ENVIRONMENTAL ASSESSMENT
LIVESTOCK GRAZING AUTHORIZATION

EA Number CA 170-07-11

Allotment Number and Name(s)

6028 Black Lake
6034 Granite Mountain
6036 Adobe Lake
6037 Symons
6054 Mono Lake
6055 Mono Mills

BLM Bishop Field Office
Prepared
June 2007

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Chapter 1:
INTRODUCTION

A. Summary

This environmental assessment (EA) is prepared to analyze and disclose the environmental consequences of re-authorizing livestock grazing permits for 10-years as proposed on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments. The EA is a site-specific analysis of potential impacts that could result from the implementation of the proposed action or one of the alternatives. The EA assists the Bureau of Land Management (BLM) in project planning and in ensuring compliance with the National Environmental Policy Act (NEPA) and other applicable laws and policies affecting the proposed action and alternatives. If the authorized officer determines that this action has "significant" impacts following the analysis in the EA, then an Environmental Impact Statement (EIS) would be prepared for the action. If not, a Grazing Decision will be issued along with a Finding of No Significant Impact (FONSI) statement, documenting the reasons why implementation of the selected alternative would not result in "significant" environmental impacts.

B. Background

The six allotments analyzed in this EA are located in the Granite Mountain Management Area of the BLM Bishop Field Office. Their elevation range is between 6,420 feet near Black Lake to 8,920 feet on Granite Mountain. Vegetation communities are dominated by a mix of sagebrush and bitterbrush interspersed with alkali meadows in the valley bottoms and pinyon-juniper woodlands on the rockier slopes. Livestock kind, permitted season of use, allocated animal unit months (AUMs), and use type for each allotment as prescribed in the Bishop Resource Management Plan (BLM 1993) are:

Allotment	Kind	From	To	AUMs	Use
Black Lake	Cattle Sheep	6/1	10/31	41	Perennial
Granite Mountain	Cattle Sheep	7/1	10/15	594	Perennial
Adobe Lake	Cattle Sheep	6/1	10/31	100	Perennial
Symons	Cattle Sheep	6/1	10/31	127	Perennial
Mono Lake	Sheep	7/1	10/15	537	Perennial
Mono Mills	Sheep	7/1	10/15	2,142	Perennial

The approximate public, state, and private land acreages (See Maps 1-3) within each allotment are:

Allotment Name	Public Land	State Land	Private Land
Black Lake	724	0	572
Granite Mountain	20,687	0	522
Adobe Lake	1,910	119	1,491
Symons	3,207	0	690
Mono Lake	8,114	640	86
Mono Mills	32,656	2	1,516

There is no designated critical habitat for any federally listed species in any of these six allotments and no federally listed species are known to occupy any of these allotments.

The 10-year grazing permits for these six allotments have expired. In the interim, the grazing permit which authorizes use on the Black Lake allotment was renewed under Section 325 of Public Law 106-13. This permit will expire in 2008. The interim grazing permit authorizing use on the Granite Mountain, Adobe Lake, Symons, and Mono Lake allotments was also renewed under Section 325 of Public Law 106-13. This permit will expire in 2015. The interim grazing permit authorizing use on the Mono Mills allotment was issued in accordance with Section 328 of Public Law 107-67. This permit will expire in 2013. Renewing permits under the appropriations acts authorized existing grazing use to continue, while allowing BLM time to complete rangeland health allotment assessments and to meet applicable National Environmental Policy Act (NEPA) requirements to analyze the environmental consequences of issuing 10-year grazing permits.

C. Purpose and Need for the Action

The purpose of the action is to consider whether to authorize grazing for 10-years on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments. If authorized, grazing would be in accordance with 43 Code of Federal Regulations (CFR) 4100 and consistent with the provisions of the Taylor Grazing Act (1934), as amended, the Public Rangelands Improvement Act (1978), and the Federal Land Policy and Management Act (FLPMA) of 1976. The purpose of the action is also to ensure that grazing authorizations implement provisions of, and are in conformance with, the Bishop Resource Management Plan (BLM 1993) and the Secretary of the Interior approved Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (July 2000).

The action is needed to respond to the expired 10-year grazing permits and to replace the appropriation act permits with fully processed 10-year grazing permits.

D. Scoping and Issues

Public Scoping

On January 23, 2006, the Bishop Field Manager sent a letter to the three permittees who graze these six allotments informing them of the status of the 10-year grazing permits and included a proposed schedule for environmental assessment and permit completion.

On November 20, 2006, the Bishop Field Manager sent a second letter to the three permittees who graze these six allotments informing them how the environmental assessments would be prepared and the status of the 10-year grazing permits. Included with the letter was a proposed schedule for environmental assessment completion.

On December 28, 2006, a Notice of Proposed Action (NOPA) was sent to the three permittees who graze these six allotments and to interested publics including the Interim Management Policy for Lands under Wilderness Review (IMP) mailing list. The NOPA contained the Need for the Proposed Action, Plan Conformance, the Proposed Action and Alternatives, a schedule for EA completion, and area maps. The NOPA was also posted on the BLM internet site for public review at http://www.blm.gov/ca/bishop. The NOPA provided a 30 day comment period on the proposed action and alternatives.

On June 11, 2007, a draft EA was posted for two weeks on the BLM internet site for public review at http://www.blm.gov/ca/bishop. The draft EA was developed using the BLM, California State Office Revised Environmental Assessment Template for Consideration of Livestock Grazing Authorizations (Instruction Memorandum No. CA-2007-014). The three permittees and the Center for Biological Diversity were notified that the EA had been posted on the BLM internet site.

Issues and Alternatives

No additional issues or alternatives were identified as a result of public scoping or draft EA review.

E. Tiering to Existing Land Use Plan(s)/Environmental Impact Statement(s)

The Bishop Resource Management Plan (BLM 1993) provides a comprehensive framework for managing land use authorizations, including grazing permits, for public lands administered by the Bishop Field Office. The Bishop Resource Management Plan replaced the Benton-Owens Valley (BLM 1982) and the Bodie-Colville (BLM 1983) Management Framework Plans. Grazing decisions and changes in grazing decisions from the Benton-Owens Valley and the Bodie-Coleville Management Framework Plans are summarized in Appendix 4 of the Bishop Resource Management Plan (pages A4-1 through A4-11).

This EA is tiered to the Final Bishop Resource Management Plan and Environmental Impact

Statement (BLM 1991). Tiering helps focus this EA more sharply on the significant issues related to grazing on the allotments while relying on the Final Bishop Resource Management Plan and Environmental Impact Statement for the overall analysis of grazing actions throughout the Field Office. Livestock grazing was analyzed in Chapter 4, Impacts, of the Final Bishop Resource Management Plan and Environmental Impact Statement (pages 4-20 through 4-26).

Impacts associated with adoption of the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (July 2000) were analyzed in Chapter 4 of the Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final Environmental Impact Statement (BLM 1998). The analysis contained in this EA also tiers to that analysis.

F. Prevention of Unnecessary or Undue Degradation

In addition to management prescriptions analyzed in this EA, including all terms and conditions, BLM may use its authority to close any area of an allotment to grazing use or take other measures to protect resources at any time, if needed. Therefore, issuance of a grazing permit with appropriate terms and conditions is consistent with BLM's responsibility to manage public use, occupancy, and development of the public lands and to prevent unnecessary or undue degradation of those lands (43 USC 1732(b)).

G. Relationship to other Statutes, Regulations, and Plans

The following Statutes, Regulations, and Plans provide additional legal framework for grazing on public lands.

Air Quality

Section 176 (c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.), and regulations under 40 CFR part 93 subpart W, with respect to the conformity of general Federal actions to the applicable State Implementation Plan apply to projects within any Federal Air Quality Non-Attainment/Maintenance Areas. Under those authorities, "no department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan." Under CAA 176 (c) and 40 CFR part 93 subpart W, a Federal agency must make a determination that a Federal action conforms to the applicable implementation plan before the action is taken.

> 40 CFR Part 93.153 Applicability.
>
> (c) The requirements of this subpart shall not apply to the following Federal actions:
>
> (ii) Continuing and recurring activities such as permit renewals where activities will be similar in scope and operation to activities currently being conducted.

Where livestock grazing occurs within an area classified as a Federal Air Quality Non-Attainment/Maintenance Area, BLM will make a determination whether the action is in conformance with the applicable State Implementation Plan requirement. The Great Basin Unified Air Pollution Control District (GBUAPCD) has state air quality jurisdiction over parts of Inyo and Mono County.

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments all occur within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area and conform to the applicable State Implementation Plan requirement.

Cultural Resources

California BLM has the responsibility to manage cultural resources on public lands pursuant to the 1966 National Historic Preservation Act, the 1980 Rangeland Programmatic Memorandum of Agreement with the Advisory Council on Historic Places (WO IM 80-369), the 1997 Programmatic Agreement Among the Bureau of Land Management, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers Regarding the Manner in Which BLM Will Meet Its Responsibilities Under the National Historic Preservation Act, the State Protocol Agreement Between the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer (2004) and other internal policies.

Special Status Plant Species

Special Status Plant Species are those species that have been listed by the California Native Plant Society as List 1B species, which includes plants that are rare, threatened, or endangered in California and elsewhere. All of the plants constituting List 1B meet the definition of Sec. 1901, Chapter 10 (Native Plant Protection Act), or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. The Bishop Resource Management Plan (BLM 1993, p. 17) stipulates year-long protection of sensitive plants (Special Status Plants) and their associated habitats.

Six Special Status Plant Species occur within the scope of the analyzed allotments. Refer to Section N for a listing of these species and their associated trend and Environmental Impact analyses.

Threatened and Endangered Species (T&E)

Pursuant to Section 7 of the Endangered Species Act, formal consultation with the U.S. Fish and Wildlife Service (FWS) is required on all allotments for which livestock grazing may affect listed species. The stipulations of any grazing permit may be modified to conform to the terms and conditions specified in a FWS biological opinion. In addition, the terms and conditions of any grazing permit may also need to be modified through subsequent land use plan amendments or revisions to conform to decisions made to achieve recovery plan objectives. In August 2003,

the Bishop Field Office submitted a Biological Evaluation and requested formal consultation on the Bishop Resource Management Plan under Section 7(a) (2) of the Endangered Species Act to the FWS. The Biological Evaluation analyzed potential effects of six listed species that occur within the Bishop Field Office's jurisdiction. A subsequent request for action on the formal consultation was made to the FWS in September 2005. To date, no action has been taken by the FWS.

No Threatened or Endangered Species are present or likely to occur, based on historical records, field monitoring, and/or habitat suitability in the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

Water Quality

All allotments are within watersheds governed by basin plans subject to California's Clean Water Act. Nationally, Executive Order # 12088 directs federal agencies to comply with state administrative procedures. Recently, Standards and Guidelines reiterated the intent of the Federal Clean Water Act (CWA) and States' water quality plans. An MOU (BLM Manual Supplement 6521.11) with the California Department of Fish and Game (CDFG) describes how BLM and CDFG will coordinate when activities could affect aquatic or riparian habitat. The Unified Federal Policy to Insure a Watershed Approach in Federal Land and Resource Management (UFP) requires 1) all plans and activity management be conducted on a watershed basis, 2) that all land owners/managers within a watershed be solicited for participation in the planning and management of the watershed, 3) that citizens and officials are better informed of planning and management, and 4) that best science is used. The EA should analyze grazing within the Watershed Concept described in the UFP. Where there is a threat to water quality or where water quality violates state standards, coordination must occur with the regional water quality control board(s) and where aquatic or riparian habitat may be impacted CDFG coordination must occur as well. All allotments that contain any water bodies (streams, lakes, springs, etc.) must have adopted Best Management Practices (BMP) for all associated livestock management activities that could affect water quality. Pursuant to the decisions affecting water quality in the Bishop Resource Management Plan, BMPs for the Field Office area have been submitted to meet the requirements under the CWA.

Wild and Scenic Rivers

Wild and scenic river values are described in Appendix 2 of the draft Bishop RMP and EIS dated September of 1990. The Interim Management Guidelines for Study Rivers provides direction for grazing management on eligible creeks until the creek is designated a wild and scenic river or released from the wild and scenic river review process. Continued livestock grazing within allotments would be in compliance with this policy. For further information, see Appendix 3 of the final Bishop RMP and EIS dated August of 1991.

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments contain no designated Wild and Scenic Rivers or eligible study river segments.

Wilderness Study Areas

Livestock grazing on public lands within Wilderness Study Areas (WSAs) must comply with and be managed consistent with BLM's Interim Management Policy Handbook (H-8550-1) For Lands Under Wilderness Review. The law provides for, and the BLM's policy is to allow, continued grazing uses on lands under wilderness review in the manner and degree in which these uses were being conducted on public land when the Federal Land Policy and Management Act (FLMPA) was signed (October 21, 1976). Grazing within WSAs is subject to reasonable regulations, policies, and practices.

Wilderness values are described in the 1979 Final Wilderness Intensive Inventory Report while the WSA's existing range and other improvements are identified in the 1990 California Statewide Wilderness Study Report (WSR). The Interim Management Policy for Lands Under Wilderness Review (IMP) provides direction for grazing management in WSAs until the WSA is designated wilderness or released from the wilderness review process.

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments do not occur within any congressionally designated Wilderness Area. In addition, the Black Lake, Adobe Lake, and Symons allotments do not occur within any designated Wilderness Study Area. However, approximately 25% (13,431 acres) of the Granite Mountains WSA (CA-170-010-090) occurs within the Granite Mountain allotment, 15% (8,173 acres) of the WSA occurs within the Mono Lake allotment, and 40% (21,916 acres) of the WSA occurs in the Mono Mills allotment.

H. <u>Plan Conformance</u>

Determination

The proposed action is in conformance with the Bishop Resource Management Plan (RMP) approved on March 23, 1993, as amended by the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (Central California S&Gs) approved on July, 13, 2000.

Rationale

The proposed action would occur in areas identified as available for livestock grazing in the Bishop RMP (BLM 1993). The proposed action is consistent with the General Policies, Area Manager's Guidelines, Valid Existing Management, Standard Operating Procedures, Decisions, and Support Needs prescribed in the RMP. A summary of key RMP prescriptions specific to the proposed action include: 1) Livestock management decisions from the Benton-Owens Valley and the Bodie-Coleville Grazing Environmental Impacts Statements (EISs) provide the basis for grazing management throughout the Bishop Field Office (RMP, Valid Existing Management, page 10 and Area-Wide Decisions, page 22). Those livestock grazing decision carried forward are summarized in Appendix 4 (RMP, pages A4-1 through A4-11); 2) Standard Operating

Procedures specific to grazing systems, grazing management, and range improvement project development throughout the Bishop Field Office (RMP, pages 10 through 12); and 3) Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) that amended the Bishop RMP (Central California S&Gs, pages 3 through 12).

I. Rangeland Health

Rangeland health assessments have been completed on these grazing allotments in conformance with the Record of Decision, Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (Decision, pg 12). Qualitative rangeland health field assessments were completed for each allotment on the following dates:

Black Lake	May 2001
Granite Mountain	May 2001
Adobe Lake	May 2001
Symons	May 2001
Mono Lake	June 2002
Mono Mills	June 2002

Geographical Information System (GIS) database information was used to stratify the number of areas (ecological sites) to sample. Field assessments consisted of following protocol established in BLM Technical Reference 1734-6, Interpreting Indicators of Rangeland Health Version 3 (2000). A preponderance of the evidence is the criterion for determining if rangeland health standards are being met at each sample site. Rangeland Health Assessment Determinations, following the Central California Resource Advisory Council assessment protocol, were completed for the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments. Areas of allotment does (does not) meet the Secretary of the Interior Approved Rangeland Health Standards as follows:

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Livestock are a causal factor for not meeting Yes or No	Remarks (locations, etc.)
Black Lake	X			
Granite Mountain	X - Upland	X - Adobe Creek only	No	Upward trend - Channelization in the 1950s
Adobe Lake	X			
Symons	X			
Mono Lake	X			
Mono Mills	X			

Chapter 2:
PROPOSED ACTION AND ALTERNATIVES

An environmental assessment (EA) for a livestock grazing permit must consider a reasonable range of alternatives (WO IM No. 2000-022) including 1) issuing a new permit based on the application (the proposed action), 2) issuing a new permit with the same terms and conditions as the expiring permit (no action), and 3) a no grazing alternative. If the application for a permit is the same as the expiring permit (no changes in the terms and conditions), then the proposed action and the no action alternative are the same. In addition, other alternatives may be needed to resolve conflicts or address new conditions or new information. If other alternatives are identified during scoping but are determined by BLM not to reasonably address the purpose and need for action, they may be dismissed from further analyses.

No additional alternatives were identified as a result of livestock operator consultation, cooperation, and coordination or public scoping efforts. The proposed action, no action, and no grazing alternatives are described in detail below.

A. Alternative 1 - Proposed Action

The proposed action is to authorize grazing for 10-years on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments with applicable terms and conditions and other provisions as described in this section. The proposed action differs from current management (the no action alternative) in that the terms and conditions from both the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) are applied specifically for each allotment, with defined implementation guidelines, and tailored to specific vegetation communities and other resources present on these six allotments.

Terms and conditions, and provisions related to range improvements and monitoring requirements included in the proposed action are:

A. Mandatory Terms and Conditions

Mandatory terms and conditions including livestock number, livestock kind, season of use, percent public land (% P.L.), and allocated animal unit months (AUMs) are required for each allotment in accordance with 43 CFR 4130.3-1.

The proposed mandatory terms and conditions as prescribed in the Bishop Resource Management Plan (BLM 1993) for each allotment are:

Allotment	Number	Kind	From	To	% P.L.	AUMs
Black Lake	8 40	Cattle Sheep	6/1	10/31	100	41
Granite Mountain	180 900	Cattle Sheep	7/1	10/15	94	594
Adobe Lake	332 1,660	Cattle Sheep	6/1	10/31	6	100
Symons	20 100	Cattle Sheep	6/1	10/31	100	127
Mono Lake	763	Sheep	7/1	10/15	100	537
Mono Mills	3,045	Sheep	7/1	10/15	100	2,142

B. Terms and Conditions - Bishop Resource Management Plan

All Allotments

No trailing through a neighboring allotment is allowed without prior authorization by the BLM. Prior to trailing through a neighboring allotment, the trailing permittee would notify the BLM and all identified interested parties.

Black Lake (6028)

No salt or other nutrient supplement is allowed within 1/4 mile of meadows or special status plant populations.

Granite Mountain (6034) and *Mono Lake* (6054)

No salt or other nutrient supplement or sheep bedding is allowed within 1/4 mile of creeks, meadows or special status plant populations.

Adobe Lake (6036)

No salt or other nutrient supplement or sheep bedding is allowed within 1/4 mile of meadows or special status plant populations.

Symons (6037)

No salt or other nutrient supplement, or sheep bedding is allowed within 1/4 mile of creeks, meadows or sage grouse strutting grounds.

Mono Mills (6054)

No salt or other nutrient supplement or sheep bedding is allowed within 1/4 mile of sage grouse strutting grounds or special status plant populations.

C. Terms and Conditions - Central California Standards for Rangeland Health and Guidelines for Livestock Grazing

All Allotments

The goal of these terms and conditions is to provide the permittee the opportunity to realize the highest, long-term, agricultural, economic return with the least risk to rangeland health. Livestock would be managed to progress toward maintaining or promoting adequate vegetative ground cover, and maintaining soil moisture storage and soil stability appropriate for the ecological sites within the management units. Maintaining adequate ground cover should allow soil organisms, plants, and animals to support the hydrologic, nutrient, and energy cycles.

Sagebrush Grassland: *Adobe Lake (6036)*

Sagebrush Grassland and Pinyon-Juniper Woodland Rangelands: *Black Lake (6028), Granite Mountain (6034), Symons (6037), Mono Lake (6054), and Mono Mills (6055) Allotments*

Livestock grazing operations will be conducted so that forage utilization on key perennial species does not exceed 40 percent on the average. Key areas will be selected and utilization on key species will be estimated in accordance with the current BLM technical reference. Utilization monitoring will be conducted by a BLM employee, permittee, and/or trained range consultant. Then, all key area data for the allotment will be averaged and checked by a BLM employee to determine if the term and condition has been met. If utilization guidelines on the average of the upland key areas across the allotment are exceeded for 2 consecutive years or in any 2 years out of every 5 years, BLM will consult with the permittee to address the situation, potentially with a management change (e.g. change in livestock distribution). Because of the potential long-term damage to perennial grass species associated with severe grazing, when grazing utilization exceeds 70% in any upland key area for more than 2 consecutive years, immediate management action will be taken to remedy the problem in the area of the allotment that key area represents.

Riparian Areas & Wetlands: *Black Lake (6028), Granite Mountain (6034), Adobe Lake (6036), and Mono Mills (6055) Allotments*

Grazing practices should maintain a minimum herbage stubble height of 4-6 inches on the average on all stream-side, riparian, and wetland areas at the end of the growing season. There should be sufficient residual stubble or regrowth at the end of the growing season to meet the requirements of plant vigor, maintenance, bank protection, and sediment entrapment.

Critical Mule Deer Habitat: *Granite Mountain (6034) and Mono Mills (6055) Allotments*

Within identified critical Mule Deer winter range and migration habitat (Bishop RMP, 1993) within your allotments, there will be no more than an average of 20 percent utilization of the current year's annual growth on key browse species (bitterbrush) prior to October 1.

D. Other Terms and Conditions

All Allotments

No supplemental feeding (i.e. hay, pellets/cubes, or other forages) is allowed at any time on public lands without the BLM's authorization. If authorization is granted, the permittee would be required to obtain "certified weed-free" feed for supplemental feeding of livestock.

Range improvements in each pasture/allotment would need to be functioning properly prior to livestock turnout.

Periodically check livestock for weed seed to minimize or stop the spread of weeds such as perennial pepperweed from private land or other areas where known weed infestations exist. A guide on preventing the spread of weeds along with specific species of concern is described in the Eastern Sierra Weed Management Area Noxious Weed Identification Handbook.

Notify BLM of noxious weed locations when encountered on allotments.

Black Lake (6028) Allotment Additional

Defer grazing in T 1 S, R 31 E, Section 20 until July 21 for protection of the Mariposa lily population (after flowering).

Adobe Lake (6036) and Symons (6037) Allotments Additional

Symons and Adobe Lake allotments should be grazed in conjunction with livestock management of the Wetland Reserve Program land.

Granite Mountain (6034), Adobe Lake (6036), Symons (6037), Mono Lake (6054), and Mono Mills (6055) Allotments Additional

Use old camps, bedding grounds, and watering sites and do not make new ones.

E. Range Improvements

No new range improvements need to be constructed to achieve or maintain rangeland health on the Black Lake, Granite Mountain, Adobe Lake, Symons and Mono Lake allotments. Therefore,

no new range improvements are planned to be constructed as part of the proposed action. Only one existing range improvement (trough) on the Mono Mills allotment needs to be moved or removed. The trough located at T1N, R28E, of Section 28, is part of a pipeline (#7503) which was found to have an effect on an archeological site that was newly recorded during rangeland health field evaluations. The trough will be moved off site or decommissioned since it no longer appears to be in service. However, existing range improvements under cooperative rangeland improvement agreements for these allotments need to be maintained and properly functioning annually. If, through monitoring, the Bishop Field Office identifies a need to construct a new range improvement to achieve or maintain rangeland health or to address a site-specific resource concern, a subsequent site-specific project level environmental assessment would be completed at that time.

F. Monitoring

In general, rangeland allotment monitoring (both upland and riparian) would continue to be conducted annually and/or periodically under three applicable oversight categories. These categories include 1) short term monitoring, 2) long term trend monitoring, and 3) compliance assurance. All monitoring would continue to be performed according to BLM policy and following protocols from BLM approved manuals and technical references. Monitoring would be conducted on an annual schedule for Selective Management Category to Improve (I) allotments and periodically on Selective Management Category to Maintain (M) and Custodial (C) allotments.

The Black Lake, Adobe Lake, and Symons allotments are designated as Category C allotments and the Granite Mountain, Mono Lake, and Mono Mills allotments are designated as Category M allotments in the Bishop Resource Management Plan (Appendix 4, pages A4-5 through A4-7). Consistent with BLM policy, monitoring on all six allotments would be conducted periodically.

Short Term Monitoring

Short term monitoring is a tool to gauge the cause and effect of the current grazing management on resource conditions on the allotments. This monitoring consists of information addressing current climatic conditions and the collection of utilization data (including stubble height, if appropriate). Monitoring would consist of documenting utilization levels to ensure that forage utilization on key perennial species does not exceed 40 percent on the average. Key areas would be selected and utilization on key species would be estimated in accordance with the current BLM technical reference. This would assure compliance with permit terms and conditions for the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

Long-Term Trend Monitoring

Trend refers to the direction of change. Rangeland data are collected at different points in time on the same site in accordance with the BLM technical reference and the results are then

compared to detect change. Trend data are important in determining the effectiveness of on-the-ground management actions. The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments do not have established long-term trend plots. There is no plan at this time to establish long-term trend plots in these six allotments given current management priorities.

Compliance Assurance

Allotment compliance would be conducted on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments on an annual schedule to assure adherence to permit terms and conditions. Compliance involves assuring that livestock are on/off the allotment according to annual application dates, counting livestock numbers, identifying their location, checking brands, and assuring range improvements function properly.

B. Alternative 2 - Current Management (No Action)

This alternative involves issuing new 10-year permits with the same terms and conditions as under the existing authorizations. The only difference between this alternative and the proposed action alternative is that under current management the terms and conditions from both the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) are applied broadly to these allotments, without defined implementation guidelines, and have not been tailored to specific vegetation communities and resources on the allotments.

A. Mandatory Terms and Conditions

Mandatory terms and conditions would be the same as described in the proposed action alternative.

B. Terms and Conditions - Bishop Resource Management Plan

No salt or other nutrient supplement or sheep bedding is allowed within 1/4 mile of creeks, aspen groves, meadows, sage grouse strutting grounds or special status plant habitat.

No trailing through a neighboring allotment without prior authorization by the BLM.

Burned areas will be rested for a minimum of 3 growing seasons before grazing, to achieve proper functioning condition, recovery of vegetation or desired plant community.

The Bishop RMP Decision for the Desired Plant Community for riparian vegetation along streams is: “riparian vegetation growth is vigorous for woody plants and at least 4-6 inches of residual herbaceous plant height will remain at the end of the growing season or at the time of livestock turnoff, whichever is later.”

C. Terms and Conditions - Central California Standards for Rangeland Health and Guidelines for Livestock Grazing

Comply with the Central California Standards and Guidelines for Livestock Grazing Management.

The maximum forage utilization limit for key perennial species is not to exceed 40% on sagebrush grassland, semi-desert grassland, semi-desert grass and shrubland or pinyon-juniper woodland rangelands. On salt desert shrubland ranges, the maximum utilization limit for key perennial species is not to exceed 35%.

The maximum forage utilization limit in riparian areas and wetlands is not to exceed 45% for herbaceous species or 20% for shrubs and trees.

The maximum utilization limit for bitterbrush in mule deer concentration areas (i.e. migration corridors or winter ranges) is not to exceed 20% of annual growth before October 1.

D. Other Terms and Conditions

No supplemental feeding (i.e. hay, pellets/cubes, or other forages) is allowed at any time on public lands without the BLM's authorization.

Periodically check livestock for weed seed to minimize or stop the spread of weeds such as perennial pepperweed from private land or other areas where known weed infestations exist. A guide on preventing the spread of weeds along with specific species of concern is described in the Eastern Sierra Weed Management Area Noxious Weed Identification Handbook.

Black Lake (6028) Additional

Defer grazing in T 1 S, R 31 E, Section 20 until July 21 for protection of the Mariposa lily population (after flowering).

E. Range Improvements

Range improvements would be the same as described in the proposed action alternative.

F. Monitoring

Monitoring would be the same as described in the proposed action alternative.

C. Alternative 3 - No Grazing

This alternative would cancel the permit for the Black Lake allotment, the permit for the Granite

Mountain, Adobe Lake, Symons, and Mono Lake allotments, and the permit for the Mono Mills allotment. As a result, grazing would not be authorized on these allotments. Under this alternative, BLM would initiate the process in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on these allotments and amend the Bishop Resource Management Plan.

D. Other Alternatives

No other alternatives were identified or developed as a result of livestock operator consultation, cooperation, and coordination or public scoping efforts.

Chapter 3:
ENVIRONMENTAL ANALYSIS

A. LIVESTOCK MANAGEMENT

1. Affected Environment

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments are located within the Granite Mountain Management Area as defined in the Bishop Resource Management Plan (RMP) (See Maps 1-3). Livestock kind, livestock class, permitted season of use, and allocated animal unit months (AUMs) for these allotments as prescribed in the Bishop RMP (BLM 1993) are:

Allotment	Number	Kind	From	To	% P.L.	AUMs
Black Lake	8 40	Cattle Sheep	6/1	10/31	100	41
Granite Mountain	180 900	Cattle Sheep	7/1	10/15	94	594
Adobe Lake	332 1,660	Cattle Sheep	6/1	10/31	6	100
Symons	20 100	Cattle Sheep	6/1	10/31	100	127
Mono Lake	763	Sheep	7/1	10/15	100	537
Mono Mills	3,045	Sheep	7/1	10/15	100	2,142

There is one permittee for the Black Lake allotment who leases the Black Lake and Dutch Pete's base property. The public land is unfenced from the adjacent private and LADWP land. Livestock grazing is permitted from June 1st to October 31st, although, the allotment is used from the 6th of July to approximately October 31st, depending on forage condition with generally 10 head of cattle (31 AUMS). The operator defers grazing in Section 20 until July 21st because of the Mariposa Lily population. Livestock water is located on both public and LADWP land from Black Lake and associated spring sources. Timing of spring precipitation has an effect on forage condition resulting in vegetative growth and vigor of perennial species and affecting the abundance of annual species. The operator may adjust the annual grazing plan depending on the amount of precipitation received and/or annual forage production. These adjustments may include timing on/off dates around vegetative growth, a slight increase in livestock numbers in wetter years, or decreasing numbers to adjust for drought conditions. These operational changes require prior approval by the BLM.

There is one permittee for the Granite Mountain, Adobe Lake, Symons and Mono Mills allotments. For all four allotments, public land is generally unfenced from adjacent private land. Public land is also unfenced from adjacent state land within the Adobe Lake and Mono Lake allotments. The Mono Lake allotment is unfenced and adjoins the United States Forest Service

Mono Lake Scenic Area. The majority of private land within the Adobe Lake and Symons allotments was enrolled in the Wetland Reserve Program (WRP) in late 2004. The WRP established a no grazing stipulation until 2009. Furthermore, the WRP will not allow production agriculture on its' lands; simply, only livestock can be used to control vegetation. Currently, the permittee is in search of a sheep operator to sublet the permit. The Granite Mountain allotment has one old pipeline that needs major reconstruction. Therefore, the livestock operator must haul water to existing watering sites along the non-operational pipeline. The Granite Mountain, Adobe Lake and Symons allotments have a perennial water source of Adobe Creek which eventually goes subsurface in the Adobe Lake Allotment. The Adobe Lake Allotment also has one well and trough located in the northern portion of the allotment that is used year round by the Montgomery Pass Wild Horse Herd. The Mono Lake allotment is watered from the Indian Creek Pipeline which is a perennial spring that is protected by an exclosure. The pipeline extends about three miles with storage tanks/troughs at three sites. The Indian Creek Pipeline also needs major reconstruction. Therefore, the livestock operator must haul water to existing watering sites along the non-operational pipeline.

According to closed grazing authorization files, prior to late 2004, a permittee acquired the permit (for only one year) for the Granite Mountain, Adobe Lake, Symons, and Mono Mills allotments. The permittee activated the permit by subletting to a cattle operator who took full use on Adobe Lake and Symons allotments in conjunction with the private land. Also, the cattle operator obtained a special use permit to graze adjacent land on the Inyo National Forest. Prior to 2004, the Symons allotment was last used in 2001. The Granite Mountain allotment was last used in 1997. Prior to 2004, the Adobe Lake allotment was last used in 1996. The Mono Lake allotment was last used in 1993.

There is one sheep operator for the Mono Mills allotment. The public land is unfenced from the adjacent private and Inyo National Forest lands. Livestock grazing is permitted from July 1st to October 15th, although the allotment is most often used from the 1st of July to approximately September 30th, depending on forage condition with generally 1500 sheep (907 AUMS). The allotment is watered from the Mono Mills Pipeline and Dry Creek Pipeline which extend from the Inyo National Forest and is a dependable water source. Sheep are actively herded the entire time on the allotment and only use established camps, bedding grounds, and watering sites. Timing of spring precipitation has an effect on forage condition resulting in vegetative growth and vigor of perennial species and affecting the abundance of annual species. The operator may adjust their grazing plan depending on the amount of precipitation received and/or annual forage production. These strategies may include adjusting on/off dates around vegetative growth, a slight increase in livestock numbers in wetter years, or decreasing numbers to adjust for drought conditions. These operational changes require prior approval by the BLM.

2. Environmental Consequences

a. Impacts of Proposed Action

Authorizing grazing with revised, allotment specific terms and conditions would not create

negative impacts to livestock operations. Because livestock grazing practices would follow the Bishop RMP guidelines as amended by the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) and the revised terms and conditions, permittees would have to manage their livestock (e.g. strategic salt placement or adjustment in livestock distribution) so forage utilization on key perennial species do not exceed utilization levels, as defined in the proposed terms and conditions above. Furthermore, these terms and conditions are designed to help maintain, protect, or improve rangeland health, increasing the probability of long term economic viability for the permittees.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. Impacts of No Grazing

The cancellation of grazing on these six allotments would require the operators to look for alternative forage and may increase the cost of their ranching operations. For the operators that also have LADWP leases and/or Forest Service allotments, the grazing capacity of their LADWP and/or Forest Service land may not accommodate the increased use or meet LADWP or Forest Service management requirements of those lands. The permittees may be forced to operate with fewer cattle. There would be unauthorized grazing drift use onto BLM land, since their LADWP leased or Forest Service permitted land are unfenced, creating additional administrative costs for the agency and the permittees.

3. Maps

Overview of Allotments (Maps 1 – 3)

B. AIR QUALITY

1. Affected Environment

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments all occur within the Mono Basin Federal Air Quality Non-Attainment/Maintenance

Area and conform to the applicable State Implementation Plan requirement. The Mono Basin Federal Air Quality Non-Attainment/Maintenance Area is under jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD), federal actions are subject to conformity determinations under 40 CFR 93.

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would create no new impacts because the proposed terms and conditions are designed to help maintain, protect, or sustain rangeland health including soils, and to keep the ecosystem functioning properly. Support vehicle use on the access roads will generate small amounts of PM_{10} emissions throughout the grazing area and could carry soils onto the paved roads which would increase entrainment of PM emissions. The support vehicles emit various precursor emissions for ozone. Fugitive dust emissions could occur due to the soil disturbance as a result of the trampling action of livestock when soil moisture levels are low. Ruminant animals emit methane gas which is a precursor emission for ozone. Actual emission amounts from this grazing activity are negligible. The proposed action would not measurably change PM_{10} emissions within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. Impacts of No Grazing

The no grazing alternative would have little to no impact on soils since few impacts currently occur. There would be no fugitive dust emissions from livestock trampling or precursor emissions for ozone.

C. AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

The proposed action, no action, and no grazing alternatives would have no effect on any designated Area of Critical Environmental Concern (ACEC) because the Black Lake, Granite

Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments do not occur within or adjacent to any designated ACEC.

D. CULTURAL RESOURCES

1. Affected Environment

Located on the western fringe of the Great Basin physiographic province the Owens Valley region, incorporated within the Bishop Field Office, contains the highest archaeological site densities within the Great Basin (Basgall and McGuire 1988; Bettinger 1975, 1982). In 1981 and 1982 the BLM completed two Environmental Impact Statements (EIS) addressing grazing on public lands within the Bishop Field Office; "Proposed Livestock Grazing Management for the Benton-Owens Valley Planning Unit", 1981 and "Proposed Livestock Grazing Management for the Bodie-Coleville Planning Units", 1982. In both EIS's cultural resource reviews are limited to Class I literature searches of existing data.

Using existing survey data (BLM 1978; Busby et al. 1979; Hall 1980; Kobori et al. 1980), site densities were predicted to range from 9 sites per square mile (m^2) in the Benton Planning Unit to 4 sites/m^2 in the Owens Valley Planning Unit, with an average of 9.54 sites/m^2 in the Bodie/Coleville Planning units.

To evaluate each allotment for cultural resource values a Class I records search was conducted and a GIS utilized to determine previously surveyed acres and sites recorded on each allotment. Range improvements where cattle congregate (troughs, salt licks, reservoirs, etc.) were mapped. Following the Bishop Field Office research design for grazing allotment assessments (Halford 1999), all areas with a high probability for the congregation of cattle and for the occurrence of significant cultural resources were field evaluated. Inventory was focused on known or suspected areas of historic ground disturbing activities associated with livestock grazing such as water sources, corrals, supplemental feeding areas, bedding areas, and salt block stations. The results of the analyses are used to protect or mitigate impacts to cultural resources. If significant cultural resources are identified, the stipulations of the grazing permit may be modified to reflect the presence and protection of these resources.

The following table shows the results of the cultural resource analyses.

Allotment	Previously Surveyed (% of allotment)	Previously Recorded Sites	Newly Surveyed	Newly Recorded Sites
Black Lake	90 acres (10%)	11	Field Check	0
Granite Mountain	326 acres (1.6%)	23	Field Check	0
Adobe Lake	0	0	2.5 acres	0
Symons	0	1	5 acres	0
Mono Lake	800 acres (9.4%)	8	Field Check	0
Mono Mills	1600 acres (4.5%)	17	10 acres	1

2. Environmental Consequences

a. Impacts of Proposed Action

Impacts to cultural properties are predicted to be minimal as a result of the proposed action for the following reasons. The allotments in general do not receive heavy use and serve as fringe allotments to private property and Forest Service leases where more desirable water and suitable vegetation occur. As a result, livestock use on the BLM allotments is generally highly dispersed with light use. However, following the research design (Halford 1999), water improvements and congregation areas have been assessed. Twenty four water improvements (troughs, springs, windmills, and water tanks) were field evaluated. Most were found to be in disrepair and no longer in use. Only one trough (project #7503) was found to have an effect on a site that was newly recorded during the field evaluations. The site is located in the Mono Mills allotment. The trough will be moved off site or decommissioned since it no longer appears to be in service.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. Impacts of No Grazing

This alternative would eliminate all livestock threats of damage to cultural properties.

3. Maps

None, due to the proprietary nature of the cultural resource information.

4. References

ASPPN. 1990. Impacts Of Domestic Livestock Grazing On Archaeological Resources Archaeological Sites Protection and Preservation Notebook, Technical Notes I-15. U.S. Army Engineer Waterways Experiment Station, Vicksburg MS.

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E. ENVIRONMENTAL JUSTICE

1. Affected Environment

There are no low-income or minority populations living on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

There are 11 Native American communities who reside in close proximity to these six allotments. Members of these communities do some hunting and subsistence collecting of materials from public lands on various allotments throughout the BLM, Bishop Field Office such as, pinyon nuts, basket weaving materials, medicinal plants, etc. Some work in nearby local communities or are employed on their respective reservations.

There may be low-income minorities working for the livestock operators on these allotments.

2. Environmental Consequences

a. Impacts of Proposed Action

Continued livestock grazing on these six allotments would have no effect upon any low-income or minority populations. If any changes in grazing management are required, there may be a loss of a job to a member of a low-income or minority population. There may also be new jobs created and sustained as a result of the long-term livestock grazing sustainability from rangeland health standards implementation. Any such impacts would be limited to a single job here or there. There would not be a disproportionate impact, either negative or positive, to any low-income minority.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

If there were no grazing allowed on these allotments, there may be a loss of some jobs to members of a low-income or minority population. Any such impacts would be limited to a single job here or there. There would not be a disproportionate impact to any low-income minority.

There might be a slight positive impact to some groups (e.g. Native American) through increased availability of some vegetative resources that are collected on public lands. This would however vary by area and type of resource, and would probably be minimal on these allotments.

F. ESSENTIAL FISH HABITAT

The proposed action, no action, and no grazing alternatives would have no effect on essential fish habitat because there are no anadromous fish species or designated essential fish habitats present on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

G. FARMLANDS, PRIME OR UNIQUE

The proposed action, no action, and no grazing alternatives would have no effect on farmlands, prime or unique, because none are present on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

H. FLOOD PLAINS

The proposed action, no action, and no grazing alternatives would have no effect on flood plains because none are present on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono

Lake and Mono Mills allotments.

I. INVASIVE, NON-NATIVE SPECIES

1. Affected Environment

The following table represents invasive weed species that occur in the identified allotments:

Allotment	Invasive Weed Species	Estimated % Cover (Rangeland Health Assessments 2001 and 2002)
Black Lake	*Bromus tectorum* *Sisymbrium altissisimum*	<10% <10%
Granite Mountain	*Bromus tectorum*	10-20%
Adobe Lake	*Bromus tectorum*	<10%
Symons	*Bromus tectorum*	<10%
Mono Lake	*Bromus tectorum*	<10%
Mono Mills	*Bromus tectorum*	<10%

Rangeland Health Assessments documented low occurrences of invasive species primarily due to the sandy substrates that are the dominant soil types within the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake and Mono Mills Allotments. Populations of these weed species are generally confined to roadsides where roadside fill exhibits different substrate textures and types then the surrounding soils. Current densities are not affecting overall ecological function including reductions in native species composition or increases in fire frequency.

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would benefit site conditions and native vegetation because the proposed terms and conditions are designed to help reduce the spread of weeds and maintain or improve rangeland health. Provisions for grazing before seed set of these species has been included in allotment grazing stipulations. Early season grazing, normally before seed set, of these annual grasses may help reduce the spread of these invasive weeds (Olson 1999) by reducing inputs into the seed bank of particular sites.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

No grazing before seed set of these invasive species could increase the seedbank inputs into particular sites overtime and potentially increase the density of some of these invasive, non-native species. Impacts from invasive weed species on native plant communities may initially be slightly greater than the proposed action. However, no grazing would also reduce the chances that residual weed seed from sites is spread to new areas and would minimize the likelihood that the other long-term impacts discussed above would occur.

3. References

Evans, R.D. and J.A. Young. 1972. Microsite requirements for establishment of annual rangeland weeds. Weed Science. 18:154-161

Olson , B.E. 1999. Grazing and weeds. Pages 85-97 in R.L. Sheley and J.K. Petroff, editors. Biology and management of noxious rangeland weeds. Oregon State University Press, Corvallis, Oregon.

J. NATIVE AMERICAN CULTURAL VALUES

1. Affected Environment

There are 11 Native American communities who reside in or in close proximity to the eastern Sierra region administered by the Bishop Field Office. None of these communities are living on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments. There are no treaty rights (hunting, fishing, etc.) associated with any of the communities or any of these allotments.

Some members of these communities hunt and some do subsistence collecting of materials from public lands such as, basket weaving materials, medicinal plants, etc. However, this is general

use and there were no specific “traditional use areas” identified at this time by any of the Tribes on any of these allotments. Any other traditional uses or use areas have not been divulged to this office.

Some general concerns associated with Native American cultural values identified by the Tribes during consultation are:

- They have general concerns with overgrazing and want BLM to control overgrazing to protect the ecosystem and ensure that it is functioning properly.
- They have concerns that water (or other) developments not impact cultural sites and that they not affect deer habitat (through de-watering streams / springs, or trampling of habitat around new troughs, etc.).
- They do not want cattle grazing on top of individual burials or grave sites or within known Native American cemeteries.
- They do not want sheep bedding on top of cultural sites.
- They do not want BLM to use herbicides on plants that they might collect.
- They do not want BLM to cut / remove pinyon for grazing habitat improvement.

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action is not expected to have any impacts to Native American concerns described above. The rangeland health assessment showed these allotments currently meet rangeland health standards. The proposed terms and conditions are designed to help protect and sustain rangeland health, keep the ecosystem functioning properly, and thereby maintain or improve the natural environment that Native American cultural values depend on. Monitoring would continue and any impacts that affect Native American sites from high congregation and concentration of livestock use would be corrected.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Removing grazing would generally result in fewer impacts to the natural environment, thus alleviating Native American concerns with overgrazing, water project development, and grazing impacts to cultural resources/burial sites, etc.

K. RECREATION

1. Affected Environment

Recreation activities and facilities in these six allotments are limited. Access is from approximately 120 miles of primitive 4 wheel drive and single track motorized vehicle routes and trails. This access, coupled with no developed recreational facilities currently precludes intensive recreation activity. Activities that take place consist of motorized 4 wheel drive touring and motorcycle riding, hunting, hiking, climbing, horseback riding and dispersed camping. Encounters with livestock occur infrequently.

2. Impacts of Alternatives

The proposed action, no action, and no grazing alternatives would have no effect on recreation because proposed facilities or management practices that could potentially alter existing recreation uses or use patterns do not exist in these allotments. Recreationists would continue to encounter livestock infrequently under the proposed action and no action alternatives.

L. SOCIAL AND ECONOMIC VALUES

1. Affected Environment

Regionally, livestock operations involve use of BLM, Forest Service (USFS), or Los Angeles Department of Water and Power (LADWP) lands. The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake and Mono Mills allotments have three permittees. There is a careful balance of livestock numbers and seasons of use for grazing these allotments, such that any substantial change of use, would negatively affect their overall operation by reducing available forage and management flexibility required for a profitable operation.

The local economy is benefited by these grazing operations from monies spent to establish and maintain a ranching operation and contributions to the labor force. This is true of any privately owned business. In Mono County for 2005, agriculture was the second largest industry and is an integral part of the county's economy (Counties of Inyo and Mono Agriculture Department 2005). Beef and alfalfa production was the primary production crops. Of a 100% total in agricultural values, livestock production accounted for 64% in Mono County. This amounted to $17,115,500 or 64% of the total $26,973,450 agricultural production.

2. Environmental Consequences

a. Impacts of Proposed Action

These grazing operations benefit the Mono County economy from monies spent to establish and maintain a ranching operation and contributions to the labor force. Sustaining these operations, from continued use of these allotments, would have a positive economic effect on the stability of their overall livestock operation. The social value of retaining a rural, agricultural lifestyle would be preserved and would keep with the public's perception of the eastern Sierra western culture. The proposed action would not adversely impact the social and economic stability of these ranching operations.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

If grazing were terminated on these six allotments, there would be adverse impacts to the livestock operators. The grazing capacity of their other federal permits or private leases may not accommodate the increased use or meet land management requirements. The permittees may be forced to operate with fewer livestock. There would be unauthorized grazing use onto BLM lands, since their private and permitted Forest Service lands are unfenced. Livestock trespass or drift onto BLM land would result in administrative costs to the agency. The BLM may also receive criticism of this decision from its local constituency because of potential agricultural economic losses.

3. References

Counties of Inyo and Mono Agriculture Department. 2005. Annual Crop and Livestock Report. (Prepared June 8, 2006).

M. SOILS

1. Affected Environment

The soil classifications for the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments have been mapped in detail by the Natural Resource Conservation Service (NRCS). Two general soil types exist on the six allotments. The first soil type is soils of the mountainous region which are shallow to very deep, well drained sandy loams to loams. The second soil type is soils of the intermountain valleys which are moderate to very deep, well to somewhat excessively drained ashy loamy sands. Soils of these types tend to limit the establishment of seeds and seedling development because of the sand structure. Furthermore, the very shallow soils may restrict water infiltration and plant rooting. These soils primarily occur on slopes and ridges. Ash loamy sands are inclusions occurring within depressions or valleys between the slopes. These soils are well drained, which provide a more favorable habitat for both grasses and mixed desert shrub species.

Erosion potential of these soils range from slight to moderate on the valley floor due to wind erosion and can be somewhat attributable to the effects of livestock hoof action which disturbs the soil surface. Valley floor soils may also have inclusions of calcareous loam along remnant river terraces that exhibit duripans which inhibit water infiltration and restrict shrub rooting depths. The erosion potential on the alluvial fans is low due to the gravelly surface texture and low occurrence of cattle use compared with the valley floor. There are no identified erosional problems on the allotments.

BLM assessed these allotments in 2001 and 2002 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.

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would create no new impacts because the proposed terms and conditions are designed to help maintain, protect, or sustain rangeland health including soils, and to keep the ecosystem functioning properly. For example, improvements in ecological attributes would be a result of less intensive forage utilization levels which would lead to increases in plant biomass production resulting in adequate soil protection (e.g. wind erosion).

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for

Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

The no grazing alternative would have little to no impact on soils since few impacts currently occur.

3. References

Bishop Resource Management Plan and Environmental Impact Statement. August 1991. Benton-Owens Valley Planning Unit, Draft Environmental Impact Statement

United States Department of Agriculture, Natural Resource Conservation Service. 1996. Soil Survey of Benton-Owens Valley Area, California, Parts of Inyo and Mono Counties.

N. VEGETATION/THREATENED AND ENDANGERED

Plant Communities

1. Affected Environment

Uplands

A baseline range inventory for these allotments was completed in 1977 and correlated to the recently completed 1999 NRCS soil/vegetation inventory to document plant cover and composition as well as develop updated ecological site descriptions. The allotments occur in the Great Basin and Northern Mojave Floristic Provinces. The dominant plant communities are sagebrush/bitterbrush and pinyon woodland. The sagebrush/bitterbrush communities are dominated by sagebrush (*Artemisia tridentata* ssp. *tridentata, A. tridentata* ssp. *vaseyana*, *A. tridentata* ssp. *wyomingensis* and *A. tridentata* ssp. *parishii*) and bitterbrush (*Purshia tridentata* var. *glandulosa* and *P. tridentata* var. *tridentata).* Understory grasses such as indian rice grass (*Achnatherum hymenoides*), desert needlegrass (*Achnatherum speciosum*), needle and thread (*Hespirostipa comota*), western needlegrass (*Achnatherum occidentalis*), and Thurber's needlegrass (*Achnatherum thurberianum*) can make up 15-20% of the cover at the higher elevations of the allotments (Barbour and Major 1977). Additional species include, but are not limited to, hop sage (*Grayia spinosa),* horsebrush (*Tetradymia canescens),* Nevada and green ephedra (*Ephedra nevadensis.* and *E. viridis),* yellow and curly-leaved rabbitbrush (*Chrysothamnus nauseosus and C. viscidiflorus*), currant species (*Ribes cereum* and *R.*

velutinum), and isolated stands of bittercherry (*Prunus emarginata)* in the Granite Mountain allotment. During years of high precipitation annual forbs are abundant and include species from the following genera: Astragalus, Cryptantha, Eriogonum, Phacelia, as well as genera in the Asteraceae Family.

The pinyon woodland communities are dominated by an overstory (15-20% cover) of singleleaf pinyon pine (*Pinus monophylla*) with a sagebrush/bitterbrush understory. Perennial forbs include species from the following genera: Astragalus, Cryptantha, Eriogonum, and Phlox.

The majority (80-90%) of the upland plant communities within these allotments have been lightly to moderately impacted by livestock grazing. Grazing on the Mono Lake, Mono Mills, and Granite Mountain allotment is lightly grazed due to restricted access/availability of water. Generally, utilization of key forage species, e.g. needlegrass species and bitterbrush is slight to moderate and occurs between spring and summer. Forage capacity on these allotments is moderate and the plant communities are incapable of sustaining large numbers and frequent livestock use which has been shown to be detrimental to the various attributes of ecological function including plant vigor, seedling recruitment and recovery (Clary and Holmgren 1987; Holcheck 1983; Sneva 1980)

2. Environmental Consequences

a. Impacts of Proposed Action

Under the proposed action, grazing impacts such as weed presence and localized soil disturbance would affect very small portions (< 1-2 acres in size) of these allotments and be associated with watering facilities and roadsides. These impacts would not contribute to a large-scale reduction in ecological function of the plant communities that occur within these allotments, but would require periodic (2-5 years) monitoring to determine impact thresholds.

The terms and conditions outlined in the proposed action would sustain and improve the following key floristic and ecological attributes within these allotments (BLM 1998);

- Increased cover of perennial grasses
- Better root distribution
- Increased species diversity
- Increased photosynthetic period
- Increased vegetation structure
- Increase in episodic recruitment of shrubs, grasses, and forbs

Such improvements in floristic and ecological attributes would be a result of less intensive forage utilization levels and range improvements which would lead to commensurate increases in annual below and above ground grass and forb biomass production. The implementation of the terms and conditions on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments would enhance and sustain the large-scale ecological function of

these plant communities especially during non-drought years (BLM 1999, 2000) and when stocking rates are low.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative, livestock grazing on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments would cease. Individual plant populations within the communities that are commonly grazed would have an opportunity to complete all phenological stages. Slight increases in weed densities could occur due to a reduction of early season grazing on these target species. Impacts to the ecological function of these plant communities would be confined to natural disturbances, e.g. fire, insect damage, drought, and other non-anthropogenic induced effects.

3. Maps

Allotment Assessment Maps, CNDDB GIS coverage (not included in EA).

4. References

Barbour, M.G. and Major J. 1977. Terrestrial Vegetation of California. John Wiley and Sons. Pages 853-854.

California Department of Fish and Game. 1997. California Natural Diversity Database.

Clary, W.B. and R.C. Holmgren. 1987. Difficulties in interpretation of long-term vegetation trends. IN: Proceedings of the Symposium on Plant-Herbivore Interactions. General Technical Report INT-222. U.S. Forest Service, Intermountain Research Station, Ogden, Utah.

Cook, C. Wayne. 1977. Effects of Season and Intensity of Use on Desert Vegetation. Utah Agricultural Experiment Station. Bulletin 483.

Department of Interior, BLM. 1998. Riparian area management: a user guide to assessing proper functioning condition and the supporting science for lotic areas. Technical Reference 1737-15, U.S. Department of the Interior, Bureau of Land Management, Denver, CO.

Department of Interior, BLM. 1998. Rangeland health standards and guidelines for California and northwestern Nevada: Final EIS. California State Office, U.S. Department of the Interior, Bureau of Land Management, Sacramento, CA.

Department of the Interior, BLM. 1998. Rangeland Health Standards and Guidelines for California and Northwestern Nevada. BLM/CA/ES-98/005+4100.

Department of the Interior, BLM. 1999, 2000. Rangeland Health Assessments. Technical Reference 1734-6, 2000, Interpreting Indicators of Rangeland Health (Version 3).

Hughes, L.E. 1982. A grazing system in the Mohave Desert. Rangelands 4, 256-257.

Laycock, W.A. 1994. Implications of grazing vs. no grazing today's rangelands. In: M. Vavra, W. Laycock and R. Pieper, eds. Ecological implications of livestock grazing in the West. Society for Range Management. Denver, CO.

Threatened and Endangered Plant Species

The proposed action, no action, and no grazing alternatives would have no effect on threatened or endangered vegetation species because no federally listed threatened or endangered species are present on the in the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments based on historical records, field monitoring, and/or habitat suitability.

Special Status Plant Species

1. Affected Environment

A summary of CNPS List 1B species as well as other plants of limited distribution occurring within the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments is provided below:

Allotment	Plant Species	Population Trend
Black Lake	Inyo County mariposa lily *Calochortus excavatus* meadow hawksbeard (List 2) *Crepis runcinata* ssp. *hallii* alkali Ivesia *Ivesia kingii* var. *kingii*	Static to decreasing – Population fluctuations due to changes in hydrology. Static – Populations of this species are widespread throughout the alkali meadows. Static - Populations of this species are widespread throughout the alkali meadows.
Granite Mountain	*Arabis bodiensis* *Arabis cobrensis* (List 2)	Unknown – Populations restricted to rock outcrops. Several new populations documented in 2004. Unknown
Adobe Lake	meadow hawksbeard *Crepis runcinata* ssp. h*allii* (List 2*)* alkali Ivesia *Ivesia kingii* var. *kingii*	Static Static
Mono Lake	Mono milk-vetch *Astragalus monoensis* Tonopah milk-vetch *Astragalus pseudiodanthus* Mono lake lupine *Lupinus duranii* Intermontane lupine (List 2) *Lupinus pusillus* var. *intermontanus*	Static Static – new populations founds in 2004. Static Uknown
Mono Mills	Mono milk-vetch *Astragalus monoensis* Mono lake lupine *Lupinus duranii*	Decreasing – Likely due to increased competition from native Douglas sedge – decreases within exclosure – Static outside exclosure. Static

List 2* - Plants rare, threatened, or endangered in California, but more common elsewhere.

Grazing impacts to the above mentioned Special Status Plant populations have been minimized by avoidance of these sites during key reproductive periods. In addition, no Special Status Plant

populations occur in the vicinity of watering or supplement locations on any of the analyzed allotments. Due to the low livestock use levels especially on the Granite Mountain and Mono Lake allotments, rare plant populations are not being impacted by cattle grazing. The Adobe Valley and Black Lake allotments receive moderate use that includes both livestock and wild horse grazing. Some trampling of the I*vesia kingii* var. *kingii* and *Crepis runcinata* ssp. *hallii* does occur, but is it dispersed and not consistent from year to year. In addition, both these species occur in robust numbers over the entire eastern edge of the allotment. There is potential of future impacts to these rare plants due to the recent increases in wild horse numbers in both allotments.

2. Environmental Consequences

a. Impacts of Proposed Action

Impacts of the proposed action would likely improve the habitat for the alkali meadow Special Status Plant Species that occur in the Adobe Lake and Black Lake allotments. Key habitat improvements would consist of reducing stress on surrounding native vegetation with lower use levels, and commensurate benefits to key pollinator habitat. The status of Special Status Plant populations on the Granite Mountain and Mono Lake Allotments would not significantly change under the proposed action because of the infrequent and low intensity use of these allotments and the relative isolation of most of these plant populations, especially *Arabis bodiensis*.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Impacts of the no grazing alternative would affect Special Status populations in the Black Lake and Adobe Lake allotments by removing livestock trampling of Special Status Plants in certain areas of the allotments. The no grazing alternative would have minimal effect on the Granite Mountain, Mono Lake, and Mono Mills allotment Special Status Plant populations due to the infrequent and low intensity movement and use of livestock in the vicinity of the populations.

3. Maps

CNDDB and BLM Special Status Plant Species GIS coverages.

4. References

Department of the Interior, BLM. 1999, 2000. Rangeland Health Assessments, Technical Reference 1734-6, 2000, Interpreting Indicators of Rangeland Health (Version 3).

CNDDB and BLM Special Status Plant Species GIS coverage (not included in EA).

California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California. Sixth Edition.Sacramento, CA

California Department of Fish and Game. 2007. California Natural Diversity Data Base.

O. WASTE, HAZARDOUS OR SOLID

The proposed action, no action, and no grazing alternatives would not generate hazardous or solid waste on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

P. WATER QUALITY, DRINKING-GROUND

1. Affected Environment

Perennial surface water occurs only in the form of natural springs in the Black Lake, Mono Lake, and Mono Mills allotments. Perennial surface water occurs in the Granite Mountain allotment as Adobe Creek. The Adobe Lake and Symons allotments are devoid of any natural sources of surface water.

The Black Lake allotment has approximately 4 separate spring sites on public land. Only one of those springs (inventory number 10-23-1C) has been sampled for water quality. The one time sample recorded values for pH, electrical conductivity and turbidity. Likely, the source is not potable due to the turbidity and moderate level of eutrophication that was also noted in the sample results. The source is used by cattle and wildlife species. Like spring 10-23-1C, the other springs are little more than seeps and do not carry water away from the source. Cattle graze over these springs and cause some light soil trampling. This is due to the ability of cattle to move on and off the private land and the Los Angeles Department of Water and Power property to the public land at will. It is unknown if this activity causes a diminution of water quality. To ensure there would be no opportunity for degradation of water quality, the source locations would require exclusion fencing to livestock.

The Mono Mills allotment contains 3 springs and a well. Two springs have been sampled for their water quality constituents. The source for Indian Spring occurs in the Mono Mills allotment with the outflow of 12 gallons/minute (gpm) continuing for approximately 2000 linear feet in a channel in to the Mono Lake allotment. The source location of Indian Spring and approximately 1800 feet of the channel is protected by a fence enclosure that prevents livestock access to the water. The second source is Finch Spring which was a perched seep with a flow of 2 gpm. This source was altered sometime in the mid 1980's due to unauthorized excavation of the seep and construction of a reservoir. The site is not a dependable source and currently there is no surface water. For both springs, at the time of their one time inventory in 1980, water quality was generally good with the concentration of total dissolved solids (tds) at 125 milligrams/liter (mg/l) and a pH of 7.4 for Indian Spring and a tds of 130 mg/l and a pH of 6.8 at Finch Spring. The concentrations for other constituents, like CO^2, Ca, Mg, Cl and Na, were low enough to categorize both springs as drinking water standard quality. A third spring source (project file 7540), approximately 2 miles east of Indian Spring, was also altered due to unauthorized excavation of the seep and construction of a small reservoir. No water quality information is known for this site and it, also, is currently without surface water. The well (project file 7555) is located northeast of Indian Spring and was another unauthorized excavation to develop water for livestock use. At the time of construction, the well was approximately 14 feet deep, enclosed in a wood collection box, and had a capacity sufficient to fill a 2800 gallon storage tank. The water source is not dependable year to year. No water quality information is known for this well.

Adobe Creek in the Granite Mountain allotment is a perennially flowing stream for approximately 1.5 miles on public land. The measured flow in Adobe Creek may reach 15 cubic feet per second (cfs) in the spring and early summer, but typically will be much less than that in most years, particularly in the late summer months. Water quality constituents were measured within the public land segment of the stream one time in June 1978. The measured values for pH, turbidity, alkalinity, CO^2 and total dissolved solids characterized the stream as having good water quality for fish and animal use. Whether the water is potable is unknown due to the occasional occurrence of grazing on the private land upstream from the public land and the nutrients that may be deposited in the stream. No grazing has occurred for the past several years along the public land segment of the stream.

2. Environmental Consequences

a. Impacts of Proposed Action

Adobe Creek would maintain its good water quality with implementation of the proposed action. Any livestock use occurring along the channel would maintain the required riparian vegetation stubble height which would ensure no diminution of water quality within the public land stream segment.

With no current information on the water quality at the springs in the Black Lake allotment, it is

unknown if implementation of the proposed action will have a positive benefit on water quality. Good water quality at Indian Spring would be maintained due to the fence enclosure protecting the source and channel from livestock use.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on all allotments would cease. All potential for livestock induced affects on water quality in Adobe Creek and Indian Spring would be eliminated. Unless the springs in the Black Lake allotment were fenced to exclude livestock access, some level of cattle use at these sites would continue.

3. References

Bishop Field Office. Adobe Creek Stream Inventory. June 1978. File

Stefferud, Sally. 1980. An inventory of water sources on public lands in the Mono Basin. File.

Q. WETLANDS/RIPARIAN ZONES

1. Affected Environment

The Black Lake and Adobe Lake allotments contain extensive wetlands (600 acres) to include the following plant communities (Barbour 1977): 1) Transmontane Freshwater Marsh (permanently flooded)/Freshwater Seep, 2) Transmontane Alkali Marsh (seasonally flooded)/ Alkali Seeps, and 3) Alkali Meadow (saturated soils). The wetland community types integrate following a gradient of moisture and alkalinity.

Transmontane Freshwater Marsh/Freshwater Seep

Transmontane Freshwater Marsh is a Rare Natural Community, State-ranked S2.2 (threatened).

Marsh vegetation is dominated by bulrush (*Scirpus americanus*), (*Juncus* spp.), sedge *(Carex aquatilis* and *C. nebrascensis*), and spikerush (*Eleocharis* spp.). Common perennial wetland forbs include marsh speedwell (*Veronica scutellata)*, monkeyflower (*Mimulus guttatus*) and arrow grass (*Triglochin concinna*).

Transmontane Alkali Marsh/ Alkali Seeps

Transmontane Alkali Marsh is a rare natural community, State-ranked S2.1 (very threatened). As the wetland system shifts away from its freshwater source, marsh and seep vegetation shift to a more alkaline community type dominated by saltgrass (*Distichlis spicata*).

Alkali Meadow

Alkali Meadow is a rare natural community, State-ranked S2.1 (very threatened) and it is the most extensive wetland vegetation type within the allotment. Dominant species include a variety of perennial grasses such as salt grass (*Distichlis spicata*), alkali cordgrass (*Spartina gracilis)*, Great Basin wild rye (*Leymus cinereus*), alkali sacaton (*Sporobolus airoides*), bluegrass (*Poa secunda* ssp. *juncifolia)* and meadow brome (*Hordeum brachyantherum*). Common rushes include baltic rush (*Juncus balticus*) and perennial forbs include *Crepis runcinata* ssp. *hallii*, *Ivesia kingii* var. *kingii* and *Pyrrocoma racemosa* var. *sessilifolia*, alkai peppergrass (*Lepidium montanum* var. *nevadense*) and blue-eyed grass (*Sisyrinchium halophytum.*

The Black Lake and Adobe Lake allotments wet soil associated vegetation species have developed an extensive root mass which has protected the spring sources and immediate area from becoming excessively altered from the occasional grazing and trampling affects of cattle.

Adobe Creek channel is approximately 1.5 miles in length on public land. Only 0.1 miles of the channel remain in a natural unaltered state on public land. The riparian vegetation within the 0.1 mile segment consists mostly of baltic rush (*Juncus balticus*), willows (*Salex* spp.) and wild rose (*Rosa* spp.). Stream bank conditions are stable with a meandering channel. The remainder of the BLM section of stream was channelized sometime after 1954 by unknown persons with the apparent intent to reduce water loss by straightening and narrowing the channel. Riparian vegetation in this area has developed with a few willows and grasses. As a result, the bottom of the channel has developed some stability with the growth of riparian vegetation while the channel banks are near vertical and have eroded to 10 feet deep in places from past washouts. Due to the pumice soil type, the unstable banks in this altered area are susceptible to erosion from any natural or man caused force. For several years, there has been no grazing along this segment of Adobe Creek and it is unlikely any future attempt at grazing along the stream would materially affect the riparian conditions due to the difficulty in gaining access to water.

Indian Spring provides approximately 2 acres of riparian vegetation composed mainly of sedges, bluegrass, and willows. With the entire riparian corridor at the spring source and downstream for approximately 1900 feet enclosed within a fence to prevent livestock access to the water, riparian vegetation has developed to the extent possible along the stream edge within the limits

of the landform configuration. There is no viable riparian vegetation remaining at Finch Spring or at the silted in reservoir of project 7540.

2. Environmental Consequences

a. Impacts of Proposed Action

Should grazing occur along Adobe Creek in the future, the term and condition to maintain sufficient stubble height would provide for sufficient plant vigor, cover, and physical structure to ensure a stable riparian environment. The riparian vegetation conditions within the Indian Spring enclosure will be maintained. The riparian vegetation at the Black Lake allotment springs should be maintained at the current capacity for protecting the spring sources and soil stability.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on all allotments would cease. All potential for livestock related affects along Adobe Creek would be eliminated. Unless the springs in the Black Lake allotment were fenced to exclude livestock access, some level of cattle use at these sites would continue.

3. References

Barbour, M.G., Major J. 1977. Terrestrial Vegetation of California. John Wiley and Sons. Pages 853-854.

Department of Interior, BLM, Bishop Field Office. 1978. Adobe Creek Stream Inventory. File.

Department of Interior, BLM, Bishop Field Office. 1986. Water Supply Inventory. File.

R. WILD AND SCENIC RIVERS

The proposed action, no action, and no grazing alternatives would have no effect on wild and scenic rivers because there are no designated wild and scenic rivers or eligible river segments on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments.

S. WILDERNESS

1. Affected Environment

The Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments do not occur within any congressionally designated Wilderness Area. In addition, the Black Lake, Adobe Lake, and Symons allotments do not occur within any designated Wilderness Study Area. However, approximately 25% (13,431 acres) of the Granite Mountains WSA (CA-010-090) occurs within the Granite Mountain allotment, 15% (8,173 acres) of the WSA occurs within the Mono Lake allotment, and 40% (21,916 acres) of the WSA occurs in the Mono Mills allotment.

Wilderness values are described in the 1979 Final Wilderness Intensive Inventory Report while the WSA's existing range and other improvements are identified in the 1990 California Statewide Wilderness Study Report (WSR). The Interim Management Policy for Lands Under Wilderness Review (IMP) provides direction for grazing management in WSAs until it is designated wilderness or released from the wilderness review process. In general, BLM is required to maintain the wilderness characteristics of each WSA until Congress decides whether it should either be designated as wilderness or released for other purposes. The general standard for interim management is that lands under wilderness review must be managed so as not to impair their suitability for preservation as wilderness, also referred to as the non impairment standard.

Grazing existed on the Granite Mountain, Mono Lake, and Mono Mills allotments at the time the WSA was designated by BLM in the 1980's and is a use grandfathered by Section 603(c) of FLPMA. Grazing may continue in the same manner and degree as took place in 1976. The IMP provides specific guidance for implementation of grazing systems.

Historically, sheep have used the three allotments within the WSA. The permittee for the Mono Mills allotment only grazes for approximately three months out of the year when forage condition is adequate. Grazing operations ceased in the Granite Mountain and Mono Lake allotments in the late 1990's due to multiple permittee transfers and unwilling livestock operators. This lack of grazing has led to unmaintained range improvements which made for unreliable water sources. All pipelines and water troughs are located outside the WSA. Any future livestock authorizations would be required to operate under particular terms and guidelines to maintain rangeland health as described in Chapter 2 above.

There are virtually no physical vegetative impacts in the WSA's naturalness other than immediately around old bedding grounds where vegetation continues to reinvade and reestablish in the areas. In concert, other wilderness resource based values i.e. wildlife habitat, cultural resources, outstanding opportunities for solitude, primitive/unconfined recreation etc. incur no impact.

2. Environmental Consequences

a. Impacts of Proposed Action

Future grazing authorizations would maintain the WSA's wilderness values of naturalness because the proposed terms and conditions (e.g. 40% utilization) assure that vegetative habitats maintain their range of phenological stages, composition, and vigor. Overall, habitat quality of the allotment would be maintained since implementation of the proposed terms and conditions are designed to protect and sustain rangeland health.

Wilderness values of outstanding opportunities for solitude and a primitive or unconfined type of recreation would remain unaffected. For additional information regarding special features such as cultural values, wildlife, plants, etc., refer to specific narratives addressing these values in other sections of this document.

Continuance of proposed grazing on the Mono Lake, Granite Mountain, and Mono Mills allotments within the Granite Mountains WSA would conform with the BLM IMP and would not impair Congress's ability to designate the WSA as Wilderness should they choose to do so. Additionally, since grazing was occurring at the time the WSA was inventoried, and those impacts did not disqualify the area or any portion of the area from being designated as a WSA, they would not do so now.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. Impacts of No Grazing

Ecological wilderness values of plant and wildlife habitat would be maintained as under the

present situation described above. Natural processes would completely dominate, maintaining the wilderness value of naturalness. Wilderness values of outstanding opportunities for solitude and primitive or unconfined types of recreation would remain.

3. Maps

Overview of Allotments (Map 1 – 3)

4. References

Bureau of Land Management, California Statewide Wilderness Study Report, 1990.

Bureau of Land Management, Benton-Owens Valley and Bodie-Coleville Study Areas Final Environmental Impact Statement, 1987.

Bureau of Land Management, Final Intensive Inventory, 1979

Bureau of Land Management, H-8550-1 Interim Management Policy for Lands Under Wilderness Review, 1995.

T. WILDLIFE/THREATENED AND ENDANGERED

Wildlife

1. Affected Environment

Upland

In the allotments, the dominant plant communities identifying wildlife habitat types are big sagebrush/bitterbrush, valley bottom sagebrush and pinyon pine woodland. A 1978 wildlife species inventory in these vegetation communities documented a variety of non-game small mammals, passerine songbirds, and reptiles.

Within the three wildlife habitats, a total of 14 individual species of small mammals were recorded. Some species of small mammals, like the Panamint kangaroo rat (*Dipodomys panamintinus*), deer mouse (*Peromyscus maniculatus*) and Great Basin pocket mouse (*Perognathus parvus*), were recorded in all three habitat types. The deer mouse (*Peromyscus maniculatus*) was the species encountered in the greatest numbers, often exceeding the next most recorded species by several orders of magnitude when compared under equal trapping effort. The sagebrush/bitterbrush plant community had the highest number of species not recorded in the other vegetation types; long tail pocket mouse (*Perognathus formosus*), Merriam shrew (*Sorex merriami*), northern pocket gopher (*Thomomys talpoides*) and Ord kangaroo rat (*Dipodomys ordii*).

The potential reptile fauna was not well represented in the inventory in the three habitat types. Only a type of spiny lizard (*Sceloporus* sp.) was recorded from the valley bottom sagebrush habitat. Other reptiles that are likely to occur within one or more of the habitat types are the side blotched lizard (*Uta stansburiana*), Great Basin whiptail (*Cnemidophorous tigris*), gopher snake (*Pituophis melanoleucus*), and sidewinder (*Crotalus cerastes*).

Passerine bird species recorded in the sagebrush/bitterbrush habitat type were the Brewer's sparrow (*Spizella breweri*), green-tailed towhee (*Pipilo chlororus*), gray flycatcher (*Empidonax wrightii*), sage sparrow (*Amphispiza bellii*), house finch (*Carpodacus mexicanus*), and blue-gray gnatcatcher (*Polioptila caerulea*). The Brewer's sparrow and sage sparrow are species of interest due to them being sagebrush obligates and may be declining in number range-wide due to a loss of sagebrush habitat. Bird species recorded in the valley bottom sagebrush habitat, distinct from the sagebrush/bitterbrush habitat, were the sage thrasher (*Oreoscoptes montanus*) and vesper sparrow (*Pooecetes gramineus*).

Sage grouse (*Centrocercus urophasianus*) are known to occur within the Mono Mills and likely occur within the Granite Mountain, Symons, Mono Lake allotments. A single active strutting ground (lek) near Gaspipe Spring has been used during the breeding period for the past several years. There is no other reliable information on the ecology of this small breeding group of sage grouse. A second strutting ground located on private land within the Symons allotment has been inactive for the past several years and there is no other reliable information on sage grouse habitat use in Adobe Valley.

Mule deer (*Odocoileus hemionus*) principally use the Mono Mills and Granite Mountain allotments as a migration route when moving to and from the Sierra Nevada for summer and winter habitat. Mule deer may use portions of these allotments throughout the winter where the sagebrush/bitterbrush and pinyon pine woodland vegetation communities provide the necessary forage and/or thermal cover during mild weather conditions. Ensuring sufficient annual leader growth is maintained on bitterbrush after livestock grazing is essential for maintaining good habitat quality for migrating and resident winter mule deer.

Livestock grazing in all the allotments has been almost non-existent over the past several years and there is no indication that past livestock grazing had a substantial material negative affect on any of the wildlife habitats. The most habitat altering events that have affected the condition and quality of the sagebrush/bitterbrush and valley bottom sagebrush vegetation communities have been wildfire in the Mono Mills and Granite Mountain allotments and herbicide spraying of sagebrush in the 1960's in the Granite Mountain allotment, respectively.

Riparian

Adobe Creek and Indian Spring are the only riparian sites of any significance within the allotments. Although no wildlife species inventory has been done at Adobe Creek, in general, eastern Sierra riparian vegetation provides habitat for up to 75% of local wildlife species including many species that carry out their breeding in non-riparian areas (Kondolf, et al. 1987).

In an otherwise dry area, Adobe Creek provides cover and other physical attributes that would be attractive to some riparian obligate wildlife species along with a diverse grouping of other bird, reptile, small and large animal species. The riparian vegetation of Indian Spring is located in one of the driest areas of the eastern Sierra and the songbird species recorded there are instructive as regards the biological productivity of the site. A 1978 bird survey conducted from May 31 to June 2 recorded 7 species as likely breeding within the riparian corridor of Indian Spring. A more intensive effort at determining breeding bird presence at Indian Spring riparian occurred from 1998 – 2000 (Heath, et al. 2001). Sixteen (16) species were confirmed breeding or likely breeding in this habitat with an additional 16 species either possibly breeding or using the site for some other purpose (e.g. water source or foraging). The increase in the number of breeding species using Indian Spring may be attributable to the improvement made in the fence enclosure in 1990 when the project was increased in size from 1000 to 1800 linear feet of riparian and a complete exclusion of livestock.

With the riparian at Indian Spring protected from livestock grazing and the infrequency of livestock grazing in the vicinity of Adobe Creek, the condition of the important riparian locations should retain their current level of productivity in to the future.

2. Environmental Consequences

a. Impacts of Proposed Action

The attributes of the vegetation communities defining wildlife habitats in the allotments should be slightly improved from their historic conditions with implementation of the proposed action. Seed eating species guilds of rodents and birds should gain the most immediate benefit from improvement in the availability of food resources and cover. Mule deer habitat quality for thermal and hiding cover and bitterbrush leader growth should be slightly improved in the Mono Mills and Granite Mountain allotments where livestock utilize the sagebrush/bitterbrush community. Riparian habitat along Adobe Creek should be maintained in its current condition.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on all allotments would cease. Barring a catastrophic event (e.g. wildfire), the total annual production of the plant communities would be available and habitat conditions for all wildlife species would change with the natural interaction of climate, soil and vegetation.

3. References

Bureau of Land Management, BLM, Bishop Field Office. 1980. Benton Planning Unit. Unit Resource Analysis. Step III.

Heath, S.K., G. Ballard and C. McCreedy. 2001. Eastern Sierra Riparian Songbird Conservation 1998-2000 Final Report. Point Reyes Bird Observatory, Contribution No.1002. Stinson Beach, California, USA.

Kondolf, G.M., J.W. Webb, M.J. Sale, and T. Felando. 1987. Basic hydrologic studies for assessing impacts of flow diversions on riparian vegetation: examples from streams of the eastern Sierra Nevada, California, USA. Environmental Management 11:757-769.

Threatened or Endangered Species:

No federally listed threatened or endangered species are known to occupy habitat within these allotments.

U. WILD HORSE AND BURROS

1. Affected Environment

The Montgomery Pass Wild Horse Territory (MPWHT) established in 1971 encompasses land within the Granite Mountain and Adobe Lake allotments. The boundary of the territory is poorly defined, but does not include land within the Symons, Black Lake, Mono Lake, or Mono Mills allotments. However, horses have recently been documented within the Black Lake and Mono Mills allotments. The Inyo National Forest is the lead agency for the management of the MPWHT.

In the mid to late 1970's the wild horses occupying portions of the Granite Mountain and Adobe Lake allotments were considered a peripheral group of a larger herd proposed for management as part of the Montgomery Pass Wild Horse Management Area (draft plan, May 20, 1979). At that time, Adobe Valley and the Cowtrack Mountain area were not considered key habitat for the horses, however, these areas were recognized as part of their entire territorial use area.

A Coordinated Resource Management (CRM) Plan was approved in June 1988 which

documented present and potential issues, identified management objectives (wild horses and habitat), and determined monitoring needs. Rather extensive censuses, which document use areas and population dynamics (adults, yearlings, and foals), have been conducted annually since the approval of the CRM. John W. Turner, PhD, has been the principal researcher of these censuses.

The 2001 Census and Comments Report of Mr. Turner identified state several important changes in wild horse numbers, distribution and use that have occurred since 1988. Important excerpts from this report are presented below:

"Sine 1992, horse numbers have steadily increased in non-lion use areas and have gradually decreased in lion-use areas. This redistribution may also have been influenced by other factors, including changes in availability of water and preferred feed, climatic changes, and intensive outfitter presence in the summer range area in May/June (foaling/breeding period) since 1986. The latter may be of little current consequence since the horse bands intolerant of human presence vacated these areas years ago. A potential benefit of these changes is the habitat/feed recovery in the key summer range area, which has historically experienced some overgrazing. A potential disadvantage is that some recently established areas of at least seasonal (spring/summer) horse use lie outside of the designated MPWHT" (Emphasis added).

"In summary, changes in MPWHT horse distribution have occurred during the past 9 years, and assessment of how this will influence the future of horse numbers, distribution, range utilization, and the predator-prey relationship is warranted. The ratio of summertime horse numbers in historic summer range vs. other range areas has shifted from approximately 1.5 to 0.8 across the past 9 years. This is a very large shift" (Emphasis added).

This shift in spring/summer use areas refers to the increase of use in the Granite Mountain and Adobe Lake allotments. Although authorized livestock grazing use of the two allotments is much reduced since 1992, due primarily to permittee requested non- use, there has been increased forage consumption by wild horses. The BLM's Management Framework Plan, signed in June 1982, set aside forage in animal unit months (AUMs) for wild horses amounting to 0 for Granite Mountain, and 21 for Adobe Lake (total for the two allotments = 21 AUMs). Furthermore, within the last couple of years, there has been a shift of wild horse use to the Black Lake and Mono Mills allotments which are not recognized as part of the MPWHT.

The acknowledged shift in use areas, period of use, and number of wild horses observed by Turner, as well as BLM, Bishop Field Office staff poses a clear potential for overgrazing and reduced ecological condition on these four allotments. In spring of 2007, eighty-four adult horses and ten foals were counted within the Adobe Valley area.

2. Environmental Consequences

a. Impacts of Proposed Action

There would be no negative impacts to wild horses by implementation of the proposed action. The proposed terms and conditions are designed to help maintain, protect, or sustain rangeland health to keep the ecosystem functioning properly. However, should wild horse numbers increase, period of use increase, and/or expansion of their use within these allotments occur, there would likely be a reduction in the amount of forage available to both livestock and wild horses. There is potential for future degradation of ecological conditions of vegetation communities without management of the Montgomery Pass Wild Horses.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because both alternatives are very similar. The only difference between this alternative and the proposed action alternative is that terms and conditions developed from the Bishop Resource Management Plan (BLM 1993) and the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000), under current management, are applied broadly and uniformly across the allotments. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on the allotments, as in the Proposed Action. For this alternative, there is a possibility under certain situations that BLM and the permittee may need to work together to define allotment specific applications of the rangeland health standards and guidelines.

c. No Grazing

No livestock grazing would potentially have a positive affect on the wild horse herd by eliminating a competitor of forage. Currently, horses roam at will, utilize steeper and more remote areas, travel greater distances to and from water than livestock, and are able to use rangelands at any time. Presently, wild horses have expanded their use areas beyond what has occurred since 1992. This could pose some negative impacts to other resources and livestock operators. The wild horse population number may potentially increase as additional amounts of forage become available to them.

3. References

Benton-Owens Valley Planning Unit (Draft Environmental Impact Statement) 1981.

Montgomery Pass Wild Horse Territory (Coordinated Resource Plan) June, 1988. MPWHT Wild Horse Census Summary and Comments, 2001.

V. CUMULATIVE IMPACTS

Introduction

Current conditions in the project area result from a multitude of natural events and human actions that have taken place over many decades. Cumulative effects are defined as the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7). A description of current conditions inherently includes the effects of past actions and serves as a more accurate and useful starting point for a cumulative effects analysis than by "adding up" the effects of individual past actions. "Generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions." (CEQ Memorandum 'Guidance on the Consideration of Past Actions in Cumulative Effects Analysis' June 24, 2005.) By comparing the "no action" alternative (current condition) to the action alternatives, we can discern the "cumulative impact" resulting from adding the "incremental impact" of the proposed action to the current environmental conditions and trends. The geographic scope of the cumulative impact analysis for this environmental assessment encompasses the public lands administered by the Bishop Field Office. This geographic scope was chosen because of the unique ecotone of public lands composing two distinct habitat types of Great Basin and Mojave Desert rangelands along the eastern Sierra front range. It is expected that the geographic scope of impacts would be confined to this region.

Past and Present Grazing Actions/Impacts

Prior to 1859, the Owens Valley had minimal if any domestic livestock grazing. L. R. Ketcham of Visalia, California in 1859 was documented as the first cattleman to drive cattle into the Owens Valley (Jeff Putman and Genny Smith (editor) 1995). By 1910 the Farm Census had reported 43,000 sheep and 20,000 cows and cattle in the Owens Valley. In 1946 the General Land Office and Grazing Service merged to create the Bureau of Land Management.

After the enactment of the Taylor Grazing Act in the 1934, BLM began taking an active role in managing public lands in the Owens Valley, creating allotment boundaries and developing grazing management systems.

Over the last twenty years, grazing on public lands in the eastern Sierra region has generally consisted of optimizing stocking rates when vegetation capacity could support high densities of livestock and utilization, generally throughout various habitat types. Areas with habitats, vegetative/wildlife species, other resource values, etc. protected under federal law, regulation, policy, etc. were generally adhered to. Although, some utilization issues in aspen groves, etc. surfaced in locations such as the Bodie Hills allotments located in the northern reaches of the field office. On occasion, livestock exceeded their authorized time on allotments or drifted onto unauthorized allotments. These minor issues were often resolved immediately by BLM.

Presently, the Bishop Field Office administers 58 allotments with 25 permittees spanning a geographic distance from Olancha to Topaz, California, a 750,000 acre linear and narrow configuration of public land straddling the edge of the eastern Sierra and Great Basin. The physical environment ranges from Great Basin habitat in the north to Mojave Desert in the south. Subsequently, forage capability is often limited by precipitation and elevation which tends to be more favorable in the northern portion of the field office area.

The BLM is currently preparing new clarified terms and conditions for all 25 of its grazing permits on all public lands administered by the Bishop Field Office. As with the allotments addressed in this EA, the overall goal of the newly proposed grazing terms and conditions is to improve or maintain rangeland health standards on all Bishop administered land as per the standards and guidelines developed by the Central California Resource Advisory Committee process in the late 1990's. The BLM is scheduled to complete all authorizations and associated environmental assessments by 2009.

Regional Impacts

At a regional level, numerous resource disturbing activities in the Owens Valley and throughout the Bishop Field Office area have created impacts similar to or greater than livestock grazing. These activities include paved and unpaved road development, Off Highway Vehicle (OHV) activities, residential and commercial development, and fire.

The development of roads and trails throughout the region originates from the area's historic settlement at the turn of the twentieth century when access was needed to develop the area's resources and transport goods/services. Settlers, miners, ranchers, merchants, etc. developed a region of small communities and road networks to meet daily sustenance needs. Throughout the latter 20th century, the region evolved from an agrarian economy to its present day tourism. This altered traditional access use from survival and necessity to one that became recreation based, mostly motorized, although mountain biking, hiking and horseback riding may use similar routes. The thousands of miles of paved and unpaved roads in the region tend to be permanent conversions of sites and constitute a total loss of the site productivity. Associated infrastructure needs i.e. powerlines, rest areas, etc. expand the permanency and loss of rangeland habitat. Recreation use, such as OHV activities can be short duration, but are generally repeated throughout the year reflecting the tourist value access continues to provide. Sometimes unauthorized routes are created near the rural communities by horses and/or vehicles.

The BLM and the Inyo National Forest have embarked on motorized access efforts throughout the 1990s to implement route designations to manage for environmental issues and recreation needs. These efforts have led to localized rehabilitation projects improving various habitats and scenic vistas, mostly on BLM land. Additionally, BLM works with the counties to reduce and control private subdivision proliferation and trespass onto adjoining public lands.

The dozen or so communities that occupy the Bishop Field Office area have generally been stable and small, although the Mammoth Lakes community has built high end homes and

increased their housing density in the last decade. Obviously, these permanent alterations have irreversibly committed land to housing development, fragmenting plant/animal habitat, altering scenic vistas, etc. Overall, the greatest potential development impact to habitat would occur from housing development on remaining scattered private land tracts throughout the region. Property values, a desire for trophy homes, and a housing shortage have created a strong real estate market in the eastern Sierra. This has prompted landowners to pursue subdivision development, reducing small acreages of habitat in several locations.

Construction activities, road maintenance, vehicle transport, and livestock use operations are common vectors or site modifications that can move invasive/non-native species. Potential long-term cumulative impacts of the proposed action if weed densities increase, include a reduction in native plant cover and vigor (below and above ground production), increased erosion leading to increased germination of invasive weed seed (Evans and Young 1972), a reduction in mychorrhizal populations, and increased fire frequency. Eastern Sierra plant communities have experienced increased weed invasions in the past five years due to increased precipitation levels and likely increases in atmospheric nitrogen deposition (Dukes and Mooney, 1999). If this trend continues without commensurate control methods including using early season grazing (pre-seed set), weed proliferation could be exacerbated.

There are no identified long-term cumulative impacts to livestock grazing from the implementation of the proposed action. Increases in weed species (e.g. cheatgrass) on allotments have the potential to out-compete native plant species which may affect the forage base for livestock.

The past, present and in the reasonably foreseeable future cattle grazing operations would continue to have a localized, cumulative impact on soils in congregation areas such as water sources and corrals. Other land uses also contribute to compaction and accelerated erosion but on a broader scale. These cumulative impacts to soils are similar to those for vegetation. The proposed terms and conditions are designed to help maintain, protect, or sustain rangeland health which includes soils, and to keep the ecosystem functioning properly.

There would not be substantive cumulative impacts to the local or regional economy of Inyo or Mono County from the implementation of the proposed action. Cumulative impacts to low income or minority populations from past, present, and reasonably foreseeable public or private actions including any actions on non federal lands would be extremely low and would not have disproportionate impacts on other segments of the population under.

Unpredicted wild or arson fire can have large-scale impacts to the environment, wildlife, and to persons that use public land. These impacts include permanent changes to vegetation communities due to slow fire recovery, increasing non-native invasive populations, and loss of wildlife habitat. Fire that occurs in grazing allotments has the potential to devastate the vegetation and forage base for livestock. Therefore, BLM may temporarily close the allotment until determined appropriate for livestock grazing. If this were the case, livestock operators may be forced to find alternative forage, affecting their economic operations adversely depending on local circumstances.

The addition of the Proposed Action to existing and future regional activities and impacts would not add to or cross a threshold of impact that would result in a significant impact on the human environment.

Site Specific Impacts

The physical structure and ecological function of plant communities on the Black Lake, Granite Mountain, Adobe Lake, Symons, Mono Lake, and Mono Mills allotments are expected to maintain or improve resulting from the lower vegetation utilization standard on key forage species. Improved condition of native bunch grasses and forbs would provide an increased forage base for rodents and passerine birds across all allotments. Populations of these smaller animals should increase in average to above average precipitation years which provide an improved food base for predators. Habitat conditions, both forage quality/quantity and plant physical structure for mule deer and other large mammals, would be improved from the current situation.

For the six allotments in this assessment, grazing issues and impacts have been minimal due to low livestock use, few facilities to attract and concentrate cattle use, and livestock preference for forage in the lower reaches of the allotments. The low occurrence of sensitive resources such as threatened and endangered plant/animal species, cultural resources, riparian areas, etc., reduces the likelihood of future adverse impacts as well.

The Montgomery Pass Wild Horse Territory population and historic use areas (especially the "key summer range") have expanded from that recognized in 1971 (passage of the Wild Free Roaming Horse and Burro Act). Grazing by wild horses occur unregulated as to basic principles of range management i.e. proper time/season, amount of use, duration of use, and area of use. Livestock grazing is regulated and more closely follows acknowledged principles and practices of the science/art of rangeland management.

Given the increased wild horse population and their expansion of use areas, it is reasonable to conclude that rangeland vegetative resources have been impacted by horse use over time on the Black Lake, Granite Mountain, Adobe Lake, and Mono Mills allotments. That is not to say that livestock grazing has also not been a factor, however, livestock grazing use of these four allotments have diminished considerably from 1992 to the present. If a reduction of wild horse numbers through capture and subsequent adoption or placement in a wild horse sanctuary does not occur in the near term, the overall condition and amount of range vegetation could diminish which may affect both wild horses and livestock grazing in the future.

Within the six allotments, wild land fires and other natural events changing landscape conditions are expected to continue. Grazing permits would be adjusted to maintain minimal rangeland health standards when fire, drought, and other uncontrollable natural events require it. Future grazing authorizations would maintain the Wilderness Study Area wilderness values of naturalness because the proposed terms and conditions assure that vegetative habitats maintain

their range of phenological stages, composition, and vigor.

Conclusion

The addition of the Proposed Action to the existing environment at the site specific allotment locations addressed in this EA and within the eastern Sierra region as a whole would not contribute to significant impacts on the human environment. The cumulative impacts of conducting allotment assessments and issuing grazing permits for this EA's allotments with the proposed terms and conditions would help to maintain or improve rangeland health conditions incrementally and positively. In effect, the addition of the Proposed Action would beneficially improve rangeland health conditions at a local level and further BLM's objective to complete its rangeland condition improvement strategy for the remainder of public lands as well. As a result, improvements in plants and animal habitat, water quality, cultural resources, etc. would occur at local and regional levels creating overall positive cumulative impacts.

1. References

Evans, R.D. and J.A. Young. 1972. Microsite requirements for establishment of annual rangeland weeds. Weed Science. 18:154-161

Dukes, J.S. and Mooney, H.A. 1999. Does global change increase the success of biological invaders? Trends in Ecology and Evolution. 14:4:135-139.

Jeff Putman and Genny Smith (editor). 1995. Deepest Valley: Guide to Owens Valley, Its Roadsides and Mountain Trails (2nd Edition). University of Nevada Press, Reno, NV. pp. 231-268.

Chapter 4:
CONSULTATION AND COORDINATION

Livestock Operator Consultation, Cooperation, and Coordination

The following timeline summarizes actions BLM has taken to consult, cooperate, and coordinate with affected livestock operators on the proposed action and alternatives:

On January 27, 1997, the Bishop Field Manager sent a letter to the three permittees that graze these six allotments. The letter stated, "as a requirement of implementing the Bureau's Healthy Rangeland Standards, regulations require that mandatory terms and conditions and other terms and conditions (43 CFR Subpart 4100, Section 4130.3-1 and Section 4230.3-2 respectively) are to be included in all permits." The letter also stated, "Another requirement of the regulations are Standards and Guidelines (S&Gs). As of this date, the BLM in California has not completed development of statewide S&Gs and has requested that the Secretary of the Interior grant a 6 month extension to allow their completion and adoption. Therefore the Fallback Standards and Guidelines, as stated in the regulations, will not go into effect on February 12, 1997 if the extension is granted."

On January 14, 1998, the Bishop Field Manager sent a letter to the three permittees who graze these six allotments. It stated, "enclosed is a copy of the National Fallback Standards and Guidelines (S&Gs). These S&Gs will remain in effect until the California BLM Healthy Rangelands Environmental Impact Statement is completed in 1998." Enclosures with the letter included Background, Fundamentals of Rangeland Health, S&Gs Basic Concepts, and Fallback S&Gs.

On December 15, 1998, the Bishop Field Manager sent a letter to the three permittees who graze these six allotments which explained the rangeland health allotment assessment requirements.

On December 11, 2000, the Bishop Field Manager sent a letter to the three permittees who graze these six allotments and included a copy of the Central California Standards and Guidelines. The letter invited the permittees to two scheduled meetings to ask any questions or present concerns they may have had with the Central California Standards and Guidelines.

Personal Communication

Belenky, Lisa. 2007. Center for Biological Diversity. Lisa requested to be added to the notice list for grazing permit renewal draft EAs for the Bishop Field Office.

Burke, Thomas D. 1998. Owner and principal investigator of Archaeological Research Services, Inc. BLM and Thomas discussed grazing impacts to archaeological resources. Refer to Chapter 3, Cultural Resources for further information and results.

California Native Plant Society, Bristlecone Chapter. 1999. BLM invited the Bristlecone Chapter to the Rangeland Health Assessments that began in 1999. Members from the Chapter participated at different times between 1999 through 2003. BLM and Bristlecone Chapter also discussed livestock grazing and invasive, non-native species.

Fell, Chuck. 1995. Bodie State Historical Park. BLM and Chuck discussed grazing impacts to historic buildings and resources. Refer to Chapter 3, Cultural Resources for further information and results.

Frick, Peter and Cattani, Katie of Adobe Valley, LLC. 2007. Land Managers. BLM and Adobe Valley, LLC discussed livestock grazing on the Granite Mountain, Adobe Lake, Symons, and Mono Lake allotments. They explained the goals for Adobe Valley, LLC land and livestock management for the BLM allotments. Adobe Valley, LLC would like to only have sheep grazing on the permit.

Milovich, George. 1999 through 2007. Agricultural Commissioner Inyo-Mono Counties. BLM and George discussed the process for issuing the full processed 10-year grazing permits. Also, BLM explained the general changes in terms and conditions to the expiring grazing permits due the incorporation of the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (USDI 2000). Annual Crop and Livestock Reports were obtained annually by visiting the Counties of Inyo and Mono Agriculture Department located in downtown Bishop.

Parker, Jim and Slates, Mike. 2000 and 2007. Great Basin Unified Air Pollution Control District (GBUAPCD). BLM and Jim discussed the environmental assessment (EA) livestock grazing authorizations to be conducted in the future. BLM received language from the GBUACD to be included within the EA's along with maps of the federal non-attainment/maintenance areas. BLM received an updated federal non-attainment/maintenance area map from Mike in 2007.

Pearce, Rob. 2007. Natural Resources Conservation Service. BLM and Rob discussed livestock grazing on the Granite Mountain, Adobe Lake, Symons, and Mono Lake allotments. Rob explained the livestock management for the Wetland Reserve Program land.

Taylor, Gary. 2007. Livestock Operator. BLM and Gary discussed livestock grazing on the Black Lake allotment. Gary explained the livestock management for the allotment.

Native American Communities

There are 11 Native American communities in the Eastern Sierra region, eight of whom are federally recognized, which reside near or inhabited aboriginal homelands within one or more of the allotments.

During the initialization of the allotment assessment process in FY 1999, seven Native American

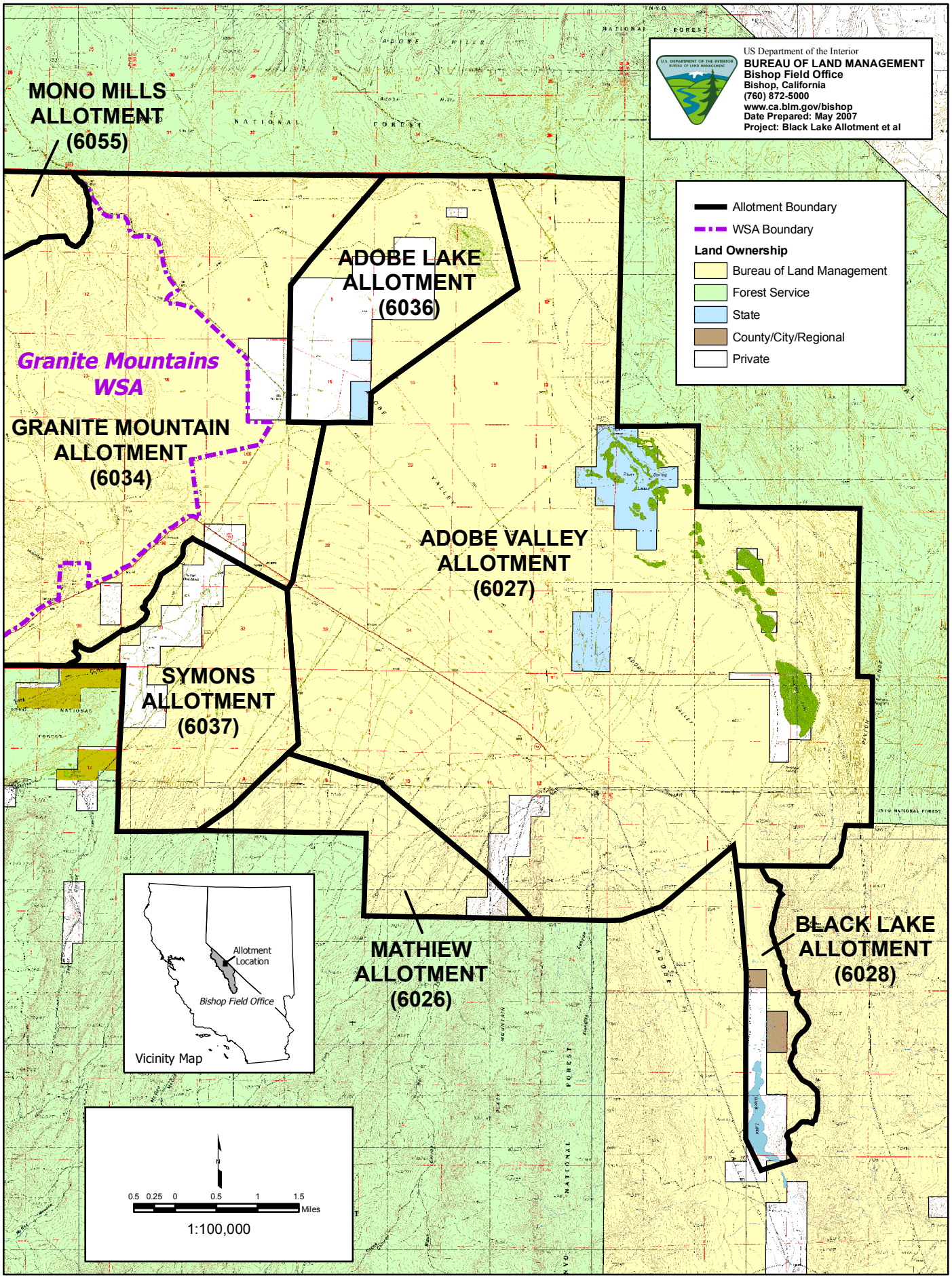
communities residing within the area administered by the Bishop Field Office– Bridgeport, Mono Lake, Benton, Bishop, Big Pine, Ft. Independence, and Lone Pine – were contacted by letter (January 11, 1999), with a follow-up phone call, to determine if there were any Native American concerns with the grazing program and if they would like to participate in the allotment assessment process. The communities either said that there were no impacts or decided not to comment/participate. None indicated a desire or need to participate in the assessment process. (Consultation log available for FY 1999)

Each of the local tribal offices was contacted again by phone on 11/30/00 and the letter of January 1999 was sent to them again (fax). Several phone calls were made to each Tribe to follow up after they received the letter. Various individuals stated some general concerns which are addressed in Chapter 3, Native American Cultural Values; but again, they stated that there are no direct specific impacts to their communities or to their community members by the grazing program. (Consultation log available for FY2001)

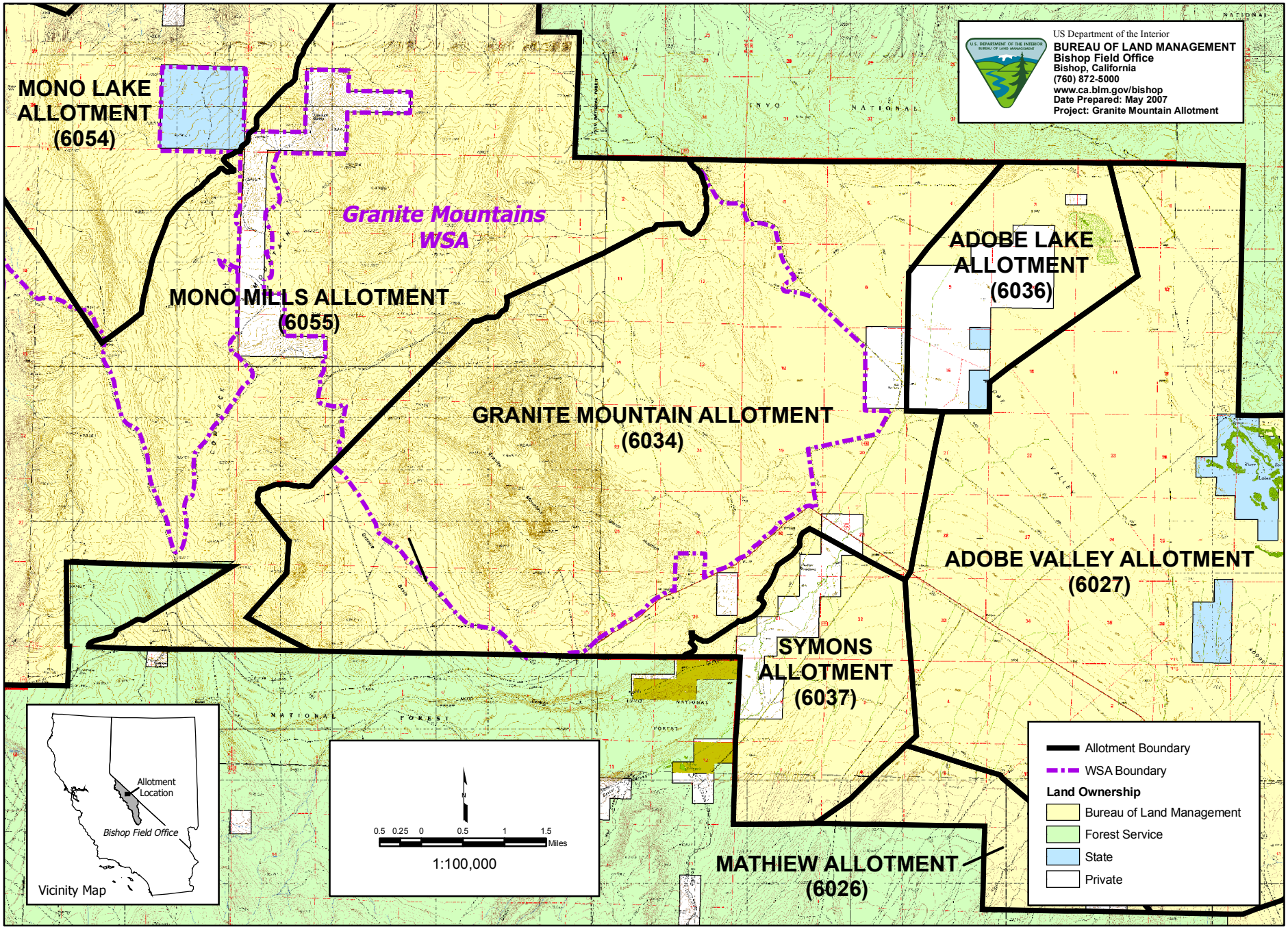
Environmental Assessment Preparers

Jeff Starosta	Rangeland Management Specialist
Anne Halford	Botanist
Steve Nelson	Wildlife Biologist/GIS Coordinator
Diana Pietrasanta	Recreation/Wilderness
Kirk Halford	Archeologist
Terry Russi	Supervisory Wildlife Specialist
Joe Pollini	Assistant Field Manager

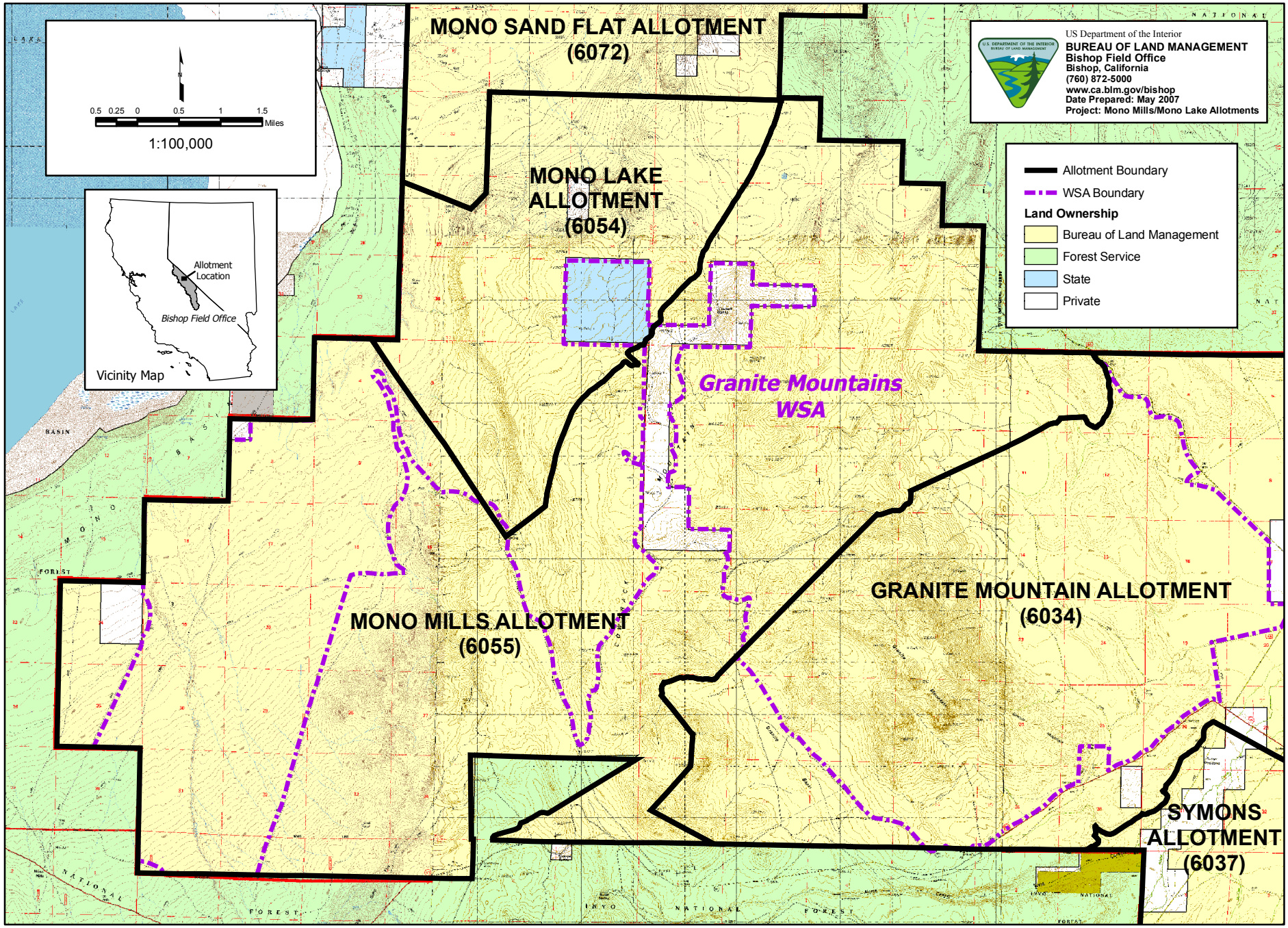
Chapter 5:
APPENDICES



Map 1. Overview of the Black Lake, Symons and Adobe Lake Allotments, Mono County, California. Bureau of Land Management, Bishop Field Office, Granite Mountain Management Area.



Map 2. Overview of the Granite Mountain Allotment, Mono County, California. Bureau of Land Management, Bishop Field Office, Granite Mountain Management Area.



Map 3. Overview of the Mono Mills and Mono Lake Allotments, Mono County, California. Bureau of Land Management, Bishop Field Office, Granite Mountain Management Area.