ENVIRONMENTAL ASSESSMENT (DRAFT)
LIVESTOCK GRAZING AUTHORIZATION

EA Number CA 170-07-10

Allotment Number and Name(s)

6007 Volcanic Tableland
6030 ChalfantValley
6041 Jeffrey

BLM Bishop Field Office
Prepared
April 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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments analyzed in this EA are located in the Owens Valley Management Areas of the BLM Bishop Field Office. Their elevation range is between 4,300 and 6,500 feet. Vegetation communities for these allotments are a mix of Shadscale Scrub, Great Basin Big Sagebrush and Bitterbrush, along with other mixed desert shrubs. 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
Volcanic Tableland	Sheep	5/1	6/15	3,788	Perennial
Chalfant Valley	Cattle	10/1	6/15	218	Perennial
Jeffrey	Cattle	10/1	5/15	257	Perennial

The approximate public, state, and private (which includes Los Angeles Department of Water and Power) land acreages (See Map 1-2) within each allotment are:

Allotment Name	Public Land	State Land	Private Land
Volcanic Tableland	44,149	2,985	0
Chalfant Valley	8,050	0	2,102
Jeffrey	4,496	0	223

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

The 10-year grazing permits for these three allotments have expired. In the interim, the grazing permit which authorizes use on the Chalfant Valley allotment was renewed under section 402 of the Federal Land Policy and Management Act (FLPMA) of 1976, as amended (43 USC 1752). This interim permit will expire in 2011. The two interim grazing permits which authorize use on the Volcanic Tableland allotment were issued in accordance with Section 328 of Public Law 107-67. These interim permits will expire in 2013. The interim grazing permit which authorizes use on the Jeffrey allotment was issued in accordance with Section 325 of Public Law 106-113. This interim permit will expire in 2015. 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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 four permittees who graze these three 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 four permittees who graze these three 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 four permittees who graze these three 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 April 4, 2007, the Bishop Field Manager sent a letter to permittee G.R. 1649 to resolve a clerical mistake with terms and conditions that were applied to their interim grazing permit.

On April 30, 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 four permittees and 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 effort.

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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments occur outside of any Federal Air Quality Non-Attainment/Maintenance Area.

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.

One population of Special Status Plant Species (Inyo county mariposa lily – *Calochortus excavatus*) occurs on the Chalfant Valley allotment within a less than 1 acre confined alakali meadow (detail of the species is discussed in Chapter 3 of this document). No livestock grazing has historically occurred or is anticipated in this relatively inaccessible site. However, no other Special Status Plant Species populations are present on the Volcanic Tableland and Jeffrey allotments based on historical records, field monitoring, and/or habitat suitability.

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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 DF&G 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, 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.

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.

These allotments do not occur within any designated Wilderness Area. However, approximately 70% of the Volcanic Tableland allotment (30,804 acres) occurs within Fish Slough WSA (CA-010-080), Volcanic Tableland WSA (CA-010-081) Chidago Canyon WSA (CA-010-079) and Casa Diablo WSA (CA-010-082).

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 (BLM2000) that amended the Bishop RMP (Central California S&Gs, pages 3 through 12).

I. <u>Rangeland Health</u>

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:

Volcanic Tableland	June 2000
Chalfant Valley	May 2000
Jeffrey	May 2000

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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 the causal factor for not meeting Yes or No	Remarks (locations, etc.)
Volcanic Tableland	X			
Chalfant Valley	X			
Jeffrey	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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 three allotments. The Chalfant Valley allotment only includes BLM land east of highway 6 (per the allotment boundary adjustment dated March 20, 1997 and permittee consultation on April 10, 2007). The southwest boundary of the Volcanic Tableland allotment will be adjusted to exclude Zone 1 of the Fish Slough ACEC.

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, livestock class, season of use, 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	Class	From	To	AUMs
Volcanic Tableland	12,525	Sheep	Ewes	5/1	6/15	3,788
Chalfant Valley	39	Cattle	Cow-calf	10/1	6/15	218
Jeffrey	34	Cattle	Cow-calf	10/1	5/15	257

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.

Chalfant Valley (6030) Allotment

No salt or other nutrient supplement is allowed within 1/4 mile of creeks and 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 and Semi-desert Grass & Shrubland: Livestock grazing operations would be conducted so 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. Utilization monitoring would be conducted by a BLM employee, permittee, and/or trained range consultant. Then, all key area allotment data would be averaged and verified by a BLM employee to determine if the terms and conditions are being 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 would consult with the permittee to address the situation, potentially implementing 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, management action would be taken to remedy the problem in the area of the allotment that key upland area represents.

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.

Volcanic Tableland (6007) Additional

Use old camps, bedding grounds, and watering sites and do not make new ones. Stay on existing roads and trails with all vehicles. Avoid all archeological sites and Zone 1 of Fish Slough ACEC. A map will be provided with the grazing permit which will identify resource areas to be avoided (e.g. archeological sites) on the allotment.

E. Range Improvements

No new range improvements need to be constructed and no existing range improvements need to be removed to achieve or maintain rangeland health on these three allotments. Therefore, no new range improvements are planned to be constructed and no existing range improvements are planned to be removed as part of the proposed action. 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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments are designated as Category C allotments in the Bishop Resource Management Plan (Appendix 4, pages A4-5 through A4-7). Consistent with BLM policy, monitoring on these three 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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments do not have established long-term trend plots. There is no plan at this time to establish long-term trend plots in these five allotments given current management priorities.

Compliance Assurance

Allotment compliance would be conducted on the Volcanic Tableland, Chalfant Valley, and Jeffrey 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. <u>Alternative 2 - Current Management (No Action)</u>

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 of 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.

Ensure that livestock are not infested with or cannot transport weed seed, or other weed plant material from such species as 'perennial pepperweed,' coming from private land or other areas where known weed infestations exist. Specific species of concern are those described in the Eastern Sierra Weed Management Area Noxious Weed Identification Handbook.

Volcanic Tableland (6007) Additional

Use old camps, bedding grounds, and watering sites. Do not make new ones. Stay on existing roads and trails with all vehicles. Avoid all archeological sites and Zone 1 of Fish Slough ACEC per the letter and map of 3/31/95.
Trailing Stipulations – 1. Trail in the direction of destination at all times. 2. See other standard office stipulations under terms and conditions.

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 two permits for the Volcanic Tableland allotment, the permit for the Chalfant Valley allotment, and the permit for the Jeffrey 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 Volcanic Tableland allotment is located within the Owens Valley Management Area as defined in the Bishop Resource Management Plan (RMP) (See Map 1). The allotment is located north of Bishop, within the interior part of the Owens Valley, and incorporates a large portion of the Volcanic Tableland formation. The Volcanic Tableland formation is a unique geologic feature formed by the cataclysmic volcanic eruption of the Long Valley Caldera 750,000 y.a. which left a highly dissected landscape of Bishop Tuff. The Volcanic Tableland allotment is situated at the ecological cusp of the Northern Mojave and Great Basin floristic Provinces where plants and associated wildlife species combine to make this an unusual and biologically diverse landscape.

There are two livestock operators that are permitted to use the Volcanic Tableland allotment. Livestock operator, Livestock number, livestock kind, permitted season of use, allocated animal unit months (AUMs) not to exceed 3,788 for the Volcanic Tableland allotment as prescribed in the Bishop RMP (BLM 1993) are:

Livestock Operator	Number	Kind	From	To	AUMs
#1	8878	Sheep	5/1	6/15	2,685
#2	1010	Sheep	5/1	6/15	306

Total Permitted AUMs on the Volcanic Tableland allotment based on the two permittees is 2,991 AUMs. The allotment does not get used every year, especially if southern desert allotments (e.g. administered by the California Desert District) have good spring forage production where these two permittees graze. This allows the permittees to stay longer on their desert allotments before coming north to summer range. However, sometimes when the southern desert allotments have poor forage production, the Owens Valley can be productive due to adequate precipitation. The two permittees only use the Volcanic Tableland allotment when annual plants are abundant which is approximately 1 year out of 4-5. There is no water on the Volcanic Tableland allotment which means permittees must haul water for livestock. Based on terms and conditions, there is no grazing allowed east of the Fish Slough Road and all archeological sites are to be avoided.

If permittee #1 does not use the Volcanic Tableland allotment, they will go directly to their leased meadows north of Bridgeport. When permittee #1 does use the allotment, they will often run on average 400 sheep for 15 days which is approximately 40 AUMs. The permittee will unload livestock at the intersection of Fish Slough Road and Casa Diablo Road. The permittee will then graze north and west using old camp, bedding, and watering sites generally found along the Casa Diablo, Sheepherder, and power line roads. The permittee will then gather and load livestock at the same intersection as mentioned above.

If permittee #2 does not use the Volcanic Tableland allotment, they will go directly to their Casa Diablo allotment which is permitted through the Inyo National Forest. When permittee #2 does use the allotment, they will often run on average 1200 sheep for 10 days which is approximately 60 AUMs. The permittee will unload livestock at the intersection of Fish Slough Road and Casa Diablo Road. The permittee will then graze north and west using old camp, bedding, and watering sites generally found along the Casa Diablo, Sheepherder, and power line roads. The permittee prefers to graze along the power line road because he does not use the allotment until late May, after selling lambs. Along the power line, the elevation is higher and therefore, the forage greens-up later. The permittee will then move off the Volcanic Tableland allotment and onto their adjacent Inyo National Forest, Casa Diablo allotment.

The Chalfant Valley and Jeffrey allotments are located within the Owens Valley Management Area as defined in the Bishop Resource Management Plan (RMP) (See Map 2). The Chalfant Valley and Jeffrey allotments are located on the east side of the Owens Valley and extend onto the alluvial fans of the White Mountains. Percent public land, livestock number, livestock kind, permitted season of use, allocated animal unit months (AUMs) for the Chalfant Valley and Jeffrey allotments as prescribed in the Bishop RMP (BLM 1993) are:

Allotment	% Public Land	Number	Kind	From	To	AUMs
Chalfant Valley	65	39	Cattle	10/1	6/15	218
Jeffrey	100	34	Cattle	10/1	5/15	257

There is one permittee for the Chalfant Valley allotment who generally runs 42 head of cattle from 4/1 to 5/31 (55 AUMs) depending on forage condition. BLM land is unfenced from the permittees' adjacent Los Angeles Department of Water and Power (LADWP) lease, allowing unimpeded livestock drift across each agency's land. Livestock use one perennial water source at the outflow of Hi-Head Hydro Plant which is linked to an aqueduct that claims water from Piute Creek. The surface water is located on public and private land in a short stretch of canal (approximately 25 meters) which is an outlet from the aqueduct pump house located in T. 5 S., R. 33 E., in the SW corner of section 15. Most often livestock grazing occurs on LADWP due to the better quality forage however, drift onto public land can occur throughout the grazing period. The portion of the allotment south of Piute Canyon gets grazed when there is good spring forage production. Cattle will drift south of White Mountain Estate private land however, there is no available water. The portion of the allotment north of Piute Canyon is not often grazed due to lack of water and potential for cattle to get onto poorly fenced or unfenced residential lands. There is a population of *Calochortus excavatus* in T. 5 S., R. 33 E., in Section 23 at a spring site, but it is not impacted by livestock due to the rough, rocky terrain.

There is one permittee for the Jeffrey allotment. The allotment is adjacent to their base property and contains one pipeline and trough located in the middle portion of the allotment in T. 4 S., R. 33 E., in section 17. The allotment was transferred twice between 2004 to present. The allotment was last used in 2003 and prior to that in 1999. When the allotment was grazed, the permittee adjusted their grazing plan depending on the amount of precipitation received in the Owens Valley. These strategies included a slight increase in livestock numbers in wetter years,

or decreasing numbers to adjust for drought conditions. These operational changes required concurrence by the BLM. Timing of winter and spring precipitation has an effect on forage condition resulting in vegetative growth and vigor of perennial species and can affect the abundance of annual species. Livestock distribution is maximized during the winter and early spring months because temperatures are cooler and their need for water is much less, allowing cattle to drift further from water.

2. Environmental Consequences

a. Impacts of Proposed Action

Reissuing the grazing permits with new clarified 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.

c. Impacts of No Grazing

The cancellation of cattle grazing on these three allotments would force the operators to look for alternative forage and may increase the cost of their ranching operations. For the permittee with the LADWP lease, the grazing capacity of their lease may not accommodate the increased use or meet LADWP's management requirements of those lands. The permittee may be forced to operate with fewer cattle. There would be unauthorized grazing drift use onto BLM lands, since their LADWP lease lands are unfenced, creating additional administrative costs for the agency and the permittee.

3. Maps

Overview of Allotments (Map 1 – 3)

B. AIR QUALITY

1. Affected Environment

The Volcanic Tableland, Chalfant Valley, and Jeffrey allotments are not within any federal non-attainment/maintenance area under jurisdiction of the Great Basin Unified Air Pollution Control District's (GBUAPCD). Federal actions are not subject to conformity determinations under 40 CFR 93.

2. Environmental Consequences

a. Impacts of Proposed Action

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. The support vehicles emit various precursor emissions for ozone. Actual emission amounts from this grazing activity are negligible.

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.

c. Impacts of No Grazing

There would be no fugitive dust emissions from livestock trampling or precursor emissions for ozone.

C. AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

1. Affected Environment

The Fish Slough ACEC is located within the Volcanic Tableland allotment. Two permits are issued for use of the allotment and authorized for sheep use only. Approximately, 21,300 acres (60%) of the ACEC lies in the allotment. The ACEC is divided into three management zones. The Volcanic Tableland allotment contains approximately 3,210 acres within Zone 1,

approximately 17,680 occurs in Zone 2, and approximately 392 acres occur in Zone 3 of the Fish Slough ACEC.

Zone 1, classified as the Fish Slough Ecological Area, includes the Owens Valley Native Fish Sanctuary, BLM Spring, and the main feeder springs, slough, and marsh of Fish Slough proper. Zone 2, classified as the Volcanic Tableland western aquifer, includes the area to the northwest of Fish Slough proper, but is within the surface drainage basin to it. Zone 3, classified as the Volcanic Tableland northern aquifer, includes the area to the north of Chidago Canyon to Red Rock Canyon, west of Hammil Valley.

The ACEC was designated in 1984, encompassing nearly 36,000 acres, in recognition of the unique assemblage of resource values. Such values are endangered species (plants and animals), wetlands, and archeological resources. No endangered species or wetlands occur in the ACEC that could be affected by the proposed action. Although cultural sites exist throughout the ACEC, current impacts are considered to be low because of low livestock use.

Livestock use impacts comply with the RMP and the Fish Slough ACEC Plan. Since livestock use is authorized for sheep grazing under these two permits, present physical impacts consist of slight soils compaction from herding and trailing with associated inability of plants to complete their phenological growth. Under current utilization levels, the grazing system is designed to sustain natural processes as defined in the above plans. Sheep herding practices which control and distribute physical impacts in the ACEC emphasize forage consumption when and where range conditions provide the best utilization opportunities while protecting the ACEC's primary resource values. Under the present permits, sheep use is not authorized in Zone 1 of the ACEC, although it is authorized in Zones 2 and 3 where a desert scrub environment dominates.

Livestock, infrequently, graze the escarpment of the northeastern boundary of Zone 2 and the southwestern boundary of Zone 3, creating similar physical impacts such as trails from soil compaction. This is due to distance from available water and their preference for other foraging areas. The allotments that comprise the ACEC meet the standards for soils.

The plant communities within the Volcanic Tableland allotment have not been negatively impacted by livestock grazing because of the infrequent use, variable distribution, and the low number of animals grazing the allotments. Utilization of key forage species, e.g. desert needlegrass, hopsage, winterfat, and budsage is within the slight to moderate range (20-40%) as per the grazing standards and occurs in the spring.

The principal wildlife habitat types found in the ACEC are saltbush/shadscale scrub and mixed desert scrub. Common small mammals, reptiles, and birds are distributed throughout these communities. The ACEC is also used by larger ungulates during the winter, i.e. mule deer.

No other ACECs are located within the remainder of the Volcanic Tableland allotment or the Chalfant Valley and Jeffrey allotments.

2. Environmental Consequences

1. Impacts of Proposed Action

Reissuing the two grazing permits with new clarified terms and conditions for the Volcanic Tableland allotment would maintain existing physical impacts to the Fish Slough ACEC similar to those identified in the Affected Environment with some improvements in weed control and the ACEC's ecological health.

No impacts to Zone 1 would occur because the grazing is prohibited in this area of the Fish Slough ACEC according to the permit terms and conditions. Onsite sheepherders would herd sheep easily to comply with the Zone 1 prohibition. Livestock, infrequently, grazing the escarpment of the northeastern boundary of Zone 2 and the southwestern boundary of Zone 3 would create similar impacts as identified above.

The proposed action would create no new impacts to soils 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. Additionally, site conditions and native vegetation would benefit from improved control of weedy species that compete with area vegetation. The timing of grazing, normally before seed set, would reduce the spread of invasive species.

The implementation of the terms and conditions on the Volcanic Tableland allotment would enhance and sustain the large-scale ecological function of the ACEC's plant communities especially during non-drought years (BLM 1999, 2000) and when stocking rates are low. The proposed action would sustain and improve perennial grass cover, root distribution, species diversity, vegetative structure and recruitment (BLM 1998).

The overall wildlife habitat quality of the ACEC would be maintained or slightly improved because of a lack of concentrated use in any one area of an allotment which reduces significant alteration impacts to soil and vegetation, thus maintaining more intact wildlife habitats

Impacts to cultural resources are expected to be low since livestock use would remain dispersed throughout the ACEC. Additionally, sheepherders can easily herd or trail livestock to reduce impacts to cultural resources.

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.

c. Impacts of No Grazing

The no grazing alternative would have little to no impact on soils since few impacts currently occur. 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. No grazing would also eliminate all livestock threats of damage to cultural properties

3. Maps:

Overview of Volcanic Tableland Allotment (Map 1)

4. References

Bishop Resource Management Plan Record of Decision, April 1993.

Ferren, W.R. 1991. Biotic inventory and ecosystem characterization for Fish Slough: Inyo and Mono Counties, CA. Unpublished report by the Fish Slough Research Team of the University of California, Santa Barbara for the California Department of Fish and Game.

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, where the three allotments occur. The average site density is 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. These allotments were field checked to determine if congregation areas occur. 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 modify grazing permits 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 significant cultural resources.

The following table shows the results of the cultural resource analyses. Each allotment, while receiving sporadic and ephemeral use, does contain range improvements which were visited. The Volcanic Tableland allotment contained a range improvement consisting of a reservoir which was also surveyed for the Chalk Bluff assessment. The reservoir area was surveyed and no sites were identified. The Chalfant allotment contains three troughs on one system, two of which were out of service. All three troughs were field checked and no sites were identified. The Jeffrey allotment contains two troughs and one spring improvement, all of which were visited and found to be out of service. No sites were identified.

Allotment	**Previously Surveyed (% of allotment)**	**Newly Surveyed**	**Previously Recorded Sites**	**Newly Recorded Sites**
Volcanic Tableland	4000 acres (9%)	20 acres	121	0
Chalfant Valley	920 acres (7%)	Surveyed Troughs	22	0
Jeffrey	373 acres (8%)	Surveyed Troughs and Spring	3	0

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 serve as fringe allotments to Los Angeles Department of Water and Power leases as well as private land where more desirable water and suitable vegetation occur. As a result, livestock use on the BLM allotments is generally highly dispersed with light use. Impacts to sites are low based on targeted field evaluations and are predicted to be low across the allotments.

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.

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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Hall, M.C. 1980. Surface Archaeology of the Bodie Hills Geothermal Area, Mono County, California. United States Department of the Interior, Bureau of Land Management, Bakersfield District.

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Roney, John. 1977. Livestock And Lithics: The Effects Of Trampling. On file at the Department of Interior, Bureau of Land Management, Winnemuca District Office. Winnemuca, NV.

E. ENVIRONMENTAL JUSTICE

There are no low-income or minority populations living on the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments.

There are 11 Native American communities who reside in close proximity to these five 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 three 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.

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 habitats on the Volcanic Tableland, Chalfant Valley, and Jeffrey 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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments.

I. INVASIVE, NON-NATIVE SPECIES

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

Allotment	**Invasive Weed Species**	**Estimated % Cover** **(Rangeland Health Assessments 2000)**
Volcanic Tableland	*Bromus madritensis ssp. rubens* *Bromus tectorum* *Salsola tragus*	15-20% 25-30% 30-35%
Chalfant Valley	*Bromus madritensis ssp. rubens*	Trace
Jeffrey	*Bromus madritensis ssp. rubens* *Bromus tectorum*	Trace Trace

Rangeland health assessment determinations found that the density of invasive, non-native plant species was highest in the Volcanic Tableland allotment. Chalfant Valley and Jeffrey allotments exhibited less than 10% cover of invasive, non native plant species. Higher densities of weed species on the Volcanic Tableland allotment are most frequently associated with historic sheep bedding areas, mineral block locations, roadsides, and historic mineral exploration sites. Weed densities within the majority of the Volcanic Tablelands allotment are not affecting native species composition or cover on the allotment, nor contributing to other environmental impacts, such as fire hazard, increased erosion, or large-scale reductions in mychorrhizal densities (Bethlenfalvay and Dakessian 1984). Evidence of wide-spread cryptobiotic soil crusts was also evident within these allotments. Periodic monitoring (1-3 years) of the allotments would facilitate documenting changes in site composition and density of these invasive weed species.

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 invasives (Olson 1999) by reducing inputs into the seed bank of particular sites. The implementation of such grazing timing stipulations would reduce the spread of these invasive species.

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.

c. No Grazing

Under the no grazing alternative, impacts from invasive weed species on native plant communities may initially be slightly greater than the proposed action. There would no longer be herbivory of invasive weed species prior to seed dissemination which could potentially increase seed bank densities. However, the no grazing alternative would reduce the chances that weed seed from historic sheep bedding sites, mineral block locations, roadsides, and other disturbed locations are spread to new areas.

3. References

Bethlenfalvay, G.J., and S. Dakessian. 1984. Grazing effects on mychorrhizal colonization and floristic composition of vegetation on a semiarid range in northern Nevada. Journal of Range Management 37: 312-316

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 Volcanic Tableland, Chalfant Valley, and Jeffrey 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.

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 three allotments are limited. Access is from approximately 48 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 pleasure motorized touring, single track motorcycle riding, horseback riding, and low levels of wilderness related walking, hiking, hunting, climbing, 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 alternative.

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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments have four 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. Having other permits or lease land available does not in itself lead to increased flexibility.

The local economy is benefited by these grazing operations from capital spent to establish and maintain a ranching operation and contributions to the labor force. In Inyo County for 2005, agriculture was the second largest industry and remains 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 55%. This amounted to $9,117,850 or 55% of the total $16,614,350 agricultural production in Inyo County. In Mono County for 2005, agriculture was the second largest industry and is an integral part of the county's economy. Beef and alfalfa production is 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.

Additionally, the allotments lie in a broad region and valley that is largely undeveloped and rural in nature. Tourism is a primary industry of the area, attracting millions of annual visitors who enjoy the rural, isolated nature of the Owens Valley. Livestock grazing, for some people, complements the frontier setting they seek in their visits to the area.

2. Environmental Consequences

a. Impacts of Proposed Action

These grazing operations benefit the local 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 Owens Valley's 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.

c. No Grazing

If grazing were terminated on these three allotments, there would be adverse impacts to the four 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/or federal permitted lands are unfenced. Cattle 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

2005 Annual Crop and Livestock Report, Inyo- Mono Counties (prepared June 8, 2006)

M. SOILS

1. Affected Environment

The soil classifications of the allotments have been mapped in detail by the Natural Resource Conservation Service (NRCS). Soil associations for the Chalfant Valley and Jeffrey allotments are primarily comprised of shadscale or gravelly loams occurring on alluvial fans, the predominance of allotment acreage. These soils are mostly shallow, well drained, with gravelly to cobbly surfaces and subsurface textures. These soil types tend to limit the establishment of seeds and seedling development because of the sand to cobble structure. The erosion potential on the alluvial fans is low due to the gravelly surface texture and there are no identified erosion problems on these allotments.

Soils on the Volcanic Tableland allotment are predominantly a shallow tableland association which are volcanic in origin and restrict water infiltration and plant rooting. These soils primarily occur on slopes and ridges. Ashy 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. Valley floor soils may have inclusions of calcareous loam along remnant river terraces that exhibit duripans which inhibit water infiltration and restrict shrub rooting depths. Erosion potential on the valley floor range from slight to moderate due to wind erosion and can be somewhat attributable to the effects of livestock hoof action which disturbs the soil surface. Erosion potential of soils on the Volcanic Tableland allotment is low due to infrequent and limited areas of use by livestock. There are no identified erosion problems on the allotment.

BLM assessed these allotments in 2000 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.

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

N. VEGETATION/THREATENED AND ENDANGERED

Plant Communities

1. Affected Environment

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 to develop updated ecological site descriptions. The allotments occur in the Great Basin and Northern Mojave Floristic Provinces. The dominant plant communities are mixed desert scrub and shadscale scrub. These scrub communities are dominated by Chenopod shrub species such as Shadscale (*Atriplex confertifolia)*, 4-wing saltbush (*Atriplex canescens)*, allscale *(Atriplex polycarpa)*, and budsage (*Artemisia spinescens)*. Understory grass species are sparse (15% or less) and include desert needlegrass (*Achnatherum speciosum)*, Indian rice grass (*Achnatherum hymenoides)*, squirrel tail (*Elymus elymoides)*, and blue grass (*Poa secunda* ssp. *Juncifolia)* at the upper elevational extent of these scrub communities (Barbour and Major 1977). Additional associate species that make up these communities include, but are not limited to, big sagebrush (*Artemisia tridentata* ssp. *tridentata*), bitterbrush (*Purshia tridentata)*, hop sage (*Grayia spinosa)*, horsebrush (*Tetradymia canescens* and *T. axillaris)*, Nevada ephedra (*Ephedra*

nevadensis), winter fat (*Krasheninnikovia lanata),* yellow rabbitbrush (*Chrysothamnus naseosus),* green rabbitbrush (*Chyrsothamnus teretifolious),* gold bush (*Ericameria cooperi),* and cheesebush (*Hymenoclea salsola).* During years of high precipitation, annual forbs are abundant and include species from the following genera: Cryptantha , Eriogonum, Mentzelia, Linanthus, Phacelia, as well as genera in the Asteraceae Family.

The Chalfant Allotment contains several springs that are dominated by an overstory of willow (*S. lutea, S. lasiolepis*), rose (*Rosa woodsii* var. *ultramontana*) and an aquatic understory of *Lemna, Potomogeton* and *Rorippa* species as well as bank forbs such as cardinal monkey flower (*Mimulus cardinalis*), streamside paintbrush (*Castilleja miniata*) and stream orchid *(Epipactis gigantea*). Tamarisk has been treated at spring #6-10-1C in the southern portion of the allotment and no other site infestations have been found. In the vicinity of spring #6-10-1C there is also an alkali meadow community which has a small population of *Calochortus excavatus*. None of these spring complexes have been impacted by cattle grazing.

2. Environmental Consequences

a. Impacts of Proposed Action

The plant communities within the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments have not been negatively impacted by livestock grazing because of the infrequent use and the low number of animals that use these allotments. Topography and rough terrain also reduce livestock access and commensurate impacts (BLM 1999, 2000). Forage capacity on these allotments is low. The plant communities are incapable of sustaining large numbers and frequent livestock use, which has been shown to be detrimental to various ecological function attributes including plant vigor, seedling recruitment, and recovery (Clary and Holmgren 1987; Hughes 1982). Generally, utilization of key forage species, e.g. desert needlegrass, hopsage, winterfat, and budsage is within the slight to moderate range (20-40%) and occurs in the spring.

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 mineral blocks. 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 Volcanic Tableland, Chalfant Valley and Jeffrey 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.

c. No Grazing

Under this alternative, livestock grazing on these 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.

4. References

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

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.

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.

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 Volcanic Tableland, Chalfant Valley, and Jeffrey allotments based on historical records, field monitoring, and/or habitat suitability.

Special Status Plant Species

1. Affected Environment

One population of Special Status Plant Species occurs on the Chalfant Valley allotment – Inyo County mariposa lily (*Calochortus excavatus*). The population is located on a less than 1 acre confined alkali meadow perched on a hillslope just north of spring #6-10-1C. Twenty mature plants have persisted since site monitoring was initiated in 1994. Currently, there are no grazing impacts to the population because livestock are confined by available forage to the lower portions of the allotment on the alluvial fans.

No additional Special Status Plant Species are known to occur within the Chalfant Valley, Volcanic Tableland, or Jeffrey allotments (CNDDB 2006, BLM 1999, 2000).

O. WASTE, HAZARDOUS OR SOLID

The proposed action, no action, and no grazing alternatives would not generate hazardous or solid waste on the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments.

P. WATER QUALITY, DRINKING-GROUND

1. Affected Environment

Surface water is poorly distributed and occurs only in the Chalfant Valley and Volcanic Tableland allotments. There is no surface water available on public land in the Jeffrey allotment.

Surface flow in the Chalfant Valley allotment occurs at three locations. Two springs are located near the White Mountain Estates development. A low discharge spring [approximately 73 gallons/minute (gpm), spring #6-10-1C] provides a stream channel environment approximately ¼ mile long. A second spring (#6-11-1C) provides a flow of 7gpm and is represented by sheet

flow extending approximately 25 feet below the source. The other surface water on the allotment occurs where the Piute small hydroelectric power plant discharges its flow of 0.5 – 1.0 cfs within a ditch on public land for approximately 25 meters with the water then entering private land. Within the Volcanic Tableland allotment perennial flow extends for 1 mile in the main channel draining the Fish Slough wetland before entering the Upper McNally ditch on LADWP land. None of these water sources are tributary to or part of State 303d listed streams.

Temporal water quality monitoring has not been conducted on any of the named water sources. There are no apparent anthropogenic or natural influences affecting water quality. The two spring areas on the Chalfant Valley allotment are untrammeled by cattle and display abundant and diverse riparian vegetation.

Other indicators of water quality, like the presence/absence, diversity, and abundance of aquatic macroinvertebrate species, are helpful in establishing the presence of pollutants or toxic substances at levels harmful to aquatic life. The hydrobiid spring snail, Pyrgulopsis sp. is found at the source and along the wetted length of both spring sites. As an indicator of water quality, these snails are rheophiles that only occur in flowing, oxygenated and cool water of good quality (Hershler, 1988).

Water in Fish Slough contains calcium, sodium, bicarbonate and sulfate as major solutes with a near neutral pH (7.3 – 8.3), phosphorus likely limits primary productivity within the wetland system and, overall, Fish Slough is characterized by hard but potable water (Melack & Setaro, 1991).

There is no information known for water quality relating to groundwater.

2. Environmental Consequences

a. Impacts of Proposed Action

Livestock do not use the two springs or Fish Slough channel as water sources and would continue this practice with implementation of the proposed terms and conditions. Aquatic chemistry of each water source would remain unchanged from the overall good water quality conditions. Livestock will continue to occasionally water at the ditch that comes from the small hydroelectric power plant.

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.

c. No Grazing

With no grazing the potential for a future change in livestock behavior relating to water source use would be eliminated. Therefore, water quality conditions would be expected to remain at current constituent concentrations.

3. References

Hershler, R. 1988. *Status Survey of Hydrobiidae in Owens River Drainage.* Final Report. California Department of Fish and Game. Contract C-1922. 29pp.

Melack, J. & F. Setaro. 1991. *Water Chemistry* in *Biotic Inventory and Ecosystem Characterization for Fish* Slough*, Inyo and Mono Counties, California.* Final Report. California Department of Fish and Game. Agency Award No. FG-83890. 5pp.

Owens Valley Planning Unit, URA Step II. 1978

Q. WETLANDS/RIPARIAN ZONES

1. Affected Environment

The Chalfant Allotment contains two spring-fed riparian areas, as mentioned above, that are dominated by an overstory of willow (*S. lutea, S. lasiolepis*), cottonwood (*Populus trichocarpa*; spring # 6-11-1C only), rose (*Rosa woodsii* var. *ultramontana*) and an aquatic understory of *Lemna, Potomogeton* and *Rorippa* species, as well as, bank forbs such as cardinal monkey flower (*Mimulus cardinalis*), streamside paintbrush (*Castilleja miniata*), and stream orchid (*Epipactis gigantea*). Tamarisk has been treated at spring #6-10-1C in the southern portion of the allotment and no other site infestations have been found. Spring # 6-11-1C has not been invaded by tamarisk. In the vicinity of spring #6-10-1C there is also an alkali meadow community which has a small population of *Calochortus excavatus*. None of these spring complexes have been altered by cattle grazing.

Vegetation along the channel of Fish Slough is made up primarily of bulrush (*Scirpus sp*.) and wire grass (*Juncus sp*.). There is minimal riparian vegetation consisting of willow (*Salix sp.*) and wiregrass along the ditch at the location of discharge at the Piute small hydroelectric power plant.

2. Environmental Consequences

a. Impacts of Proposed Action

The condition of the riparian vegetation at the two springs and along the Fish Slough channel will remain in their current condition of high species diversity and good vigor with

implementation of the proposed action terms and conditions. This is due to livestock not using these sources of water, historically, and the proposed action would not cause a change in livestock behavior on the allotments. Livestock will continue to occasionally water at the ditch that comes from the small hydroelectric power plant.

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.

c. No Grazing

Under this alternative, livestock grazing on the allotments would cease and eliminate any future potential for livestock to discover and use riparian vegetation. Riparian vegetation would continue in its current state of high quality and diverse nature.

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 components on the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments.

S. WILDERNESS

1. Affected Environment

The Volcanic Tableland, Chalfant Valley and Jeffrey allotments do not occur within any designated Wilderness Area. However, approximately 70% of the Volcanic Tableland allotment (30,804 acres) occurs within Fish Slough WSA (CA-010-080), Volcanic Tableland WSA (CA-010-081), Chidago Canyon WSA (CA-010-079) and Casa Diablo WSA (CA-010-082).

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 Volcanic Tableland allotment at the time the four WSAs were designated by BLM in the 1980s and is a use grandfathered by Section 603(c) of FLPMA. Grazing may continue to the same manner and degree as took place in 1976. The IMP provides specific guidance for implementation of grazing systems.

2. Environmental Consequences

a. Impacts of Proposed Action

Overall habitat quality of the allotment would be maintained or slightly improved as implementation of the proposed terms and conditions occur, because they are designed to protect and sustain rangeland health.

Expected ecological improvements in vegetation, weed control, and wildlife habitat caused by changes in grazing timing and intensity would occur with implementation of the proposed action, enhancing the WSA's naturalness. 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 Volcanic Tableland allotment within the Volcanic Tableland, Fish Slough, Chidago Canyon, and Casa Diablo WSAs would conform with the BLM IMP and would not impair Congress's ability to designate the WSAs 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 they are very similar. 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 across the allotments without defined implementation guidelines, and have not been tailored to specific vegetation communities and resources on the allotments.

c. Impacts of No Grazing

Plant and wildlife habitat would improve, at best, slightly from a lack of grazing impacts on

various resources allowing natural processes to increase, enhancing 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 – 2)

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

The principal wildlife habitat types found in the allotments are saltbush/shadscale scrub and mixed desert scrub. Common small mammals, reptiles, and birds are distributed throughout these communities, as sampled by a 1978 wildlife inventory that included all these habitat types.

Small mammals include black-tailed hare, Audubon cottontail rabbit, and a broad diversity of rodents with the Merriam's kangaroo rat (Dipodomys merriami) and deer mouse (Peromyscus maniculatus) being the most numerous species within the habitats. Coyotes and gray fox are common mammalian predators in these habitats.

The reptile fauna of these habitat types include a diverse assemblage of lizards, venomous and non-venomous snakes with the large spotted leopard lizard (*Gambelia wislizenii*), side blotch lizard (*Uta stansburiana*), barred spiny lizard (*Sceloporous magister transversus*), Great Basin whiptail (*Cnemidophorus tigris tigris*), and sidewinder (*Crotalus cerastes*) being the most common species recorded

The more common bird species likely to breed in these habitat types include black-throated sparrow (Amphispiza bilineata), rock wren (Salpinctes obsoletus) and Brewer's sparrow (Spizella breweri). Other avian species present but typically in lower breeding population

numbers are the sage sparrow, horned lark, loggerhead shrike, and mourning dove. Some of these species, like the rock wren, are also year-round residents. The three sparrows are species of interest because they are considered sagebrush obligates and may be declining range-wide as a result of loss of sagebrush habitat, although in this area they are known to breed in other desert shrub communities. Upland game birds like chukar (a non-native species) and California quail reside and breed near water sources at both springs in the Chalfant Valley allotment.

All allotments are used by winter resident raptors that include Cooper's hawk and rough-legged hawk, and spring breeding resident species including northern harrier, red-tailed hawk, golden eagle, prairie falcon, barn owl, and great horned owl.

Mule deer are the most common large ungulate species in all the allotments where they utilize the eastern foothills of the White Mountains in the Jeffrey and Chalfant Valley allotments. Mule deer use the Volcanic Tablelands allotment during the winter and depend on Fish Slough as a principal water source.

2. Environmental Consequences

a. Impacts of Proposed Action

The overall habitat quality of these allotments would be maintained or slightly improved with implementation of the proposed terms and conditions because they are designed to help protect and sustain rangeland health which includes wildlife habitat, and to keep the ecosystem functioning properly. The principal reason for this is a lack of concentrated use in any one area of an allotment which reduces significant alteration impacts to soil and vegetation, thus maintaining more intact wildlife habitats.

b. Impacts of No Action

Impacts of the no action alternative would be the same as the proposed action because they are very similar. 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 across the allotments without defined implementation guidelines, and have not been tailored to specific vegetation communities and resources on the allotments.

c. No Grazing

No impacts to wildlife habitat condition would occur since livestock would be completely eliminated from all allotments.

3. References

Bishop Field Office, Unit Resource Analysis, Step III, 1978.

Threatened and Endangered Wildlife Species

The proposed action, no action, and no grazing alternatives would have no effect on threatened or endangered species because no federally listed threatened or endangered wildlife species are present on the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments based on historical records and/or field monitoring

U. WILD HORSE AND BURROS

The proposed action, no action, and no grazing alternatives would have no effect on wild horses and burros as there are no wild horse and burro populations or designated wild horse herd management areas occurring on the Volcanic Tableland, Chalfant Valley, and Jeffrey allotments.

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. power lines, 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

For the Volcanic Tableland, Chalfant Valley, and Jeffrey 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 that adjoin LADWP land. 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 physical structure and ecological function of plant communities on the three 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.

Since no congregation zones occur on the subject allotments, no significant cumulative effects to cultural resources are predicted to occur from the proposed action.

Within the 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.

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 Standards and Guidelines:

On January 27, 1997, the Bishop Field Manager sent a letter to the four permittees that graze these three 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 four permittees who graze these three 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 four permittees who graze these three allotments which explained the rangeland health allotment assessment requirements.

On December 11, 2000, the Bishop Field Manager sent a letter to the four permittees who graze these three 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

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.

Iturriria, Paco. 2007. Livestock Operator. BLM and Paco discussed livestock grazing on the volcanic Tableland allotment. Paco explained the livestock management for the allotment.

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.

Talbot, Bill. 2007. Livestock Operator. BLM and Bill discussed livestock grazing on the Chalfant Valley allotment. Bill explained the livestock management for the allotment. BLM and Bill discussed a past revised allotment boundary located on the west side of highway 6 (BLM Letter dated March 20, 1997, Chalfant Valley allotment file). Currently, there is a small portion of the allotment still located on the west side of highway 6 that is not used by the operator. BLM and Bill agreed to adjust the Chalfant Valley allotment border to the east side along highway 6 (Map 2).

Area of Critical Environmental Concern (ACEC)

Previous consultation with the following agencies, which annually review the implementation and monitoring components of the ACEC plan included:
U.S. Fish and Wildlife Service
Los Angeles Department of Water and Power (LADWP)
University of California, Natural Reserve System
California Department of Fish and Game

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.

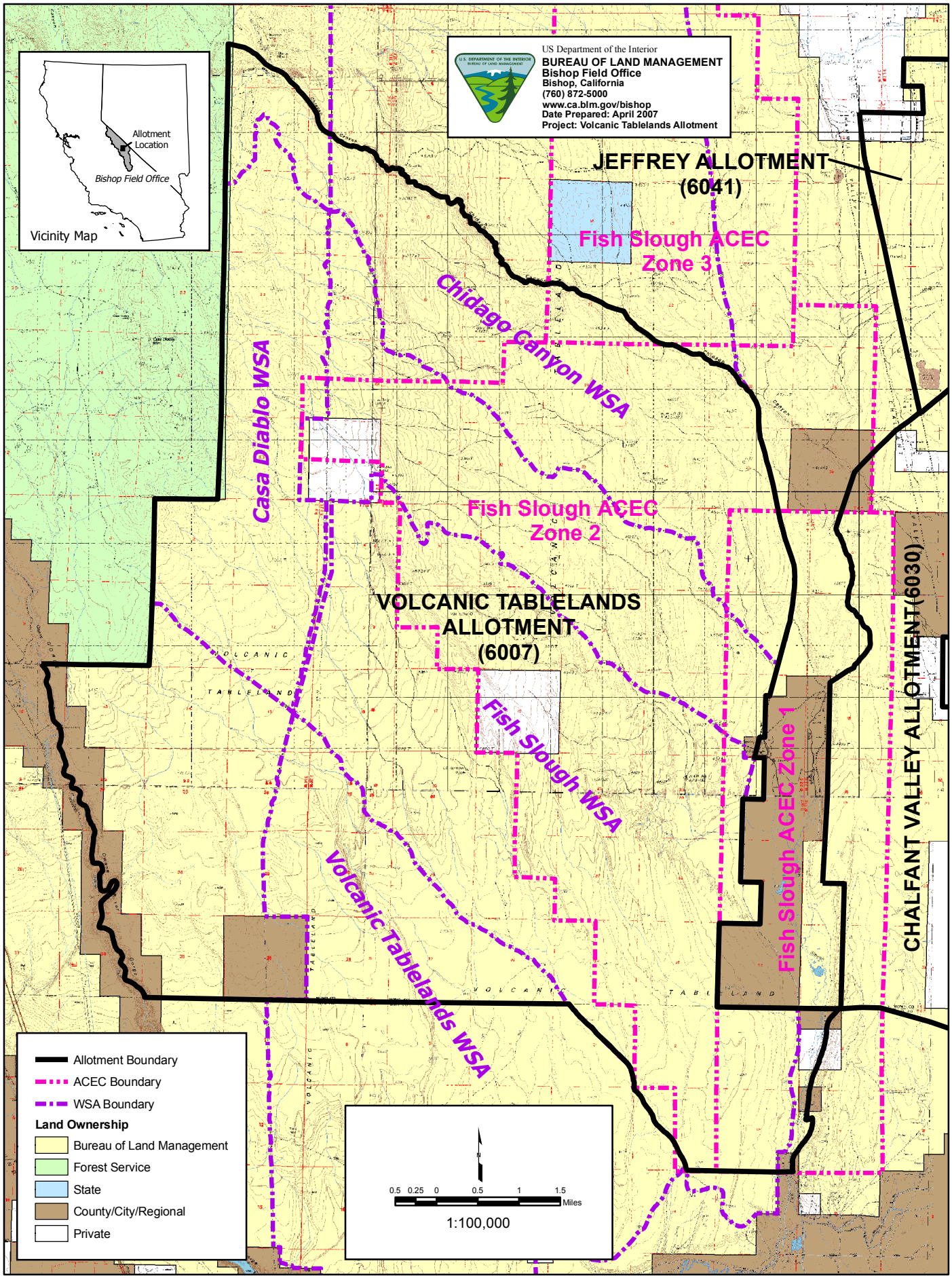
During the initialization of the allotment assessment process in FY 1999, seven Native American communities residing within the area administered by the Bishop Field Office– Bridgeport, Mono Lake, Benton, Bishop, Big Pine, Ft. Independence, and Lone Pine – were contacted by letter (January 11, 1999), 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)

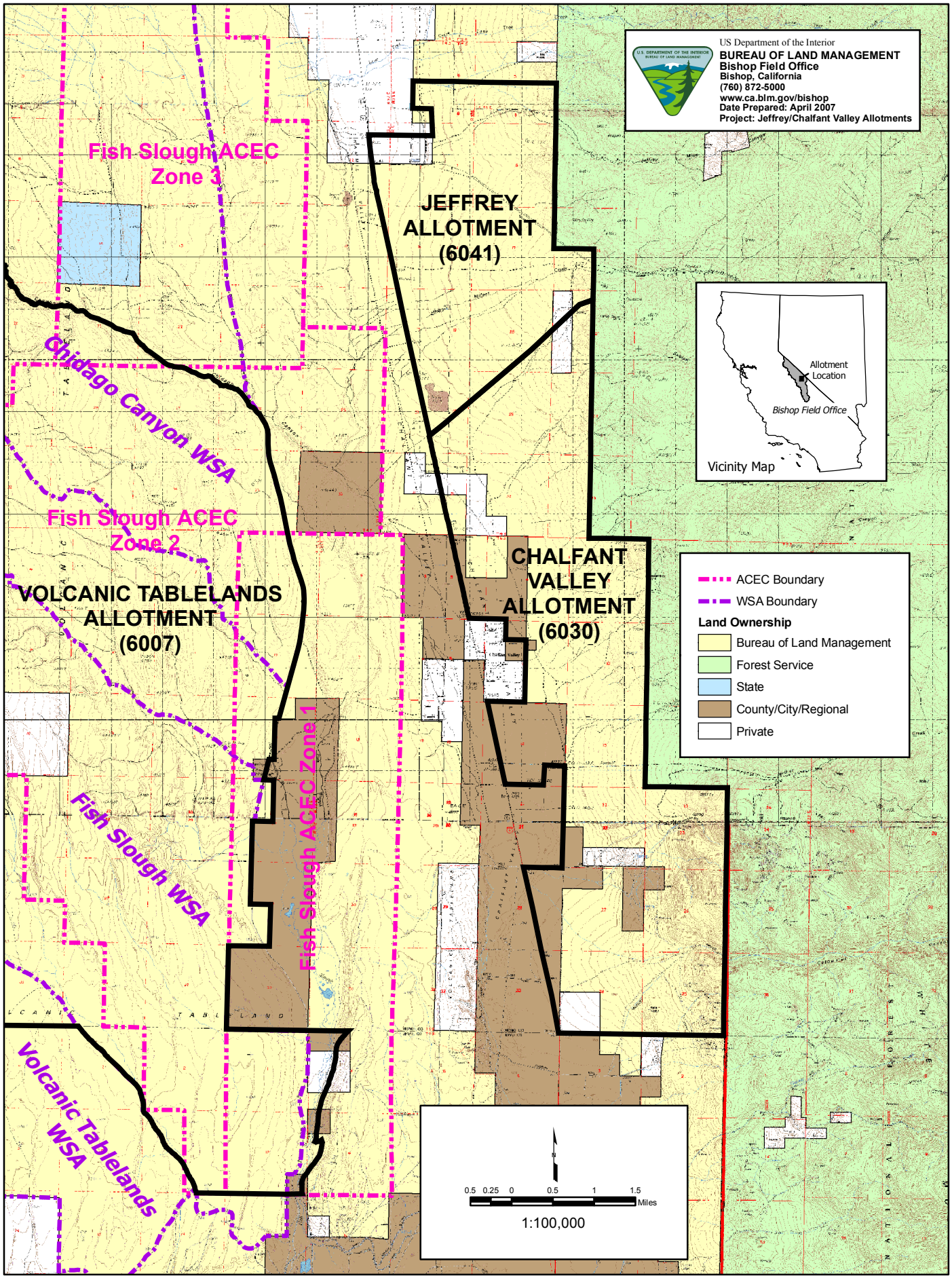
Environmental Assessment Preparers

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 Volcanic Tablelands Allotment, Inyo and Mono Counties, California. Bureau of Land Management, Bishop Field Office, Benton Management Area.



Map 2. Overview of the Jeffrey and Chalfant Valley Allotments, Inyo and Mono Counties, California. Bureau of Land Management, Bishop Field Office, Benton Management Area.