

**ENVIRONMENTAL ASSESSMENT
LIVESTOCK GRAZING AUTHORIZATION**

EA Number CA 170-08-50

Allotment Number and Name

6055 Mono Mills

**BLM Bishop Field Office
Prepared
September 2008**

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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 Mono Mills allotment. 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 Mono Mills allotment analyzed in this EA is located in the Granite Mountain Management Area of the BLM Bishop Field Office. The elevation range is between 8,000 to 8,400 feet. Vegetation communities are dominated by a mix of sagebrush and bitterbrush interspersed with dry sedge meadows in the valley bottoms and pinyon-juniper woodlands on the rockier slopes. Livestock kind, permitted season of use, allocated animal unit months (AUMs), and use type as prescribed in the Bishop Resource Management Plan (BLM 1993) are:

Allotment	Kind	From	To	AUMs*	Use
Mono Mills	Sheep	7/1	10/15	2,142	Perennial

* Amount of forage a 1,000 lb cow with calf will eat in a month

The approximate public, state, and private land acreages (See Map 1) are:

Allotment Name	Public Land	State Land	Private Land
Mono Mills	32,656	2	1,516

There is no designated critical habitat for any federally listed species and no federally listed species are known to occupy the Mono Mills allotment.

The 10-year grazing permit for the Mono Mills allotment has expired. The interim grazing permit authorizing use on the Mono Mills allotment was issued in accordance with Section 328 of Public Law 107-67. This permit will expire in 2013. Renewing permits under the appropriations acts authorized existing grazing use to continue, while allowing BLM time to complete rangeland health allotment assessments and to meet applicable National Environmental

Policy Act (NEPA) requirements to analyze the environmental consequences of issuing 10-year grazing permits.

C. Purpose and Need for the Action

The purpose of the action is to consider whether or not to authorize grazing for 10-years on the Mono Mills allotment. The purpose of the action is also to ensure that the grazing authorization implements provisions of, and is 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). 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 action is needed to respond to the expired 10-year grazing permit and to replace the appropriations act permit with a fully processed 10-year grazing permit that implements provisions of, and is in conformance with, the Bishop Resource Management Plan and the Secretary of the Interior approved Central California Standards for Rangeland Health and Guidelines for Livestock Grazing.

D. Scoping and Issues

Public Scoping

On January 23, 2006, the Bishop Field Manager sent a letter to the permittee who grazes the Mono Mills allotment informing him 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 permittee who grazes the Mono Mills allotment informing them how the environmental assessment 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 permittee who grazes the Mono Mills allotment. The NOPA was also sent to one hundred and twenty-five interested publics including the Center for Biological Diversity, The Wilderness Society, California Wilderness Coalition, Sierra Club, Earth Justice, Audubon Society, Friends of the Inyo, Mono Lake Committee, Lahonton Regional Water Quality Control Board, Great Basin Unified Air Pollution Control District, Inyo and Mono County Supervisors, California Department of Fish and Game, Natural Resource Conservation Service, Bodie State Park, and BLM Resource Advisory Council (RAC) members of California. 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. No comments were received and no issues or additional alternatives were identified as a result of this public scoping.

Public Review of Environmental Assessment CA-170-07-11

On June 11, 2007, EA CA-170-07-11 which included the Mono Mills allotment was posted for two weeks on the BLM internet site for public review at <http://www.blm.gov/ca/bishop>. The permittee and the Center for Biological Diversity (CBD) were notified that the EA had been posted on the BLM internet site. No comments were received and no issues or additional alternatives were identified from public review of EA CA-170-07-11.

Protest of Proposed Grazing Decision for Operator 0401615 on the Mono Mills allotment

In June 2007, EA CA 170-07-11 which included the Mono Mills allotment was completed and a Finding of No Significant Impact (FONSI) was signed on June 28, 2007. Three alternatives were analyzed in detail: 1) the proposed action authorizing grazing for 10-years on the Mono Mills allotment with applicable terms and conditions, and other provisions; 2) the current management (no action) alternative involved issuing a new 10-year permit with the same terms and conditions as under the existing authorization; and 3) a no grazing alternative would cancel the permit for the Mono Mills allotment. The EA was posted on the BLM internet site for public review at http://www.blm.gov/ca/bishop/ea_nepa.html.

On February 28, 2008, Western Watersheds Project's (WWP) California Office requested to be added to the list of "interested public" with regard to particular allotments and all grazing management decisions from the Bishop Field Office. All correspondence was to be sent to Dr. Michael J. Connor.

On March 4, 2008, a Notice of Field Manager's Proposed Grazing Decision for the Volcanic Tableland allotment, based upon EA CA 170-07-10; and for the Mono Mills allotment, based upon EA CA 170-07-11; was issued to Operator 0401615. The Proposed Decision was mailed to the permittee and to interested publics which provided a fifteen (15) day protest period.

On March 15, 2008, BLM Bishop Field Office received one combined protest on the Proposed Grazing Decision for Operator 0401615 on the Volcanic Tableland and the Mono Mills allotments from the Center for Biological Diversity (CBD) and Western Watersheds Project (WWP). CBD and WWP protested the decision asserting that BLM failed to adequately comply with the National Environmental Policy Act (NEPA), the Federal Land Policy and Management Act (FLPMA), and the Endangered Species Act (ESA). Furthermore, the protest stated that BLM failed to adequately analyze potential effects of the proposed decision on Fish Slough Milk Vetch, Sierra Nevada bighorn sheep, and sage-grouse. The protest also stated that the BLM's decision failed to consider the potential effects of, and potential effects on, global climate change. CBD and WWP requested that BLM immediately rescind the proposed decision for Operator 0401615 regarding grazing on the Volcanic Tableland and the Mono Mills allotments.

On May 14, 2008, a Notice of Field Office Manager's Final Grazing Decision Vacating the Proposed Decision for Authorization Number 0401615 on the Volcanic Tableland (6007) and the Mono Mills (6055) allotments was issued. The Final Decision was mailed to the permittee and to interested publics which provided a thirty (30) day appeal period. No appeals were received. The Final decision stated that BLM would review the protest points raised and revise the EA to address the protest points as appropriate.

Public Review of Environmental Assessment CA 170-08-50 and Response to Comments

On July 3, 2008, EA CA 170-08-50 was posted for two weeks on the BLM internet site for public review at <http://www.blm.gov/ca/st/en/fo/bishop.html>. The permittee, Center for Biological Diversity (CBD), and Western Watersheds Project (WWP) were notified that the EA had been posted on the BLM internet site.

On July 17, 2008, the Bishop Field Office received comments on EA CA 170-08-50 from CBD and WWP. A number of these comments have been incorporated into the EA to clarify and supplement the analysis. A summary of comments received and BLM's responses to those comments are provided below:

Comment 1: EA fails to review a reasonable range of alternatives.

Response 1: EA CA 170-08-50 is a Mono Mills allotment specific version of EA CA 170-07-11 that is being completed to address the protest points raised by CBD and WWP on the Proposed Grazing Decision for Operator 0401615 on the Volcanic Tableland and the Mono Mills allotments. CBD and WWP did not protest the proposed grazing decision based on EA CA170-07-11 for lacking a range of alternatives and no additional alternatives were proposed in the protest. In addition, during public scoping and review of the original EA, BLM received no comments suggesting other alternatives. Finally, the Mono Mills allotment met rangeland health standards and there was no documented need to analyze any additional alternatives. Therefore, BLM only considered the three alternatives originally described in the December 28, 2006, Notice of Proposed Action (NOPA) in the version of EA CA 170-08-50 posted for public review. Two additional alternatives proposed as part of this comment were considered and are identified and discussed in Chapter 2.

The three alternatives analyzed in this environmental assessment provide a reasonable range of alternatives that clearly address the purpose and need for action. The Proposed Action alternative responds specifically to the purpose and need "to consider whether or not to authorize grazing for 10-years on the Mono Mills allotment" and "to ensure that the grazing authorization implements provisions of, and is 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)." In contrast, the No Grazing alternative provides a clear comparison of the environmental effects and consequences of not authorizing grazing on the Mono Mills allotment. The No Action alternative provides the existing baseline for comparison and allows the BLM to evaluate the environmental effects and

consequences of both the Proposed Action and No Grazing alternatives. The No Action alternative provides a reasonable baseline for comparison because it conforms to the purpose and need for action.

Comment 2: Comment Period Unreasonably Short.

Response 2: CEQ regulations do not require agencies to make EAs available for public review and comment. However, in the interest of public participation and disclosure the Bishop Field Office has consistently provided a 15 day public review and comment period throughout the permit renewal EA process. Our experience with permit renewal EAs completed during 2007 indicated that the 15 day public review and comment period was reasonable. Prior to this comment, BLM had received no public feedback as the result of either public scoping, public review of previous EAs, or the CBD and WWP protest on the Proposed Grazing Decision for Operator 0401615 on the Volcanic Tableland and the Mono Mills allotments that suggested the 15 day public review period was too short. The Bishop Field Office will consider a longer public review period for future permit renewal EAs, if scoping indicates that public interest and/or issue complexity justify a longer review period.

The Bishop Field Office conducted extensive public scoping (NOPA, meetings, etc.) early in the permit renewal process and allowed 15 days for public review and comment on EA CA 170-08-50. EA CA170-08-50 was posted on the BLM internet site for public review on July 3, 2008. The permittee, CBD, and WWP were notified that the EA had been posted on the BLM internet site. The original 15 day comment period ended on July 17, 2008. During this review period, WWP requested a copy of IM CA-2007-014 and subsequently submitted a Freedom of Information Request (FOIA) for this internal memo on July 10, 2008. This FOIA request was expedited and WWP was emailed a copy of IM CA-2007-014 on July 14, 2008. Because of the processing time required to provide the requested memo to WWP, the Bishop Field Office extended the comment period for an additional 15 days, notifying WWP via certified letter on July 22, 2008. WWP received the certified letter on July 25, 2008, therefore the comment period extension ended August 8, 2008. No comments were received during this comment extension period.

Comment 3: EA needs clarification of listed species that occur within the Bishop Field Office.

Response 3: Clarification made in Chapter 1, Section G, under Threatened and Endangered Species.

Comment 4: BLM must consult with the US Fish and Wildlife Service (FWS) on the potential impacts to Sierra Nevada Bighorn sheep.

Response 4: The Bishop Field Office is aware of its consultation requirements and coordinates with the FWS to ensure agency actions do not adversely affect listed species or designated critical habitat. If BLM determines that the proposed grazing decision for the Mono Mills allotment may affect Sierra Nevada bighorn sheep or designated critical habitat, the Bishop Field

Office will initiate the appropriate level of consultation with the FWS in accordance with legal and policy requirements.

Comment 5: BLM should use the risk assessment methodology developed by the Recovery Team to facilitate the analysis of the risk of disease transmission from domestic sheep to Sierra Nevada Bighorn sheep.

Response 5: The risk assessment methodology cited in this comment has not been finalized and is not currently available to facilitate analysis of the disease transmission risk from domestic sheep to Sierra Nevada Bighorn sheep on the Mono Mills allotment. In addition, the final Recovery Plan for the Sierra Nevada Bighorn Sheep does not identify the Mono Mills allotment as being at high risk for contact and subsequent disease transmission at this time.

As a member of the Recovery Team, the Bishop Field Office is committed to taking appropriate action to eliminate the potential for disease transmission that could result from contact between domestic sheep and Sierra Nevada bighorn sheep. The final Recovery Plan for the Sierra Nevada Bighorn Sheep recommends that BLM coordinate at least annually with the US Fish and Wildlife Service (FWS) and the California Department of Fish and Game (CDFG) to review the most current bighorn sheep movement data and determine if the risk assessment methodology should be used to evaluate some allotments east of US Highway 395 (FWS 2007). In accordance with this recommendation, the Bishop Field Office will coordinate annually with the FWS and the CDFG to determine if recent bighorn sheep movements require such an evaluation of the risk of contact between domestic sheep and Sierra Nevada bighorn sheep on allotments east of US Highway 395. If the best available information on bighorn sheep locations and movement patterns indicate the Mono Mills allotment requires evaluation, the BLM will incorporate the risk assessment methodology developed by the Recovery Team into any analysis used to determine if permanent closure, seasonal closure, or changes in grazing practices are necessary to eliminate the risk of contact.

In addition, if the best available information on bighorn sheep locations and movement patterns indicate domestic sheep use of the Mono Mills allotment poses an imminent risk of contact, the authorized officer will temporarily close the allotment, or portions of the allotment, as necessary to eliminate the risk of contact. Subsequent to any such temporary closure, the BLM will incorporate the risk assessment methodology developed by the Recovery Team into an analysis to assess the current risk of contact and to determine if permanent closure, seasonal closure, or changes in grazing practices are necessary to eliminate the risk of contact. This language has been added as new terms and conditions to the proposed grazing permit for the Mono Mills allotment (Chapter 2, Alternative 1 - Proposed Action, Other Terms and Conditions).

Comment 6: EA does not adequately analyze the impacts of the proposed action on sage-grouse.

Response 6: The affected environment and environmental consequences portions of the EA in Chapter 3, Section U - Wildlife/Threatened and Endangered have been restructured and supplemented to clarify the analysis of sage-grouse and sage-grouse habitat on the Mono Mills

allotment.

Comment 7: Referenced Steinfeld et al (2006), stating “livestock are estimated to be the source of 18% of all GHG emissions (measured in CO2 equivalents) - higher emission levels than are produced by transportation.”

Response 7: It is the commenter’s responsibility to show the likelihood of impact at the site specific scale. Citing one reference that discusses methane impacts globally does not translate to local impact. Furthermore, an inconsistency in climate change data exists between Steinfeld et al and the United States Environmental Protection Agency (EPA). The EPA notes “transportation sources accounted for 29 percent of total U.S. greenhouse gas (GHG) emissions in 2006. Transportation is the fastest-growing source of GHGs in the U.S., accounting for 47 percent of the net increase in total U.S. emissions since 1990. Transportation is also the largest end-use source of CO2, which is the most prevalent greenhouse gas.” EPA further states that “these estimates of transportation GHGs do not include emissions from additional lifecycle processes, such as the extraction and refining of fuel and the manufacture of vehicles, which are also a significant source of domestic and international GHG emissions.” (July 2008, Transportation and Climate, available at: <http://www.epa.gov/omswww/climate/basicinfo.htm>).

Comment 8: EA does not include discussion or analysis of the synergy of climate change with the proposed action.

Response 8: Changes and clarification made in Chapter 3, Section A - Livestock Management, Section I - Global Climate Change, and Section J - Invasive, Non-Native Species.

Comment 9: The EA down plays the role of livestock in spreading and establishing invasive species.

Response 9: The EA section on Invasive Species identifies the risk of target weeds, where they occur and the potential effects of Global Climate Change on future population dynamics of target non-native annual grasses. The EA also discusses the very low incidence of invasive weeds on the allotment, the unique edaphic characteristics that limit weed encroachment on the allotment, and how the 40% forage utilization levels would benefit native plants and further reduce the risk of weeds on the allotment. Changes and clarifications relative to other comments made regarding invasive species are also addressed in Chapter 3, Section J - Invasive, Non-Native Species.

In addition, the high native plant diversity and density that exists on this allotment coupled with the 40% use limit on native vegetation that will occur under the proposed action will increase the vigor of native vegetation which further reduces the risk of weed invasion. The comments received from Western Watersheds Project use references that are unrelated to existing site conditions on the allotment being analyzed in this EA. In addition, some references are not applicable to the Great Basin Floristic Province, e.g. Kimball and Schiffman (2003), Seabloom et. al (2003).

Comment 10: EA does not adequately address the impacts of grazing and grazing management on the Granite Mountain WSA.

Response 10: The affected environment and environmental consequences portions of the EA in Chapter 3, Section T - Wilderness have been supplemented to broaden the analysis specific to the Granite Mountain WSA. Additional information and clarification on the conditions and history of grazing use since the 1970s in the WSA has been provided. Supporting documentation that falls outside the scope of the new information provided is cited and listed in the References Section. The WSA analysis takes into account the issues and concerns identified during scoping and public review of the EA and are commensurate with the magnitude and scope of the purpose and need for the action identified in Chapter 1. In light of these considerations, BLM provides an adequate analysis and gives the reader reasonable depth and information to understand and comment on this process.

Comment 11: The process described in the EA is not the protocol to be followed under the State Protocol Agreement Between the California State Director of the BLM and the California State Historic Preservation Officer Supplemental Procedures for Livestock Grazing Permit/Lease Renewals.

Response 11: The Bishop Field Office (BIFO) rangeland health assessment and cultural analyses began in 1999 and were completed prior to or by 2003 which predates the State Protocol Agreement (PA) Between the California State Director of the Bureau of Land Management and the California State Historic Preservation Officer (2004) Supplemental Procedures For Livestock Grazing Permit/Lease Renewals. In fact, the BIFO's grazing research design (Halford 1999) provided the basis for the State PA. Among other guidance, the State Grazing PA is cited in Chapter 1, Section G. Pursuant to the BIFO research design (Halford 1999) and State PA (2004) all perennial watercourse, springs, and troughs were field evaluated. If monitoring is required, it is specified in the specific EA (under mitigation measures) and/or defers to the State PA procedures. In general, we do not have issues requiring monitoring. Changes to correct any reference to cattle on the Mono Mills allotment have been made in Chapter 3, Section D - Cultural Resources.

Comment 12: The EA should be revised to include a complete and unbiased economic analysis of livestock grazing that includes income and costs to the government.

Response 12: The EA in Chapter 3, Section M - Social and Economic Values has been updated to include more recent economic data and information on grazing fees.

Comment 13: The table and text in regards to the status of sensitive plant species should be clarified.

Response 13: Changes and clarifications made in Chapter 3, Section O - Vegetation/Threatened and Endangered.

Comment 14: No baseline vegetation map included with the EA.

Response 14: The EA references existing, comprehensive baseline soils and vegetation inventories and data layers and provides a synopsis of vegetation on the allotment with detailed descriptions of major community types and their associate species (Chapter 3, Sections N and O). A small scale vegetation map would be difficult to interpret and would not improve the analysis. Therefore, no vegetation map is included in the EA.

Issues and Alternatives

No issues or additional alternatives related to re-authorizing grazing for 10- years on the Mono Mills allotment were identified as a result of either public scoping or public review of EA CA-170-07-11 which was completed in June 2007.

The March 15, 2008, protest filed by the Center for Biological Diversity (CBD) and Western Watersheds Project (WWP) on the Proposed Grazing Decision for Operator 0401615 on the Volcanic Tableland and the Mono Mills allotments identified three issues that have relevance and are addressed within this environmental assessment. The three issues are habitat for sage-grouse within the South Mono Population Management Unit (PMU), proximity to federally endangered Sierra Nevada bighorn sheep populations, and global climate change following the Department of Interior Order No. 3226. CBD and WWP did not protest the proposed grazing decision based on EA CA170-07-11 regarding an insufficient range of alternatives and no additional alternatives were proposed in the protest.

On July 17, 2008, the Bishop Field Office received comment letters on EA CA 170-08-50 from CBD and WWP. These comment letters did not identify any issues that were not already being considered and addressed in the analysis. However, these comment letters did propose two additional alternatives for consideration: 1) Eliminate grazing within the boundary of the Granite Mountain Wilderness Study Area (WSA); and 2) Modify the allotment boundary to permanently exclude all habitat used by sage-grouse. A discussion of these proposed alternatives is provided in Chapter 2, under Alternatives Considered but Eliminated from Detailed Analysis.

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-Colville (BLM 1983) Management Framework Plans are summarized in Appendix 4 of the Bishop Resource Management Plan (pages A4-1 through A4-11). Mandatory terms and conditions for all allotments administered by the Bishop Field Office were established at the land use planning level in the Bishop Resource Management Plan. The Bishop Resource Management Plan also established which public lands administered by the Bishop Field Office

would be available for livestock grazing (allotted vs. un-allotted).

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 Mono Mills allotment while relying on the Final Bishop Resource Management Plan and Environmental Impact Statement for the overall analysis of grazing actions throughout the Bishop 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 Mono Mills allotment occurs within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area and conforms to the applicable State Implementation Plan requirement.

Cultural Resources

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

Special Status Plant Species

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

Two (2) Special Status Plant Species occur within the extent of the Mono Mills allotment. Refer to Section N for a listing of these species and their associated trend and environmental impact analyses.

Threatened and Endangered Species (T&E)

Pursuant to Section 7 of the Endangered Species Act, consultation with the U.S. Fish and

Wildlife Service (FWS) is required on allotments for which BLM determines that livestock grazing may affect listed species or designated critical habitat. The stipulations of any grazing permit may be modified to conform to the terms and conditions specified in a FWS biological opinion as the result of formal consultation. In addition, the terms and conditions of any grazing permit may also be modified through subsequent land use plan amendments or revisions to conform to decisions made to achieve recovery plan objectives.

In August 2000, the Bishop Field Office submitted a Biological Evaluation and requested formal consultation on the Bishop Resource Management Plan (RMP) under Section 7(a) (2) of the Endangered Species Act to the FWS. The Biological Evaluation analyzed potential effects on six listed species that occurred within the Bishop Field Office's jurisdiction: Owens pupfish (*Cyprinodon radiosus*), Owens tui chub (*Siphateles bicolor synderi*), Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*), Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), bald eagle (*Haliaeetus leucocephalus*), and Fish Slough milk-vetch (*Astragalus lentiginosus var. piscinensis*). In 2007, one of these six species, the Bald Eagle, was delisted. Only designated critical habitat for Sierra Nevada bighorn sheep and Fish Slough milk-vetch overlaps with any public land administered by the Bishop Field Office. Subsequent requests for action on formal consultation on the Bishop RMP were made to the FWS in September 2005 and in April 2008. To date, no action has been taken by the FWS.

No Threatened or Endangered Species are present or likely to occur in the Mono Mills allotment, based on historical records, field monitoring, and/or habitat suitability.

Water Quality

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

Wild and Scenic Rivers

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

The Mono Mills allotment contains no designated Wild and Scenic Rivers or eligible study river segments.

Wilderness Study Areas

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

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

The Mono Mills allotment does not occur within any congressionally designated Wilderness Area. However, approximately forty-percent (21,916 acres) of the Granite Mountain WSA (CA-010-090) occurs in the Mono Mills allotment.

H. Plan Conformance

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 (allotted

vs. un-allotted) 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). Livestock grazing decisions, including mandatory terms and conditions for all allotments administered by the Bishop Field Office, established in the Bishop RMP are summarized in Appendix 4 (RMP, pages A4-1 through A4-11); 2) Standard Operating Procedures specific to grazing systems, grazing management, and range improvement project development throughout the Bishop Field Office (RMP, pages 10 through 12); and 3) Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) that amended the Bishop RMP (Central California S&Gs, pages 3 through 12).

I. Rangeland Health

Rangeland health assessments have been completed on the Mono Mills allotment 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 the Mono Mills allotment in June of 2002.

Geographical Information System (GIS) database information was used to stratify the number of areas (ecological sites) to sample. Field assessments consisted of following protocol established in BLM Technical Reference 1734-6, Interpreting Indicators of Rangeland Health Version 3 (2000). A preponderance of the evidence is the criterion for determining if rangeland health standards are being met at each sample site. Rangeland Health Assessment Determinations, following the Central California Resource Advisory Council assessment protocol, were completed for the Mono Mills allotment. The Mono Mills allotment was found to meet the Secretary of the Interior Approved Rangeland Health Standards.

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. Other alternatives may be needed to resolve conflicts or address new conditions or new information. If other alternatives are identified or proposed during scoping but are determined by BLM not to reasonably address the purpose and need for action, or not to be technically or economically feasible, or not to be in conformance with the land use plan, or not to be substantially different from another alternative in design or effects, they may be dismissed from detailed analyses (BLM Manual H-1790-1).

No additional alternatives were identified as a result of livestock operator consultation, cooperation, and coordination or public scoping efforts. In addition, the Center for Biological Diversity (CBD) and Western Watersheds Project (WWP) did not protest the Proposed Grazing Decision for Operator 0401615 on the Volcanic Tableland and the Mono Mills allotments based on EA CA170-07-11 regarding an insufficient range of alternatives and no additional alternatives were proposed in the protest. However, after public review of EA CA-170-08-50, two additional alternatives were proposed by WWP in their comment letter. The proposed action, no action, and no grazing alternatives are described in detail below. The two alternatives proposed by WWP were considered but eliminated from detailed analysis and are also described below.

A. Alternative 1 - Proposed Action

The proposed action is to authorize grazing to Operator 0401615 for 10-years on the Mono Mills allotment 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 to the Mono Mills allotment, with defined implementation guidelines, and tailored to specific vegetation communities and other resources present on this allotment. In particular, following the Application of Guidelines of the Central California S&Gs (BLM 2000), some guidelines were applicable regardless of the specific rangeland health condition and some needed to be more specifically identified and then applied as terms and conditions. Terms and conditions were made in consultation with the respective permittee and other interested parties involved in the particular allotment.

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

A. Mandatory Terms and Conditions

Mandatory terms and conditions including livestock number, livestock kind, season of use, percent public land (% P.L.), and allocated animal unit months (AUMs) are required for each allotment in accordance with 43 CFR 4130.3-1. Mandatory terms and conditions for the Mono Mills allotment were established at the land use planning level in the Bishop Resource Management Plan (BLM 1993).

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

Allotment	Number	Kind	From	To	% P.L.	AUMs
Mono Mills	3,045	Sheep	7/1	10/15	100	2,142

B. Terms and Conditions - Bishop Resource Management Plan

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.

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

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

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

grass species associated with severe grazing, when grazing utilization exceeds 70% in any upland key area for more than 2 consecutive years, immediate management action will be taken to remedy the problem in the area of the allotment that key area represents.

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

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

D. Other Terms and Conditions

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 within the allotment.

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

The Bishop Field Office will coordinate annually with the US Fish and Wildlife Service (FWS) and the California Department of Fish and Game (CDFG) to determine if recent bighorn sheep movements require a re-evaluation of the risk of contact between domestic sheep and Sierra Nevada bighorn sheep on allotments east of US Highway 395. If your allotment requires re-evaluation, the BLM will use the risk assessment methodology developed by the Sierra Nevada Bighorn Sheep Recovery Team and the best available information on bighorn sheep locations and movement patterns to assess the current risk of contact and to determine if permanent closure, seasonal closure, or changes in grazing practices are necessary to eliminate the risk of contact.

If the best available information on bighorn sheep locations and movement patterns indicate

domestic sheep use of the allotment poses an imminent risk of contact, the authorized officer will temporarily close the allotment, or portions of the allotment, as necessary to eliminate the risk of contact after consultation with you in accordance with 43 CFR 4110.3-2(a) and 4110.3-3(b)(1). Subsequent to any such temporary closure, the BLM will use the risk assessment methodology developed by the Sierra Nevada Bighorn Sheep Recovery Team and the best available information on bighorn sheep locations and movement patterns to assess the current risk of contact and to determine if permanent closure, seasonal closure, or changes in grazing practices are necessary to eliminate the risk of contact.

The authorized officer will implement changes in active use through a documented agreement or a decision (43 CFR 4110.3-2(a) and 4110.3-3(b)(1)). Notices of closure and decisions requiring modifications of authorized grazing use may be issued as final decisions effective upon issuance or on the date specified in the decision. Such decisions will remain in effect pending the decision on appeal unless a stay is granted by the Office of Hearings and Appeals in accordance with 43 CFR 4.472.

E. Range Improvements

One existing range improvement (trough) on the Mono Mills allotment needs to be moved or removed. The trough located at T1N, R28E, of Section 28, is part of a pipeline (#7503) which was determined to have an effect on an archeological site that was recently recorded during rangeland health field evaluations. The trough will be moved off-site or decommissioned since it no longer appears to be in service. However, existing range improvements under cooperative rangeland improvement agreements for Mono Mills allotment needs 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 Mono Mills allotment is designated as a Category M allotment in the Bishop Resource Management Plan (Appendix 4, pages A4-5 through A4-7). Consistent with BLM policy, monitoring on this allotment 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 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 Mono Mills allotment.

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 Mono Mills allotment does not have established long-term trend plots. There is no plan at this time to establish long-term trend plots in this allotment given current management priorities.

Compliance Assurance

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

B. Alternative 2 - Current Management (No Action)

This alternative involves issuing a new 10-year permit with the same terms and conditions as under the existing authorization. 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) were applied commonly and broadly to this and to other allotments, without defined implementation guidelines, and were not tailored to specific vegetation communities and resources on this allotment. The Bishop Resource Management Plan (1993), as well as allotment management and other activity plans were amended when the Central California Standards and Guidelines for Livestock Grazing were signed on July 13, 2000 by the Secretary of the Interior.

For this alternative, it is likely that BLM, the permittee and other interested public would work together to define appropriate allotment-specific applications of the rangeland health standards and guidelines.

A. Mandatory Terms and Conditions

Mandatory terms and conditions for the Mono Mills allotment were established at the land use planning level in the Bishop Resource management Plan (BLM 1993). Therefore, mandatory terms and conditions would be the same as described in the proposed action alternative.

B. Terms and Conditions - Bishop Resource Management Plan

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

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

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

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

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

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

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

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

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

D. Other Terms and Conditions

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

Periodically check livestock for weed seed to minimize or stop the spread of weeds such as

perennial pepperweed from private land or other areas where known weed infestations exist. A guide on preventing the spread of weeds along with specific species of concern is described in the Eastern Sierra Weed Management Area Noxious Weed Identification Handbook.

E. Range Improvements

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

F. Monitoring

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

C. **Alternative 3 - No Grazing**

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

D. **Alternatives Considered but Eliminated from Detailed Analysis**

The Western Watersheds Project (WWP) comment letter on EA CA-170-08-50 proposed two additional alternatives for consideration in the analysis. These alternatives were considered but eliminated from detailed analysis after initial review. Though not required, a brief explanation of why the proposed alternatives were eliminated from detailed analysis is provided below as recommend in BLM Manual H-1790-1.

Proposed Alternative 1:

Eliminate grazing within the boundary of the Granite Mountain Wilderness Study Area (WSA). The comment letter stated that “This alternative would reduce impacts to potential wilderness and thus allow a clear, comparative analysis of the impacts of the proposed action on the WSA.”

Rationale for Eliminating Proposed Alternative 1 from Detailed Analysis:

Grazing existed on the Mono Mills allotment at the time the WSA was designated by BLM in the 1980’s and is a use grandfathered by Section 603(c) of the Federal Land Policy and Management Act (FLPMA). 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 FLMPA was signed (October 21, 1976). While grazing within WSAs is subject to reasonable regulations, policies, and practices; the proposed elimination of grazing within the boundary of the Granite Mountain WSA would decrease the size of the Mono Mills allotment by 64 percent (21,916 acres) and cannot be considered reasonable. The

elimination of grazing within the WSA would not provide a reasonable alternative for meeting the purpose and need for action and does not warrant consideration because grazing in wilderness is considered a compatible use and there is no other justification for the proposed large decrease in allotment size. Furthermore, this proposed alternative is inconsistent with policy and management objectives for the area and would not be in conformance with the Bishop Resource Management Plan (1993) as amended by the Record of Decision, Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000).

As described in the affected environment and the environmental consequences portions of the EA in Chapter 3, Section T - Wilderness, overall grazing use in the Granite Mountain WSA has decreased when compared to the 1976 baseline established by FLPMA. As a result, grazing impacts to potential wilderness have already been incrementally reduced since WSA designation with a commensurate improvement in wilderness character occurring over the last three decades. In addition, the qualitative rangeland health assessments determined that the Mono Mills allotment meets the Secretary of the Interior Approved Rangeland Health Standards and did not document the need for such an alternative.

Finally, the No Grazing alternative already provides an analysis of the environmental effects and consequences of not grazing in the WSA. Therefore, a detailed analysis of this proposed alternative is not warranted since the analysis of impacts to the WSA would be identical in effects to the impacts described in the No Grazing alternative.

Proposed Alternative 2:

Modify the allotment boundary to permanently exclude livestock from all habitat used by sage-grouse. The comment letter stated that this was “an additional reasonable alternative” but provided no rationale to justify consideration.

Rationale for Eliminating Proposed Alternative 2 from Detailed Analysis:

The proposal to modify the Mono Mills allotment boundary to permanently exclude livestock from all habitat used by sage-grouse would not provide a reasonable alternative for meeting the purpose and need for action because; 1) it is essentially the same as the No Grazing alternative in design and effects and 2) there is no justification or documented need to eliminate livestock grazing on this allotment to protect sage-grouse habitat.

The entire Mono Mills allotment is within the boundary of the South Mono Population Management Unit (PMU) as defined in the Greater Sage-Grouse Conservation Plan for the Bi-State Plan Area of Nevada and Eastern California (NDOW 2004). While currently known and predicted breeding habitat is limited to an estimated 3.2 - 5.0 km vicinity (Connelly et al. 2000) of the Gaspice lek located on Inyo National Forest lands adjacent to the Mono Mills allotment; the entire allotment, with the exception of moderate to high density pinyon woodland habitats which are typically not used by sage-grouse and are also typically not grazed, is considered potential winter, connectivity or refugia habitat. As a result, this proposed alternative would not

be substantially different from the No Grazing alternative in design or effects since it would effectively exclude grazing from the entire allotment. Therefore, a detailed analysis of this proposed alternative is not warranted since the analysis of impacts to sage-grouse, as well as other resources, would be essentially identical in effects to the impacts described in the No Grazing alternative.

Results from the rangeland health assessment conducted on the Mono Mills allotment found that shrub (sagebrush/bitterbrush) canopy cover is well within the recommended guidelines (Connelly et al. 2004) required to meet sage grouse cover requirements for both nesting and winter habitat. In addition, existing habitat information suggests that a general lack of meadows for breeding and late brood-summer habitats is likely the primary factor limiting overall sage-grouse habitat quality within the allotment; not grazing impacts to nesting, brooding rearing, or wintering habitats. The local working group that developed and is working to implement the South Mono PMU portion of the Bi-State Plan is well represented by wildlife biologists from the California Department of Fish and Game, Bureau of Land Management, Inyo National Forest, US Geological Survey, and Los Angeles Department of Water and Power. This group of wildlife biologists has extensive knowledge and experience specific to sage-grouse populations and habitats in the South Mono PMU and did not identify grazing as a risk that warranted either immediate or extensive changes in current management practices to conserve sage-grouse over the long-term. In fact, grazing in the South Mono PMU was characterized as a manageable risk and the recommended conservation strategies focused on implementing current grazing strategies and monitoring use levels to ensure continued maintenance and improvement of sage-grouse habitat conditions. In contrast, this group identified urbanization and development that could result from allotment closures and the subsequent sell-off of private lands that are currently base property for grazing permittees as impacts that could have far reaching impacts to sage-grouse over the long-term. Based on the best available information and assessment of risks to sage-grouse populations and habitats in the region, BLM is unaware of any evidence of direct or indirect negative impacts to sage-grouse or sage-grouse habitat resulting from domestic sheep grazing in the Mono Mills allotment that would warrant consideration of this proposed alternative.

Finally, this proposed alternative is inconsistent with policy and management objectives for the area and would not be in conformance with the Bishop Resource Management Plan (1993) as amended by the Record of Decision, Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000). Qualitative rangeland health assessments determined that the Mono Mills allotment meets the Secretary of the Interior Approved Rangeland Health Standards and did not document the need for such an alternative.

Chapter 3: ENVIRONMENTAL ANALYSIS

A. LIVESTOCK MANAGEMENT

1. Affected Environment

Past and Present Grazing

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 (Putman and Smith (editor) 1995). By 1910 the Farm Census had reported 43,000 sheep and 20,000 cows and cattle in the Owens Valley.

After the enactment of the Taylor Grazing Act in the 1934, government began taking an active role in managing public lands in the Owens Valley, creating allotment boundaries and developing grazing management systems. In 1946 the General Land Office and Grazing Service merged to create the Bureau of Land Management.

Over the last forty years, grazing on public and private lands in the eastern Sierra region has generally consisted of optimizing stocking rates when forage production was adequate to support livestock, generally throughout various habitat types. Grazing permits on public lands have incorporated numerous federal laws, regulations, policies, and management guidelines to protect and improve various resource values including rangeland and vegetative/wildlife habitat conditions. Monitoring has also been incorporated into grazing management to ensure compliance with permit stipulations. These grazing management practices have generally lead to improving trend in rangeland health and habitat conditions within the region.

Presently, the Bishop Field Office administers 58 allotments with 25 permittees spanning a geographic distance of 220 miles 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.

Allotment Specific

The Mono Mills allotment is located within the Granite Mountain Management Area as defined in the Bishop Resource Management Plan (RMP) (See Map 1). Livestock kind, livestock class, permitted season of use, and allocated animal unit months (AUMs) for this allotment as prescribed in the Bishop RMP (BLM 1993) are:

Allotment	Number	Kind	From	To	% P.L.	AUMs
Mono Mills	3,045	Sheep	7/1	10/15	100	2,142

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

2. Environmental Consequences

a. Impacts of Proposed Action

Authorizing grazing with revised, allotment-specific terms and conditions would not create negative impacts to livestock operations. Because livestock grazing practices would follow the Bishop RMP guidelines as amended by the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing (BLM 2000) and the revised terms and conditions, the permittee would have to manage their livestock (e.g. strategic salt placement or active herd management for better distribution) so forage utilization on key perennial species does not exceed utilization levels, as defined in the proposed terms and conditions above. For example, strategic management of livestock by active herding to distribute use on forage across the allotment will indirectly improve forage resources. “On many ranges, improvement will occur without reduction in livestock numbers if practices to secure more uniform utilization are met (Holechek, J.L., et. al. 1989).” Practices already used to distribute livestock include changing location of watering points and active herd management to move livestock to underutilized areas. Lastly, these terms and conditions are designed to help maintain, protect, and improve rangeland health, increasing the probability of long-term economic viability for the permittee.

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action.

For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. Impacts of No Grazing

The cancellation of grazing on this allotment would force the operator to look for alternative forage and may increase the cost of their ranching operation. The permittee may be forced to operate with fewer livestock or sell the entire livestock business. If the business is sold, private lands associated with the ranch have potential to be sold and developed. Ranches build connections between public and private land, and between rural and urban communities. “Private lands are disproportionately important to the maintenance of our region’s natural heritage because they are disproportionately more productive” (Knight 2007). Private lands often contain springs, riparian, rich soils, and/or critical habitat that wildlife depends on. A few of the consequences from development of rural lands are landscape level fragmentation, decrease in biodiversity, and loss of important wildlife habitat.

3. Map

Overview of Allotment (Map 1)

4. References

Holechek, J.L., Pieper, R.D., Herbel, C.H. 1989. Range Management Principles and Practices. Prentice-Hall, Inc., Englewood Cliffs, NJ.

Knight, R.L. 2007. Ranchers as a Keystone Species in a West That Works. Rangelands 29:4-9.

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

B. AIR QUALITY

1. Affected Environment

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

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would create no new impacts because the proposed terms and conditions are designed to help maintain, protect, or sustain rangeland health including soils, and to keep the ecosystem functioning properly. Support vehicle use on the access roads will generate small amounts of PM₁₀ emissions throughout the grazing area and could carry soils onto the paved roads which would increase entrainment of PM emissions. The support vehicles emit various precursor emissions for ozone. Fugitive dust emissions could occur due to the soil disturbance as a result of the trampling action of livestock when soil moisture levels are low. Ruminant animals emit methane gas which is a precursor emission for ozone. Actual emission amounts from this grazing activity are negligible. The proposed action would not measurably change PM₁₀ emissions within the Mono Basin Federal Air Quality Non-Attainment/Maintenance Area.

b. Impacts of No Action

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

c. Impacts of No Grazing

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

C. AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

The proposed action, no action, and no grazing alternatives would have no effect on any designated Area of Critical Environmental Concern (ACEC) because the Mono Mills allotment does not occur within or adjacent to any designated ACEC.

D. CULTURAL RESOURCES

1. Affected Environment

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

Using existing survey data (BLM 1978; Busby et al. 1979; Hall 1980; Kobori et al. 1980), site densities were predicted to range from 9 sites per square mile (m²) in the Benton Planning Unit to 4 sites/m² in the Owens Valley Planning Unit, with an average of 9.54 sites/m² in the Bodie/Coleville Planning units.

To evaluate the Mono Mills allotment for cultural resource values a Class I records search was conducted and a GIS utilized to determine previously surveyed acres and sites recorded. Range improvements where livestock 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 livestock and for the occurrence of significant cultural resources were field evaluated. Inventory was focused on known or suspected areas of historic ground disturbing activities associated with livestock grazing such as water sources, corrals, supplemental feeding areas, bedding areas, and salt block stations. The results of the analyses are used to protect or mitigate impacts to cultural resources. If significant cultural resources are identified, the stipulations of the grazing permit may be modified to reflect the presence and protection of these resources. The following table shows the results of the cultural resource analyses.

Allotment	Previously Surveyed (% of allotment)	Previously Recorded Sites	Newly Surveyed	Newly Recorded Sites
Mono Mills	1600 acres (4.5%)	17	10 acres	1

2. Environmental Consequences

a. Impacts of Proposed Action

Impacts to cultural properties are predicted to be minimal as a result of the proposed action for the following reasons. The allotment in general does not receive heavy use and is used in conjunction with a Forest Service lease. As a result, livestock use on this BLM allotment is generally highly dispersed with light use. However, following the research design (Halford 1999), water improvements and congregation areas have been assessed. Ten water

improvements (troughs, springs, windmills, and water tanks) were field evaluated, and most were found to be in disrepair and no longer in use. Only one trough (project #7503) within the Mono Mills allotment was found to have an effect on a site that was newly recorded during the field evaluations. The trough will be moved off-site or decommissioned since it no longer appears to be in service.

b. Impacts of No Action

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

c. Impacts of No Grazing

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

3. Map

No maps are included due to the proprietary nature of the cultural resource information.

4. References

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E. ENVIRONMENTAL JUSTICE

1. Affected Environment

There are no low-income or minority populations living on the Mono Mills allotment.

There are 11 Native American communities who reside in or in close proximity to the eastern Sierra region administered by the Bishop Field Office. 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 are no specific “traditional use areas” identified at this time by any of the Tribes on this allotment. Any other traditional uses or use areas have not been divulged to this office.

Some Native Americans work in nearby local communities or are employed on their respective reservations. There may be low-income minorities working for the livestock operators on the Mono Mills allotment.

2. Environmental Consequences

a. Impacts of Proposed Action

Continued livestock grazing on the Mono Mills allotment 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 population.

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

If there were no grazing allowed on this allotment, 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 population.

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 this allotment.

F. ESSENTIAL FISH HABITAT

The proposed action, no action, and no grazing alternatives would have no effect on essential fish habitat because there are no anadromous fish species or designated essential fish habitats present on the Mono Mills allotment.

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 Mono Mills allotment.

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 Mono Mills allotment.

I. GLOBAL CLIMATE CHANGE

1. Affected Environment

United States Department of Interior, Order Number 3226, signed January 19, 2001, Evaluating Climate Change Impacts in Management Planning, is an order to ensure that climate change impacts are taken into account in connection with planning and decision making. Climate change refers to any significant change in measures of climate (e.g. temperature or precipitation) lasting for an extended period of time (decades or longer). Climate change may result from: natural processes, such as changes in the sun's intensity; natural processes within the climate system (e.g. changes in ocean circulation); human activities that change the atmosphere's composition (e.g. burning fossil fuels) and the land surface (e.g. urbanization) (IPCC, 2007). "Agricultural activities contribute directly to emissions of greenhouse gases through a variety of processes (USEPA #430-R-08-005, 2008)." A few of these processes include enteric

fermentation (normal digestion), field burning of agricultural residues, and soil management activities such as fertilizer application.

“There is broad scientific consensus that humans are changing the chemical composition of our atmosphere” (Jones & Stokes, August 2007). Changes in the atmosphere have likely influenced temperature, precipitation, storms, and sea level (IPCC, 2007). Rising greenhouse gas (GHG) levels are likely contributing to global climate change. In the eastern Sierra region of California, climate change may result in warmer, drier conditions, and potentially more extreme weather events.

Livestock grazing related to the proposed action and no action alternatives, contributes GHGs in the form of methane (USEPA #430-R-08-005, 2008). One direct emission of greenhouse gasses related to livestock grazing on public land is through enteric fermentation and excretion. “CH₄ is produced as part of normal digestive processes in animals. During digestion, microbes resident in an animal’s digestive system ferment food consumed by the animal. This microbial fermentation process, referred to as enteric fermentation, produces CH₄ as a by-product, which can be exhaled or eructated by the animal. The amount of CH₄ produced and emitted by an individual animal depends primarily upon the animal's digestive system, and the amount and type of feed it consumes (USEPA #430-R-08-005, 2008).” However, challenges exist to determine what fractions of climate change are due to natural variability versus human action since natural contributions of GHGs occur (USEPA #430-R-08-005, 2008).

2. Environmental Consequences

The assessment of GHG emissions and climate change remains in its formative phase. The lack of scientific tools designed to predict climate change on regional or local scales limits the ability to quantify potential future impacts of climate change on resources within the Bishop Field Office. In addition, while the proposed action and no action alternatives may involve some future contribution of GHGs, these contributions would not have a noticeable or measurable effect, independently or cumulatively, on a phenomenon occurring at the global scale believed to be due to more than a century of human activities. Neither the proposed action nor the no action alternative would authorize an increase in activities that would increase GHG emissions.

Rangeland allotment monitoring (both upland and riparian) would continue to be conducted annually and/or periodically. Should warmer and drier conditions occur within the next ten years, which is the term of a grazing permit, monitoring may indicate a need to adjust annual operations. Season of use for a permit is generally broad to compensate for natural annual fluctuations in vegetative growth often related to precipitation amounts and timing. The field manager can also authorize temporary changes in grazing use within the terms and condition of a permit, including the flexibility to allow grazing 14 days prior to the begin date and 14 days after the end date specified on a permit.

The no grazing alternative may reduce locally produced GHG emissions from less enteric fermentation and excretion; however, this level of reduction is likely to be minute and practically

un-measurable at both the local and global scales.

3. References

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J. INVASIVE, NON-NATIVE SPECIES

1. Affected Environment

The following table represents invasive weed species that occur within the Mono Mills allotment:

Allotment	Invasive Weed Species	Estimated % Cover (Rangeland Health Assessment 2002)
Mono Mills	<i>Bromus tectorum</i>	<10%

Rangeland Health Assessments documented low occurrences of invasive species on the Mono Mills allotment primarily due to the sandy, volcanic substrates that are the dominant soil types within the Mono Mills allotment. Populations of *Bromus tectorum* (cheat grass) are confined to roadsides where roadside fill exhibits different substrate textures and types than the surrounding soils. Current densities of cheat grass are not affecting overall ecological function such as reductions in native species composition or increases in fire frequency (BLM, Rangeland Health Assessments 2002).

Given the much higher levels of historic (1800's) sheep grazing in the Sierra (Beesley 1996) it would be expected that residual weed densities would be higher on this allotment, but due to the edaphic characteristics of the southern and eastern extent of the Mono Basin, weeds are infrequent. In addition, sheep numbers are low and use is episodic from year to year.

The interactions between climate and the existing edaphic characteristics within this allotment

would be worth examining, since these sites appear at this time to be resilient to weed incursion. In general because of the regions aridity, it is still expected that elevated CO₂ levels resulting from climate change would lead to net increases in above-ground non-native annual grass production (Smith, et. al 2000).

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would provide added benefit to site conditions and native vegetation in the Mono Mills allotment because the proposed terms and conditions are designed to help reduce the spread of weeds, and to maintain or improve rangeland health which would reduce the risk of crossing ecological thresholds that would increase weed spread. Specifically, forage utilization of native vegetation would not exceed 40% on average under the proposed action which has been shown to benefit plant production and resilience (Vallentine 1990, Van Poollen et. al 1979) compared to the 60% utilization level identified in the Bishop Resource Management Plan (1993).

The terms and conditions outlined in the proposed action would sustain and improve the following key floristic and ecological attributes within the allotments (USDI, 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 the 40% forage utilization levels which would increase the competitive ability of native vegetation with commensurate increases in annual below and above ground grass and forb biomass production.

Potential long-term and landscape impacts of increased weed densities will be more of a function of increased CO₂ levels and fire induced type-conversions (Chambers et al 2000) than the effects of the proposed action. Currently, the cover values for weed species is low and the native plant diversity and density is currently meeting or exceeding Rangeland Health Standards and Guidelines (2002) which will help limit the incursion of weed species into these areas. In addition, the unique edaphic conditions that exist on the Mono Mills also contributes to the site's resiliency to weed invasion.

To reduce the risk of declines in ecological function because of increased weed densities, continued implementation of the Rangeland Health Standards and Guidelines that identify keeping non-native species at "acceptable" levels will require frequent monitoring (2-5 years).

b. Impacts of No Action

Under current management with the mandatory terms and conditions, there would not be any additive effect to existing weed densities separate from the impacts to the ecological function of these plant communities influenced by environmental perturbations associated with fire (Chambers et. al 2000), insect damage, and global climate change effects.

c. No Grazing

Under the no grazing alternative, impacts from weed invasion on native plant communities would affect only small areas where weed populations currently exist, e.g. roadsides. Weed seed from these locations would not be transported into adjacent and currently intact communities by livestock, but would still be transported via vehicles and by non-anthropogenic agents, e.g. rodents, wind, water, (Tausch et al 1994). Even this alternative is unlikely to off-set the effects of increased CO₂ on spread and production of non-native annual grass species. Under the no action alternative impacts to the ecological function of these plant communities would be confined to environmental perturbations associated with fire (Chambers et. al 2000), insect damage, and global climate change effects.

3. References

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K. 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 Mono Mills allotment. There are no treaty rights (hunting, fishing, etc.) associated with any

of the communities or this allotment.

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 are no specific “traditional use areas” identified at this time by any of the Tribes on this allotment. 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 on Native American concerns described above. The rangeland health assessment showed the Mono Mills allotment currently meets 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 on which Native American cultural values depend. 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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and

guidelines.

c. No Grazing

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

L. RECREATION

1. Affected Environment

Recreation activities and facilities in the Mono Mills allotment are limited. Access is from approximately 30 miles of primitive four-wheel drive and single track motorized vehicle routes and trails. This access, coupled with no developed recreational facilities currently precludes intensive recreation activity. Activities that take place consist of motorized four-wheel drive touring, motorcycle riding, hunting, hiking, horse-back riding, and dispersed camping. Encounters with livestock occur infrequently.

2. Impacts of Alternatives

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

M. SOCIAL AND ECONOMIC VALUES

1. Affected Environment

Regionally, livestock operations in Inyo and Mono counties are dependent on federal lands (BLM and U.S. Forest Service) and nonfederal lands (state and private). The Mono Mills allotment has one permittee. There is a careful balance of livestock numbers and seasons of use for grazing this allotment, such that any substantial change of use, would negatively affect their overall operation by reducing available forage and management flexibility required for a profitable operation.

For 2008, the federal grazing fee for Western public lands managed by the Bureau of Land Management and the Forest Service is \$1.35 per animal unit month (AUM). An AUM is the amount of forage needed to sustain one cow and her calf, one horse, or five sheep or goats for a month. The annually adjusted grazing fee is computed by using a 1966 base value of \$1.23 per AUM for livestock grazing on public lands in Western states. The figure is then adjusted

according to three factors - current private grazing land lease rates, beef cattle prices, and the cost of livestock production. The formula used for calculating the grazing fee, established by Congress in the 1978 Public Rangelands Improvement Act, has continued under a presidential Executive Order issued in 1986. Under that order, the grazing fee cannot fall below \$1.35 per AUM, and any increase or decrease cannot exceed 25 percent of the previous year's level.

The local economy is benefited by this grazing allotment from monies spent to establish and maintain a ranching operation and contributions to the labor force. In 1980 for Inyo and Mono counties, livestock production grossed \$11,303,334 and inventories accounted for 71,400 cattle and calves (calves/steers, heifers, cows, bulls, and stockers) and 28,900 sheep and lambs (1980 Annual Crop and Livestock Report). In 2007 for Inyo and Mono counties, livestock production grossed \$30,488,850 and inventories accounted for 53,265 cattle and calves (calves/steers, heifers, cows, bulls, and stockers) and 21,500 sheep and lambs (2007 Annual Crop and Livestock Report). Agriculture production which includes livestock, field crops, miscellaneous crop production, and apiary is the second largest industry and an integral part of both Inyo and Mono County economies.

In Mono County for 2007, beef and alfalfa hay production were the primary production crops. Of a 100% total in agricultural values, livestock production accounted for 60% in Mono County. This amounted to \$20,227,600 or 60% of the total \$36,924,350 agricultural production.

2. Environmental Consequences

a. Impacts of Proposed Action

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

b. Impacts of No Action

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

guidelines.

c. No Grazing

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

3. References

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Annual Crop and Livestock Report. 2006. Inyo- Mono Counties (prepared June 14, 2007).

Annual Crop and Livestock Report. 2007. Inyo- Mono Counties (prepared July 9, 2008).

N. SOILS

1. Affected Environment

The soil classifications for the Mono Mills allotment have been mapped in detail by the Natural Resource Conservation Service (NRCS 1996). Two general soil types exist on the Mono Mills allotment. The first soil type is soils of the mountainous region which are shallow to very deep, well drained sandy loams to loams. The second soil type is soils of the intermountain valleys which are moderate to very deep, well to somewhat excessively drained ashy loamy sands. Soils of these types tend to limit the establishment of seeds and seedling development because of the sand structure. Furthermore, the very shallow soils may restrict water infiltration and plant rooting. These soils primarily occur on slopes and ridges. Ash loamy sands are inclusions occurring within depressions or valleys between the slopes. These soils are well drained, which provide a more favorable habitat for both grasses and mixed desert shrub species.

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

BLM assessed the Mono Mills allotment in 2002 to determine if the rangeland health standards were being met. Specific soils standards relate to permeability and infiltration. Cryptobiotic soil crusts are a soil attribute within the Rangeland Health Standards and Guidelines. This attribute as well as other soil stability and function attributes were found to meet the Rangeland Health Standards (BLM, Rangeland Health Assessments 2002) on the Mono Mills allotment.

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 the 40% 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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

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

3. References

Bureau of Land Management, Bishop Resource Management Plan, Record of Decision. 1993.

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O. VEGETATION/THREATENED AND ENDANGERED

Plant Communities

1. Affected Environment

A baseline range inventory for this allotment 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 Mono Mills allotment occurs in the Great Basin Floristic Province. The dominant plant communities are sagebrush/bitterbrush and pinyon woodland. The sagebrush/bitterbrush communities are dominated by sagebrush (*Artemisia tridentata* ssp. *tridentata*, *A. tridentata* ssp. *vaseyana*) and bitterbrush (*Purshia tridentata* var. *tridentata*). Understory grasses such as Indian rice grass (*Achnatherum hymenoides*), desert needlegrass (*Achnatherum speciosum*), needle and thread (*Hespirostipa comota*), western needlegrass (*Achnatherum occidentale*), and Thurber's needlegrass (*Achnatherum thurberianum*) can make up 15-20% of the cover at the higher elevations (Barbour and Major 1977). Additional species include, but are not limited to, horsebrush (*Tetradymia canescens*), green ephedra (*Ephedra viridis*), yellow and curly-leaved rabbitbrush (*Chrysothamnus nauseosus* and *C. viscidiflorus*), and currant species (*Ribes cereum* and *R. velutinum*). During years of high precipitation annual forbs are abundant and include species from the following genera: *Astragalus*, *Cryptantha*, *Eriogonum*, *Phacelia*, as well as genera in the Asteraceae Family.

The Mono Mills allotment is lightly grazed due to restricted access and limited water availability. The upland plant communities within the Mono Mills allotment meet Rangeland Health Standards and Guidelines (BLM Rangeland Health Assessments 2002). Forage capacity on these allotments is moderate and the plant communities are incapable of sustaining large numbers and frequent livestock use which has been shown to be detrimental to the various attributes of ecological function including plant vigor, seedling recruitment and recovery (Clary and Holmgren 1987; Holcheck 1983; Sneva 1980)

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would benefit site conditions and native vegetation on the Mono Mills allotment because the proposed terms and conditions are designed to help reduce the spread of weeds, and to maintain or improve rangeland health. Specifically, forage utilization of native vegetation would not exceed 40% on average under the proposed action which has been shown to benefit plant production and resilience (Vallentine 1990, Van Poolen et. al 1979), compared to the 60% utilization identified in the Bishop Resource Management Plan (1993). The terms and conditions outlined in the proposed action would sustain and improve the following key floristic and ecological attributes within these allotments (USDI, 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

Current stocking rates are low and do not impair the large-scale ecological function of these plant communities (BLM Rangeland Health Assessments, 2002). Under the proposed action, grazing impacts such as localized soil disturbance would affect very small portions (< 1-2 acres in size) of this allotment and be associated primarily with existing bedding grounds, watering facilities and roadsides. These impacts would not contribute to a large-scale reduction in ecological function of the plant communities that occur within the allotment, but would require periodic (2-5 years) monitoring to determine impact thresholds.

Such improvements in floristic and ecological attributes would be a result of the 40% utilization levels, existing range improvements, and good livestock distribution which would lead to commensurate increases in annual below and above ground grass and forb biomass production. The implementation of the proposed terms and conditions on the Mono Mills allotment would enhance and sustain the large-scale ecological function of these plant communities especially during non-drought years (BLM 1999, BLM 2000).

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative, livestock grazing on the Mono Mills allotment would cease. Individual plant populations within the communities that are commonly grazed would have an opportunity to complete all phenological stages. Impacts to the ecological function of these plant communities would be confined to environmental perturbations associated with fire (Chambers et. al 2000), insect damage, and global climate change effects.

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.
- Cook, C. Wayne. 1977. Effects of Season and Intensity of Use on Desert Vegetation. Utah Agricultural Experiment Station. Bulletin 483.
- Department of the Interior, Bureau of Land Management. 1998. Rangeland Health Standards and guidelines for California and northwestern Nevada: Final EIS. California State Office, U.S. Department of the Interior, Bureau of Land Management, Sacramento, CA.
- Department of the Interior, Bureau of Land Management. 1998. Rangeland Health Standards and Guidelines for California and Northwestern Nevada. BLM/CA/ES-98/005+4100.
- Department of the Interior, Bureau of Land Management. 1999, 2000. Rangeland Health Assessments. Technical Reference 1734-6, 2000, Interpreting Indicators of Rangeland Health (Version 3).
- Department of the Interior, Bureau of Land Management. 1980. Site Vegetation Inventory Method for the Bodie Hills Management Area.
- Department of the Interior, Bureau of Land Management 1980. Order 3 Soil Inventory for the Bodie Hills Management Area.
- Hughes, L.E. 1982. A grazing system in the Mohave Desert. Rangelands 4, 256-257.
- Laycock, W.A. 1994. Implications of grazing vs. no grazing today's rangelands. In: M. Vavra, W. Laycock and R. Pieper, eds. Ecological implications of livestock grazing in the West. Society for Range Management. Denver, CO.

Threatened and Endangered Plant Species

The proposed action, no action, and no grazing alternatives would have no effect on threatened or endangered plant species because no federally listed threatened or endangered species are present on the Mono Mills allotment based on historical records, field monitoring, and/or habitat suitability.

Special Status Plant Species

1. Affected Environment

Special Status Plant Species trends are assessed based on monitoring that occurs every 3-5 years and is primarily comprised of site checks to ensure plants are not being uprooted, weeds are not encroaching into populations, and that active seedling recruitment is occurring. The last site visit on the Mono Mills allotment occurred on July 4th, 2004. Rangeland Health Assessments were designed using a stratified random sampling method to ensure that Rangeland Health Guidelines were being met in proximity to Special Status Plant sites. Below is a summary of California Native Plant Society (CNPS) List 1B species occurring within the Mono Mills allotment.

Allotment	Plant Species	Population Trend
Mono Mills	Mono milk-vetch <i>Astragalus monoensis</i> Mono lake lupine <i>Lupinus duranii</i>	Decreasing within enclosure and stable to increasing outside enclosure. Stable to increasing.

General Discussion of Special Status Plant Habitat and Trend for the Mono Mills allotment

Astragalus monoensis - Mono milk-vetch. Populations of this species occur from Mono Lake to Long Valley on lands administered by both the Inyo National Forest and BLM. Plants occur on volcanic substrates that contain a low cover of early seral associate species. Numbers of plants within these populations can exceed 2,000 individuals (USFS, Pers. Comm. 2008). An enclosure for this species was established by the Inyo National Forest on USFS administered lands in 1982 to examine the relationship of livestock grazing and the Special Status plant. From 1982 to 1988, the species had declined within the enclosure and numbers outside the enclosure remained stable (Pers. Comm. USFS 2008). Vegetation cover of associate species, such as Douglas sedge and Thurber's needlegrass had increased within the enclosure. A site visit in 2004 documented no change within the enclosure since 1992 and > 300 plants were found throughout the greater study area - actual monitoring plots remained stable, e.g. no net increases or decreases.

Lupinus duranii - Duran's lupine. This species occurs on the same volcanic substrates as the Mono milk-vetch in the south end of the Mono Basin to approximately 3 miles north of Mammoth Lakes. It does not extend to the northern edge of the Mono Basin likely due to major substrate differences. Numbers can exceed 1,000 individuals within sub-populations, the majority of which, are ungrazed (USFS, Pers. Comm. 2008). Trend results for the population along Highway 120 are represented in the table above.

2. Environmental Consequences

a. Impacts of Proposed Action

The proposed action would benefit the Special Status plant species that occur in the Mono Mills and overall plant community health and provide commensurate benefits to pollinator habitat. Specifically, forage utilization of native vegetation would not exceed 40% on average under the proposed action which has been shown to benefit plant production and resilience (Vallentine 1990, Van Poollen et. al 1979), compared to the 60% utilization identified in the Bishop Resource Management Plan (1993). The terms and conditions outlined in the proposed action would sustain and improve the following key floristic and ecological attributes within these allotments (USDI, 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

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

Impacts of the no grazing alternative would affect Special Status Plant populations in the Mono Mills allotment by removing any random occurrences of dispersed livestock trampling effects. Under the no action alternative impacts to the ecological function of these plant communities would be confined to wild horse use, unauthorized vehicle use, and environmental perturbations associated with fire (Chambers et. al 2000), insect damage, and global climate change effects.

4. References

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

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

Chambers, Jeanne C., McArthur, Durant E., Monson, Steven B., Meyer, Susan E. Shaw, Nancy L., Tausch, Robin J. 2005. Blank, Robert R. Blank, Bunting, Steve, Miller Richard R., Pellant, Mike Pellant, Roundy, Bruce A., Walker, Scott C. Walker and Whittaker, Alison. 2005 Sagebrush steppe and pinyon-juniper ecosystems – effects of changing fire regimes, increase fuel loads and invasive species

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

Nelson, Kathleen. 2008. Botanist, Inyo National Forest. Personal communication regarding recent monitoring and discoveries of *Astragalus monoensis*.

P. WASTE, HAZARDOUS OR SOLID

The proposed action, no action, and no grazing alternatives would not generate hazardous or solid waste on the Mono Mills allotment.

Q. WATER QUALITY, DRINKING-GROUND

1. Affected Environment

Surface water occurs in the form of three natural springs in the Mono Mills allotment. The allotment also contains one well. Two springs have been sampled for their water quality constituents. The source for Indian Spring occurs in the Mono Mills allotment with the outflow of 12 gallons/minute (gpm) continuing for approximately 2,000 linear feet in a channel in to the adjacent Mono Lake allotment. The source location of Indian Spring and approximately 1,800 feet of the channel is protected by a fence enclosure that prevents livestock access to the water. The second source is Finch Spring which was a perched seep with a flow of 2 gpm. The site is not a dependable source and currently there is no surface water. This source was altered sometime in the mid 1980's due to unauthorized excavation of the seep and construction of a reservoir. For both springs, at the time of their one time inventory in 1980, water quality was generally good with the concentration of total dissolved solids (tds) at 125 milligrams/liter (mg/l) and a pH of 7.4 for Indian Spring and a tds of 130 mg/l and a pH of 6.8 at Finch Spring. The

concentrations for other constituents, like CO², Ca, Mg, Cl and Na, were low enough to categorize both springs as drinking water standard quality. A third spring source (project file 7540), approximately 2 miles east of Indian Spring, was also altered due to unauthorized excavation of the seep and construction of a small reservoir. No water quality information is known for this site and it, also, is currently without surface water. The well (project file 7555) is located northeast of Indian Spring and was another unauthorized excavation to develop water for livestock use. At the time of construction, the well was approximately 14 feet deep, enclosed in a wood collection box, and had a capacity sufficient to fill a 2,800 gallon storage tank. The water source is not dependable year to year. No water quality information is known for this well.

2. Environmental Consequences

a. Impacts of Proposed Action

Indian Spring, the only current and consistent perennial surface water source on the allotment would maintain its good water quality with implementation of the proposed action. Water quality would be maintained due to the fence enclosure protecting the source and channel from livestock use.

b. Impacts of No Action

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

c. No Grazing

Under this alternative livestock grazing on the Mono Mills allotment would cease. All potential for livestock induced affects on the water quality of Indian Spring would be eliminated.

3. References

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

R. WETLANDS/RIPARIAN ZONES

1. Affected Environment

Indian Spring provides approximately 2 acres of riparian vegetation composed mainly of sedges, bluegrass, and willows. With the entire riparian corridor at the spring source and downstream for approximately 1,900 feet enclosed within a fence to prevent livestock access to the water, riparian vegetation has developed to the extent possible along the stream edge within the limits of the landform configuration. There is no viable riparian vegetation at Finch Spring or at the silted in reservoir of project 7540. No other wetland or riparian zones occur within the Mono Mills allotment.

2. Environmental Consequences

a. Impacts of Proposed Action

The fence enclosure at Indian Springs will be maintained to prevent impacts to the riparian vegetation condition. No other wetland or riparian vegetation is found within the allotment. The proposed action would have no affect on wetland or riparian vegetation.

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on the Mono Mills allotment would cease. The no grazing alternative would have little to no impact on wetland or riparian vegetation since few impacts currently occur.

3. References

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

Department of the Interior, Bureau of Land Management, Bishop Field Office. 1986. Water Supply Inventory. File.

S. 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 study river segments on the Mono Mills allotment.

T. WILDERNESS

1. Affected Environment

The Mono Mills allotment does not occur within any congressionally designated Wilderness Area. However, approximately forty percent (21,916 acres) of the Granite Mountain WSA occurs in the Mono Mills allotment.

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

Summary of WSA and Rangeland Inventory Findings

Grazing existed on the Mono Mills allotment at the time the WSA was designated by BLM in the 1979-1980 and is a use grandfathered by Section 603(c) of FLPMA. Grazing may continue in the same manner and degree as took place in 1976. The IMP which provides specific guidance for implementation of grazing systems governs BLM actions in the WSA.

When the WSA was designated in 1979-80, the BLM determined it met the naturalness criteria based primarily on the landscape's general appearance of having been affected primarily by the forces of nature with the imprint of man's work being substantially unnoticeable. In other words, the WSA had to appear generally natural, and could include some minor impacts such as range improvements identified in the original inventory assessment in 1978-79. The wilderness inventory, which led to WSA designation determined that range improvement activities were

compatible with BLM's wilderness inventory standards. The improvements and the overall native vegetation conditions met the wilderness inventory naturalness criterion to qualify the area for WSA status.

Finally, the WSA inventory identified outstanding opportunities for solitude or primitive and confined types of recreation occurred throughout the unit because of its topographic and vegetative screening effect.

Grazing Management History in WSAs and BLM's Planning Process

Prior to 1982, no plans existed to guide BLM's grazing management in the eastern Sierra. The Taylor Grazing Act (1934), the Public Rangeland Improvement Act (1973) and an assortment of regulations and policies directed BLM to provide for grazing use on public land incorporating conservation measures to protect soils from erosion, etc. The Federal Land Policy Management Act of 1976 (FLPMA) gave BLM a land management framework to base future decisions. This new law directed BLM to use comprehensive land use planning as part of its mission and stewardship responsibilities.

Under FLPMA's direction, the Bishop Field Office developed the Benton-Owens Valley Management Framework Plan (MFP) in 1982 and began to integrate other resource considerations in its management direction. The Granite Mountain WSA fell within the scope of this MFP. The MFP was the first coherent BLM planning effort in the eastern Sierra designed to manage grazing and maintain wildlife habitat integrity, watershed quality, wilderness values, etc. It took into account WSA management and adherence to the IMP in its prescriptions. The MFP which resulted in the Benton-Owens Valley Grazing Final Environmental Impact Statement (July 1981) acknowledged the adverse resource impacts that would result from continuance of past grazing practices and prescribed a reduction in grazing use, allocated forage for wildlife use, and identified range improvements to improve livestock management and distribution to increase resource protection and improve resource conditions.

Over a decade later, the Bishop Resource Management Plan (1993) and subsequently the Central California Standards for Rangeland Health and Guidelines for Livestock Grazing Management (2000) were prepared and approved. These recent plans replaced the MFP and instituted even more restrictive grazing terms and conditions and adaptive management strategies designed to further improve resource conditions. These advancements in rangeland management direction were designed to continue BLM's progression to improve ecological integrity across all habitats in the Benton-Owens Valley Planning Area including the Granite Mountain WSA. Subsequently, any future livestock authorizations are required to operate under particular terms and conditions designed to maintain rangeland health as described in the Proposed Action Alternative.

BLM's implementation and progression in rangeland management, from the Benton-Owens Valley MFP to the present day Bishop Resource Management Plan and California Standards for Rangeland Health and Guidelines for Livestock Grazing Management, has incrementally

improved wilderness conditions over the last 28 years by increasing habitat quality and integrity through decreased grazing use and altering grazing systems to more ecologically based strategies.

Current Facilities and Grazing Use Patterns in WSAs:

As mentioned above, BLM determined that the Granite Mountain WSA qualified for study because it met the wilderness criteria of size, naturalness, etc. The few range improvements in the WSA were minor in relationship to the expanse of the WSA. Historically, sheep have used the Mono Mills allotment within the WSA depending on the forage availability. Approximately two miles of pipeline and two troughs are located in the southwest portion of the WSA. It was determined the accumulation of impacts from range improvement/grazing activities were minor and did not create a substantially noticeable presence of human made features in the WSA. At the water development sites described above, sheep trampling and soil compaction impacts occur a few hundred feet around the site. The range improvements within the WSA were built before it was designated. The facilities themselves directly impact less than 1% of the acreage in the WSA.

2. Environmental Consequences

a. Impacts of Proposed Action

Future grazing authorizations would maintain the WSA's wilderness values of naturalness because the proposed terms and conditions (e.g. 40% utilization) assure that vegetative habitats maintain their range of phenological stages, composition, and vigor. Overall, habitat quality of the allotment would be maintained since implementation of the proposed terms and conditions are designed to protect and sustain rangeland health. Soil compaction and trampling would continue a few hundred feet around the trough and pipeline site in the southwest portion of the WSA.

Wilderness values of outstanding opportunities for solitude and a primitive or unconfined type of recreation would remain unaffected because no new facilities are proposed which would affect these values adversely. For additional information regarding special features such as cultural values, wildlife, plants, etc., refer to specific narratives addressing these values in other sections of this document.

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

b. Impacts of No Action

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

c. Impacts of No Grazing

Wilderness values of naturalness would improve slightly because grazing elimination would allow vegetation to complete all phenological stages without interruption. Natural processes would completely dominate, maintaining and improving the wilderness value of naturalness. Areas around the existing water troughs would rehabilitate naturally and trough removal would eliminate any vestige of human influence in the southwestern portion of the WSA. Wilderness values of outstanding opportunities for solitude and primitive or unconfined types of recreation would remain unaffected.

3. Map

Overview of Allotment (Map 1)

4. References

Department of Interior, Bureau of Land Management. 1978. Bureau of Land Management Wilderness Inventory Handbook.

Department of the Interior, Bureau of Land Management. 1979. Final Intensive Inventory.

Department of Interior, Bureau of Land Management. 1981. Benton-Owens Valley Grazing Environmental Impact Statement. Bishop Resource Area, Bishop, CA.

Department of Interior, Bureau of Land Management. 1982. Benton-Owens Valley Management Framework Plan (MFP). Bishop Resource Area, Bishop, CA.

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

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

Department of Interior, Bureau of Land Management. 1993. Bishop Resource Management Plan Record of Decision.

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

U. WILDLIFE/THREATENED AND ENDANGERED

Wildlife Habitats and Associated Species

1. Affected Environment

Upland

In the Mono Mills allotment, the dominant plant communities identifying wildlife habitat types are big sagebrush/bitterbrush, valley bottom sagebrush and pinyon pine woodland. A 1978 baseline wildlife species inventory in these vegetation communities documented a variety of non-game small mammals, passerine songbirds, and reptiles (BLM 1980).

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

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

Passerine bird species recorded in the sagebrush/bitterbrush habitat type were the Brewer's sparrow (*Spizella breweri*), green-tailed towhee (*Pipilo chlorurus*), gray flycatcher (*Empidonax wrightii*), sage sparrow (*Amphispiza bellii*), house finch (*Carpodacus mexicanus*), and blue-gray

gnatcatcher (*Poliioptila caerulea*). The Brewer's sparrow and sage sparrow are species of interest due to them being sagebrush obligates and may be declining in number range-wide due to a loss of sagebrush habitat. Bird species recorded in the valley bottom sagebrush habitat, distinct from the sagebrush/bitterbrush habitat, were the sage thrasher (*Oreoscoptes montanus*) and vesper sparrow (*Pooecetes gramineus*).

Mule deer (*Odocoileus hemionus*) use the Mono Mills allotment primarily as a migration route when moving to and from the Sierra Nevada between summer and winter range. Mule deer may use portions of this allotment throughout the winter where the sagebrush/bitterbrush and pinyon pine woodland vegetation communities provide the necessary forage and/or thermal cover during mild weather conditions. Summer resident mule deer also occur in low densities on the Mono Mills allotment. Ensuring sufficient annual leader growth is maintained on bitterbrush after livestock grazing is essential for maintaining good habitat quality for migrating and wintering winter mule deer. Habitat quality for summer resident mule is primarily limited by a lack of surface water.

Livestock grazing on this allotment has been minimal over the past several years and there is no indication that present livestock grazing is having any measurable negative effects on any of the three principal wildlife habitat types on the allotment. The primary large-scale habitat altering events that have affected the condition and quality of some sagebrush/bitterbrush and valley bottom sagebrush vegetation communities in the Mono Mills allotment have been wildfires.

Riparian

Indian Spring is the only riparian site of any significance within this allotment and is currently protected from livestock grazing by a 1,800 linear feet fence enclosure. The riparian vegetation of Indian Spring is located in one of the driest areas of the eastern Sierra and the songbird species recorded there are indicative of the biological productivity of the site. A 1978 bird survey conducted from May 31 to June 2 recorded seven species as likely to be breeding within the riparian corridor of Indian Spring (BLM 1980). A more intensive effort at determining breeding bird presence at Indian Spring riparian occurred from 1998 - 2000 (Heath, et al. 2001). Sixteen (16) species were confirmed breeding or likely breeding in this habitat with an additional 16 species either possibly breeding or using the site for some other purpose (e.g. water source or foraging). The increase in the number of breeding species documented using Indian Spring may be attributable to the improvement in riparian conditions since 1990 when the project was increased in size from 1,000 to 1,800 linear feet or to the increased monitoring effort.

2. Environmental Consequences

a. Impacts of Proposed Action

The attributes of the upland vegetation communities defining wildlife habitats on this allotment would be maintained and slightly improved from current conditions over the long-term with implementation of the proposed action. Seed eating species guilds of rodents and birds would

gain the most benefit from readily available food and cover resources as the result of the 40% utilization limit on perennial grass species. Mule deer habitat quality would also be maintained or slightly improved as the result of the bitterbrush 20% use limit that would ensure adequate bitterbrush leader growth is available for forage. The bitterbrush use standard would also promote improved vigor and long-term maintenance of sagebrush/bitterbrush stands that provide important wildlife habitat for the largest variety of species on the allotment. Terms and conditions requiring the use of existing camps, bedding grounds, and watering facilities would ensure that currently intact upland vegetation communities and associated wildlife habitat values would not be modified as the result of any new surface disturbing activity associated with grazing or grazing management on the allotment. Indian Spring would continue to be protected from livestock grazing and riparian habitat condition and productivity would be retained over the long-term.

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on the Mono Mills allotment would cease. The attributes of the upland vegetation communities defining wildlife habitats in this allotment would be maintained and slightly improved from current conditions over the long-term. The amount and rate of improvement would be increased and accelerated as compared to the proposed action and no action alternatives. Barring a catastrophic event (e.g. wildfire), the total annual production of the plant communities would be available to wildlife and wildlife habitat conditions would be determined by primarily by the natural interaction of climate, soils and vegetation. Habitat conditions at existing camps and bedding grounds would trend toward more natural conditions as vegetation cover increased on these previously disturbed sites. No fence would be needed to protect Indian Spring from livestock grazing and riparian habitat condition and productivity would be retained over the long-term.

The loss of the grazing permit would likely lead to the transfer of base property to development interests. This would result in both the direct loss of habitat on private lands to development as well as the indirect effects of disturbance on adjacent public lands associated with development,

particularly in the Cowtrack Mountain vicinity. These habitat loss impacts would be concentrated on, or immediately adjacent to, the limited mesic/meadow habitats that are extremely important to a wide variety of wildlife species on the Mono Mill allotment. Surface water available to wildlife would be reduced commensurate with the loss of livestock water developments.

3. References

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

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

Threatened or Endangered Wildlife Species

1. Affected Environment

No federally listed threatened or endangered species are present or likely to occur on the Mono Mills allotment based on historical records, field monitoring, and/or habitat suitability.

A high priority recovery action for management of Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*), listed as federally endangered, is to prevent physical contact between wild and domestic sheep since that contact increases the likelihood of bighorn sheep potentially incurring significant population mortality through pneumonia related die-offs (USFWS 2007). The extreme western portion of the Mono Mills allotment is within 23 kilometers of the boundary of the Northern Recovery Unit for Sierra Nevada bighorn sheep; a distance used in the final Recovery Plan for the Sierra Nevada Bighorn Sheep (USFWS 2007) to narrow the focus for analysis when considering potential physical contact between domestic and wild sheep. The nearest population of Sierra Nevada bighorn sheep is found in the Mt. Gibbs herd unit in the Sierra Nevada, approximately 18 kilometers west of the western most boundary of the Mono Mills allotment.

Sierra Nevada bighorn sheep do not occur in, nor are they likely to be attracted near to, the Mono Mills allotment due to a complete lack of favorable habitat that might serve as an attractant to wild sheep. In addition, the distance between the Mono Mills allotment and the Mt. Gibbs herd unit along with numerous impediments to wild sheep moving in the direction of the allotment combine to provide a substantial deterrent to wild sheep moving toward or into the allotment. Major impediments to wild sheep movement into the allotment include Mono Lake, Highway 395 (four lanes), Highway 158, Highway 120, Rush Creek, several highway right-of-way fences and other fences on Inyo National Forest and private lands, and a large expanse of Jeffery pine forest and fire scarred terrain southeast of Mono Lake along Highway 120. The BLM is aware of one instance when a male bighorn (ram) from the Mt. Warren herd unit is reported to have

crossed Highway 395 from west to east during the fall of 2003, in the vicinity of Conway Summit, north of Lee Vining, California. It is unknown how long this ram spent east of the highway. Reportedly, the ram was struck by a vehicle attempting to return to the Sierra Nevada and ultimately died a result of injuries sustained during the collision several weeks later. There are no reported instances of wild sheep wandering from the Mt. Gibbs herd unit into the Mono Basin. The Mono Mills allotment is typically used by domestic sheep for approximately 30 days during the summer and/or early fall, a time when male bighorn are less likely to roam from their herd unit area.

The obstacles cited above and a lack of natural watering locations also serve as significant barriers to any fugitive domestic sheep moving west from the Mono Mills allotment toward the wild sheep herd unit areas. Domestic sheep are a herding animal and while on the allotment are under the control of a herder and herding dogs. Grazing occurs primarily in the vicinity of hauled in watering sites and along developed pipelines. Indian Spring, located near the center of the allotment, is the only available natural water source on the Mono Mills allotment and is fenced to exclude livestock access to water. No domestic sheep grazing currently occurs in the western one-third of the allotment due to the Crater Fire destroying all available forage in 2001 with essentially little recovery in the native vegetation community to date.

2. Environmental Consequences

The proposed action, no action, and no grazing alternatives would have no effect on threatened or endangered wildlife species because no federally listed threatened or endangered species are present or likely to occur on the Mono Mills allotment based on historical records, field monitoring, and/or habitat suitability.

The location and timing of domestic sheep presence on the Mono Mills allotment along with: 1) the terms and conditions of the grazing permit specific to monitoring and responding to Sierra Nevada bighorn sheep movements relative to allotments east of Highway 395, 2) the lack of suitable Sierra Nevada bighorn sheep habitat on the Mono Mills allotment and between the allotment and the Mt. Gibbs herd unit, 3) the combination of distance and impediments to movement by either wild sheep or domestic sheep between the Mono Mills allotment and the Mt. Gibbs herd unit, 4) the characteristic behavior of wild sheep to exhibit group living, a strong preference for rocky escape terrain, and occupation of alpine ranges (females) and lower elevation subalpine habitat near the Sierra Nevada crest (males) in the summer and, 5) the reluctance of wild sheep to disperse from their home range (USFWS 2007) combine to ensure sufficient safeguards are in place to prevent physical contact between the two species.

3. References

Department of Interior, U.S. Fish and Wildlife Service. 2007. Recovery Plan for the Sierra Nevada Bighorn Sheep. Sacramento, CA. 199 pp.

Sensitive Wildlife Species

1. Affected Environment

Greater sage-grouse (*Centrocercus urophasianus*), a BLM sensitive wildlife species, are known to occur within the Mono Mills allotment. No other BLM sensitive wildlife species are known to occur on the allotment based on historical records, field monitoring, and/or habitat suitability.

The entire Mono Mills allotment is within the boundary of the South Mono Population Management Unit (PMU) as defined in the Greater Sage-Grouse Conservation Plan for the Bi-State Plan Area of Nevada and Eastern California (NDOW 2004). Sage-grouse and their seasonal use of habitat within the South Mono Population Management Unit (PMU) are known from extensive monitoring of strutting grounds during the breeding period, from individual radio collared grouse monitored as part of several studies undertaken by different investigators since 1984, and from field surveys. The entire allotment, with the exception of moderate to high density pinyon woodland habitats which are typically not used by sage-grouse, is considered potential winter, connectivity or refugia habitat. Currently known and predicted breeding habitat in the Mono Mills allotment is limited to an estimated 3.2 - 5.0 km vicinity (Connelly et al. 2000) of the Gaspipie lek. This strutting ground was discovered by BLM in 1990 and is located on USFS land immediately adjacent to the Mono Mills allotment. Using the guidelines developed by Connelly et al. this lek is treated as a distinct strutting ground within the larger context of the South Mono breeding population. Since discovery in 1990, peak male attendance on the Gaspipie lek has averaged 7 males and ranged from a minimum of 1 male in 1998 to a maximum of 16 males in 2005 and 2006. Peak male attendance over the last 10 years (1999-2008) has averaged 10 males. No sage-grouse from this lek have been captured and little is known about seasonal movements and habitat use by sage-grouse associated with this lek.

It is currently unknown if sage-grouse using the Gaspipie lek interact with grouse using other lek complexes in the South Mono PMU. Telemetry data from numerous individual sage-grouse captured within Long Valley lek complex, which occurs in the southern portion of the PMU, has not documented movements out of that basin with the exception of one radioed bird that moved into the Adobe Meadows area southeast of the Gaspipie lek and the Mono Mills allotment. Radio collared sage-grouse from the Parker Meadows lek complex in the northwestern portion of the PMU have been found to move primarily between Parker Meadows and the western aspect of the Mono Craters. Similar to sage-grouse captured in Long Valley, movement by these grouse into potentially suitable areas in the eastern portion of the Mono Basin and the Mono Mills allotment has not been documented.

Shrub communities within the Mono Mills allotment are generally dominated by later seral stages and have low native bunch grass cover which is likely the result of dense shrub cover (up to 60%) and an extremely xeric environment. Results from the rangeland health assessments conducted in 2002 on the Mono Mills allotment found that shrub (sagebrush/bitterbrush) canopy cover is well within the recommended guidelines (Connelly et al. 2000) required to meet sage

grouse cover requirements for both nesting and winter habitat. The entire allotment, with the exception of Indian Spring, is essentially devoid of wet meadows and riparian habitat. Current habitat information suggests that while the Mono Mills allotment provides suitable nesting and winter habitat for sage grouse; a lack of meadows for breeding and late brood-summer habitat is likely the primary factor limiting overall sage-grouse habitat quality and use within the allotment. As a result, sagebrush habitats within the Mono Mills allotment and the larger Mono Basin likely serve primarily as potential winter, connectivity or refugia habitat for breeding populations within the Bodie and South Mono PMUs; however, as stated above telemetry studies and field surveys to date have not detected such movements or use.

Without specific information on sage-grouse use of the allotment over different years, there is no reliable method to determine if domestic sheep grazing is influencing sage-grouse presence or seasonal habitat use within the allotment. Domestic sheep are typically grazed on less than 50% of the allotment during July for approximately 30 to 45 days, a time when sage-grouse nesting and early brood rearing have already occurred. In addition, grazing operations are conducted to ensure forage utilization does not exceed 40% of annual production, on average, of key perennial grass species or 20% on bitterbrush, a shrub important to overall canopy cover for nest site selection. (BLM unpublished data; Cassaza et al. 2005; Koloda 2007).

The local working group that developed and is working to implement the South Mono PMU portion of the Bi-State Plan is well represented by wildlife biologists from the California Department of Fish and Game, Bureau of Land Management, Inyo National Forest, US Geological Survey, and Los Angeles Department of Water and Power. This group of wildlife biologist has extensive knowledge and experience specific to sage-grouse populations and habitats in the South Mono PMU and did not identify grazing as a risk that warranted either immediate or extensive changes in current management practices to conserve sage-grouse over the long-term. Grazing in the South Mono PMU was characterized as a manageable risk and the recommended conservation strategies focused on implementing current grazing strategies and monitoring use levels to ensure continued maintenance and improvement of sage-grouse habitat conditions. In contrast, this group identified urbanization and development that could result from allotment closures and the subsequent sell-off of private lands that are currently base property for grazing permittees as impacts that could have far reaching impacts to sage-grouse over the long-term. Based on the best available information and assessment of risks to sage-grouse populations and habitats in the region, BLM is unaware of any evidence of direct or indirect negative impacts to sage-grouse or sage-grouse habitat resulting from domestic sheep grazing in the Mono Mills allotment.

2. Environmental Consequences

a. Impacts of Proposed Action

The attributes of the upland vegetation communities that define sage-grouse habitat on this allotment would be maintained and slightly improved from current conditions over the long-term with implementation of the proposed action. Sage-grouse nesting habitat would continue to

benefit from both the 40% utilization limit on perennial grass species and the 20% utilization limit on bitterbrush. These use guidelines would ensure that suitable nesting cover (e.g. grass height and overstory shrub cover) is available annually for nesting sage-grouse. There would be no potential for either direct nest destruction or abandonment of nests due to livestock disturbance since livestock are not on the allotment during the nesting season. Proposed terms and conditions would promote improved plant community vigor and long-term ecological health (Section O - Vegetation/Threatened and Endangered) and ensure the maintenance and improvement of potential winter, connectivity, and refugia habitat the allotment. Terms and conditions requiring the use of existing camps, bedding grounds, and watering facilities would ensure that currently intact upland vegetation communities and associated sage-grouse habitat values would not be modified as the result of any new surface disturbing activity associated with grazing or grazing management on the allotment. Overall sagebrush cover and composition required for sage-grouse breeding, wintering, and connectivity would be maintained or slightly improved over the long-term. Indian Spring, the only riparian/wet meadow habitat on the allotment, would continue to be protected from livestock grazing and 100% of annual production would be available to sage-grouse. The lack of meadows for breeding and late brood-summer habitat would continue to be the primary factor limiting overall sage-grouse habitat quality and use within the allotment.

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, were applied broadly and uniformly to this allotment. No defined implementation guidelines exist nor are they tailored to address specific vegetation communities and/or resources on this allotment, as in the proposed action. For this alternative, it is likely that BLM, the permittee and other interested public would need to work together to define allotment-specific applications of the rangeland health standards and guidelines.

c. No Grazing

Under this alternative livestock grazing on the Mono Mills allotment would cease. The attributes of the upland vegetation communities important for sage grouse nesting, wintering, connectivity and refugia habitats on this allotment would be maintained or slightly improved from current conditions over the long-term. The amount and rate of improvement would be increased and accelerated as compared to the proposed action and no action alternatives. Barring a catastrophic event (e.g. wildfire), the total annual production of the plant communities would be available as cover and forage for sage-grouse and conditions would be determined by primarily by the natural interaction of climate, soils and vegetation. Habitat conditions at existing camps and bedding grounds would trend toward more natural conditions as vegetation cover increased on these previously disturbed sites. The lack of meadows for breeding and late brood-summer habitat

would continue to be the primary factor limiting overall sage-grouse habitat quality and use within the allotment.

The loss of the grazing permit would likely lead to the transfer of base property to development interests. This would result in both the direct loss of habitat on private lands to development as well as the indirect effects of disturbance on adjacent public lands associated with development, particularly in the Cowtrack Mountain vicinity. These habitat loss impacts would be concentrated on, or immediately adjacent to, the limited mesic/meadow habitats that are an extremely important feature of sage-grouse breeding and late brood-summer habitat. The loss of these important habitat types would negatively affect breeding and late brood-summer habitat and further limit overall sage-grouse habitat quality and use on the allotment. Surface water available to sage-grouse would be reduced commensurate with the loss of livestock water developments and also negatively affect summer habitat conditions.

4. References

Casazza, M. L., Overton, C. T., and A. Torregosa. 2005. Ecology of Greater Sage-Grouse in the Bi-State Planning Area. USGS Progress Report. 36 pp.

Connelly, J. W., Schroeder, M. A., Sands, A. R., and C. E. Braun. 2000. Guidelines to manage sage grouse populations and their habitats. Wildlife Society Bulletin 28:967-985.

Nevada Department of Wildlife. 2004. Greater Sage-Grouse Conservation Plan for the Bi-State Plan Area of Nevada and Eastern California. Reno, NV. 193 pp.

V. WILD HORSE AND BURROS

1. Affected Environment

The Montgomery Pass Wild Horse Territory (MPWHT) established in 1971 encompasses land within the Bishop Field Office. The boundary of the territory is poorly defined, but does not include land within the Mono Mills allotment. However, horses have been documented within the vicinity of this allotment and use is believed to be increasing. The Inyo National Forest is the lead agency for the management of the MPWHT.

A Coordinated Resource Management (CRM) Plan was approved in June 1988 which documented present and potential issues, identified management objectives (wild horses and habitat), and determined monitoring needs. Rather extensive censuses, which document use areas and population dynamics (adults, yearlings, and foals) have been conducted annually since the approval of the CRM. John W. Turner, PhD, has been the principal researcher of these censuses.

The 2001 Census and Comments Report of Mr. Turner identified several important changes in

wild horse numbers, distribution and use that have occurred since 1988. Important excerpts from this report are presented below:

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

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

Within the last couple of years, there has been a shift of wild horse use into the vicinity of the Mono Mills allotment. Although the BLM’s Management Framework Plan signed in June 1982, set aside forage in animal unit months (AUMs) for some allotments within the Bishop FO, the Mono Mills allotment was not recognized as part of the MPWHT. The acknowledged shift in use areas, period of use, and number of wild horses observed by Turner, as well as BLM, Bishop Field Office staff may result in a potential for overgrazing and reduced ecological condition on the allotment.

2. Environmental Consequences

a. Impacts of Proposed Action

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

b. Impacts of No Action

Same as the proposed action.

c. No Grazing

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

3. References

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

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

W. 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.

Regional Impacts

Regionally, livestock operations in Inyo and Mono counties are dependent on federal lands (BLM and U.S. Forest Service) and nonfederal lands (state and private) to maintain viable operations and healthy rangelands. Cumulative livestock impacts on rangelands are reduced when well planned grazing systems are in place. When livestock operators have various lands (federal and nonfederal) to choose from throughout a grazing year, operators and land managers then have the capacity to use grazing systems such as deferment, rest, and rotational systems that are best for the resources. Operators will also have the flexibility to adjust for varying climatic conditions that can affect rangelands positively or negatively. The various lands (federal and nonfederal) help supply the livestock industry with renewable resources (e.g. vegetation) which in turn adds to the Inyo and Mono counties agricultural production.

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.

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. Increased property values 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 mycorrhizal 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.

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 have the potential to devastate the vegetation and forage base for livestock. Therefore, BLM may temporarily close an 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 Mono Mills allotment in this assessment, grazing issues and impacts have been minimal due to low livestock use and few facilities to attract and concentrate the use. The low occurrence of sensitive resources such as riparian areas, etc., reduces the likelihood of future adverse impacts as well.

The physical structure and ecological function of plant communities on the Mono Mills allotment 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 the allotment. 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.

The Montgomery Pass Wild Horse Territory population and historic use areas (especially the “key summer range”) have expanded from that recognized in 1971 (passage of the Wild Free Roaming Horse and Burro Act). Grazing by wild horses occur unregulated as to basic principles of range management i.e. proper time/season, amount of use, duration of use, and area of use. Livestock grazing is regulated and more closely follows acknowledged principles and practices of the science/art of rangeland management. Given the increased wild horse population and their expansion of use areas, it is reasonable to conclude that rangeland vegetative resources have been impacted by horse use over time on the Mono Mills allotment. That is not to say that livestock grazing has also not been a factor, however, livestock grazing use of this have diminished considerably from 1992 to the present. If a reduction of wild horse numbers through capture and subsequent adoption or placement in a wild horse sanctuary does not occur in the near term, the overall condition and amount of range vegetation could diminish which may affect both wild horses and livestock grazing in the future.

Within this allotment, wildland fires and other natural events changing landscape conditions are expected to continue. Grazing permits would be adjusted to maintain minimal rangeland health standards when fire, drought, and other uncontrollable natural events require it. Future grazing authorizations would maintain the Wilderness Study Area wilderness values of naturalness because the proposed terms and conditions assure that vegetative habitats maintain their range of phenological stages, composition, and vigor.

Conclusion

The addition of the Proposed action to the existing environment at the site-specific allotment location 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 a grazing permit for this EA’s allotment 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

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

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

Chapter 4: CONSULTATION AND COORDINATION

Livestock Operator Consultation, Cooperation, and Coordination

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

On January 27, 1997, the Bishop Field Manager sent a letter to the permittee that grazes the allotment. 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 permittee who grazes the allotment. 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 permittee who grazes the allotment which explained the rangeland health allotment assessment requirements.

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

Personal Communication

Belenky, Lisa T., Staff Attorney, Center for Biological Diversity (CBD). January 30, 2007, Ms. Lisa Belenky requested by telephone to be notified when environmental assessments for grazing permit renewals were posted on the Bishop BLM website for public review. On May 15, 2007, BLM spoke with Ms. Belenky of CBD via telephone. Ms. Belenky requested that BLM send her all proposed decisions on the grazing allotment renewals from the Bishop Field Office via email. On June 11, 2007, BLM received a phone message from Ms. Belenky. Ms. Belenky again requested to be informed when EAs are posted on the BLM website for public review. Ms. Belenky stated she would specifically request proposed decisions on particular allotments to be sent to her. BLM replied via email to Ms. Belenky, acknowledging her requests. However Ms.

Belenky did not provide BLM with a listing of specific allotments that CBD was interested in becoming an “interested public” in accordance with 4100.5. On January 18, 2008, per Ms. Belenky’s request, BLM sent her via postal mail a copy of the Bishop RMP 1993, RMP EIS Volume I & II, Bodie-Coleville Draft Wilderness Recommendation Final EIS 1987, and the Vehicle Access Strategy Plan.

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.

Connor, Michael J. California Science Director, Western Watersheds Project (WWP). On February 29, 2008, BLM responded via e-mail to Dr. Connor of WWP confirming the addition to the BLM list of interested public. BLM sent Dr. Connor a link to the BLM Bishop website to locate the total list of grazing allotments. On March 6, 2008, Dr. Connor of WWP sent a follow-up letter to the February 28, 2008 letter and requested to be added to the list of “interested public” for all grazing allotments and grazing management decisions from the Bishop Field Office. Dr. Connor also requested electronic copies of EA CA 170-07-10 and EA CA 170-07-11, and wanted to discuss the Sierra Nevada bighorn sheep. BLM sent Dr. Connor both EAs via e-mail. BLM also spoke with Dr. Connor via telephone about the Bishop Field Office Range Program and issues regarding Sierra Nevada bighorn sheep and sage grouse habitat. On March 14, 2008, BLM spoke over the phone with Dr. Connor of WWP briefly about EA CA 170-07-10. Dr. Connor called to notify the BLM Bishop that WWP was planning to protest the proposed decision for the Volcanic Tableland and Mono Mills allotments. Dr. Connor asked if BLM Bishop was planning to issue a proposed decision to the other permittee which shares the Volcanic Tableland allotment. BLM told Dr. Connor that BLM Bishop had already issued that proposed decision on October 2, 2007 to Operator 0401649, as referenced above.

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. 2008. Livestock Operator. In 2007, BLM and Paco discussed livestock grazing on the Mono Mills allotment. Paco explained the livestock management for the allotment. On January 10, 2008, BLM and Paco had a meeting to discuss the environmental assessment process, proposed terms and conditions, and mitigation measures for Sierra Nevada bighorn sheep. In April and May of 2008, BLM informed Paco of the protest received for the Volcanic Tableland and Mono Mills allotments and BLM’s plan to address the protest points

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 along with map of the federal non-attainment/maintenance areas. BLM received an updated federal non-attainment/maintenance area map from Mike in 2007.

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 the Bishop Field Office.

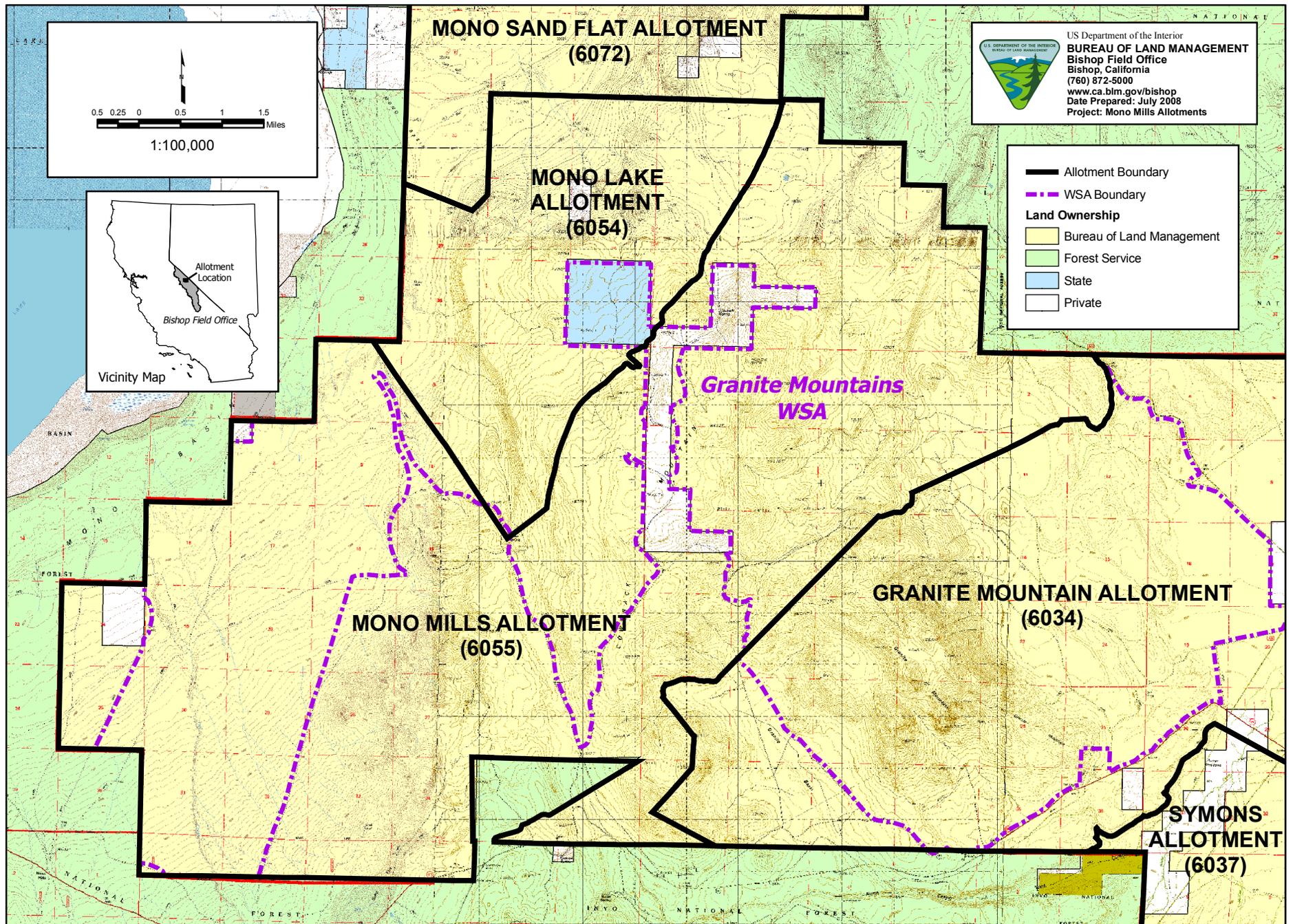
During the initialization of the allotment assessment process in FY 1999, seven Native American communities residing within the area administered by the Bishop Field Office– Bridgeport, Mono Lake, Benton, Bishop, Big Pine, Ft. Independence, and Lone Pine – were contacted by letter (January 11, 1999),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

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**Chapter 5:
APPENDICES**



Map 1. Overview of the Mono Mills Allotment, Mono County, California. Bureau of Land Management, Bishop Field Office, Granite Mountain Management Area.