions that contribute to cumulative impact to cultural resources on or near this allotment include recreational OHV use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity oil and natural gas transmission lines), general recreational activities (e.g., hunting, camping, picnicking, and rock hounding), livestock grazing, military training maneuvers, construction and vehicle use of paved and unimproved roads, mining, and wildlife water developments. The net effect of these actions on cultural resources is the incremental loss of archaeological sites.

The cumulative impact analysis area for cultural resources is the NEMO planning area. The time frame for the analysis is long term. Impacts to cultural resources in the planning area (NEMO 4.12 Cumulative Effects) have been occurring for 30 years or more. However, impacts resulting from the proposed grazing lease renewal are not expected to add any further adverse impact. The combined impact would be minimal, both incrementally and cumulative, because BLM will implement procedures in accordance with the amended 2004 State Protocol Agreement to insure compliance with Section 106 of the national Historic Preservation Act of 1966, as amended.

#### Health and Safety

As discussed earlier in this EA there is a potential for limited impacts to public health and safety due to human-cattle interface such as vehicular accidents, injuries caused by excessively close contact with each other, and rarely infectious diseases and vectors which may pass from cattle to humans.

The other past, present and reasonably foreseeable future actions that contribute to impacts to public health and safety on or near this allotment include recreational OHV use, operation and maintenance of utility and energy facilities and corridors (e.g., electricity and natural gas transmission lines), construction and vehicle use of paved and unimproved roads, and prospecting and mining. The greatest risk to public health and safety is from vehicle/cattle collision, but typically the roads in the allotment are rough and require the user to drive at speeds that minimize the potential for collision and damage if a collision occurs.

The cumulative impact analysis area for public health and safety is the Horse Thief Springs Allotments. The time frame for the analysis is long term. The impact would be minimal, both incrementally and cumulatively because the terms and conditions in the proposed action would implement requirements to minimize the potential for accidents.

#### Livestock Grazing

As discussed in chapter 3 of this EA, There is potential of slight to moderate impacts associated with the removal of cattle from the allotments due to drought.

The other past, present, or reasonably foreseeable future actions that contribute to fugitive dust emissions on or near this allotment include authorized and unauthorized vehicle use, maintenance and construction of utility corridors, and location of additional mining claims. The net effect of these actions on livestock grazing is: authorized and unauthorized vehicle use and maintenance and construction of utility corridors can have a slight impact to livestock grazing by removal of vegetation utilized for forage, and there is always a danger of vehicles hitting cattle.

The cumulative impact analysis area for livestock grazing is the Horse Thief Springs Allotment boundaries. The time frame for the analysis is long term. Impacts to livestock grazing in the planning area have been occurring for 100 years or more. However, impacts resulting from the proposed grazing lease renewal are not expected to add any adverse impact. The impact would be minimal, both incrementally and cumulatively, because the proposed action would implement new terms and conditions that are more restrictive.

#### Native American Religious Concerns:

As discussed in this EA, the Bureau of Land Management, Needles Field Office, initiated government-to-government consultation for the lease renewal of the grazing lease with five Native American Tribes that historically occupied the grazing allotment. It was requested that the Tribes provide the Needles Field Office with any concerns, comments, or questions that they might have on the lease renewal action, and potential impacts to historic properties or areas of traditional importance within the grazing lease area. No specific concerns associated with cattle grazing were identified by the affected Tribes. However, cumulative impacts to specific cultural resources and properties resulting from livestock grazing activities, as discussed in the Cultural Resources, Environmental Consequences Section above, have the potential to impact Native American religious values and concerns.

The accumulative impact analysis area for Native American religious concerns is the territory of lands occupied in the prehistoric and historic periods by the Las Vegas Paiute Tribe, the Pahrump Paiute Tribe, the Colorado River Indian Tribes, the Chemehuevi Indian Tribe, and the Fort Mojave Indian Tribe. These lands, including the grazing lease area, continue to be used by the effected tribes through the present day.

Past, present, and reasonably foreseeable future actions that may potentially contribute to Native American concerns of cumulative impacts to cultural properties on or near this allotment include recreational OHV use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity, oil, and

natural gas transmission lines), general recreational activities (e.g., hunting, camping, picnicking, rock hounding), scientific study, military training maneuvers, construction and vehicle use of paved and unimproved roads, mining, and wildlife water developments. The net effect of these actions on Native American religious concerns is the incremental loss of integrity of ethnographic landscape values, and Traditional Cultural Properties (e.g., special activity sites, mineral, faunal and floral collection areas) valued by the affected Native American Tribes. However, the renewal of the grazing lease will have a positive effect on cultural resource sites within the boundary of the lease. The site protection measures specified in the EA (i.e., removal of a corral facility and construction of enclosure fences around an identified archaeological site being impacted by cattle grazing activity), and implementation of the Grazing Amendment to the 2004 Protocol between the State Director, California Bureau of Land Management, and the California State Historic Preservation Office (cultural resource surveys of all range improvement projects and spring locations and mitigation of all sites being impacted as a consequence of grazing activity) will address potential Native American religious concerns.

#### Socioeconomic:

As discussed earlier in this EA there is a potential for slight to moderate impacts associated with the removal of cattle from the allotments due to drought, however it is unlikely that the lessee would be forced to sell his cattle or that the lessee would not have the revenue to replace them. The grazing operation would continue to have a nominal influence on the local and regional economy of San Bernardino County.

Past, present and reasonably foreseeable future actions that contribute to Socioeconomic cumulative impact on or near this allotment include recreational OHV use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity and natural gas transmission lines), livestock grazing, construction and vehicle use of paved and unimproved roads, mining, and wildlife water developments. Other activities that may overlap the grazing allotment include utility corridors (e.g., electricity and natural gas transmission lines), general recreation (e.g., hunting, picnicking, camping, and rock hounding) and scientific study. Most of these actions have benefited the people who live in San Bernardino County by generating revenue for the county and providing needed commodities.

The cumulative impact analysis area for socioeconomic concerns is San Bernardino County. The time frame for the analysis is long term. Impacts to socioeconomic concerns in the planning area have been occurring for 30 years or more. However, impacts resulting from the proposed grazing lease renewal are not expected to add any adverse impact. The impact would be minimal, both incrementally and cumulatively, because most of the revenue that San Bernardino County collects from cattle ranching is from a few large scale cattle operations. The Horse Thief Springs Allotment lessee has a small operation which contributes a very small percentage of revenue to San

Bernardino County.

### Soil

The past, present and reasonably foreseeable future actions that contribute to impacts to soils on this allotment include development of range improvements, continued grazing, authorized and unauthorized vehicle use, maintenance and construction of utility corridors, and activation of additional mining claims. The net effect of these actions on soils is grazing around range improvements, water developments in particular, and construction and use of utility corridors have compacted soils. Overall the effects are less than one percent of the soils have been impacted.

The cumulative impact analysis area for soils is the Horse Thief Springs Allotment. The time frame for the analysis is long term. Most of the impacts to soil have been occurring for the past 100 years. The impact would be considered minimal, both incrementally and cumulatively because less than one percent of the allotment soils would be affected and there are no new range improvements planned at this time that would increase the amount of compacted soil on the allotments.

### Waste (Hazardous or Solid)

The past, present and reasonably foreseeable future actions that contribute to the potential for impacts from waste (hazardous and solid) on or near this allotment include construction and maintenance of range improvements, authorized and unauthorized vehicle use, maintenance and construction of utility corridors, past mining activities, and location of existing and activation of mining claims. Past mineral processing activities may have released hazardous and solid wastes, but a thorough inventory of these sites has not been conducted.

The cumulative impact analysis areas for waste (hazardous and solid) is the Horse Thief Allotment. The time frame for the analysis is long term. The impact would be considered minimal, both incrementally and cumulatively.

### Wetlands/Riparian Zones

As discussed in the wetlands/riparian zones section of chapter 3 in this EA, the proposed grazing lease renewal would slightly impact wetlands/riparian zones.

The other past, present, or reasonably foreseeable future actions that contribute to impacts to wetland/riparian zones on this allotment include construction and maintenance of range improvements, continued grazing, maintenance and construction of utility corridors, and location of additional mining claims. The net effect of these actions on wetlands/riparian zones is: Lack of maintenance of springs developed to supply water to cattle would have the potential to impact riparian areas. The

development of previously undeveloped springs to supply water for cattle or for future mining claims use would have the potential to impact riparian area.

The cumulative impact analysis area for wetland/riparian zones is the Horse Thief Springs Allotment. The time frame for the analysis is long term. The greatest impacts to wetland/riparian zones have been caused by the establishment of invasive/non-native weed species. The impact would be considered minimal, both incrementally and cumulatively because the BLM has proposed terms and conditions with the purpose of preventing impacts to wetland/riparian zones, including requiring the lessee to maintain range improvements, and requiring that mineral supplements would not be authorized within 1/4 mile of any natural water source.

### Wilderness

Past impacts to wilderness character include pre-designation activities such as mining, vehicle use, grazing, military maneuvers, recreational use including wildlife viewing, hiking, camping, off highway vehicle use, and hunting, and wildlife water developments. Present activities include grazing, big game guzzler maintenance, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, and mining. Future activities may include authorized access to private land, big game guzzler maintenance, installation of new big game guzzlers, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, additional active mining claims, and grazing. Past, present, and potential future activities impact wilderness character and the naturalness of the areas. These activities also impact the opportunity to experience solitude and/or an area without evidence of man.

The cumulative impact analysis area for wilderness includes the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas. The time frame for the analysis is long term. The impact of the proposed action is considered minimal, both incrementally and cumulatively. Most of the existing impacts occurred prior to wilderness designation and future activities relating to the proposed action would be a historic (pre wilderness designation) activity that is deemed an acceptable use if carried out within BLM law and policy.

### **Wildlife habitat**

#### *Threatened or Endangered Species*

As discussed earlier in this EA, impacts to the desert tortoise include an extremely low probability of trampling of above-ground desert tortoises and desert tortoises in their burrows, with a more certain reduction in forage, reduction in cover, soil compaction, and introduction of non-native plants within close proximity to cattle watering sources.

The other past, present, or reasonably foreseeable future actions that contribute to desert tortoise habitat cumulative impacts on or near this allotment include mining, recreational OHV use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity and natural gas transmission lines), livestock grazing, military training maneuvers, construction and vehicle use of paved and unimproved roads.

The federal listing of the desert tortoise in 1990 and designation of critical habitat in 1994, in combination with the CDCA plan as amended by NEMO, has led to much greater restrictions on grazing and other activities, all of which are designed to accommodate recovery of the desert tortoise. The 230-pound threshold for turn out of cattle is the most important measure provided by the NEMO Plan to assist desert tortoise recovery because it guarantees all vegetative production during low-production years remains available to the desert tortoise rather than in competition with livestock grazing.

Present activities within the Horse Thief Springs Allotment include grazing, mineral exploration, operation and maintenance of utility facilities and corridors, dispersed and permitted recreation (e.g., hunting, picnicking, camping, dual sport events, and rock hounding), scientific study, and OHV activities.

Reasonably foreseeable future actions within the Horse Thief Springs Allotment include development or replacement of range improvements at Horse Thief Spring, granting of new rights-of-way, development of communications facilities, operation and maintenance of utility facilities and corridors, authorized and unauthorized vehicle use, and mineral exploration.

These activities impact the allotment to varying degrees through degradation, disturbance, and loss of wildlife habitat. However, the CDCA land use plan, as amended by the NEMO Plan, implements Standards and Guidelines designed to improve habitat conditions and reduce impacts to the allotment from surface disturbing activities such as mining, OHV activities, and maintenance of utility facilities and corridors. Additional policies and management guidelines incorporated within the NEMO plan amendment further reduce the negative impacts to the allotment from present and reasonably foreseeable future actions. Consequently, the impacts to the allotment resulting from present activities would be minimized.

None of the allotment is within a DWMA or critical habitat. Lands within the Eastern Recovery Unit not included within a DWMA are classified as Category III desert tortoise habitat. Thus (unlike within a DWMA) there is no upper limit on the amount of new surface disturbance on the allotment. However, the NEMO plan requires that project proponents compensate for loss or disturbance of non-DWMA public lands 1:1 ratio for every acre lost or disturbed. The compensation is directed to the CDCA desert tortoise mitigation proffer account. Lands acquired through compensation or mitigation are classified as closed to disposal and use.

Past, present and reasonably foreseeable future actions in addition to the grazing lease renewal for the Horse Thief Spring Allotment would not result in substantial cumulative impacts to the desert tortoise on the Horse Thief Springs Allotment. Adherence to the provisions of the NEMO amendment to the CDCA plan, the 2005 Biological Opinion for the CDCA plan (1-8-04-F-43R), and the stipulations of the grazing lease renewal for this allotment would reduce the cumulative impacts to the recovery unit caused by past, present and reasonably foreseeable future activities.

### *Special Status Species*

The past, present, and reasonably foreseeable actions in addition to the grazing lease renewal listed in the previous sub-section that may impact desert bighorns are considerably fewer than for the desert tortoise because desert bighorns occupy a much more confined area within the allotment. The steep, higher, and generally inaccessible habitat that the desert bighorns use serves to protect them from some activities that are or would be much more common at lower elevations, such as OHV use and utility development. The 230-pound threshold would reduce the likelihood of interaction between cattle and desert bighorns at the lower water sources because during drier or drought years, desert bighorns that migrate between the mountain ranges on or adjacent to the allotment would not encounter cattle while watering. This stipulation of the NEMO Plan amendment and grazing lease renewal alone would reduce the cumulative impacts to desert bighorns on or near the allotment.

### General Wildlife

The past, present, and reasonably foreseeable actions in addition to the grazing lease renewal listed in the previous sub-section on threatened and endangered species would apply to general wildlife as well. Therefore, similarly to the desert tortoise, adherence to the provisions of the NEMO amendment to the CDCA plan and the 2005 Biological Opinion for the CDCA plan (1-8-04-F-43R) in addition to the grazing lease renewal for the Horse Thief Spring Allotment would not result in substantial cumulative impacts to general wildlife on the Horse Thief Springs Allotment.

### Vegetation (Invasive/non-native, Special Status, UPAs, BSCs).

As discussed earlier in this EA, impacts to vegetation would be concentrated around areas of use, such as range improvements and areas that provide shade due to cattle grazing, bedding and travel.

Past, present and reasonably foreseeable future actions that contribute to vegetation cumulative impacts on or near this allotment include recreational OHV use, development, operation and maintenance of utility and energy facilities and corridors (e.g., electricity and natural gas transmission lines), livestock grazing, construction and

vehicle use of paved and unimproved roads, mining, and wildlife water developments. Other activities that may overlap the grazing allotment include utility corridors (e.g., electricity and natural gas transmission lines), general recreation (e.g., hunting, picnicking, camping, and rock hounding) and scientific study. The net effect of these actions on vegetation is an increased potential for non-native/invasive species to be introduced and/or spread by vehicles. The development of future roads will result in a loss of vegetation.

The cumulative impact analysis area for vegetation is the Horse Thief Springs Allotment. The time frame for the analysis is long term. Impacts to vegetation in the planning area have been occurring for more than 100 years. However, impacts resulting from the proposed grazing lease renewal on Horse Thief Springs Allotment are not expected to add any adverse impact. The combined impact would be minimal, both incrementally and cumulatively, because the BLM has proposed terms and conditions with the purpose of preventing adverse impacts to vegetation, including restricting utilization of perennial forage to between 25% to 40%, the biological opinion stipulations and implementation of fallback and regional standards and guidelines, along with grazing strategies that require proper cattle distribution and periodic rest of individual grazing use areas during the critical growing season.

#### **Cumulative Impact of No Action (Current Management) Alternative:**

The following resources, ecosystems, and human communities of concern are not associated with conditions where additional stresses associated with the proposed action will have consequential cumulative effects: air quality, areas of critical environmental concern, environmental justice, recreation, and water (surface and ground). There will be no cumulative impact and no further discussion of these resources is required.

Cumulative impacts addressed in this EA include impacts to cultural resources, health and safety, livestock grazing, Native American religious concerns, socioeconomic, soils, waste (solid and hazardous), wetlands/riparian zones, wildlife, wilderness and vegetation.

Impacts are short term (for example, impacts resulting from construction of new range facilities) and long term (impacts resulting from the use of the range facilities). Both the short term and long term impacts are consistent with the analysis of the NECO plan. Incremental impacts of livestock grazing are not increasing cumulative impacts because most of the impacts have occurred in the past. When added to effects identified in the NECO Plan and effects of other actions on the allotment, the cumulative impact of the proposed action would be limited as summarized below:

The cumulative impact of this alternative would be the same as the proposed action for the following values:

- Air Quality
- Areas of Environmental Concern (ACEC)

- Cultural Resources
- Environmental Justice
- Native American Religious Concerns
- Health and Safety
- Socioeconomics
- Soils
- Wastes (Hazardous and Solid)
- Wetlands/Riparian Zones
- Vegetation

### Wilderness

Past impacts to wilderness character include pre-designation activities such as mining, vehicle use, grazing, military maneuvers, recreational use including wildlife viewing, hiking, camping, off highway vehicle use, and hunting, and wildlife water developments. Present activities include grazing, big game guzzler maintenance, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, and one active mining claim in the North Mesquite Mountains Wilderness. Future activities may include authorized access to private land, big game guzzler maintenance, installation of new big game guzzlers, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, additional active mining claims, and grazing. Past, present, and potential future activities impact wilderness character and the naturalness of the areas. These activities also impact the opportunity to experience solitude and/or an area without evidence of man.

The cumulative impact analysis area for wilderness includes the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas. The time frame for the analysis is long term. The impact of the no action alternative to wilderness resources would be expected to be the same as the proposed action.

### Wildlife habitat

#### ***Threatened or Endangered Species***

As discussed previously in this EA, limiting cattle grazing on the allotment to years when vegetation production exceeds the 230-pound threshold would likely not result in changes to desert tortoise habitat that are obvious or that can be measured. Therefore, the cumulative impacts of the No Action Alternative, which does not have this threshold, would be essentially the same as those for the proposed action.

#### ***Special Status Wildlife***

The cumulative impact to the desert bighorn of the no action alternative would be the same as the proposed action.

### ***General Wildlife***

The cumulative impact to the desert bighorn of the no action alternative would be the same as the proposed action.

### **Cumulative Impact of Temporary Reduced Grazing**

The following resources, ecosystems, and human communities of concern are not associated with conditions where additional stresses associated with the proposed action will have consequential cumulative effects: air quality, areas of critical environmental concern, environmental justice, recreation, and water (surface and ground). There will be no cumulative impact and no further discussion of these resources is required.

Cumulative impacts addressed in this EA include impacts to cultural resources, health and safety, livestock grazing, Native American religious concerns, socioeconomic, soils, waste (solid and hazardous), wetlands/riparian zones, wildlife, wilderness and vegetation.

Impacts are short term (for example, impacts resulting from construction of new range facilities) and long term (impacts resulting from the use of the range facilities). Both the short term and long term impacts are consistent with the analysis of the NECO plan. Incremental impacts of livestock grazing are not increasing cumulative impacts because most of the impacts have occurred in the past. When added to effects identified in the NECO Plan and effects of other actions on the allotment, the cumulative impact of the proposed action would be limited as summarized below:

The cumulative impact of this alternative would be the same as the proposed action for the following values:

- Air Quality
- Cultural Resources
- Environmental Justice
- Native American Religious Concerns
- Health and Safety
- Recreation
- Socioeconomics
- Soils
- Wastes (Hazardous and Solid)
- Wetlands/Riparian Zones
- Vegetation

## Livestock Grazing

As discussed earlier in this EA, there is a potential for slight to moderate impacts associated with the removal of cattle from the allotment to the lessee. The impacts to livestock grazing would be primarily economic and are discussed under the socioeconomics section below.

The cumulative impact analysis area for livestock grazing is the Horse Thief Allotment. The time frame for the analysis is long term. Impacts to livestock grazing in the planning area have been occurring for 100 years or more. However, impacts resulting from the proposed grazing lease renewal are not expected to add any adverse impact. The impact would be minimal, both incrementally and cumulatively, because although the proposed action would implement new terms and conditions it is unlikely that the temporary reduction in cattle would be restrictive enough that the lessee would not have the revenue to replace them.

## Wilderness

Past impacts to wilderness character include pre-designation activities such as mining, vehicle use, grazing, military maneuvers, recreational use including wildlife viewing, hiking, camping, off highway vehicle use, and hunting, and wildlife water developments. Present activities include grazing, big game guzzler maintenance, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, and one active mining claim in the North Mesquite Mountains Wilderness. Future activities may include authorized access to private land, big game guzzler maintenance, installation of new big game guzzlers, unauthorized vehicle use, recreational use including wildlife viewing, hiking, camping and hunting, additional active mining claims, and grazing. Past, present, and potential future activities impact wilderness character and the naturalness of the areas. These activities also impact the opportunity to experience solitude and/or an area without evidence of man.

The cumulative impact analysis area for wilderness includes the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas. The time frame for the analysis is long term. The impact of the reduced grazing alternative to the Horse Thief Springs Allotment would enhance the wilderness characteristics of the Kingston Range, Nopah Range, North Mesquite Mountains, Pahrump Valley, and South Nopah Range Wilderness areas by reducing a non-native species (cattle), improve the naturalness of the area by potentially reducing the number of cattle improvements, and improve opportunities for solitude and a primitive type of recreation by reducing the time required for ranchers and BLM employees to operate, maintain and administer cattle grazing in wilderness. Overall, the temporary reduced grazing alternative would promote a more natural condition as defined by Section 2(c) of The Wilderness Act, 1964 and help insure the preservation

of the wilderness character of each affected wilderness area as mandated in Section 4(b) of The Wilderness Act, 1964 and Section 101(1) of the California Desert Protection Act, 1994 as long as grazing is kept at a reduced number.

### Wildlife habitat

#### *Threatened and Endangered Species*

As discussed previously in this EA, temporarily reducing the number of cattle allowed to graze the allotment compared to the number allowed under the proposed action alternative would not likely cause changes to desert tortoise habitat that are obvious or that can be measured. Therefore, the cumulative impact of the temporary limited grazing alternative would be the same as the proposed action.

#### *Special Status Wildlife*

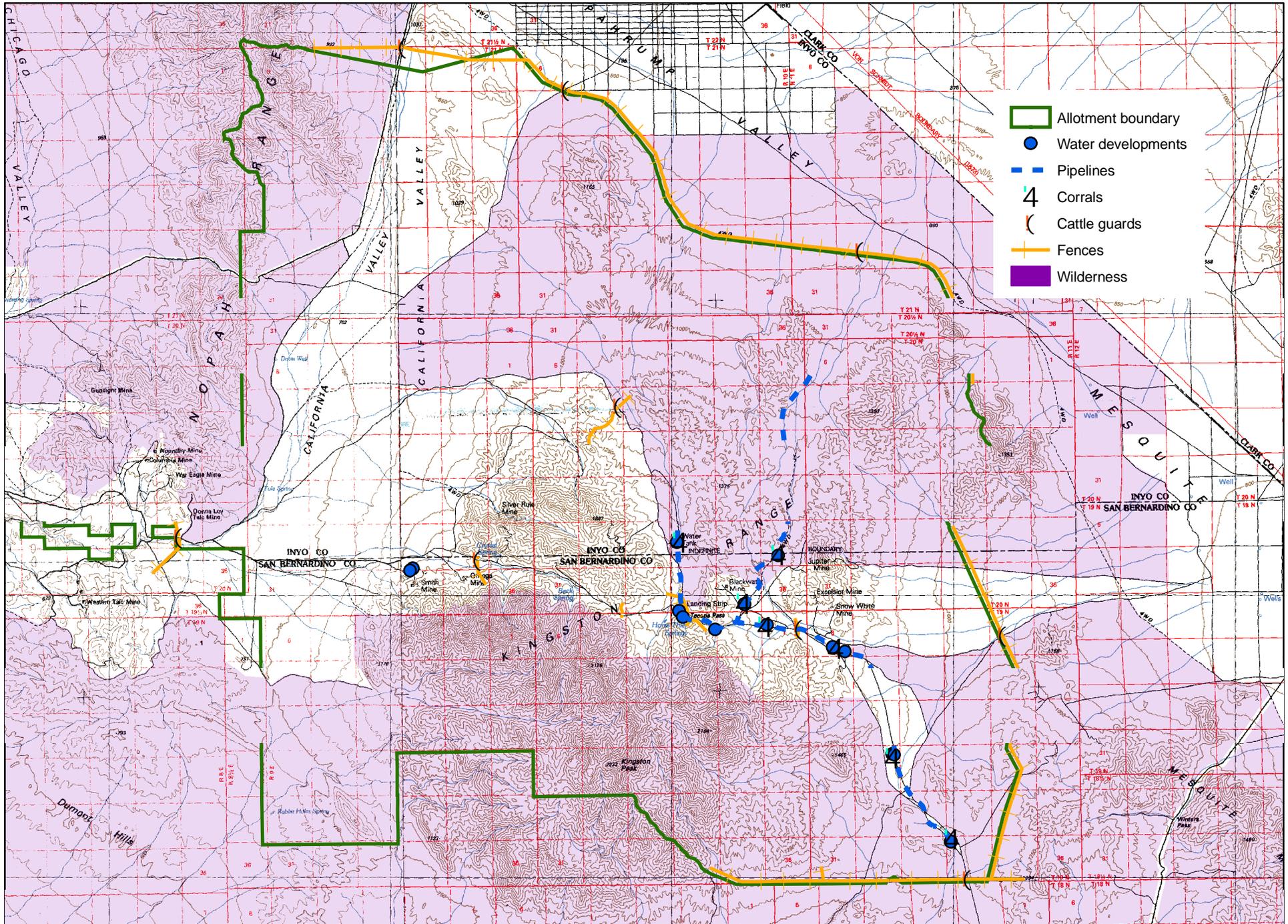
The cumulative impact of the temporary limited grazing alternative would be the same as the proposed action.

#### *General Wildlife*

The cumulative impact of the temporary limited grazing alternative would be the same as the proposed action.

# Map 1

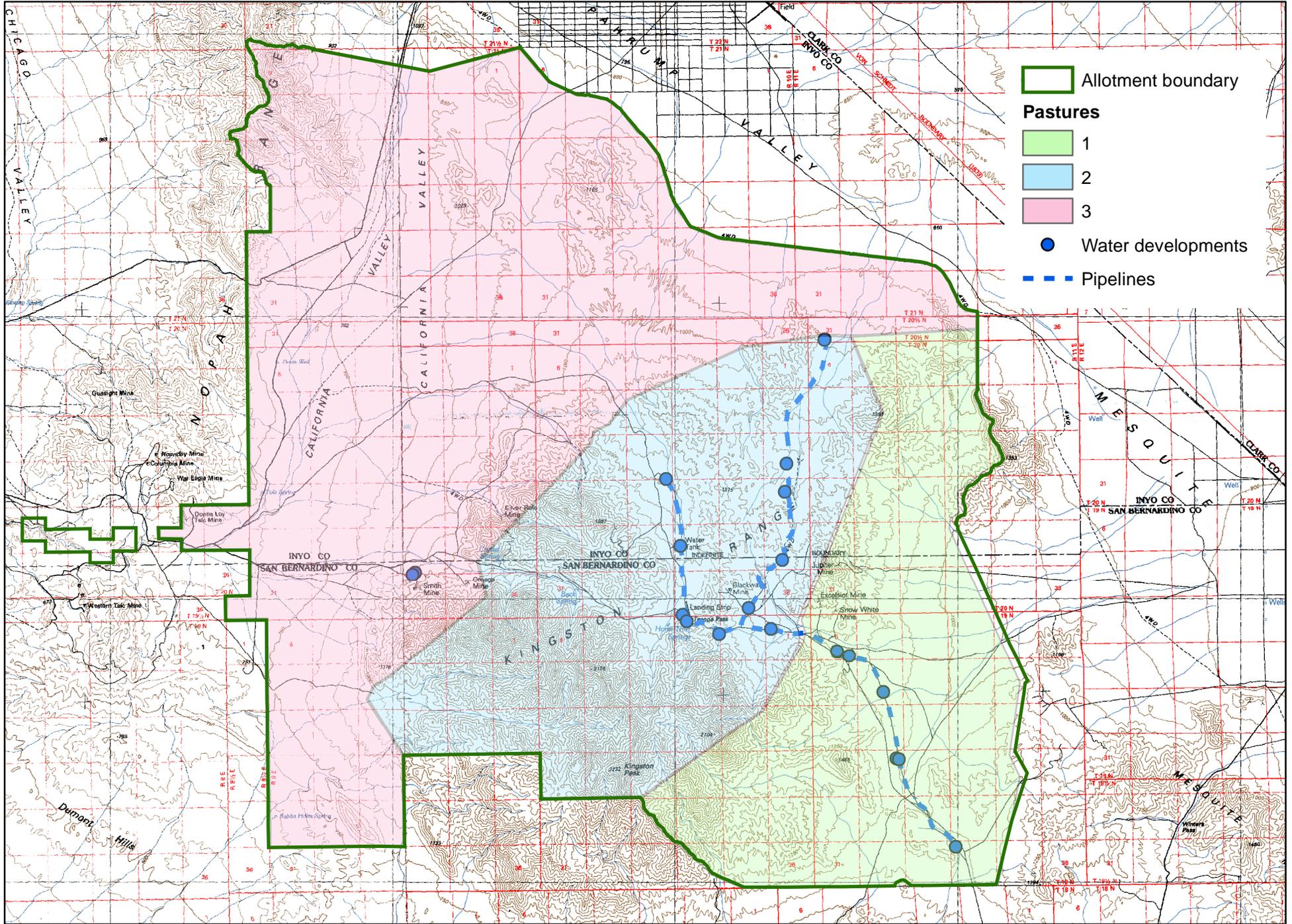
# Horsethief Springs Allotment





# Map 3

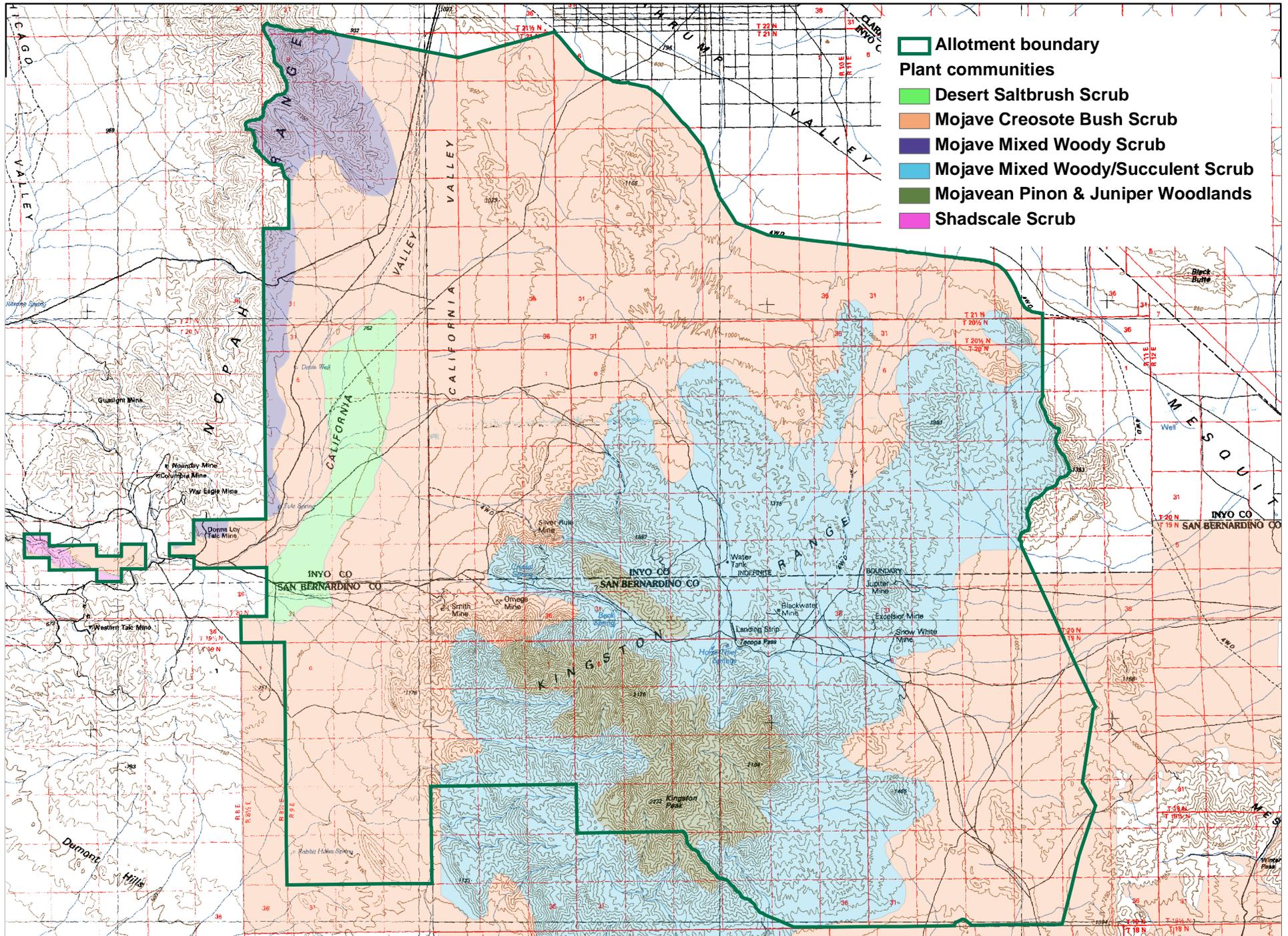
# Horsethief Spring Allotment



- Allotment boundary
- Pastures**
  - 1
  - 2
  - 3
- Water developments
- Pipelines

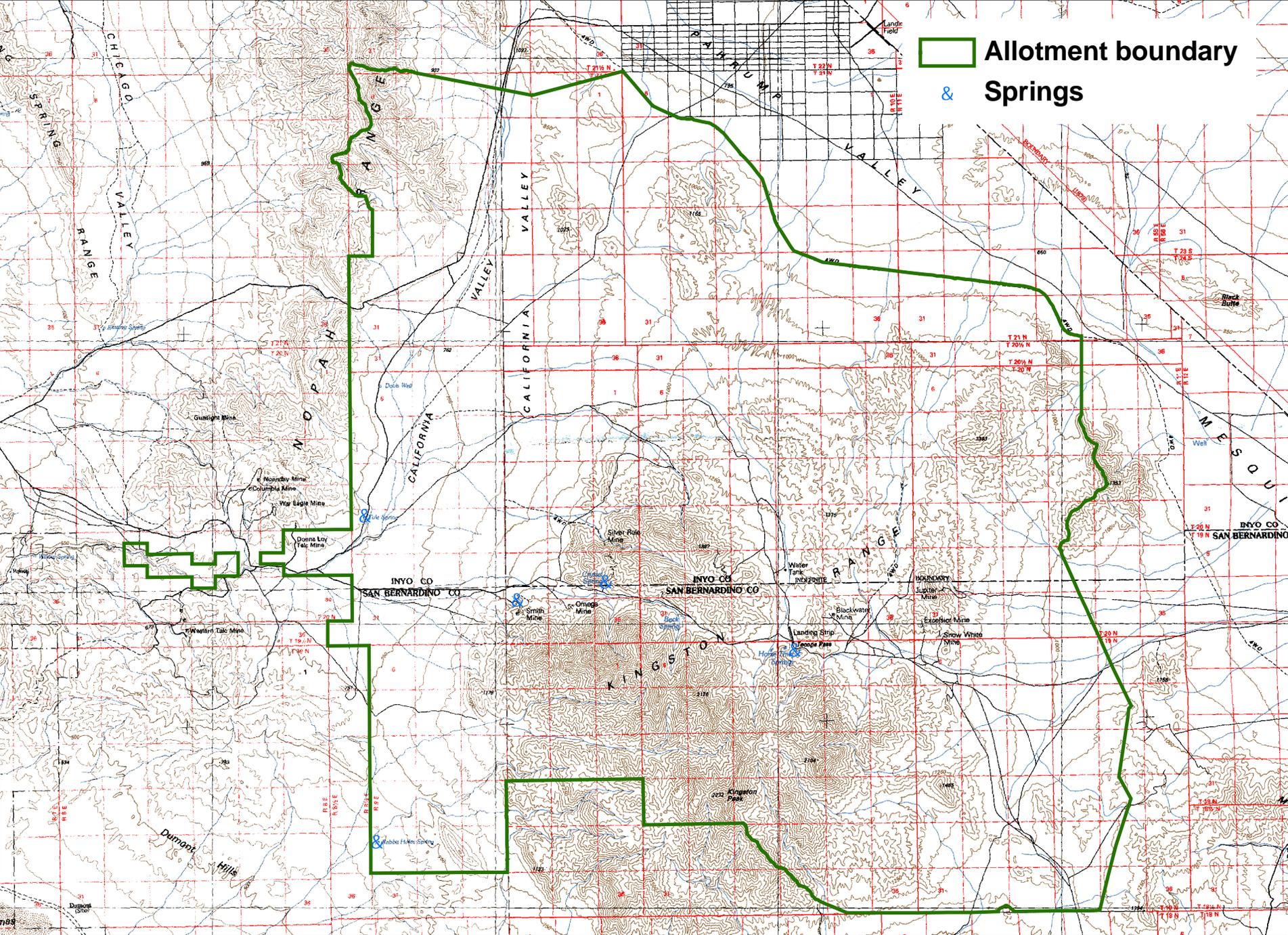
# Map 4

# Horsethief Springs Allotment



# Map 5

# Horsethief Springs Allotment Springs



## APPENDIX II Regional and Fallback Standards for Public Land Health and Grazing Guidelines

### 1. Fallback Standards and Guidelines:

#### Standards:

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

#### Guidelines:

1. Management practice maintain or promote adequate amounts of ground cover to support infiltration, maintain soil moisture storage, and stabilize soils:
2. Management practices maintain or promote soil conditions that support permeability rates that are appropriate to climate and soils.
3. Management practices maintain or promote sufficient residual vegetation to maintain, improve or restore riparian-wetland, functions of energy dissipation, sediment capture, ground water recharge and stream bank stability.
4. 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.
5. Management practice maintain or promote the appropriate kinds and amounts of soil organisms, plants and animals to support the hydrologic cycle, nutrient cycle, and energy flow.
6. Management practices maintain or promote the physical and biological conditions necessary to sustain native populations and communities.
7. Desired species are being allowed to complete seed dissemination in 1 out of

every 3 years (management action will promote the opportunity for seedling establishment when climatic conditions and space allow.

8. 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.
9. Native species are emphasized in the support of ecological function.
10. 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.
11. Periods of rest from disturbance or livestock use during times of critical plant 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.).
12. Continuous, season-long livestock use is allowed to occur only when it has been demonstrated to be consistent with achieving healthy, properly functioning ecosystems.
13. Facilities are located away riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland function.
14. 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.
15. 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.

## **2. Regional Standards for Public Land Health and Grazing Guidelines**

### **Standards for Public Land Health**

#### **1. Soils**

Soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, geology, land form, 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:

- a. Canopy and ground cover are appropriate for the site.
- b. There is diversity of plant species with a variety of root depths.
- c. Litter and soil organic matter are present at suitable sites.
- d. Microbiotic soil crusts are maintained and in place.
- e. Evidence of wind or water erosion does not exceed natural rates for the site.
- f. Hydrologic and nutrient functions maintained by permeability of soil and water infiltration are appropriate for precipitation.

## **2. Native Species**

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

- a. Photosynthetic and ecological processes continue at levels suitable for the site, season, and precipitation regimes.
- b. Plant vigor, nutrient cycle, and energy flow are maintaining desirable plants and ensuring reproduction and recruitment.
- c. Plant communities are producing sufficient litter.
- d. Age class distribution of plants and animals are sufficient to overcome mortality fluctuations.
- e. Distribution and cover of plant species and their habitats allow for reproduction and recovery from localized catastrophic events.
- f. Alien and noxious plants and wildlife do not exceed acceptable levels.
- g. Appropriate natural disturbances are evident.
- h. Populations and their habitats are sufficiently distributed and healthy to prevent the need for new listing as special status species.

## **3. 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:

- a. Vegetative cover would adequately protect banks and dissipate energy during peak water flows.
- b. Dominant vegetation is an appropriate mixture of vigorous riparian species.
- c. Recruitment of preferred species is adequate to sustain the plant community.
- d. Stable soils store and release water slowly.
- e. Plant species present indicate soil moisture characteristics are being maintained.
- f. There is minimal cover of invader/shallow-rooted species, and they are not displacing deep-rooted native species.
- g. Shading of stream courses and water sources for riparian dependent species is

- maintained.
- h. Stream is in balance with water and sediment being supplied by the watershed.
- i. Stream channel size and meander are appropriate for soils, geology, and landscape.
- j. Adequate organic matter (litter and standing dead plant material) is present to protect the site and to replenish soil nutrients through decomposition.

#### **4. 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:

- a. The following do not exceed the applicable requirements: chemical constituents, water temperature, nutrient loads, fecal coliform, turbidity, suspended sediment, and dissolved oxygen.
- b. Standards are achieved for riparian, wetlands, and water bodies.
- c. Aquatic organisms and plants (e.g., macro-invertebrates, fish, algae, and plants) indicate support for beneficial uses.
- d. Monitoring results or other data that show water quality is meeting the standard. For surface waters, the primary objectives are to (1) maintain the existing quality and beneficial uses of water, (2) protect waters where they are threatened (and livestock grazing activities are a contributing factor), and (3) restore waters where they are currently degraded (and livestock grazing activities are a contributing factor). Of particular importance are areas:
  - e. where beneficial uses of water bodies have been listed as threatened or impaired pursuant to Section 303(d) of the Federal Clean Water Act
  - f. where aquatic habitat is present or has been present for federal threatened or endangered, candidate, and other special status species dependent on water resources.
  - g. in designated water resource sensitive areas such as riparian and wetland areas.

#### **2. Regional Grazing Guidelines**

- 1. Facilities would be located away from riparian-wetland areas wherever they conflict with achieving or maintaining riparian-wetland functions.
- 2. The development of springs and seeps or other projects affecting water and associated resources would be designed to protect the ecological functions and processes of those sites.
- 3. Grazing activities at an existing range improvement that conflict with achieving proper functioning conditions (PFC) and resource objectives for wetland systems (lentic, lotic, springs, addits, and seeps) would be modified so PFC and resource objectives can be met, and incompatible projects would be modified to bring them into compliance. The BLM would consult, cooperate, and coordinate with affected

interests and livestock producers prior to authorizing modification of existing projects and initiation of new projects. New range improvement facilities would be located away from wetland systems if they conflict with achieving or maintaining PFC and resource objectives.

4. Supplements would be located a sufficient distance away from wetland systems so they do not conflict with maintaining riparian wetland functions.
5. Management practices would 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 land form.
6. Grazing management practices would meet state and federal water quality standards. Impoundments (stock ponds) having a sustained discharge yield of less than 200 gallons per day to surface or groundwater are excepted from meeting California drinking water standards per California State Water Resources Control Board Resolution Number 88-63.
7. In the California Desert Conservation Area all wildfires in grazing allotments would be suppressed. However, to restore degraded habitats infested with invasive weeds (e.g., tamarisk), prescribed burning may be used as a tool for restoration. Prescribed burns may be used as a management tool where fire is a natural part of the regime.
8. In years when weather results in extraordinary conditions, seed germination, seedling establishment, and native plant species growth would be allowed by modifying grazing use.
9. Grazing on designated ephemeral rangeland would be allowed only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established, and adverse effects on perennial species are avoided.
10. During prolonged drought, range stocking would be reduced to achieve resource objectives and/or prescribed perennial forage utilization. Livestock utilization of key perennial species on year-long allotments would be checked about March 1 when the Palmer Severity Drought Index/Standardized Precipitation Index indicate dry conditions are expected to continue.
11. Through the assessment process or monitoring efforts, the extent of invasive and/or exotic plants and animals would be recorded and evaluated for future control measures. Methods and prescriptions would be implemented, and an evaluation would be completed to ascertain future control measures.
12. Habitats would be restored, maintained, or enhanced to assist in the recovery of

federally listed threatened and endangered species. Habitats of special status species including federally proposed, federal candidates, BLM sensitive, or California threatened or endangered species, would be restored, maintained or enhanced to promote their conservation.

13. Grazing activities would support biological diversity across the landscape, and native species and microbiotic crusts are to be maintained.
14. Experimental research efforts would be encouraged to provide answers to grazing management and related resource concerns through cooperative and collaborative efforts with outside agencies, groups, and entities.
15. Livestock utilization limits of key perennial species would be as shown in Table 2-2 for the various range types.

**Table 1. Proposed Plan Grazing Guidelines for Range Types**

Range Type	Percent Use of Key Perennial Species	
	Poor - Fair Range Condition or Growing Season*	Good - Excellent Range Condition or Dormant Season*
Mojave/Sonoran Desert Scrub	25	40
Salt Desert Shrubland	25	35
Semi-desert Grass and Shrubland	30	40
Sagebrush Grassland	30	40
Mountain Shrub land	30	40
Pinyon-Juniper Woodland	30	40

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

Monitoring of grazing allotments resource conditions would be routinely assessed to determine if Public Land Health Standards are being met. In those areas not meeting one of more standards, monitoring processes would be established (where none exist) to monitor indicators of health until the standard or resource objective has been attained. Livestock trail networks, grazed plants, livestock facilities, and animal waste are expected impacts in all grazing allotments and would be considered during analysis of the assessment and monitoring process. Activity plans for other uses or resources that overlap an allotment could have prescribed resource objectives that may further constrain grazing activities (e.g.,

ACEC). In an area where a standard has not been met, the results from monitoring changes to grazing management required to meet standards would be reviewed annually. During the final phase of the assessment process, the Range Determination includes the schedule for the next assessment of resource conditions. To attain standards and resource objectives, the best science would be used to determine appropriate grazing management actions. Cooperative funding and assistance from other agencies, individuals, and groups would be sought to collect prescribed monitoring data for indicators of each standard.

APPENDIX III A Cultural Resources Amendment to the State Protocol Agreement

SUPPLEMENTAL PROCEDURES FOR  
LIVESTOCK GRAZING PERMIT/LEASE RENEWALS

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 re-issuance 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 permittee. The permittee 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 enclosure of livestock from the cultural resource sufficient to ensure long-term protection, according to the following specifications:

1. the area within the enclosure must be inventoried to locate and record all cultural resources; and
2. the enclosure (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 enclosure 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.

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

E. 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.

APPENDIX IV Table 2: Cultural Resources Information

**Table 2: Cultural Resources Information:**

SITE NUMBER	TYPE SITE	LOCATION	CATTLE DISTURBANCE
CA-SBR-2370	Rock Alignment	Transitional Zone	None Recorded
CA-SBR-2373	Trail	Transitional Zone	None Recorded
CA-SBR-2652	Large Multi-Component Campsite (rock shelter 200 yards east)	Transitional Zone	Range Improvements (water tanks, water pipes, road, cattle corral, etc.)
CA-SBR-3069	Historic Road	Valley	None Recorded
CA-SBR-4599	Campsite	Transitional Zone	None Recorded
CA-SBR-4600	Lithic Scatter	Transitional Zone	None Recorded
CA-SBR-4601	Lithic Scatter	Valley	None Recorded
CA-SBR-4602	Sleeping Circle (rock alignment or habitation)	Transitional Zone	None Recorded
CA-SBR-4603	Roasting Cairn	Transitional Zone	None Recorded.
CA-SBR-4604	Campsite	Transitional Zone	None Recorded
CA-SBR-4605	Campsite	Spring	None Recorded
CA-SBR-4608	Lithic Scatter	Transitional Zone	None Recorded
CA-SBR-4609	Campsite	Transitional Zone	None Recorded
CA-SBR-4610	Sleeping Circles (rock alignment or habitation)	Transitional Zone	None Recorded
CA-SBR-4611	Lithic Scatter	Valley	None Recorded
CA-SBR-4612	Groundstone	Transitional Zone	None Recorded
CA-SBR-4613/H	Lithic Scatter	Transitional Zone	None Recorded
CA-SBR-4617	Lithic	Transitional Zone	None Recorded
CA-SBR-4618	Pictographs	Spring	None Recorded.
CA-SBR-4619	Pictographs	Spring	None Recorded. Trail by site.
CA-SBR-4620	Possible Rock Shelter	Transitional Zone	None Recorded
CA-SBR-4622	Temporary Campsite and Lithic Scatter	Mountain	None Recorded. Trail by site.
CA-SBR-4621	Lithic Scatter (6 small thinning flakes, 1 tool frag)	Transitional Zone	None Recorded.
CA-SBR-4623	Temporary Campsite	Mountain	None Recorded.
CA-SBR-4624	Temporary Campsite	Transitional Zone	None Recorded.
CA-SBR-4625	Temporary Campsite	Transitional Zone	None Recorded.
CA-SBR-4626	Possible Roasting Pits	Transitional Zone	None Recorded.
CA-SBR-4628	Temporary Campsite	Mountain	None Recorded
CA-SBR-4629	Sparse Lithic Scatter	Mountain	None Recorded.
CA-SBR-4630	Temp. campsite (Destroyed by mining)	Transitional Zone	None Recorded.
CA-SBR-4631	Temporary Campsite w/sparse groundstone	Transitional Zone	None Recorded
CA-SBR-4632	Poss. Temp. Campsite w/sparse groundstone	Mountain	None Recorded.
CA-SBR-4633	Temporary campsite	Transitional Zone	None Recorded.

<b>SITE NUMBER</b>	<b>TYPE SITE</b>	<b>LOCATION</b>	<b>CATTLE DISTURBANCE</b>
CA-SBR-4634	Lithic Scatter	Valley	None Recorded
CA-SBR-4635	Ceramic Pot Break ("Mud ware")	Transitional Zone	None Recorded.
CA-SBR-4636	Sparse Lithic Scatter	Transitional Zone	None Recorded.
CA-SBR-4599	Temporary Campsite	Transitional Zone	None Recorded.
CA-SBR-4637	Temporary Campsite. (Impacted by Mining Ops)	Transitional Zone	None Recorded.
CA-SBR-2653	Sparse Scatter	Transitional Zone	None Recorded.
CA-SBR-2676	Rock Shelter	Transitional Zone	None Recorded.
CA-SBR-2653	Sparse Surface Scatter	Transitional Zone	None Recorded.
CA-SBR-2843H	Historic Road	Valley	None Recorded.
CA-SBR-9348H	Historic Mining Camp	Transitional Zone	None Recorded.
CA-Iny-1446	Temporary Campsite	Transitional Zone	None Recorded
SBCM-413/H	Temporary Campsite/- Homestead	Spring	None Recorded.
CA-Iny-2872	Lithic Scatter	Valley	None Recorded.
CA-SBR-2958/H	Campsite	Transitional Zone	None Recorded
CA-Iny-2322/H	Campsite	Mountain	None Recorded.
CA-Iny-1450	Lithic Scatter	Transitional Zone	None Recorded.
SBCM-1376	Temporary Campsite	Transitional Zone	None Recorded
CA-SBR-4272	Historic Emigrant Trail	.Valley	None Recorded
CA-SBR-4627	Temporary Campsite	Mountain	None Recorded
CA-SBR-4652	Temporary Campsite	Valley	None Recorded
CA-SBR-376	Temporary Campsite	Transitional Zone	None Recorded
CA-SBR-734	Temporary Campsite	Transitional Zone	None Recorded
Pending Historic Mining Site	Mine	Mountain	None Recorded
Pending Historic Mining Site	Mine	Mountain	None Recorded
Pending Historic Mining Site	Mine	Mountain	None Recorded
Pending Historic Mine Site	Mine	Transitional Zone	None Recorded

Table 3 lists the geographic locations (e.g., Mountain, Valley, Transition Zone, or Spring) where prehistoric and historic resources have been recorded within the grazing allotment:

APPENDIX V Table 3: Archeological Sites by Location

**Table 3. Horse Thief Springs Allotment Archeological Sites By Location:**

Type Site	Mountain	Valley	Transition Zone	Spring
<b>Prehistoric</b>				
Lithic Scatter	1	4	9	
Rock Art				2
Roasting Pit/Groundstone			3	
Campsite/Rock Shelter	6	1	19	1
Pottery Scatter			1	
Rock Alignment/Cairn			1	
Trails			1	
<b>Historic</b>				
Mining	3		2	
Transportation route		(3)	(3)	
<b>Multi-component</b>				
Prehistoric Campsite/Historic Ranch			1	1

See Appendix VIII for References Cited

## APPENDIX VI Public Notification and Consultation:

Notification of the proposed action and analysis has been prominently posted in the Needles Field Office public area and on the Field Office web site during the environmental review process. Both the public area posting and the office web site home page note that public participation is the cornerstone of the National Environmental Policy Act process and encourage public involvement in the office's review of uses proposed on public lands. The web site main page provides a link to projects currently under environmental review.

### Native American Consultation and Coordination:

- 10/31/04: The Needles Field Office (NFO) mailed consultation letters to eight Indian Tribes, initiating government-to-government consultation. The eight tribes included the Chemehuevi Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Las Vegas Piute Tribe, Moapa Paiute Tribe, Pahrump Paiute Tribe, Timbisha Shoshone Tribe and Twenty-Nine Palms Band of Mission Indians of California.
- 11/1/04: The NFO received a letter from the Timbisha Shoshone Tribe stating that they had no comments on the proposed action.
- 12/14/04: The NFO initiated consultation regarding the proposed action with tribal chairs of the Las Vegas Piute Tribe, Chemehuevi Indian Tribe and Fort Mojave Indian Tribe. Tribal chairpersons requested a copy of the proposed action.
- 4/14/05 The NFO mailed detailed proposed actions to the eight consulted Tribes.
- 05/12/05 The NFO left telephone messages with Tribal chairpersons requesting concerns, comments, questions, or the need for additional information regarding the proposed action.
- 06/07/05 The Fort Mojave Tribal Chairperson requested a meeting with NFO Field Manager to discuss/address any potential Fort Mojave Indian Tribe concerns/questions. The Needles Field Manager met with the Fort Mojave Tribal Council to review the project with the Council. No concerns were expressed about the proposed action by the Tribal Council during the meeting.

### Cooperation, Communication, and Coordination with the Grazing Operator

- 6/3/04: The NFO met with the grazing operator to discuss the proposed action and develop a list of needed range improvements.
- 7/26/04 The NFO received completed Application for Grazing Lease Renewal.

- 7/29/04: The NFO left message with the grazing operator regarding faxing the terms and conditions in the proposed action of grazing lease renewal environmental assessment.
- 7/30/04: The NFO faxed additional information on the terms and conditions of the new grazing lease to the grazing operator.
- 9/10/04: The NFO contacted the grazing operator to inform him that the grazing lease renewal process had been temporarily suspended due to a court decision vacating and remanding the biological opinion for the NEMO plan amendments to the U.S. Fish and Wildlife Service.
- 12/20/04: The NFO mailed a letter to the grazing operator discussing the delay in the lease renewal process due to the lawsuit remanding the June 17, 2002 Biological Opinion to the United States Fish and Wildlife Service.
- 4/5/05: The NFO contacted the grazing operator to inform him that a new biological opinion had been issued.

## Appendix VII Existing Range Improvements

NUMBER	NAME	TYPE
Cattle Guards		
9459		Cattle guard
9495	Noon day Fence	Cattle guard
9497	Adams drift Fence	Cattle guard
9499	Half-mile stretch Fence	Cattle guard
9500	Kingston drift Fence	Cattle guard
9512	Mitchell boundary Fence	Cattle guard
9512	Mitchell boundary Fence	Cattle guard
9512	Mitchell boundary Fence	Cattle guard
9651	Mesquite Mountain	Cattle guard
Corrals		
9118	Chaparral Corral	Corral
9636	Kingston Corral	Corral
9637	Excelsior Corral	Corral
9638	Dagger corral	Corral
9641	South Corral	Corral
9642	Middle Corral	Corral
Riparian Exclosure		
9646	Tule Spring Exclosure	Exclosure
Fences		
9432	M-M Fence	Fence
9433	Mesquite drift Fence	Fence
9495	Noon day Fence	Fence
9496		Fence
9497	Adams drift Fence	Fence
9498	Horse Thief Fence	Fence
9499	Half-mile stretch Fence	Fence
9500	Kingston drift Fence	Fence
9501	Tecopa pass Fence	Fence
9512	Mitchell boundary Fence	Fence
Water Developments		
9119	Wild horse Spring	Spring
9640	Main Corral	Trough
9642	Middle Corral	Trough
	Horse Thief Spring development and Pipeline	Pipeline

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