

8-20-09

United States
Department of
the Interior



Bureau of Land
Management

Eagle Lake
Field Office

Susanville,
CA 96130

August 20, 2009

Environmental Assessment

(CA-350-2008-08)

West Fort Sage Allotment

Grazing Lease Issuance



Responsible Official:
Dayne Barron
Field Manager
Eagle Lake Field Office
2950 Riverside Drive
Susanville, CA 96130
(530) 257-0456

For Information Contact:
Patrick Farris
Eagle Lake Field Office
2950 Riverside Drive
Susanville, CA 96130
(530) 252-5319
pfarris@ca.blm.gov

TABLE OF CONTENTS

1.0 PURPOSE AND NEED FOR THE ACTION	1
1.1 INTRODUCTION.....	1
1.2 BACKGROUND	1
1.2.1 <i>Current Grazing Management</i>	2
1.3 PURPOSE AND NEED FOR THE ACTION	4
1.3.1 <i>Purpose</i>	4
1.3.2 <i>Need</i>	4
1.3.3 <i>Proposed Action</i>	4
1.4 LAND USE PLAN CONFORMANCE	5
1.4.1 <i>Rangeland Health Determination for West Fort Sage Allotment</i>	6
1.4.2 <i>Rangeland Health Determination Summary for the West Fort Sage Allotment</i>	6
1.5 PREVENTION OF UNNECESSARY OR UNDUE DEGRADATION	9
1.5.1 <i>Relationship to Statutes, Regulations, and Plans</i>	9
1.5.2 <i>Agreement between State Director and State Historic Preservation Officer Protocol Amendment for Renewal of Grazing Leases</i>	9
1.6 SCOPE OF THIS ENVIRONMENTAL ANALYSIS / IDENTIFICATION OF ISSUES:.....	10
1.6.1 <i>History of the Planning and Scoping Process</i>	10
1.6.2 <i>Critical Elements of the Human Environment</i>	11
1.6.2.1 <i>Issues Identified Needing Further Study</i>	12
1.6.3 <i>Resource(s)/Concerns discussed but Eliminated as an Issue</i>	12
1.6.3.1 <i>Threatened and Endangered Plant Species/Special Status Plants</i>	12
1.6.3.2 <i>Threatened and Endangered Wildlife Species</i>	13
1.6.3.3 <i>Extension of Season of Use</i>	14
1.6.3.4 <i>Fencing Sensitive Resources From Livestock Grazing and Wild Horse Use</i>	15
1.6.3.5 <i>Wild Horses and Burros</i>	15
1.6.3.6 <i>Reduced Stocking Rate</i>	15
2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION	16
2.1 DESCRIPTION OF ALTERNATIVES	16
2.1.1 <i>Alternative A: Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management (Proposed Action)</i>	16
2.1.1.1 <i>Grazing Management</i>	17
2.1.1.2 <i>Water Management</i>	17
2.1.1.3 <i>Protection of Cultural Resources</i>	18
2.1.1.4 <i>Monitoring</i>	18
2.1.2 <i>Alternative B: Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management (No Action)</i>	19
2.1.3 <i>Alternative C: No Livestock Grazing</i>	19
2.2 COMPARISON OF PREDICTED ACHIEVEMENT OF OBJECTIVES BY ALTERNATIVE	19

3.0 AFFECTED ENVIRONMENT	21
3.1 UPLAND SOILS.....	21
3.2 UPLAND VEGETATION.....	21
3.3 INVASIVE ANNUALS.....	22
3.4 CULTURAL RESOURCES	22
3.5 RIPARIAN WETLAND SITES	23
4.0 ENVIRONMENTAL CONSEQUENCES.....	25
4.1 PREDICTED EFFECTS ON RELEVANT AFFECTED RESOURCES (ISSUES) OF ALL ALTERNATIVES.....	25
4.1.1 <i>Predicted Effects on Upland Vegetation and Invasive Annual Grasses</i>	25
4.1.1.1 Effects of Alternative A: Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management (Proposed Action)	25
4.1.1.2 Effects of Alternative B: Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management (No Action)	27
4.1.1.3 Effects of Alternative C: No Livestock Grazing	28
4.1.2 <i>Predicted Effects on Cultural Resources</i>	29
4.1.2.1 Effects of Alternative A: Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management (Proposed Action)	29
4.1.2.2 Effects of Alternative B: Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management (No Action)	30
4.1.2.3 Effects of Alternative C: No Livestock Grazing	31
4.1.3 <i>Predicted Effects on Riparian/Wetland Sites</i>	32
4.1.3.1 Effects of Alternative A: Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management (Proposed Action)	32
4.1.3.2 Effects of Alternative B: Authorize Grazing in the West Fort Sage Allotment without Potential Changes in Water Management (No Action)	33
4.1.3.3 Effects of Alternative C: No Livestock Grazing.....	34
5.0 CONSULTATION & COORDINATION.....	35
5.1 PERSONS, GROUPS AND AGENCIES CONSULTED	35
5.2 LIST OF PREPARERS AND SPECIALISTS CONSULTED	36
6.0 REFERENCES	37
APPENDIX A. STANDARD TERMS AND CONDITIONS FOR THE WEST FORT SAGE ALLOTMENT.	38
APPENDIX B. EVALUATION AND DETERMINATION OF RANGELAND HEALTH FOR THE WEST FORT SAGE ALLOTMENT.....	40

1.0 PURPOSE AND NEED FOR THE ACTION

1.1 Introduction

This environmental assessment (EA) is prepared to disclose and analyze the environmental consequences of re-authorizing two livestock grazing permits on the West Fort Sage Allotment (#00511) for 10 years. The EA is a site-specific analysis of potential impacts that could result with the implementation of one the alternatives. The EA assists the BLM in project planning and ensures compliance with the National Environmental Policy Act (NEPA), and with other laws and policies affecting the alternatives. If the decision maker determines that this project has “significant” impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a grazing decision will be issued along with a Finding of No Significant Impact (FONSI), which documents the reasons why implementation of the selected alternative would not result in “significant” environmental impacts.

1.2 Background

There are currently two grazing permits associated with the West Fort Sage Allotment. The allotment consists of approximately 9,000 acres of public land. The allotment is located 2.5 miles east of Doyle, CA on the western slopes of the Fort Sage Mountains (see Figure 1). Livestock grazing is authorized on the West Fort Sage Allotment under Section 3 of the Taylor Grazing Act, and therefore is authorized under a grazing permit and not a lease. The current permits for the allotment have the following mandatory terms and conditions:

Table 1. Current Mandatory Terms and Conditions on the West Fort Sage Allotment

Allotment		Livestock		Grazing Period		% P.L. Use	Type Use	AUMs		
No.	Name	No.	Class	Begin	End			Active	Suspended	Total
00511	Barnum	51	Cattle	04/01	08/31	100	Active	257	0	257
00511	Marx	54	Cattle	04/16	08/31	100	Active	245	0	245

The West Fort Sage Allotment is surrounded by Eagle Lake Field Office managed lands to the north and west, Carson City BLM lands to the east, private and state lands to the west, and the town of Doyle also to the west (see Figure 2). The West Fort Sage Allotment, along with North and South Fort Sage Allotments, run north to south along the western slopes of the Fort Sage Mountains within the Honey Lake-Beckwourth Planning Unit. The Fort Sage Mountains consist of very steep and rugged terrain with elevations up to 8,000 ft. In the higher elevations steep slopes and rock canyons “naturally” keep cattle fenced off from one allotment to the next, therefore allotment boundaries are mostly separated by topography. The main fence line lies on the western slopes of all three allotments to keep livestock, wild horses, and off-highway vehicle (OHV) use off of private lands.

1.2.1 Current Grazing Management

The West Fort Sage Allotment consists of three pastures: Seeded, Remainder, and Summit Pastures. The Seeded and Remainder pastures are separated by a drift fence near Indian Springs, while the Remainder and Summit pastures separated by topography (see Figure 2). The construction of two fences that were designed for other purposes (such as fire rehabilitation and OHV management) have helped to alleviate cattle management issues within the allotment. The construction of these two fences was completed in 2007 and built along a portion of the west and southern boundaries of the allotment.

Current cattle management has not varied much from past grazing use, as permittees typically use the Seeded and Remainder Pastures in conjunction in the spring and early summer months, and then move up to the Summit Pasture later in the season.

Pastures

The West Fort Sage Allotment has seen minimal use by cattle over the last 10 years due to wildfires and grazing authorization transfers (Table 2). The Fish Fire in 2001 burned nearly the entire allotment. Turnout was not allowed on the Remainder and Summit Pastures for two years, but cattle were allowed to graze the Seeded Pasture during the early spring months.

The Seeded Pasture is mainly used for early spring turnout when water is available. In the past cattle have watered at Indian Springs and drifted between Seeded and Remainder pastures. During dry years, permittees have delayed turnout to rest the Seeded Pasture due to lack of water within the pasture. The Seeded pasture has seen the most use over the past 10 years, but it was not overgrazed. *Note:* Cattle grazing in that area during the early spring months may have kept cheatgrass invasion low (post-wildfire) while allowing the perennial native grasses to reestablish themselves.

The Remainder Pasture is used for early-late spring and early summer turnout. The turn-out date depends on the type of winter and spring precipitation the Fort Sage Mountains collect. This pasture holds water longer than the Seeded Pasture. Cattle can water at Indian Springs, as well as in drainages from spring runoff. This pasture may be used before the Seeded Pasture due to water availability.

The Summit Pasture is not separated by any type of fencing from either direction. It is entirely separated topographically from all origins making access very difficult. There is only one designated OHV trail, which is only accessible by OHV and horseback. Permittees use this pasture last in their grazing rotation. The Summit Pasture has been set up very well with four separate watering locations, allowing cattle to scatter throughout the pasture without having to congregate around one water source.

Table 2. History of Actual Livestock Grazing Use

Year	Total AUMs	AUMs Used	Season Of Use	Comments
1998	502	177	4/01 – 08/31	All three pastures used
1999	502	237	4/01 – 08/31	Seeded and Summit
2000	502	233	4/01 – 08/31	Seeded and Summit
2001	502	202	4/01 – 08/31	Seeded and Summit
2002	502	55	4/01 – 08/31	Seeded Pasture -Spring Use- due to Fish Fire
2003	502	92	4/01 – 08/31	Seeded Pasture -Spring Use- due to Fish Fire
2004	502	234	4/01 – 08/31	Seeded and Summit
2005	502	0	4/01 – 08/31	Non-use
2006	502	69	4/01 – 08/31	Summit d only, dry year
2007	502	250	4/01 – 08/31	All three pastures used
2008	502	478	4/01 – 08/31	All three pastures used with both permits

Projects Implemented/Completed 2009

The BLM has three spring maintenance projects and one reservoir clean-out scheduled for the summer of 2009 (see Figure 3) within the West Fort Sage Allotment (all four within the Summit Pasture). Three springs (Jesus Spring, Pickins Spring CA, and Pickins Spring NV) will be cleaned up by removing old troughs and pipe and replacing these with new troughs and pipe. The spring source in each spring/riparian will be fenced off from livestock and wild horses. Pickins Reservoir will be cleaned out in late August, or whenever it dries up, at the depth it was when first constructed in the 1960's.

These water projects will improve the overall diversity of the allotment, allowing cattle to spread out throughout the allotment, giving wild horses and wildlife a cleaner source of water, while allowing riparian areas to recover within each pasture. All projects and damage described above were caused by the Fish Fire in 2001. All the enclosure fences were burned down, piping from troughs melted, one riparian area was burned, and sediment filled the reservoir.

Indian Spring is the primary water source for the Remainder and Seeded Pasture. Permittees have grazed these pastures in conjunction with each other. This has worked out well at times when water is plentiful. After a recent cultural survey of the spring by a BLM archeologist, cultural resources were found near the spring (see Figure 4). The range staff was then asked for some solutions on how to fence off the primary site while allowing cattle and wild horses to get water. Several options were proposed and a temporary solution for the 2009 grazing season was implemented. The major concentration area of the archaeological site was completely fenced to protect it from livestock and OHV use. After the grazing season and OHV use begins to decline, fencing will be extended to the existing trail and the site will be protected from livestock, wild horses, and OHV use (see *Evaluation and Determination of Rangeland Health for the West Fort Sage Allotment for more detailed information*).

1.3 Purpose and Need for the Action

1.3.1 Purpose

The purpose of the Proposed Action is to authorize livestock grazing on public lands within the West Fort Sage Allotment in conformance with the Eagle Lake Resource Management Plan and Record of Decision, April 2008, and the Secretary Approved Rangeland Health Standards.

Objectives are to:

1. Provide a sustainable level of livestock forage that is consistent with achieving BLM land health standards, objectives for other resources, and multiple-use management of public lands.
2. Maintain and improve rangeland productivity by continuing to implement a grazing strategy which will allow the permittee to graze in early spring or late fall from year to year.
3. Improve vegetation communities to meet or make progress towards meeting the biodiversity land health standard.
4. Maximize use of annual invasive grasses by livestock, and reduce the extent of invasive annual grasses in the allotments.
5. Improve existing developed springs, providing for healthier and more vigorous riparian areas, while providing cleaner water source for livestock, wild horses, and wildlife. Provide an extra water source in early spring months or late summer for livestock and wildlife.
6. Implement Deferred Grazing on the Remainder or Seeded Pastures during the month of April, allowing grasses to go to seed before livestock graze those areas.

1.3.2 Need

The grazing preference associated with the grazing permit for the West Fort Sage Allotment expires in 2009. Applications were applied for on January 8, 2008 by both permittees for renewal. The application for a grazing permit was approved on February 8, 2008. Action is needed to address the grazing application and issue a grazing permit in accordance with 43 CFR 4100, and consistent with the provisions of the Taylor Grazing Act, Public Rangelands Improvement Act, and Federal Land Policy and Management Act.

1.3.3 Proposed Action

Authorize a 10-year livestock grazing permit in accordance with 43 CFR §4130.3-1 *Mandatory Terms and Conditions* (see Table 1.3) on public land within the West Fort Sage Allotment (see Figure 2). Management will be in conformance with the Eagle Lake Resource Management Plan and Record of Decision (2008) and the Secretary Approved Rangeland Health Standards.

Table 1.3 Mandatory Terms and Conditions on the West Fort Sage Allotment – Proposed Action

Allotment		Livestock		Grazing Period		% P.L. Use	Type Use	AUMs		
No.	Name	No.	Class	Begin	End			Active	Suspended	Total
00511	Barnum	51	Cattle	04/01	08/31	100	Active	257	0	257
00511	Marx	54	Cattle	04/16	08/31	100	Active	245	0	245

Additional Terms and Conditions

1. The authorized officer is requiring that an Actual Use Report (Form 4130-5) be submitted within 15 days after completing your annual grazing use.
2. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis, where such deviations would not prevent attainment of the multiple-use objectives for the allotment. Changes in permitted use must be documented in the annual grazing application or modification of the annual application.
3. The season of use, livestock numbers, and AUMs shall remain unchanged from the current permitted use.
4. If water needs to be hauled for cattle use within BLM lands for any reason, the proposed site will have to be cleared with the BLM resource staff along with the proper NEPA document.
5. After completion of the 2009 spring maintenance projects, a new Cooperative Range Improvement Agreement will be implemented addressing these projects. Stipulations will be added to ensure that maintenance of these water developments is undertaken by the permittees. If these stipulations are not met, the BLM would implement restrictions on season of use.

1.4 Land Use Plan Conformance

The proposed action is in conformance with the Eagle Lake Resource Management Plan and Record of Decision, April 2008. The proposed action would occur in an area identified as available for livestock grazing in the RMP, as specified in Appendix J, page A-103. The RMP further states:

- “Authorize 52,250 AUMs of livestock use annually (on the entire field office).”
- “Maintain livestock grazing within 54 allotments.”
- Grazing use on the West Fort Sage Allotment is specified in Appendix J on page A-103 Volume 2 of The Eagle Lake Resource Management Plan and Record of Decision, April 2008.

1.4.1 Rangeland Health Determination for West Fort Sage Allotment

A detailed analysis on rangeland health for the West Fort Sage Allotment is attached in the *Evaluation and Determination of Rangeland Health for the West Fort Sage Allotment*. The following summary provides a brief overview of the results and important features of the land health determination.

The following reference from Technical Reference 1734-6, Version 4-2005, and Interpreting Indicators of Rangeland Health, present the reader with the foundation the BLM uses when determining land health: "...qualitative assessments of rangeland health provide the land managers and technical specialists with a good communication tool for use with the public. This technique, in association with quantitative monitoring and inventory information, can be used to provide early warnings of resource problems on upland rangelands..."

Land health assessments are not intended or used as a sole source for making independent grazing and other management decisions. Nor is it used to monitor or determine trend without other supporting monitoring studies and allotment information including but not limited to utilization, use patterns, trend, ecological site assessment, riparian/stream studies, and long-term photo studies.

Riparian Functional Assessments were conducted within the allotment on three springs within the Summit Pasture (Pickins Spring CA, Pickins Spring NV, and Jesus Spring). There was not an assessment written up for Indian Springs due to the lack of surface within the spring area. (The spring box is located approximately four feet underground and is then piped off to two troughs. The spring source never reaches the surface, this spring acts more like a water well than a spring). The riparian assessments all rated as FAR (Functional at Risk) with an upward trend. The "upward trend" is due to the improvements made on the existing spring developments within the springs listed above. For a more detailed analysis refer to the *Evaluation and Determination for Rangeland Health* within this document.

1.4.2 Rangeland Health Determination Summary for the West Fort Sage Allotment

In 2002 there were six assessments completed for the West Fort Sage Allotment (Sites #15, 16, 17, 122, 123 and 206). Land health descriptors such as: None to Slight, Slight to Moderate, Moderate, Moderate to Extreme, and Extreme describe a range of departure from what is expected at this site or area. The descriptors give the reader a gauge of how the indicators of land health compare to the natural plant community expected for the site as identified from the site assessments.

The Record of Decision (ROD) for the Rangeland Health Standards and Guidelines for Northeastern California and Northwestern Nevada Final EIS (2000) adopted five Standards for Public Land Health. These are: (1) Upland Soils, (2) Streams (3) Water Quality, (4) Riparian and Wetland Sites and (5) Biodiversity. The approved standards and their rating are outlined in Table 1.4.2.

Areas of the allotment do meet the Secretary of the Interior Approved Rangeland Health Standards as follows:

Table 1.4.2 Rangeland Health Standards for the West Fort Sage Allotment

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Not Meeting but Making Progress	Remarks
Upland Soils	X			Even with the presence of invasive annuals, soil cover and productivity are still functioning, and show signs of improvement, as evidenced by abundant residual plant material.
Streams	N/A (Not Applicable)			No streams are present.
Water Quality	N/A			There are no known impaired water bodies within the proposed action.
Riparian/ Wetlands			X	All the spring sources within the Summit Pasture have been damaged by wildfire, wild horse use, and livestock grazing. The resource damage to these areas has been repaired in 2009 through maintenance projects and exclusion fencing.
Biodiversity	X			Invasive annuals are present in some areas of the allotment, which limits or reduces biodiversity. Past seeding projects have also altered the biodiversity standard. However, there are desirable perennial plants present and abundant in the uplands, and these are in a vigorous and productive condition.

The status of the land health standards was documented in the “Determination of Rangeland Health for the West Fort Sage Allotment (00511)” dated December 15, 2008. It was determined that a history of wildfires was a causal factor for the biotic integrity rating as a “moderate” departure from rangeland health in four of the upland health sites. Wildfires were also the causal factor in the ruin of three developed spring projects.

All sites assessed were rated at a “Moderate” departure or “Slight to Moderate” departure from biotic integrity. These assessments were compiled post-wildfires, which impacted the perennial grass community within the allotment. The perennial grass community has improved since 2002, especially in the upper elevations. Due to the types of soils and vegetation within the lowlands of the Fort Sage Mountains, vegetation recovery may take longer to reestablish to what it once was. It may also be noted that there were not any upland health assessments completed within the Summit Pasture of the allotment. This may have been due to the Fish Fire burning so hot and lack of access after the fire (refer to Appendix B. *Evaluation and Determination of Rangeland Health for the West Fort Sage Allotment*).

The Summit Pasture has not had any official documentation of designated upland health sites as discussed in the *Determination of Rangeland Health* document. Current observations reveal that the pasture is meeting all the standards for upland health, with concerns within spring developments. These issues will be resolved with maintenance projects schedule for the spring developments in the summer of 2009, with proposed projected completion date of August 31, 2009.

Upland Soils Standard:

Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate and landform, and exhibit functional biological, chemical and physical characteristics. The soil in the allotment meets the criteria for the soil standard based on the perennial vegetation that dominates the area. There was reference in the assessment that several perennial grasses are not as common as expected, but still occur in the form of different species of perennial grasses. Cheatgrass is evident in some areas, but does not dominate the site. The presence of cheatgrass influences native perennial production and diversity, but at this density does not prevent progress from being made.

Biodiversity Standard:

Overall, the allotment is meeting the Biodiversity Standard; cheatgrass has moved in some areas after the 2001 and 2006 wildfires, while juniper encroachment has been set back due to those same fires. Viable, healthy, productive and diverse populations of native and desired plant and animal species are maintained. Native and other desirable plant and animal populations are diverse, vigorous, and able to reproduce, and support nutrient cycles and energy flows. Current grazing management has shown improvement in vegetation throughout the allotment. A two-year rest period after a wildfire has allowed vegetation to grow vigorously and soils to stabilize.

Riparian/Wetland Standard:

The riparian areas and springs within the allotment have become “at risk of being unhealthy” due to wildfires, wild horse use, and livestock grazing. The BLM completely restored the spring developments in 2009, and fenced most of the areas off from livestock and wild horse use. The allotment is now rated as “Not Meeting, But Making Progress towards Meeting” the standard.

Indian Springs is the dominant water source within the Seeded and Remainder Pastures. Indian Springs flows very slowly with surface water only visible during very wet conditions. Indian Springs was not assessed for Riparian Functional Assessment due to the lack of surface water within the site. The spring box is located nearly five feet below the ground surface and is piped out to two troughs within an enclosure, which acts as a catchment allowing cattle to get water from one pasture and not the other. Water only runs through the drainage during heavy thunderstorms or in wet winters as snow melts.

Pickins Spring CA is meeting the riparian/wetland standard, but with concerns due to wildfire, livestock, and wild horse use. The spring was developed in the 1960's, but wildfire in 2001 destroyed much of the old piping and trough. Hoof action from wild horses is evident by horses pawing at the ground attempting to draw water during late summer months. The BLM plans to pipe water away from the spring and fence off the area to protect it from

wild horses and livestock.

Pickins Spring NV was also ruined by the Fish Fire of 2001, as the entire pipe was melted and the bottom of the trough burned, creating holes in the trough. The BLM is planning to improve the spring by adding a spring box to the spring, piping off water to a trough for wild horse and livestock use, and allowing water to pond around the head box for upland game bird use. The spring source will be fenced off and protected from livestock and wild horses.

Jesus Spring is at risk of becoming non-healthy. Jesus Spring has not been maintained very well over the past 10 years and is a major water source for cattle and needs to be protected. Jesus Spring has been able to maintain a healthy stand of willows and riparian vegetation despite the heavy use from cattle. The spring will be fenced off from livestock use with a new spring box piped out to two troughs placed outside the spring source and riparian area. This will allow an already healthy stand of willows and riparian vegetation to become a very healthy riparian area while continuing to provide water for cattle, wild horses, and wildlife.

1.5 Prevention of Unnecessary or Undue Degradation

In addition to the management prescriptions discussed in this EA, including all terms and conditions, the BLM may use its authority to close an area of the 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 the BLM's responsibility to manage the public's use, occupancy, and development of the public lands, and prevent unnecessary or undue degradation of the lands (43 USC 1732(b)).

1.5.1 Relationship to Statutes, Regulations, and Plans

- Taylor Grazing Act of 1934
- Federal Land Policy and Management Act of 1976 (FLPMA)
- Public Rangelands Improvement Act of 1978 (PRIA)
- Code of Federal Regulations Title 43, part 4100 through 4180

1.5.2 Agreement between State Director and State Historic Preservation Officer Protocol Amendment for Renewal of Grazing Leases

In August 2004, the State Director, California Bureau of Land Management, and the California State Historic Preservation Officer (SHPO) addressed the issue of the National Historic Preservation Act (NHPA) Section 106 compliance procedures for processing grazing permit lease renewals for livestock, as defined in 43 CFR 4100.0-5. The State Director and the SHPO amended the 2004 State Protocol Agreement between California Bureau of Land Management and The California State Historic Preservation Officer with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs, as long as the 2004 State Protocol direction, the BLM 8100 Series Manual

Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

1.6 Scope of This Environmental Assessment/Identification of issues:

1.6.1 History of the Planning and Scoping Process

1. January 2008, application of the grazing lease was received.
2. January 2008, consultation with permittee.
3. March 2008, scoping letter was sent to interested/affected interests, and cooperating governments and agencies.
4. Only one scoping response was received, from the Western Watershed Project and is summarized below:
 - The BLM received a scoping comment letter from Western Watersheds on 4/12/08. The letter addresses environmental impacts to several resources that are recommended to be evaluated in the EA. The scoping letter addresses impacts to several wildlife species and their habitat. These species have been specifically addressed in this EA; however some of them are not present within the allotment.
 - The scoping letter addresses habitat within the allotment for several special status plants that need to be addressed.
 - The scoping letter also addresses that a reasonable full range of alternatives be evaluated in the EA, including 1) current management, 2) a no grazing alternative, 3) a reduced stocking-rate alternative, and 4) an alternative that modifies allotment boundaries to close any conservation areas, cultural resources and sensitive and listed-species habitat to livestock grazing.
5. March 2008: The BLM Interdisciplinary Team met to discuss resource concerns and issues: The BLM had concerns regarding water resources within the Seeded Pasture of the allotment. There is an old well (Doyle Well) which has been inoperable for many years. The BLM has discussed with permittees the possibility of hauling water to the pasture as a temporary solution, if the permittees choose to do so. The BLM resource staff completed biological and cultural clearances at several locations where a temporary trough could be located where it would not impact natural resources.
 - The BLM also discussed plans to improve the existing spring sources within the allotment. Project files were looked at and submitted in summer of 2008
 - Three spring sources were worked on in summer in 2009 as maintenance projects, all damaged material was removed and replaced with new. Along with new fire proof fencing around the spring sources in hope wildfires will not impact the sites due to fence burning down and animals then being allowed into the spring areas.

These concerns are analyzed in the *Determination of Rangeland Health on the West Fort Sage Allotment*, and are incorporated within this EA in Section 1.6.2 (below). The BLM has discussed all of the issues mentioned above, and has either incorporated and analyzed them within this EA, or provided an explanation of why they were not analyzed in detail.

1.6.2 Critical Elements of the Human Environment

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in this EA. Elements that may be affected are further described in this EA. Rationales for those elements that will not be affected are listed in the table.

Table 1.6.2 Critical Elements of the Human Environment

Critical Element	No Impact	May Impact	Not Present	Rationale ^{1/}
Air Quality	X			Livestock grazing within the area affected by the proposed action would not affect the current conformance with federal and state air quality standards.
Areas of Critical Environmental Concern			X	No ACECs occur within or adjacent to the area affected by the proposed action.
Cultural Resources		X		See Section 3.4.
Environmental Justice	X			There are no minorities or low income groups within the area affected by the proposed action, and it has been determined that the action will not affect such groups.
Farmlands, Prime or Unique			X	None occur within the area affected by the proposed action.
Floodplains			X	None occur within or adjacent to the area affected by the proposed action.
Invasive, Non-native Weed Species	X			There are no known noxious weeds occurring on the allotment.
Native American Religious Concerns			X	A scoping letter was sent to tribal governments for comments. Consultation was conducted in the field with the Susanville Indian Rancheria on October 14, 2008 to discuss ways to protect the site and still allow animals access to water. There were no religious concerns expressed.
T&E Fauna/Flora	X			See notes below.
Waste-Hazardous/Solid			X	There would be no hazardous or solid waste produced as a result of the proposed action.
Water Quality: Surface/Ground		X		All surface water from spring sources has been fenced off with new fencing in 2009. This will allow springs to develop and become healthy again. This will also limit hoof action to only wildlife animals and not wild horses and livestock.
Wetlands/Riparian		X		There are four springs and one reservoir within the allotment. Fence enclosures will be constructed around each spring source to protect against hoof impact from wild horses and livestock.
Wild & Scenic Rivers			X	None occur within or adjacent to the area affected by the proposed action.

Wilderness/ Wilderness Study Areas			X	None occur within or adjacent to the area affected by the proposed action.
--	--	--	---	--

^{1/}For a more detailed description see Appendix B. *Determination of Rangeland Health on the West Fort Sage Allotment.*

T&E Fauna/Flora

There are no known federally listed Threatened or Endangered plant species within the West Fort Sage Grazing Allotment. BLM Botanist Carolyn Gibbs, surveyed areas of this allotment on 5/15/08. No Threatened or Endangered or BLM Special Status Plants were found. See Section 1.6.3.1.

1.6.2.1 Issues Identified Needing Further Study

The following topics were identified during internal and external scoping as issues, and it has been determined by the BLM that they warrant further review to analyze potential impacts.

Table 1.6.2.1 Issues Identified Needing Further Study

Other Issues/Resource	Rationale
Springs/Riparian Areas/Water Developments	These areas are of concern to BLM Resource staff as well as grazing permittees. The resource concerns are being addressed through improvement projects scheduled in the summer and fall of 2009. Pickins Spring NV will have new enclosure around the spring source (as wild horses knocked down the old one), Doyle Well will be studied in an attempt to rejuvenate it, and Pickins Reservoir will be cleaned after the grazing season.
Cultural Resources	One cultural site has been recorded near Indian Springs. This issue has been temporarily resolved by improving and adjusting an existing enclosure fence. Further inspections and modifications to the fencing will be made to protect the site.

1.6.3 Resources/Concerns discussed but Eliminated as an Issue

The following topics were identified during internal and external scoping as possible issues, but have been determined by the BLM not to be significant issues concerning the proposed action.

1.6.3.1 Threatened and Endangered Plant Species/Special Status Plants

There are no known locations of special status plants (SSP) located within the 9,000 acres of public land in the West Fort Sage Allotment. BLM Botanist Carolyn Gibbs, surveyed areas of this allotment on 5/15/08. No Threatened or Endangered or BLM Special Status Plants were found. The California Native Plant Society (CNPS) sites a record of Schoolcraft's wild buckwheat (*Eriogonum microthecum* var. *schoolcraftii*); CNPS list 1B.2, within the Fort Sage Mountains, T 26 N, R 17 E and Sec. 34 NE ¼. This species is found on sandy gravelly soils and is located on the west slope of side hills. But, it is not

found within the West Fort Sage Grazing Allotment, although habitat type is present. As per conversation with Carolyn Gibbs (BLM Botanist) on 06/18/08 at 8:05 AM, Gary Schoolcraft verified that this species, if present, is not affected by grazing.

1.6.3.2 Threatened and Endangered Wildlife Species

There are no federally-listed threatened or endangered wildlife species known to occur within the allotment. There is potentially suitable habitat within the field office area for the Carson wandering skipper (*Pseudocopaeodes eunus obscurus*), a federally endangered species of butterfly; however, none is located within the West Fort Sage Allotment. If this species were found within the allotment, consultation with the U.S. Fish and Wildlife Service would occur, and modifications to the grazing permit might be necessary.

BLM sensitive species that have the potential to occur within the allotment include the greater sage-grouse (*Centrocercus urophasianus*), pygmy rabbit (*Brachylagus idahoensis*), bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), Northern sagebrush lizard (*Sceloporus graciosus graciosus*), fringed myotis (*Myotis thysanodes*), long-eared myotis (*Myotis evotis*), pallid bat (*Antrozous pallidus*), Townsend's western big-eared bat (*Plecotus townsendii*), Western small-footed myotis (*Myotis ciliolabrum*), and Yuma myotis (*Myotis yumanensis*).

BLM Policy (USDI 2001) under Manual 6840 directs that BLM Sensitive Species shall be managed as if they are Candidate species under the Endangered Species Act of 1973, as amended (ESA). BLM is to work toward recovery of these species and take no action that will cause them to become listed. Additionally, recent court decisions have caused the U.S. Fish and Wildlife Service (USFWS) to reconsider the listing status of the greater sage-grouse and the pygmy rabbit under the Endangered Species Act (ESA).

The West Fort Sage Allotment is outside of the Buffalo-Skedaddle Sage-Grouse Population Management Unit, and sage-grouse (*Centrocercus urophasianus*) are not known to utilize this area. Currently, the California Department of Fish and Game (CDFG) is conducting a telemetry study of local sage-grouse and their movements. BLM will coordinate with CDFG to obtain current telemetry information regarding sage-grouse and their potential use of habitat within this allotment.

The pygmy rabbit (*Brachylagus idahoensis*), a BLM Sensitive species, is currently designated as a species that may warrant listing under the Endangered Species Act (ESA). An inventory for pygmy rabbits was conducted on the Eagle Lake Field Office from May through September of 2004; three locations within the West Fort Sage allotment were surveyed during this effort (Séquin 2004). Areas in the ELFO supporting appropriate habitat were identified with Geographic Information System (GIS) soil and vegetation layers. Soil data was originally downloaded from the NRCS SSURGO website for CA608 and NV771 soil units. Vegetation data was obtained from Tetrattech vegetation data refined to 20 acre minimum polygons. Vegetation and soil information were combined in Arcview and overlaid on maps of the Field office. Areas having a combination of big sagebrush and friable soils were identified (Séquin 2004). Survey

sites were selected for one of three reasons: they were either historic locations, locations within areas of that showed up on the GIS layers, or they were sites that looked like appropriate habitat and were located while traveling around the area (Séquin 2004).

The three surveys conducted within the allotment (or anywhere on ELFO) failed to find any evidence of current or old pygmy rabbit activity. The last specimens of pygmy rabbits collected on lands managed by the BLM ELFO were from the Madeline Plains in the 1930s. Since then there have been no confirmed pygmy rabbit sightings in the area (Séquin 2004). Lassen County, CA is on the edge of the historic distribution of the pygmy rabbit; currently, the closest known active pygmy rabbit populations to the ELFO area are located in Nevada just west of the Sheldon National Wildlife Refuge (Séquin 2004, pers. obs.).

Mule deer (*Odocoileus hemionus*) is the primary game species that occurs within the allotment area. Mule deer populations are managed under California Department of Fish and Game's (CDFG) Management Plans. The West Fort Sage allotment borders the Doyle State Wildlife Area on the north side, and a portion of the west side, and provides priority winter and early spring habitat for the Doyle deer herd. Habitat conditions in the area have been on a decline due to the loss of bitterbrush forage from wildfires on CDFG-managed lands. This has also been an issue on BLM lands where wildfires have occurred on the allotment. As discussed above, wildfires have occurred over nearly 85% of the allotment in the last 30 years, burning vital winter shrubs for deer and other wildlife. The BLM has taken some rehabilitation action such as seeding three sites with perennial native grasses and shrubs.

Pronghorn (*Antilocapra americana*) populations are also managed under California Department of Fish and Game's (CDFG) Management Plans. Pronghorn occupy low structured sagebrush habitats, agricultural fields on private lands, and some natural meadow areas. Pronghorn prefer open rangeland that supports a variety of vegetative types, primarily grasses, forbs, and shrubs. Pronghorn utilize some of the western areas of the allotment in the lower elevation sites for late winter and spring habitat. Small numbers of pronghorn relative to southeastern Oregon occur throughout the Eagle Lake Field Office area.

Rocky Mountain elk (*Cervus elaphus nelsoni*) occur only very sporadically (incidental sightings) in the ELFO area. There are presently no known established populations in the area however, projects to improve habitat for elk such as aspen stand improvements, have and are presently being undertaken by the field office.

1.6.3.3 Extension of Season of Use

The BLM will not extend the season of use from April 15th to April 1st, as requested by BLM range staff for administrative purposes, therefore allowing both permittees to turn out simultaneously. Application from the permittee was not made at the time of this permit renewal and the concern from both parties was not significant enough to proceed with the change.

1.6.3.4 Fencing Sensitive Resources from Livestock Grazing and Wild Horse Use

The BLM has no evidence to indicate that there are sensitive resources within the West Fort Sage Allotment that require to be fenced off from livestock grazing in order to maintain their resource condition, other than those previously addressed in this document. The BLM is currently in the process of maintenance projects for water developments within the West Fort Sage Allotment. See Sections 1.6.3.1 and 1.6.3.2 for a discussion of sensitive plant and wildlife resources. Cultural resources will be monitored for impacts due to grazing from livestock and wild horses as discussed in Section 2.1.1.4.

1.6.3.5 Wild Horses and Burros

Approximately 7,000 acres of the allotment falls within the Fort Sage Wild Horse and Burro Herd Management Area (HMA) #CA-241, which consists of 15,759 total acres (see Figure 5). This HMA is also managed as an inter-district management herd between the Carson City, Nevada BLM Field Office and Eagle Lake Field Office. The Appropriate Management Level (AML) ranges from 55 to 65 horses and 0 burros. Horse use takes place primarily in the upper elevations of the allotment within the Summit Pasture and up into the Nevada side of the HMA.

A horse census of the Fort Sage HMA was completed September 25, 2008 which observed a total of 19 horses; 14 were located within the Fort Sage HMA and five were found on the east slopes of the Fort Sage Mountains on the Nevada side of HMA. These horses are rarely seen on the valley floor due to an increase in human activity such as OHV use, homesteads, frequent traffic on County Road 327, and hunting. These activities do not directly affect the herd, but it may be a reason why they are found in different areas throughout the year and rarely seen on valley floors.

1.6.3.6 Reduced Stocking Rate

The BLM has no evidence to indicate that the current stocking levels or allocated AUMs are above the carrying capacity of the range in this allotment. This is indicated by the land health assessments and results, as described in Section 1.4.1, and in Appendix B. For these reasons, the BLM did not develop and analyze an alternative that would reduce stocking rates in the allotment.

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Description of Alternatives

2.1.1 Alternative A (Proposed Action): Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management

This alternative would authorize livestock grazing in the West Fort Sage Allotment. There would be no changes to the current management of livestock, other than annual adjustments for drought, forage production, and available water for livestock, wild horses, and other wildlife. Additional terms and conditions may be added if the situation is warranted to correct some adverse condition. The proposed action would allow authorized grazing on the West Fort Sage Allotment for the next ten years under the following mandatory Terms and Conditions:

Table 1. Mandatory Terms and Conditions on the West Fort Sage Allotment – Proposed Action

Allotment		Livestock		Grazing Period		% P.L. Use	Type Use	AUMs		
No.	Name	No.	Class	Begin	End			Active	Suspended	Total
00511	Barnum	51	Cattle	04/01	08/31	100	Active	257	0	257
00511	Marx	54	Cattle	04/16	08/31	100	Active	245	0	245

Standard Terms and Conditions: *See Appendix A.*

Additional Terms and Conditions

1. The authorized officer is requiring that an Actual Use Report (Form 4130-5) be submitted within 15 days after completing your annual grazing use.
2. Livestock numbers identified in the term grazing permit are a function of seasons of use and permitted use for each allotment. Deviations from those livestock numbers and seasons of use may be authorized on an annual basis, where such deviations would not prevent attainment of the multiple-use objectives for the allotment. Changes in permitted use must be documented in the annual grazing application or modification of the annual application.
3. The season of use, livestock numbers, and AUMs shall remain unchanged from the current permitted use.
4. If water needs to be hauled for cattle use within BLM lands for any reason, the proposed site will have to be within sites previously designated with the BLM resource staff. If there is an issue with a water haul site for any reason please contact the range specialist.
5. After completion of the 2009 spring maintenance projects, a new Cooperative Range Improvement Agreement will be implemented addressing these projects. Stipulations will be added to ensure that maintenance of these water developments is undertaken by the permittees. If these stipulations are not met, the BLM would implement restrictions on season of use.

2.1.1.1 Grazing Management

Cattle grazing within the West Fort Sage Allotment would be managed under the current terms and conditions. There is not a sufficient amount of grazing data for the West Fort Sage area to justify making any changes to the current grazing strategy. This is due to the fact that there has been minimal authorized cattle use over the last 10 years in the allotment.

Under Alternative (A) livestock numbers, season of use, and AUMs would remain unchanged from the current permit. Livestock use patterns shall remain the same as well. Permittees will graze the Seeded and Remainder Pasture in conjunction with each other through the spring months, and move cattle up to the Summit Pasture in the late summer months. This system has worked well without any issues. The Seeded Pasture works well for early spring turnout due to a short growing season. Cattle can then move further up into the allotment through the Remainder Pasture and up into the Summit Pasture in the summer. With improvements to existing watering sites, livestock use and distribution will improve the overall productivity of the allotment. Permittees could then spread cattle out further into areas where grazing has not occurred and allow other areas to rest.

2.1.1.2 Water Management

Future changes may be made to watering locations within the allotment depending on the outcome of the Doyle Well. If the well can be rejuvenated and become functional, permittees may be requested to rest either the Remainder or Seeded Pasture for the growing season, and then turn out after the growing season. This method is referred to as *Deferred Grazing*, allowing one pasture per year to go to seed before turnout is authorized. The permittees will also have the option to haul water to the Seeded Pasture, if that is an option they wish to pursue. Several water haul sites were cleared by the BLM resource staff in fall of 2008 for livestock use (Figure 3b). These sites are only options for the permittees to better utilize their allotment. All sites are located away from any cultural resources areas, cleared of any special status plants, and away from drainages. A temporary water haul site (if Doyle Well proves to be non-functional) would also benefit wildlife use within Seeded Pasture of the allotment.

Indian Springs will continue to provide water to both the Seeded and Remainder Pastures until water management within the Seeded Pasture proves to be manageable. Indian Springs is currently the only water source for the Seeded Pasture.

Improvement of Springs and Riparian Areas

Pickins Spring CA was developed in the 1960's, but wildfire in 2001 destroyed much of the old piping and trough. Hoof action from wild horses and livestock is evident within the site, mainly from wild horses as they tend to paw at the ground in an attempt to get water. Due to these events which negatively affect the site, the BLM has fenced off the spring source and piped off a new trough away from the riparian area. Two spring boxes were used below the spring source and were piped down into one trough away from the

spring source. A one acre enclosure was also built with fire proof fencing (Easy-Fence panels) to keep wild horses and livestock out of the wetland area.

Pickins Spring NV is an interesting spring, as water source comes from a rock outcrop. There is not much potential for a riparian area within this site as it is all rocks. This spring development was also ruined by the Fish Fire of 2001, as the entire pipe was melted and the bottom of the trough burned, creating holes in the trough. Wild horse use has also had a great impact on the trough and spring source. There was once a rock pond built to pond water, which was then piped down to a trough. After the trough became inactive, horse use was isolated to the rock pond which was eventually destroyed. The BLM added a spring box to the spring, piping off water to a trough for wild horse and livestock use, and allowing water to pond around the head box for upland game bird use. The spring source will be fenced off with rocks as it once was protecting it from livestock and wild horses.

Jesus Spring is a perennial spring and is the dominant spring within the allotment. The spring source holds water all year, although the drainage has gone dry during very dry years. Jesus Spring has not been maintained very well over the past 10 years and is a major water source for cattle and needs to be protected. Jesus Spring has been able to maintain a healthy stand of willows and riparian vegetation despite the heavy use from cattle. The spring source has been fenced off from livestock use with a new spring box piped out to two troughs placed outside the spring source and riparian area. This will allow an already healthy stand of willows and riparian vegetation to become a very healthy riparian area while continuing to provide water for cattle, wild horses, and wildlife.

Pickins Reservoir is one more water source project in line to be completed after the reservoir goes dry. The reservoir needs to be cleaned out to what it once was. Silt filled the reservoir after the Fish Fire of 2001 decreasing the capacity of the reservoir.

2.1.1.3 Protection of Cultural Resources

There are six previously identified cultural resource sites located within the West Fort Sage Allotment. Only one of the cultural resource sites has been documented as having been impacted by livestock grazing in the past. This site will be monitored for further impacts due to grazing by livestock and wild horses, and fencing will be added to exclude all grazing from the main site concentration area. If the impacts increase, additional measures will be implemented to reduce or eliminate the damage being done by livestock or wild horses. Additional monitoring and inventory will be conducted in accordance with the 2007 Protocol Agreement and the National Historic Preservation (NHPA) Section 106 compliance requirements for range improvement procedures.

2.1.1.4 Monitoring

Monitoring would be performed to ensure continued attainment of land health standards in accordance with BLM policy, following protocols from BLM approved manuals and

technical references. Designated upland health sites will be assigned to the Summit Pasture within one year, for future reference and monitoring data. These sites will be added to Eagle Lake Field Office's Upland Health data log. Spring developments will also be monitored to ensure riparian functional assessments are continued to be met and improvement is progressing within each site. Photo points and vegetation utilization methods will be initiated for future monitoring of these spring sources.

2.1.2 Alternative B (No Action): Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management

Alternative B is the "No Action" alternative. Under this alternative the BLM would authorize grazing on the West Fort Sage Allotment under the current terms and conditions (described in Sections 2.1.1.1 and 2.1.1.2), but would abandon the Doyle Well if it reveals to be non-functional and would abandon all water haul sites for the Seeded Pasture. Livestock grazing would be managed as it has in the recent past without adding any new range improvement projects for the allotment. The Seeded and Remainder Pasture would continue to be grazed in conjunction during the spring months, and then cattle would be herded to the Summit Pasture as water sources dry up.

Water management would be the same as it is now with the exception of Doyle Well and related issues discussed in section 2.1.1.3 with the well. Cultural resource sites would still have to be protected. Overall management of the allotment may decline as it has the past 10 years due to the lack of water within the Seeded Pasture.

2.1.3 Alternative C: No Livestock Grazing

Under this alternative the current permit would not be issued on the West Fort Sage Allotment. The permit would be cancelled, and livestock grazing would not be authorized. Under this alternative, the BLM would initiate the process in accordance with the 43 CFR parts 4100 and 1600 to eliminate grazing on the allotment, and to amend the Eagle Lake Resource Management Plan. The West Fort Sage Allotment would be managed for wildlife habitat, cultural resources, wild horse use, and recreation. Maintenance on all projects would fall upon the BLM to perform annual maintenance on all projects.

2.2 Comparison of Predicted Achievement of Objectives by Alternative

Table 2.2 below predicts how each of the alternatives will achieve the objectives for the proposed action, as listed in Section 1.3.1.

Table 2.2 Predicted Achievement of Objectives by Alternative

Objectives	Alternative A: Proposed Action	Alternative B: No Action	Alternative C: No Grazing
Provide a sustainable level of livestock forage that is consistent with achieving BLM land health standards, objectives for other resources, and multiple-use management of public lands.	X	X	
Maintain and improve rangeland productivity by continuing to implement a grazing strategy which will allow the permittee to graze in early spring through the summer.	X	X	
Improve vegetation communities to meet or make progress towards meeting the biodiversity land health standard.	X	X	X
Maximize use of annual invasive grasses by livestock, and reduce the extent of invasive annual grasses in the allotments.	X	X	
Improve existing developed springs, providing for healthier and more vigorous riparian areas, while providing cleaner water source for livestock, wild horses, and wildlife. Provide an extra water source in early spring months or late summer for livestock and wildlife.	X		
Implement Deferred Grazing on the Remainder or Seeded Pastures during the month of April, allowing grasses to go to seed before livestock graze those areas.	X		

3.0 AFFECTED ENVIRONMENT

3.1 Upland Soils

Upland soils are the first Rangeland Health standard identified in the Northeastern California and Northwestern Nevada Standards for Rangeland Health and Guidelines for Livestock Grazing Management approved July 2000. Meeting the upland soils standard means that precipitation is able to enter the soil surface and move through the soil profile at a rate appropriate to soil type, climate, and landform; the soil is adequately protected against human-caused wind or water erosion; and the soil fertility is maintained at, or improved to, the appropriate level. For further discussion on the standard and the criteria used to determine the status of the standard, see Appendix B.

A Determination of Rangeland Health for the West Fort Sage Allotment found that the Upland Soil Standard was being met on the allotment. There is concern however, with the vegetative composition and its relation to the criteria to meet the standard, due to the allotment having been effected by several wildfires and post wildfire seeding projects. Despite the change in vegetative composition (increase in invasive annual grasses in pocketed areas and the introduction of crested wheatgrass) within the allotment, the soil within the allotment is stable, productive and hydro logically functioning.

3.2 Upland Vegetation

Vegetation communities within the West Fort Sage Allotment consist of native perennial grasses, forbs, shrubs, scattered western juniper, and a few annual grass species. Native perennial bunchgrasses occur throughout the 9,000 acres of the allotment. Bluebunch wheatgrass, Great Basin wildrye, bottlebrush squirreltail, Indian ricegrass, and Thurber's needlegrass are the dominant perennial grasses throughout the allotment. Native perennial grass production is higher in the upper elevations of the Remainder and Summit Pastures. The west facing slopes consist of abundant, diverse and vigorous perennial grass species.

Crested wheatgrass is the dominant "non-native" perennial grass species within the Seeded Pasture. This is due to seeding efforts by the BLM in the 1980's for wildfire rehabilitation.

Cheatgrass is the dominant annual grass species interspersed throughout the valley floor, and in parts of the north end of the Fort Sage Mountains. Cheatgrass is the dominant species in a small area on the northeast slope of Turtle Mountain along the border between the West and North Fort Sage Allotments.

Upland Health Sites 15 and 16 are located within the Seeded Pasture of the allotment. UH #15 is located off of Fort Sage Road on lowlands of the allotment and UH #16 is located northeast of there. UH #16 is a site that the BLM seeded with antelope bitterbrush and crested wheatgrass in the 1980's for fire rehabilitation. Both of these sites rated as meeting all of the standards for rangeland health.

Sites # 17 and 122 are both located within the Remainder Pasture and both sites rated as meeting the standards along with sites 123 and 124. Site #124 is located within the North Fort Sage Allotment, although it appears to be in the West Fort Sage Allotment. This site is described in the North Fort Sage Allotment permit renewal. All upland health sites lie within fire scars, except UH #17, therefore all sites have been affected by either past or recent fire activity.

Although wildfire can be detrimental to upland health at times, in the form of constant wildfire, it can also be beneficial. The Fish Fire of 2001 helped slow and possibly eliminate the threat of juniper encroachment into the allotment from upper elevations. Additionally, cheatgrass which is known for invading areas post wildfire, has not significantly affected the allotment. Although present in areas, cheatgrass does not dominate any one area within the allotment

3.3 Invasive Annuals

Cheatgrass is the only dominant annual grass species within the 9,000 acres of BLM land in the West Fort Sage area. Cheatgrass does not dominate any one site within the allotment. It is most visible and abundant within the Seeded Pasture in areas where seeding projects were not incorporated and soil moisture is very low.

3.4 Cultural Resources

Portions of the West Fort Sage Allotment were inventoried in the 1970s. These inventories were not conducted using current methodology standards, however they do provide an indication of site density. Several inventories have been conducted in the last three years (SU2-2006-13, SU2-2007-02, SU2-2007-16, SU2-2008-49, SU2-2009-07, and SU2-2009-08) in accordance with the procedures outlined in the *2007 State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Officer* and also the *Supplemental Procedures for Livestock Grazing Permit/Lease Renewals: A Cultural Resources Amendment to the State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Officer*. The majority of the surveys have been linear in nature, but have covered representative sections of the whole allotment. All of the watering locations have been inspected, one site has been located in association with a spring, and a plan has been developed to mitigate grazing impacts.

There are six previously identified cultural resource sites located within the West Fort Sage Allotment. None of the sites have been documented as having been impacted by grazing in the past. One site is currently being impacted by livestock grazing and a plan has been developed, in consultation with the Susanville Indian Rancheria, to eliminate livestock grazing within the main concentration area of the site. Monitoring will be conducted to ensure that the modification to the fencing is achieving the desired result.

Table 3.4 Cultural Resource Sites within the West Fort Sage Allotment

Site Number	Site Type	National Register Eligibility	Grazing Impacts
25.17.03.00	Lithic Scatter	Unevaluated	No
25.17.03.01	Lithic Scatter with bedrock milling station and groundstone	Yes	Yes
25.17.10.00	Lithic Scatter	Unevaluated	No
25.17.15.00	Lithic Scatter	Unevaluated	No
26.17.20.01	Lithic Scatter	Unevaluated	No
26.17.33.01	Lithic Scatter	No	No

3.5 Riparian/Wetland Sites

There are four springs and one reservoir within the allotment (see Figure 3). Indian Springs is the dominant water source within the Seeded and Remainder Pastures. It supplies water for both areas during the spring and early summer months. Indian Springs flows very slowly with surface water only visible during very wet conditions. It provides water for livestock during the spring months and wildlife throughout the year.

After a recent survey of Indian Springs by the BLM archeologist, cultural resources were found near the spring (see Figure 4). The range staff was asked for some solutions on how to fence off the primary site while allowing cattle and wild horses to get water. Several options were proposed and a temporary solution for the 2009 grazing season was implemented. The major concentration area of the archaeological site was completely fenced to protect it from livestock and OHV use. After the grazing season and OHV use slows, the site fencing will be extended to the existing trail and the site will be protected from livestock, wild horses, and OHV use.

Winter runoff from the Summit Pasture provides the Remainder Pasture with water throughout the year. There are approximately three drainages that flow through the pasture. Although there are not any designated springs within the pasture, these sites often run fluently during wet seasons. Additionally, all three drainages are spread out from the north end to the south end, allowing livestock and wild horse to use to spread out throughout the pasture and not congregate on one water source.

The Summit Pasture consists of three springs and one reservoir (Jesus Spring, Pickins Spring CA, Pickins Spring NV, and Pickins Reservoir). Jesus Spring is a perennial spring providing water all year. Both Pickins Spring CA and NV provide water throughout the year depending on climatic conditions. Pickins Reservoir will usually dry up by July or August. Additionally, Dry Lake Spring may also get use from the livestock from the allotment. The spring is located within the North Fort Sage Allotment, but there is not a fenceline separating the two allotments. Cattle may travel up there from time to time, but the area is mostly used by wild horses.

Pickins Spring CA was developed in the 1960's, but wildfire in 2001 destroyed much of the old piping and trough. Hoof action from wild horses and livestock is evident within the site, mainly from wild horses as they tend to paw at the ground in an attempt to get water. Due to these

events which negatively affect the site, the BLM has fenced off the spring source and piped off a new trough away from the riparian area. Two spring boxes were used below the spring source and were piped down into one trough away from the spring source. A one acre enclosure was also built with fire proof fencing (Easy-Fence panels) to keep wild horses and livestock out of the wetland area.

Pickins Spring NV is an interesting spring, as water source comes from a rock outcrop. There is not much potential for a riparian area within this site as it is all rocks. This spring development was also ruined by the Fish Fire of 2001, as the entire pipe was melted and the bottom of the trough burned, creating holes in the trough. Wild horse use has also had a great impact on the trough and spring source. There was once a rock pond built to pond water, which was then piped down to a trough. After the trough became inactive, horse use was isolated to the rock pond which was eventually destroyed. The BLM added a spring box to the spring, piping off water to a trough for wild horse and livestock use, and allowing water to pond around the head box for upland game bird use. The spring source will be fenced off with rocks as it once was protecting it from livestock and wild horses.

Jesus Spring is a perennial spring and is the dominant spring within the allotment. The spring source holds water all year, although the drainage has gone dry during very dry years. Jesus Spring has not been maintained very well over the past 10 years and is a major water source for cattle and needs to be protected. Jesus Spring has been able to maintain a healthy stand of willows and riparian vegetation despite the heavy use from cattle. The spring source has been fenced off from livestock use with a new spring box piped out to two troughs placed outside the spring source and riparian area. This will allow an already healthy stand of willows and riparian vegetation to become a very healthy riparian area while continuing to provide water for cattle, wild horses, and wildlife.

Pickins Reservoir is one more water source project in line to be completed after the reservoir goes dry. The reservoir needs to be cleaned out to what it once was. Silt filled the reservoir after the Fish Fire of 2001 decreasing the capacity of the reservoir

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Predicted Effects on Relevant Affected Resources (Issues) of All Alternatives

4.1.1 Predicted Effects on Upland Vegetation and Invasive Annual Grasses

4.1.1.1 Effects of Alternative A (Proposed Action): Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management

Direct & Indirect Effects

Under Alternative A livestock grazing will continue with the same management strategy that has been practiced over the last 10 years, which has not caused significant impacts to vegetation. Under the proposed action cattle numbers, season of use and AUMs will remain the same. The permit will have a few items under the Additional Terms and Conditions of the permit as stated in the proposed action. The additional conditions will allow the permittee to rest either the Seeded or Remainder Pasture for the growing season before turnout within the pasture. These conditions are dependent on the repair and maintenance of the existing non-functional projects within the Seeded Pasture of allotment (Doyle Well).

While some surface disturbance is expected from cattle during grazing activities (foraging, watering, and resting) this typically does not disturb more than the immediate soil surface, and the effects are considered temporary. However, there may be more surface disturbance around traditional salt and water locations. This disturbance may have short term (5-10 years) adverse affects such as loss of individual plants, and soil disturbance in the immediate area. However, these are small areas within the total allotment, and salt would be moved to different locations if impacts become apparent.

There is no current grazing data to indicate any decrease of soil stability due to cattle grazing. At this time there is not enough data to determine how current stocking rates will affect the allotment as the allotment has not seen full authorized livestock use in 10 years. The allotment is managed very well with minimal to zero impacts from livestock use. With the exception of spring developments that have been ruined by wildfire, wild horse use, etc. the allotment is in good condition and should improve with the maintenance projects being completed in 2009.

Land health assessments for the allotment indicate that standards are being meeting the standard terms and conditions for rangeland health. The allotment is healthy and diverse enough to support cattle grazing, wild horses and wildlife needs. Grass and forb production provide forage for cattle, wild horses, and wildlife in the spring through summer months, and winter habitat for wildlife.

Areas affected by annual grasses (cheatgrass) are located on the west low land of the Seeded Pasture with pocket dispersed throughout the allotment. Having the Seeded Pasture grazed in April when cheatgrass tends to start growing aids in keeping the invasive species from spreading throughout the allotment.

Due to the improvements developed within three of the springs and the one reservoir within the Summit Pasture of the allotment, adverse effects from livestock use and wild horse has now decreased, if not eliminated. Hoof impact within these spring areas will no longer occur due to fencing and trough location with the site areas. These wetland sites are expected to improve each year and will be monitored to ensure improvement is occurring.

Cumulative Effects

Past, Present, and Foreseeable Future Actions Not Part of the Proposed Action:

Past Relevant Actions: Past wildfires have affected the entire allotment with several areas burned repeatedly (northeast slope of Turtle Mountain and Summit Pasture). These fires have led to a change in the vegetative community within those areas. It has been determined that the majority of the Seeded Pasture has likely crossed an ecological threshold from which the potential vegetation and composition may not recover naturally. BLM has seeded some areas in an attempt to restore the perennial grass and forb community while providing soil stability. There are signs of these sites being successful with other areas coming back naturally and decreasing the invasion of invasive annual grasses.

The Remainder and Summit Pastures, despite being burned, have seen positive impacts from wildfires. These two pastures both receive 12 or more inches of rain a year and as elevation increases the more precipitation the area receives. The perennial grasses have benefited from wildfires, very evident within the Summit Pasture, as it was becoming invaded by big sagebrush and western juniper encroachment and is now dominated by a diverse perennial grass community.

There is not enough monitoring data, grazing data, or land health data to discuss any type of past effects due to lack of grazing. Wildfires have affected the vegetation in this area more than livestock or wild horses have.

Present Relevant Actions Not Part of the Proposed Action: Currently no new projects are proposed other than repair and maintenance of existing projects.

Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: There are no known foreseeable actions for the allotment. The only actions which may occur would deal with water sources within the Remainder and Seeded Pastures. These issues would be put through the NEPA process if such actions become significant.

Cumulative Effects: There are no expected significant cumulative impacts from the implementation of the proposed action. Livestock grazing will be authorized as it has in the past with an emphasis on grazing management to improve land health. There are no additional improvements planned at this time. Soil surface disturbance would be temporary and short-term due to low stocking numbers. Land health is expected to remain the same or continue to improve. Plant vigor, the ability to produce seeds or seedlings, and plant production are expected to continue to improve. Upland vegetation

improvement with the ability of early spring turnout may help to reduce the spread of invasive annuals.

4.1.1.2 Effects of Alternative B (No Action): Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management

Direct & Indirect Effects

This alternative would allow grazing on the current West Fort Sage Allotment. This action would abandon the Doyle Well if it reveals to be non-functional and would abandon all water haul sites for the Seeded Pasture. Livestock grazing would be managed as it has without adding any new positive projects for the allotment. The Seeded and Remainder Pasture would continue to be grazed in conjunction during the spring months and then cattle would be herded to the Summit Pasture as water sources dry up.

There is little difference between the effects of this alternative and the proposed action. Soil disturbance from hoof action may be reduced from the current amount and limited to wildlife. Residual vegetative litter would slightly increase across the allotment due to reduced grazing pressure. It is expected that the soil standard would continue to be met, however the presence of invasive annuals resulting from wildfires would continue to be a concern across the allotment.

Cumulative Effects

Past, Present, and Foreseeable Future Actions Not Part of the Proposed Action:

Past Relevant Actions: There was a wild fire in 2006 which burned a small portion of the Summit Pasture near a privately owned spring, called Willow Springs, in the south eastern corner of the pasture.

Motorcycle and OHV use has occurred in this area. Historically OHV use was allowed to occur both on and off the trails. The BLM now restricts all OHV use to designated trails. Several permitted motorcycle races have occurred within the allotment.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Motorcycle races are expected to occur in the future. Currently no new projects are proposed other than the repair and maintenance of existing projects.

Cumulative Effects: There would be no cumulative impacts to vegetation under Alternative B. Livestock would continue to graze on the allotment as they have in the past, with an emphasis grazing management to improve land health. The existing fence will still need to be repaired in order to keep cattle from escaping towards the town of Doyle. Watering sites will also remain on private lands. Plant vigor, the ability to produce seed, and plant production are expected to continue to improve. Upland vegetation improvement will help to reduce the spread of invasive annuals from the current amounts.

4.1.1.3 Effects of Alternative C: No Grazing

Direct & Indirect Effects

Under this alternative the current permits issued for grazing on the allotments would be canceled and no livestock grazing would be authorized. The allotment would be managed for wildlife habitat, cultural resources, wild horses and recreational use. Livestock grazing pressure on vegetation within the allotment would be eliminated, except that which occurs from wildlife and wild horses. The vast majority of the vegetation would be able to complete its annual growth cycle without stress, leading to a healthier plant. It is anticipated that the perennial grasses across the allotment would become more vigorous, and there would be an increase in the number of perennial grasses reaching seed set. However, the areas that are currently dominated by invasive annual grasses would continue to be dominated by these species. As there would be minimal grazing use of invasive annual grasses, other than by wildlife, these areas may in fact expand due to increased seed production. This may also increase fuel for wildfires which occur within the Fort Sage Mountains fairly frequently.

The conversion of annual grasses to perennial species would not occur just by eliminating livestock, without also implementing treatments such as herbicide spraying, prescribed burning, and reseeded. However, rehabilitation of annual grasslands through widespread herbicide spraying and reseeded is extremely difficult, extraordinarily expensive on a large scale, and thought by many land managers as unattainable with current technology (Young, 1999).

Cumulative Effects

Past, Present, Foreseeable Future Actions Not Part of the Proposed Action:

Past Relevant Actions: Past wildfires have affected the entire allotment with several areas burned repeatedly (northeast slope of Turtle Mountain and the Summit Pasture). These fires have led to a change in the vegetative community within those areas. It has been determined that the majority of the allotment has likely crossed an ecological threshold from which the potential vegetation and composition may not recover naturally. BLM has seeded some areas in an attempt to restore the perennial grass and forb community. There are signs of these sites being successful with other areas coming back naturally.

Motorcycle and OHV use has occurred in this area. Historically OHV use was allowed to occur both on and off the trails. The BLM now restricts all OHV use to designated trails. Several permitted motorcycle races have occurred within the allotment.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Motorcycle races are expected to occur in the future. Currently no new projects are proposed other than the repair and maintenance of existing projects.

There are no expected significant cumulative impacts from the implementation of Alternative C. Livestock grazing would not continue. Soil surface disturbance would be

negligible or minor from wildlife and recreational uses, however wild horse could expand and become evident in areas. Land health is expected to remain the same, or continue to improve, as perennial species are rested, and plant vigor, the ability to produce seeds or seedlings, and plant production continue to improve. The lack of livestock grazing may encourage the spread of some undesirable species that livestock currently graze. As there would be minimal use of invasive annual grasses, other than by wildlife, these areas may in fact expand due to increased annual seed production. The increased production and litter from perennial and annual grasses may increase the risk of large wildfires within the allotment.

This would also decrease the number of eyes out in the field to monitor upland health, spring/riparian sites, and human negligence towards BLM range projects. Overall health of the allotment could decrease due to lack of management from BLM resource staff and the non existence of permittees.

4.1.2 Predicted Effects on Cultural Resources

4.1.2.1 Effects of Alternative A (Proposed Action): Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management

Direct & Indirect Effects

Potential impacts to the six lithic scatters would include trampling and displacement by hoof action. Livestock and horses impact cultural resources through soil compaction and cause subsurface soil disturbance by trampling and pawing, that mixes depositional associations and accelerates erosional processes.

There is no current livestock grazing data (last 10 years) to indicate any decrease of soil stability due to grazing. At this time there is not enough data to determine how current stocking rates will affect the allotment. However, with such a low stocking rate compared to acres available for grazing, it is assumed that impacts to cultural resources from soil damage will be low.

One site has been documented as having been impacted by livestock grazing during inspection for this permit renewal. A plan has been developed to alter fencing and access to water which should eliminate livestock grazing impacts to the main concentration area of the site. The site will be monitored for further impacts due to grazing and to insure that the plan is succeeding. If the impacts continue or increase, additional measures will be implemented to reduce or eliminate the damage being done by livestock or wild horses. At the same time, additional monitoring and inventory will be conducted in accordance with the 2007 Protocol Agreement and the National Historic Preservation (NHPA) Section 106 compliance requirements for range improvement procedures.

Cumulative Effects

Past, Present, and Foreseeable Future Actions Not Part of the Proposed Action:

Past Relevant Actions: Livestock grazing has been very light on the allotment over the past 20 years. Past wildfires have affected the entire allotment with several areas burned repeatedly (northeast slope of Turtle Mountain and the Summit Pasture). These fires have led to a change in the vegetative community within those areas, and have most likely affected some cultural resources. BLM has seeded some areas in an attempt to restore the perennial grass and forb community.

Motorcycle and OHV use has occurred throughout the allotment, and there are currently several miles of trail and roads designated for OHV use. Historically OHV use was allowed to occur both on and off the trails. The BLM now restricts all OHV use to designated trails. Several permitted motorcycle races have occurred within the allotment.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Motorcycle races are expected to occur in the future.

Cumulative Effects: The proposed action would result in no cumulative impacts to cultural resources. Cultural sites will be monitored for further impacts due to grazing, and additional measures will be implemented to reduce or eliminate the damage being done by livestock or wild horses. Future cultural resource surveys may identify areas needing protection and action would be taken under the current protocol with the CA SHPO. OHV use on designated trails would result in no cumulative effects to cultural resources.

4.1.2.2 Effects of Alternative B (No Action): Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management**Direct & Indirect Effects**

Disturbance to cultural resources from hoof action and trampling may be reduced slightly from the current amount in this area, and limited to wildlife, except for the one site that has been receiving damage in the area of the spring. Without intervention the archaeological site will continue to be heavily affected.

Cumulative Effects

Past, Present, Foreseeable Future Actions Not Part of the Proposed Action:

Past Relevant Actions: Motorcycle races are expected to occur in the future. Currently no new projects are proposed other than the repair and maintenance of existing infrastructure.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Motorcycle races are expected to occur in the future.

Cumulative Effects: Alternative B would result in no cumulative impacts to cultural

resources except for the site located near the spring. Cultural sites will be monitored for further impacts due to grazing, and additional measures will be implemented to reduce or eliminate the damage being done by livestock or wild horses. Future cultural resource surveys may identify areas needing protection and action would be taken under the current protocol with the CA SHPO. OHV use on designated trails would result in no cumulative effects to cultural resources.

4.1.2.3 Effects of Alternative C: No Grazing

Direct & Indirect Effects

Under this alternative the current permits issued for grazing on the allotments would be canceled and no grazing would be authorized. Grazing pressure on vegetation within the allotment would be almost eliminated, except that which occurs from wild horses and other wildlife. The vast majority of the vegetation would be able to complete its annual growth cycle without stress, leading to a healthier plant. This may increase fuel loading for wildfires.

However, portions of the allotment may still be accessible to unauthorized use from cattle. Without grazing management, there will be fewer BLM eyes in the field to keep unauthorized use in check. The impact may be significant to cultural resources if cattle graze these lands unnoticed and unmanaged.

Cumulative Effects

Past, Present, and Foreseeable Future Actions not Part of the Proposed Action:

Past Relevant Actions: Past wildfires have affected the entire allotment with several areas burned repeatedly (northeast slope of Turtle Mountain and Summit Pasture). These fires have led to a change in the vegetative community within those areas, and have most likely affected some cultural resources. BLM has seeded some areas in an attempt to restore the perennial grass and forb community.

Motorcycle and OHV use has occurred throughout the allotment, and there are currently several miles of trail and roads designated for OHV use. Historically OHV use was allowed to occur both on and off the trails. The BLM now restricts all OHV use to designated trails. Several permitted motorcycle races have occurred within the allotment.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Motorcycle races are expected to occur in the future.

Cumulative Effects: Alternative C would result in no cumulative impacts to cultural resources.

4.1.3 Predicted Effects on Riparian/Wetland Sites

4.1.3.1 Effects of Alternative A (Proposed Action): Authorize Grazing on the West Fort Sage Allotment with Potential Changes in Water Management

Direct & Indirect Effects

Three of the spring sources (riparian/wetland sites) were assessed as not meeting PFC, but on an upward trend. Wildfires, livestock, and wild horse use all contributed to the assessment conclusions. It was determined that wildfires burned the enclosure fences, water troughs, and piping. This allowed livestock and wild horse access to these wetland sites which eventually impacted each site.

Grazing by livestock and wild horses can have adverse impacts to riparian/wetland associations. Some localized overuse of forage will most likely occur in riparian and wetland areas and near watering areas due to the higher quality and longer growth period of forage, compared to adjoining upland areas. When forage plants are overused, desirable native species can be replaced by less desirable species that produce little or no forage value. A decline in soil condition, plant cover, and plant species composition also can encourage the invasion and growth of noxious weeds or other invasive plants. Early spring grazing also would adversely affect vegetation resources by the trampling of wet soils, uprooting of seedlings, and damage to mature plants.

Alternative A is designed to improve and protect springs (and associated riparian and wetland communities), including managing wild horses within established appropriate management levels, and preventing ground disturbance within spring sources and riparian areas. As a result of *the Land Health Evaluation for the West Fort Sage Allotment*, and 2008 Riparian Functional Assessments (RFA), approximately three wetland springs (lentic), have recently been fenced off to exclude all grazing. This will result in more diverse and vigorous riparian/wetland plant communities, and a stabilization of the soils in these areas. Forage and cover are also predicted to increase, resulting in improved habitat for wildlife.

Alternative A is also designed to improve grazing management within the Seeded Pasture of the allotment. This will entail redeveloping the existing water well (Doyle Well) to rejuvenate it and use it as a water source for the pasture. If the well proves to be non-functional, which may cause BLM to abandon the project, other options may be implemented (i.e. using temporary water haul sites within the pasture). This would provide one more water source within the pasture, allowing cattle to venture further into the pasture utilizing feed which may not otherwise be used. This would also take some attention away from Indian Springs, allowing water there to last longer than it currently does.

Wildlife would also benefit from water development within the Seeded Pasture. The Fort Sage Mountains are winter deer habitat, and having additional water sources available throughout the year would give mule deer and other wildlife another option for water use.

Cumulative Effects

Past Relevant Actions:

Actions that have had adverse impacts are as follows:

- 1) Livestock have used this area for grazing historically.
- 2) Wild horse grazing has occurred at varying levels, contributing to use of vegetation and potential disturbance of sensitive sites.

Actions that have had beneficial impacts:

- 1) Grazing management has been modified to reduce or eliminate impacts to known sites and areas through coordination with the grazing permittees and BLM resource staff. Full grazing numbers have not been used in 10 years. Recent fencing of Pickins Spring NV and CA, and Jesus Spring will reduce impact on sensitive wetland sites.

Present and Reasonably Foreseeable Relevant Actions Not Part of the Proposed Action: Cumulative Effect:

- 1) Motorcycle races are expected to occur in the future.

Cumulative Effect: Some localized overuse of forage will most likely continue to occur near watering areas, due to the higher quality and longer growth period of forage, compared to adjoining upland areas. The BLM will continue to periodically assess the condition of riparian/wetland sites within the West Fort Sage Allotment. If additional sites are found to be Functioning at Risk, with a downward trend, and the causal factor is either wild horse use or livestock grazing, these areas would also be fenced. Over time the expectation is that all sites will continue to improve towards Proper Functioning Condition, as degraded sites are allowed to rest and recover from grazing use.

4.1.3.2 Effects of Alternative B (No Action): Authorize Grazing on the West Fort Sage Allotment without Potential Changes in Water Management

Direct & Indirect Effects

Under Alternative B there would be little improvement in the condition of riparian/wetland sites that are rated as Functioning at Risk, as no additional sites would be fenced. When forage plants are overused, desirable native species can be replaced by less desirable species that produce little or no forage value. A continuous decline in soil condition, plant cover, and plant species composition would be expected. Early spring grazing also continues to adversely affect vegetation resources by the trampling of wet soils, uprooting of seedlings, and damage to mature plants.

The Doyle Well project would be abandoned along with any option to haul water or establish any kind of water options for the Seeded Pasture. The allotment would continue to be managed as it has last 10-20 years or so.

Cumulative Effects

Past, Present, Future Actions: Same as in 4.1.4.1.

Cumulative Effect: Overuse of forage will most likely continue to occur in many riparian and wetland areas, and near watering areas, due to the higher quality and longer growth period of forage, compared to adjoining upland areas. Over time the expectation is that the sites rated as Functioning at Risk will improve slightly, due to the lowered number of wild horses. However these sites will most likely not receive the adequate rest from grazing they need to fully recover to improve towards Proper Functioning Condition.

4.1.3.3 Effects of Alternative C: No Livestock Grazing

Direct & Indirect Effects

Since authorized livestock grazing is not the causal factor in riparian/wetland areas not rating as Proper Functioning Condition, the condition of riparian/wetland areas under Alternative C would improve only slightly. This alternative would eliminate some localized overuse of forage in riparian and wetland areas and near watering areas. Under Alternative C there would be little improvement in the condition of riparian/wetland sites that are rated as Functioning at Risk, as no additional sites would be fenced.

Cumulative Effects

Past, Present, Future Actions: Same as in 4.1.4.1

Cumulative Effect: Overuse of forage will most likely continue to occur by wild horses in many riparian and wetland areas, and near watering areas. Over time the expectation is that the sites rated as Functioning at Risk will improve slightly, due to the lowered number of wild horses. However these sites will most likely not receive the adequate rest from grazing they need to fully recover to improve towards Proper Functioning Condition.

5.0 CONSULTATION & COORDINATION

5.1 Persons, Groups and Agencies Consulted

Name	Title/Organization
Lambert and Marcia Barnum	Grazing Permittee
Charles H. Marx	Grazing Permittee
John Barnum	Grazing Permittee C/O Lambert and Marcia Barnum
Dr. Michael J. Connor	Western Watersheds Project
Brian Ehler	CA. Department of Fish and Game
Donald J. Armentrout	Certified Wildlife Biologist
Meghan Wereley	Nevada Cattlemen's Association
David Lile	Lassen County Farm Advisor
Wayne Jambois	Interested Party
Catherine Barcomb	Commission for the Preservation of Wild Horses
Greta Anderson	Center for Biological Diversity
Michon Eben	Cultural Resources Coordinator
Nick Alosi	President of Lassen Motor Cycle Club
Ben Aleck	Museum Coordinator, NAGPRA Coordinator, Cultural Resources
Tim Keesey	Environmental Department, Susanville Indian Rancheria
Mr. Stacy Dixon	Chairman, Susanville Indian Rancheria
Arlan Melendez	Chairman, Reno-Sparks Indian Colony
Waldo Walker	Chairman, Washoe Tribe of Nevada and California
Jorge Lopez	Executive Director-Washoe Tribe of Nevada and California
Erica Kellison	Chairperson, Greenville Rancheria
Michael DeSpain	Environmental Director, Greenville Rancheria
Mervin Wright	Chairperson, Pyramid Lake Paiute Tribe Council
Jessica Jim	Chairperson, Pit River Tribal Council
Robert Boyce	Pit River Tribal Administrator
Chris Pirosko	Pit River Tribe

5.2 List of Preparers and Specialists Consulted

Name	Resource/Activities	Project Role
Patrick Farris	Range Management Specialist	Project Lead Interdisciplinary Team
Sharynn Blood	Cultural/Paleo	EA Preparer Interdisciplinary Team
Carolyn Gibbs	Veg. T&E/Sensitive	Interdisciplinary Team
Josh Gibbs	Noxious Weeds	Interdisciplinary Team
Stanley Bales	Recreation	Interdisciplinary Team
Marissa Williams	Recreation	Interdisciplinary Team
Missi Nelson	Wildlife	EA Preparer Interdisciplinary Team
Jennifer Mata	Ecologist	Interdisciplinary Team
Sue Noggles	NEPA Coordinator	EA Preparer Interdisciplinary Team

6.0 REFERENCES

Belnap, Jayne, Lange, Otto L., Biological soil crusts: structure, function, and management, Ecological studies; V.150.

Hironaka, M., and B.W. Sindelar. 1975. Growth characteristics of squirreltail seedlings in competition with medusahead. J. Range Manage. 28(4): 283-285.

U.S. Department of Interior, Bureau of Land Management. 2008. Eagle Lake Resource Management Plan. Eagle Lake Field Office, Susanville, CA.

U.S. Department of Interior, Bureau of Land Management. 2001. *Biological Soil Crusts: Ecology and Management*. BLM Technical Reference 1730-2.

U.S. Department of Agriculture and Natural Resource Conservation Service 2004, Soil Survey of Susanville Area, Parts of Lassen and Plumas Counties, California, Part I and Part II.

Young, J.A. 1992, Ecology and management of medusahead (*Taeniatherum caput-medusae* ssp. *Asperum* [simk.] *melderis*). Great Basin Naturalist. 52(3): 245-252.

APPENDIX A.**Standard Terms and Conditions for the West Fort Sage Allotment**

1. Grazing permit or lease terms and conditions and the fees charged for grazing use are established in accordance with the provisions of the grazing regulations now or hereafter approved by the Secretary of the Interior.
2. They are subject to cancellation, in whole or in part, at any time because of:
 - a. Noncompliance by the permittee/lessee with rules and regulations.
 - b. Loss of control by the permittee/lessee of all or a part of the property upon which it is based.
 - c. A transfer of grazing preference by the permittee/lessee to another party.
 - d. A decrease in the lands administered by the Bureau of Land Management within the allotment(s) described.
 - e. Repeated willful unauthorized grazing use.
3. They are subject to the terms and conditions of allotment management plans if such plans have been prepared. Allotment management plans **MUST** be incorporated in permits or leases when completed.
4. Those holding permits or leases **MUST** own or control and be responsible for the management of livestock authorized to graze.
5. The authorized officer may require counting and/or additional or special marking or tagging of the livestock authorized to graze.
6. The permittee's/lessee's grazing case file is available for public inspection as required by the Freedom of Information Act.
7. Grazing permits or leases are subject to the nondiscrimination clauses set forth in Executive Order 11246 of September 24, 1964, as amended. A copy of this order may be obtained from the authorized officer.
8. Livestock grazing use that is different from that authorized by a permit or lease **MUST** be applied for prior to the grazing period and **MUST** be filed with and approved by the authorized officer before grazing use can be made.
9. Billing notices are issued which specify fees due. Billing notices, when paid, become a part of the grazing permit or lease. Grazing use cannot be authorized during any period of delinquency in the payment of amounts due, including settlement for unauthorized use.
10. Grazing fee payments are due on the date specified on the billing notice and **MUST** be paid in full within 15 days of the due date, except as otherwise provided in the grazing permit or lease. If payment is not made within that time frame, a late fee (the greater of \$25 or 10 percent of the amount owed but not more than \$250) will be assessed.

11. No Member of, or Delegate to, Congress or Resident Commissioner, after his/her election of appointment, or either before or after he/she has qualified, and during his/her continuance in office, and no officer, agent, or employee of the Department of the Interior, other than members of Advisory committees appointed in accordance with the Federal Advisory Committee Act (5 U.S.C. App.1) and Sections 309 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) shall be admitted to any share or part in a permit or lease, or derive any benefit to arise there from; and the provision of Section 3741 Revised Statute (41 U.S.C. 22), 18 U.S.C. Sections 431-433, and 43 CFR Part 7, enter into and form a part of a grazing permit or lease, so far as the same may be applicable.

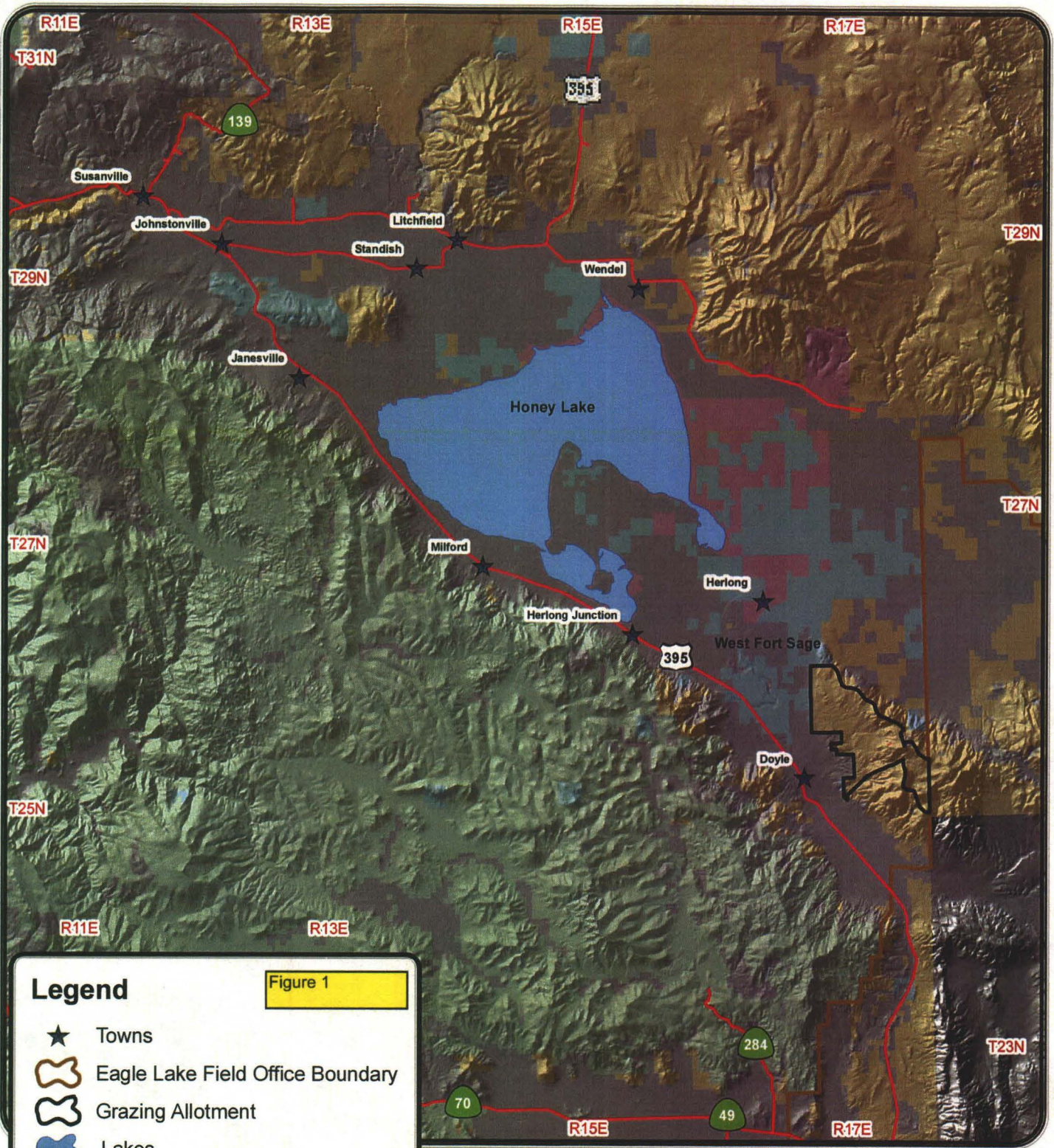
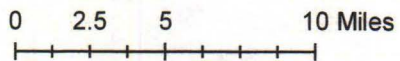


Figure 1

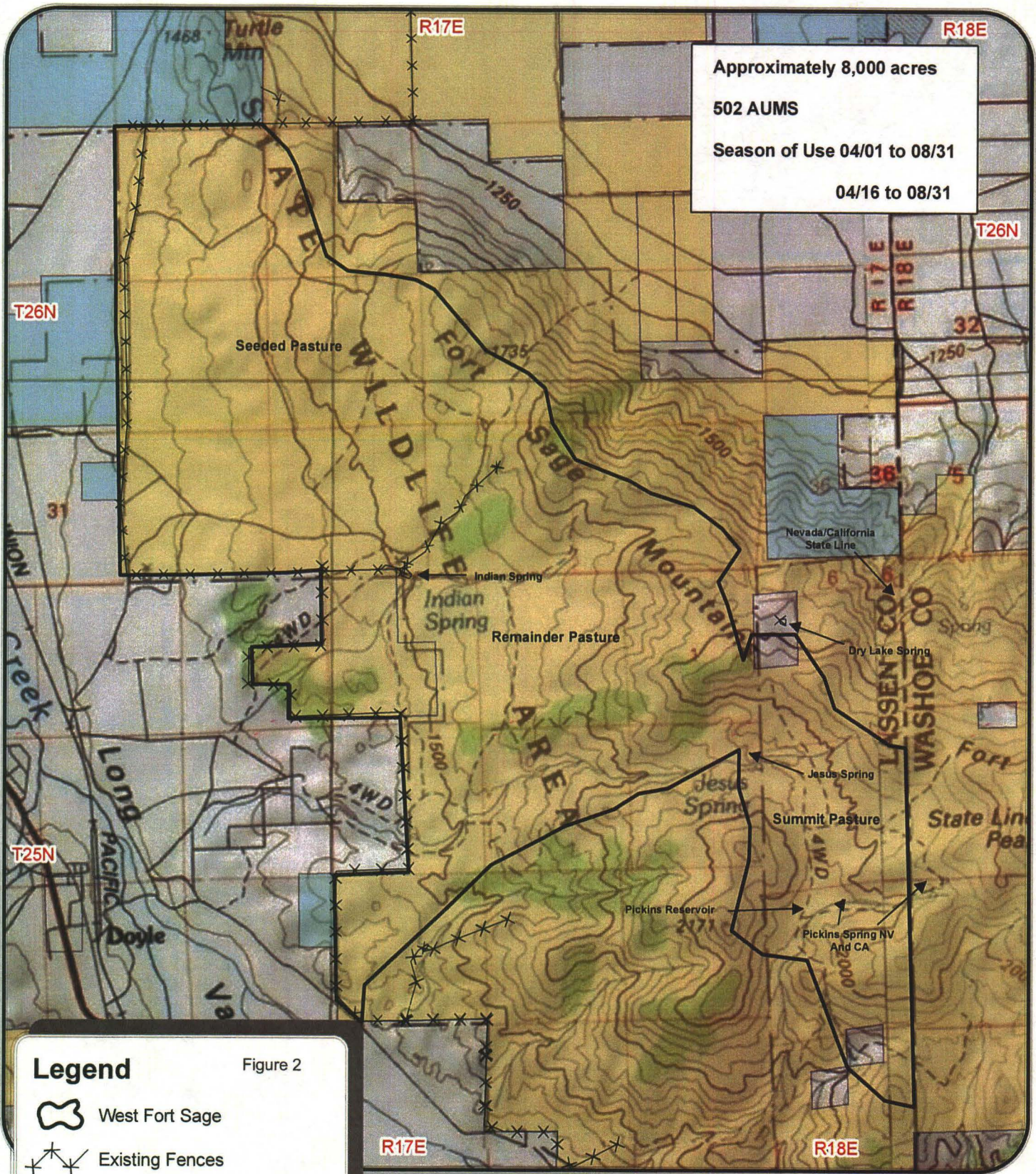
Legend

- ★ Towns
- 🔲 Eagle Lake Field Office Boundary
- 🔲 Grazing Allotment
- 🔲 Lakes
- 🔲 Bureau of Land Management
- 🔲 Forest Service
- 🔲 Military
- 🔲 State Lands
- 🔲 Unclassified/Private

West Fort Sage Allotment Location Map









No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice.

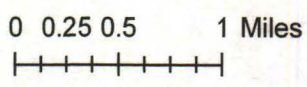


Approximately 8,000 acres
 502 AUMS
 Season of Use 04/01 to 08/31
 04/16 to 08/31

Legend Figure 2

-  West Fort Sage
-  Existing Fences
-  Spring Enclosure
-  Bureau of Land Management
-  State Lands
-  Unclassified

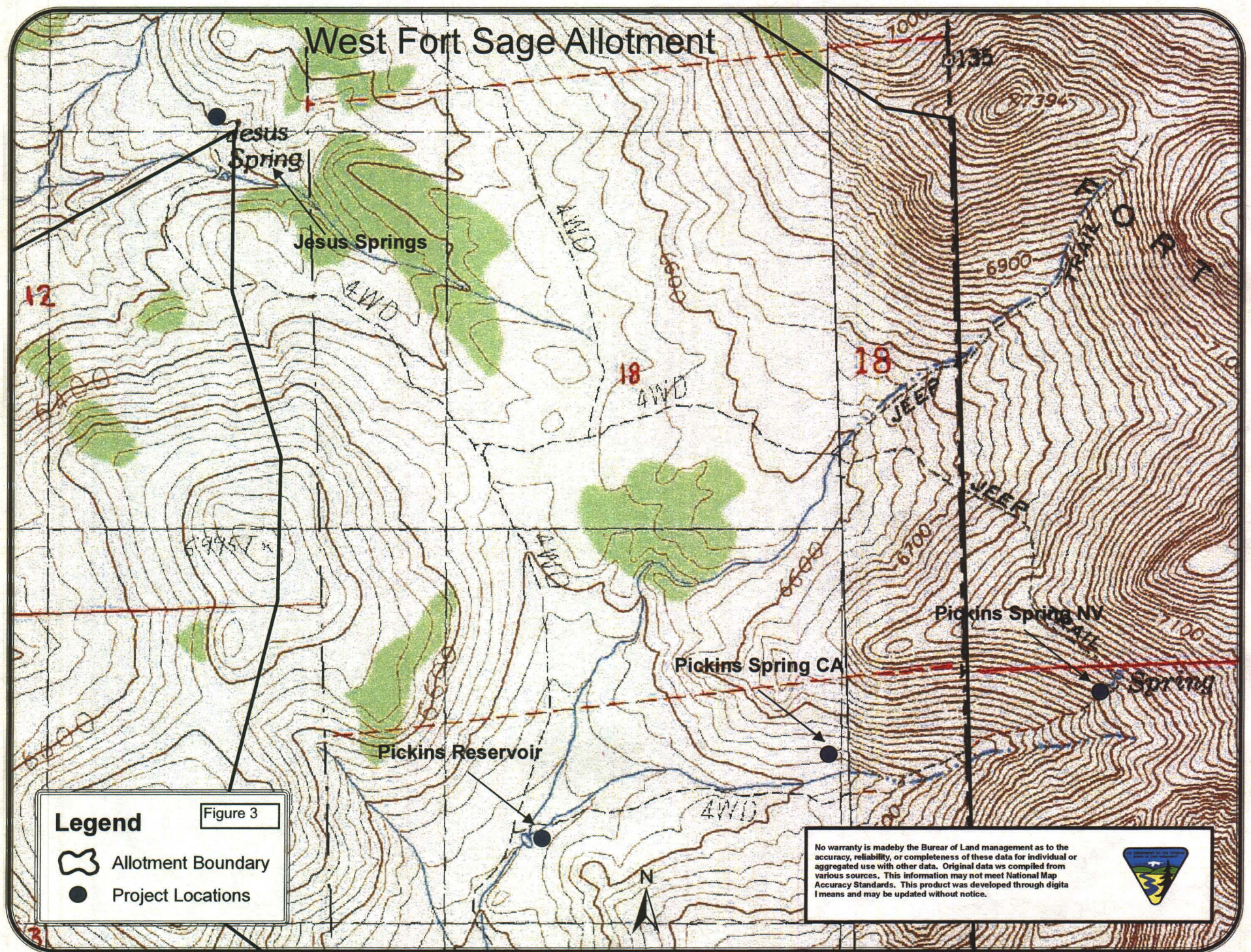
West Fort Sage Allotment





No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice




West Fort Sage Allotment



Legend Figure 3

-  Allotment Boundary
-  Project Locations

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice.



**West Fort Sage Temporary
Water Haul Locations for the Seeded Pasture**

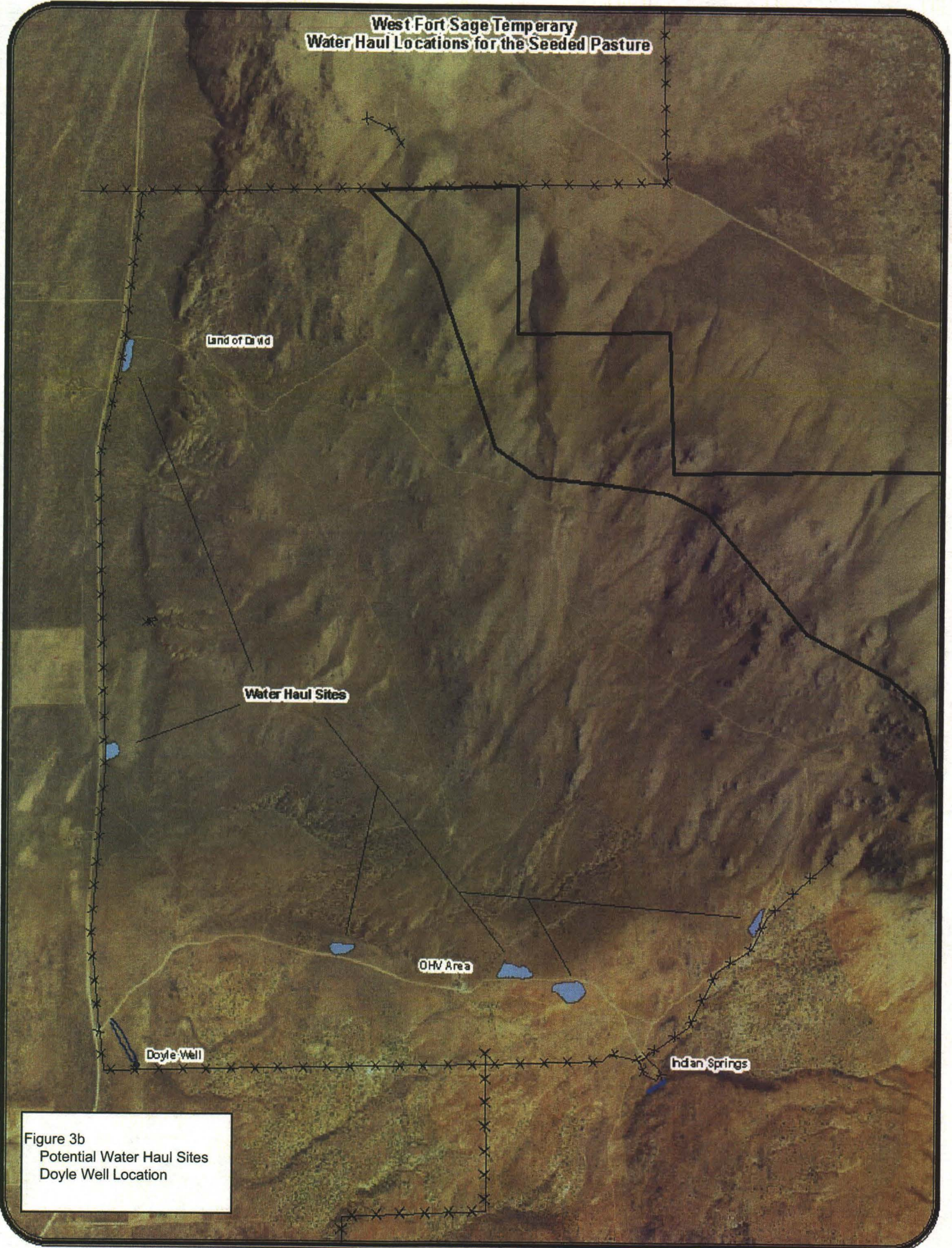


Figure 3b
Potential Water Haul Sites
Doyle Well Location

Indian Springs Village Site

Option A

Seeded Pasture

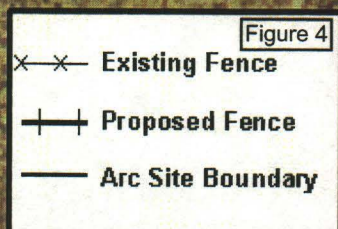
Arc Boundary

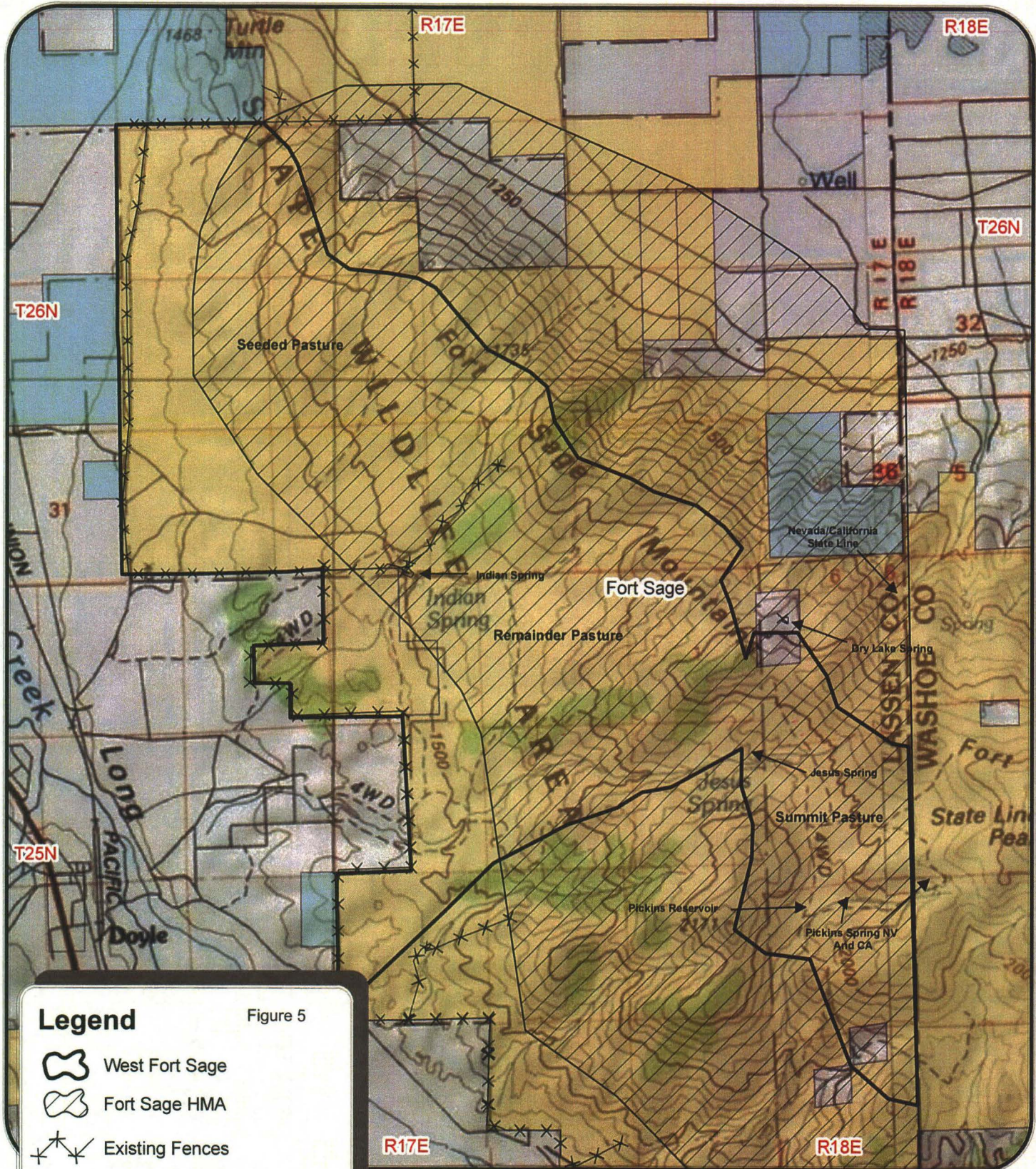
Remainder Pasture

Remove

Remove




Troughs





Legend

Figure 5

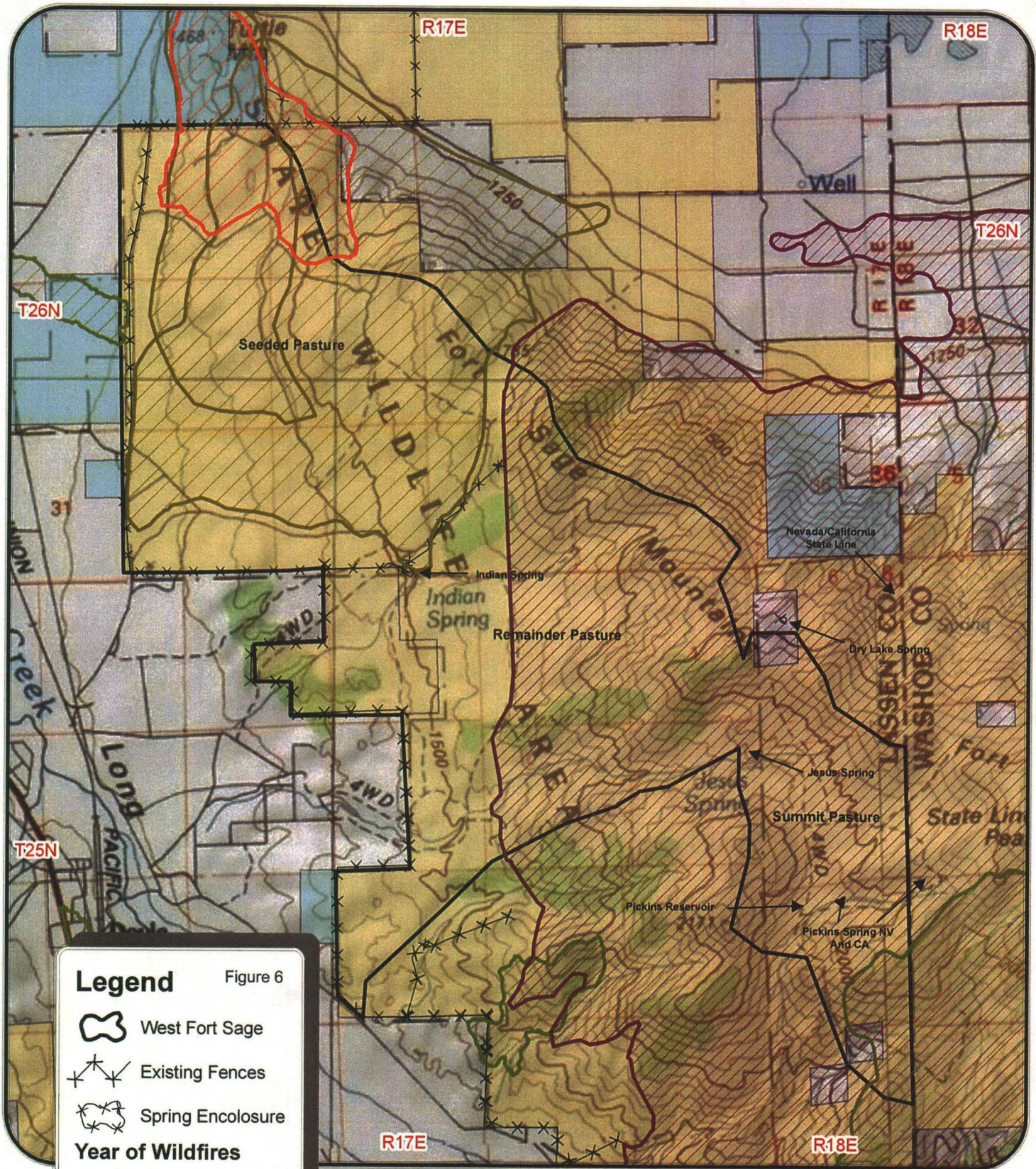
-  West Fort Sage
-  Fort Sage HMA
-  Existing Fences
-  Spring Enclosure
-  Bureau of Land Management
-  State Lands
-  Unclassified

**West Fort Sage Allotment
Fort Sage Wild Horse and Burro
Herd Management Area**

0 0.25 0.5 1 Miles



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice



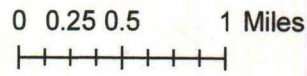
Legend Figure 6

-  West Fort Sage
-  Existing Fences
-  Spring Enclosure

Year of Wildfires

-  1983
-  1984
-  2001
-  2006

West Fort Sage Allotment Wild Fire Map



No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice.

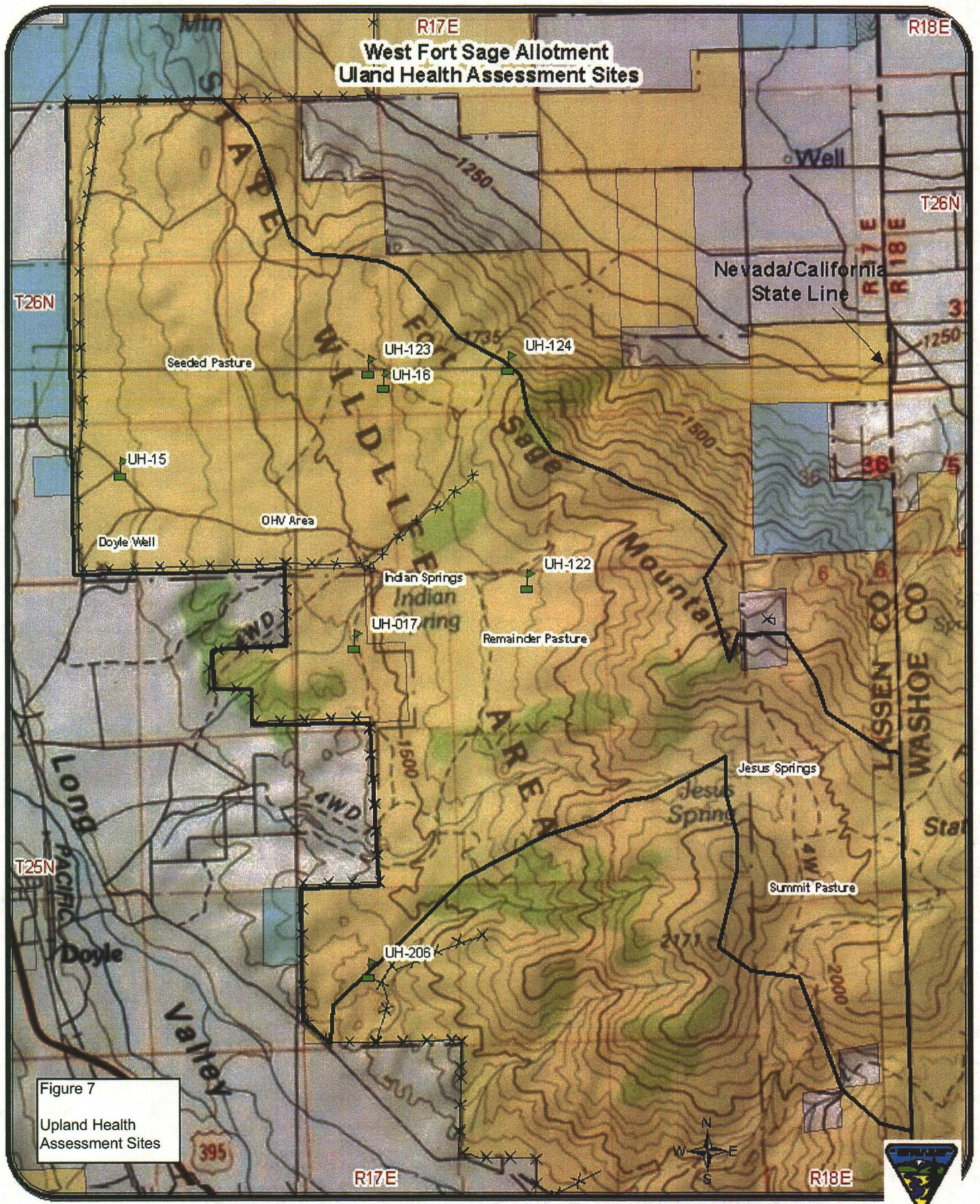


Figure 7
Upland Health
Assessment Sites

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregated use with other data. Original data was compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notice.