



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City Field Office
5665 Morgan Mill Road
Carson City, NV 89701



In Reply Refer To:
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(NV-032)

April 30, 2007

EMS TRANSMISSION 04/30/2007

Dear Interested Party:

Enclosed is a copy of the Cedar Mountain Allotment Environmental Assessment (EA-NV-030-07-13) along with corresponding maps and appendices. This covers the renewal of the term grazing permit. Please provide comments no later than May 30, 2007.

Signed By:
Elayn Briggs
AFM, Renewable Resources

Authenticated By:
Robert R. Mead
Rangeland Management Specialist

Enclosures (3):

1. Cedar Mountain Allotment Environmental Assessment and Appendices
2. Cedar Mountain Map No. 1 – General Location
3. Cedar Mountain Map No. 2 – Allotment Map

Environmental Assessment

Cedar Mountain Allotment Grazing Permit Renewal

EA-NV-030-07-13

U.S. Department of Interior
Bureau of Land Management
Carson City Field Office
5665 Morgan Mill Road
Carson City, Nevada 89701

I. INTRODUCTION/PURPOSE AND NEED

A. Introduction

This Environmental Assessment (EA) analyzes the impacts resulting from the renewal of the Term Grazing Permit for the Cedar Mountain Allotment for a period of ten years. The basis for this EA is the Standards and Guidelines (S & G's) Analysis that was completed by an interdisciplinary team in 2006. It incorporates portions of the S & G Analysis which is on file at the Carson City Field Office (CCFO). It addresses the impacts that are anticipated as a result of the Proposed Action, No Action and No Grazing alternatives.

On February 12, 1997, Bruce Babbitt, then Secretary of the Interior, approved the S & G's for Rangeland Health and Grazing Management to be applied to Bureau of Land Management (BLM) public lands in the State of Nevada, under the administration of the CCFO. These S & G's were developed in consultation with the Sierra Front-Northwestern Great Basin Resource Advisory Council to help ensure that grazing use of these public lands result in productive and sustainable rangelands for the use and enjoyment of future generations.

S & G's are being implemented through two processes; (1) determination that the terms and conditions of the grazing permit are consistent with the S & G's applicable to the allotment and (2) the allotment evaluation process to determine whether or not the current grazing practices are expected to achieve the specific resource goals and objectives identified for the Cedar Mountain Allotment in the applicable Resource Management Plan (RMP), Rangeland Program Summary (RPS) and the Carson City Field Office Coordinated Resource Management Plan (CCFO-CRMP), approved on May 9, 2001.

B. Purpose and Need

The purpose of the proposed action is two fold; (1) Administer grazing and implement grazing practices on the Cedar Mountain Allotment in a manner consistent with the attainment of site specific objectives for the allotment found in the CCFO-CRMP and (2) Implement grazing practices that would ensure compliance with the S & G's for Rangeland Health and Grazing Management.

The need for the proposed action stems from BLM mandates to conduct grazing activities in an ecologically sound manner. Grazing use and guidelines for making such use are found in the provisions of the Taylor Grazing Act (TGA) of 1934 (as amended), the Federal Land Policy and Management Act (FLPMA) of 1975, the Public Rangelands Improvement Act (PRIA) of 1978, and the approved S & G's of 1997, as well as various other federal laws and regulations.

C. Land Use Plan Conformance Statement

The proposed action and alternatives described below are in conformance with the CCFO-CRMP, page LSG-1. Desired outcomes 1-4 are as follows:

1. Maintain or improve the condition of the public rangelands to enhance productivity for all rangeland and watershed values.
2. Initially, manage livestock use at existing levels.
3. Provide adequate, high quality forage for livestock by improving rangeland condition.
4. Improve overall range administration.

Additional Guidance: Cedar Mountain S & G's Analysis, developed by an interdisciplinary team and approved by the Authorized Officer in 2006; Riparian – Wetland Initiative (1991).

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

Renew the term grazing permit for a period of ten years and implement the following technical recommendations taken from the 2006 Cedar Mountain Allotment S & G's Analysis in order to improve management of the range resource.

1. Authorize 186 cattle to be grazed from November 1 to March 31 each year, for a total of 925 AUMs. The public land rating would remain 100%.
2. Limit utilization on desirable shrubs so as not to exceed 45%. The utilization levels would be checked and when the maximum utilization level is reached, livestock would be removed from the area.
3. Limit utilization on key grasses so as not to exceed 45%. The utilization levels would be checked and when the maximum utilization level is reached, livestock would be removed from the area.
4. Water hauling would be required each year.
5. For Graham Spring, repair and expand the existing enclosure and provide water for cattle and wild horses.
6. For Lower Gunmetal Spring, fence most of the spring and provide water for cattle and wild horses.
7. For the Douglas Basin Complex, fence the spring area to exclude cattle.
8. For Bettles Ranch Spring, fence the spring area to exclude livestock and provide water for cattle and wild horses.
9. Control invasive, nonnative plant infestations, should they occur.

10. No grazing system.
11. Improve existing ecological condition and trend.

B. No Action

Maintain the current livestock management practices and renew the term grazing permit for a period of ten years.

1. Authorize 186 cattle to be grazed from November 1 to March 31 each year, for a total of 925 AUMs. The public land rating would remain 100%.
2. Water hauling would be required each year.
3. Control invasive, nonnative plant infestations, should they occur.
4. No grazing system.
5. Improve existing ecological condition and trend.

C. No Grazing Alternative

Under this alternative, no grazing would be allowed on the allotment. There would be no new range improvements. No grazing permittee would be present to maintain existing range improvements.

Comparisons of the Alternatives

	<u>Proposed Action</u>	<u>No Action</u>	<u>No Grazing</u>
<i>Number of Livestock:</i>	186	186	0
<i>AUM's:</i>	925	925	0
<i>Period of Grazing:</i>	11/01 to 03/31	11/01 to 03/31	No Grazing
<i>Max. Utilization (Shrubs):</i>	45%	N/A	0
<i>Max. Utilization (Grasses):</i>	45%	N/A	0
<i>Grazing System:</i>	None	None	None
<i>Range Improvements:</i>	4 Exclosures	None	None
<i>Max. Util. Reached:</i>	Remove livestock	N/A	No Grazing

III. AFFECTED ENVIRONMENT

A. SCOPING AND ISSUE IDENTIFICATION

On November 9, 2006 a letter was sent to possible interested publics to identify those individuals and organizations interested in specific actions on specific Allotments under the jurisdiction of the CCFO. The purpose of the scoping letter was to gather information and determine who would be further interested in participating in the evaluation process of CCFO grazing allotments.

The EA for the Cedar Mountain Allotment Permit Re-issuance will be sent out for public review. A copy will be sent to the Nevada State Clearinghouse for distribution amongst state agencies. In addition, copies will be sent to the following:

Permittee of Record
Western Watersheds Project

Internal scoping with the BLM staff occurred between November of 2005 and April of 2007, which included the Cedar Mountain Allotment S & G's Analysis and this EA.

B. PROPOSED ACTION AND ALTERNATIVES

1. General Setting

The Cedar Mountain Allotment topography varies from gently sloping alluvial fans in the Monte Cristo Valley to rugged mountain slopes in the Pilot and Cedar Mountain Ranges. The steep topography acts to restrict cattle movement but does not restrict wild horse movement within the Pilot Mountain Herd Management Area (PMHMA). This allotment has historically been used by cattle during the winter and spring. The area is comprised mostly of Bailey greasewood, Wyoming big sagebrush, and Mountain big sagebrush plant communities. Woodland sites are scattered throughout.

2. Critical Elements of the Human Environment:

The following critical elements are not present or would not be affected by the analyzed alternatives: Air Quality, Areas of Critical Environmental Concern, Prime or Unique Farmlands, Floodplains, Hazardous or Solid Wastes, Threatened /Endangered Species, Wilderness, Wild and Scenic Rivers, Environmental Justice, Paleontology, and Forestry.

Native American Religious Concerns also are present but would not be affected by the alternatives. The analysis conducted to reach this decision is discussed.

Native American Religious Concerns:

The Native American tribe that has cultural affiliation with the area within allotment is the Yomba Shoshone Tribe. Per 36 CFR Part 800 and 43 CFR Part 8100 (BLM), as amended, a notification letter, general summary of the proposed

lease renewal program, and map of the allotment location were sent to the tribe on March 8, 2005, concerning the Cedar Mountain grazing permit renewal. Native American concerns were solicited. To date, the Tribe has not stated that there are cultural resources or Native American Religious concerns relative to this grazing permit renewal.

Any proposed improvements may potentially have an effect on tribal concerns. Per 36 CFR Part 800 and 43 CFR Part 8100 (BLM), as amended, BLM would review known tribal concerns and conduct Native American coordination and consultation, as necessary.

C. Resources Present but not Affected (other than critical elements)

The following elements are present but would not be affected by the proposed action, no action and no grazing alternatives: Recreation, Visual Resources, Geologic Resources, Lands and Socioeconomics.

D. Resources Present and Brought Forward for Analysis

1. Livestock

A herd of 186 cattle are permitted between November 1 and March 31, totaling 925 AUMs. This is a cow/calf operation. This allotment has historically been utilized by cattle during the winter/spring period.

2. Wildlife

The allotment area has good general wildlife diversity potential due to elevation changes within it, the variety of habitat types and topographical features present. Range assessments reveal that general soil and vegetative communities are stable and functioning. General wildlife habitat is in good condition. There are several wildlife habitat types associated with this allotment (Suminski 2007).

The entire allotment is classified as mule deer range (Axtell 2007). The eastern portion of Cedar and Pilot Mountain would be considered key summer range for mule deer (BLM 1988). Quantity and quality of the key summer range has been rated as "low" in the past (BLM 1988). Some of the reason is due to naturally low precipitation and poor soil type. Because springs that were evaluated were found to be functionally at risk, fawning areas associated with these would be in poor condition.

This allotment contains desert bighorn habitat; the allotment provides yearlong habitat for these sheep (Axtell 2007). Because the soil and vegetation in the allotment are in functional condition, bighorn habitat is probably in acceptable condition.

Historically, pronghorn were present in all valleys of Nevada (BLM 1988). Pronghorn occur in this allotment on yearlong habitat (Axtell 2007). No key areas have been identified, although fawning areas may be present. Because

springs that were evaluated were found to be functionally at risk, or not flowing, pronghorn habitat would be in less than ideal condition.

No sage grouse occur within this allotment (Axtell 2007).

Mourning doves can be found in the allotment. The exotic species, chukar, can be found on the allotment (BLM 1988).

3. Special Status Species

BLM Sensitive Species

BLM Manual 6840 defines sensitive species as "...those species not already included as BLM Special Status Species under (1) Federal listed, proposed or candidate species; or (2) State of Nevada listed species. Native species may be listed as "sensitive" if it: (1) could become endangered or extirpated from a state or significant portion of its range; (2) is under review by the FWS/NMFS; or (3) whose numbers or habitat capability are declining so rapidly that Federal listing may become necessary, or (4) has typically small and widely dispersed populations; (5) inhabits ecological refugia, specialized or unique habitats; (6) is state-listed, but is better conserved through application of the BLM sensitive species status." It is BLM policy to provide sensitive species with the same level of protection that is given federal candidate species. The major objective of this protection is to preclude the need for federal listing (BLM 2003).

The NNHP database has no record of any BLM sensitive plant species (Tonenna 2007). Nevada BLM sensitive species expected, or found in or near the allotment are shown in Appendix A (BLM 2003).

Neo-tropical Migratory Birds

On January 11, 2001, President Clinton signed Executive Order 13186 (Land Bird Strategic Allotment) placing emphasis on conservation and management of migratory birds. The species are not protected under the Endangered Species Act, but most are protected under the Migratory Bird Treaty Act of 1918. No BLM policies have been developed to provide guidance on how to incorporate migratory birds into National Environmental Policy Act (NEPA) analysis. However, advice based on past USFWS Memorandum of Understandings (MOU's), list items the USFWS believes are fundamental for the analysis of impacts to and planning for these birds. These items are (1) effects to highest priority birds listed by Partners in Flight (PIF); (2) effects to important bird areas (IBA's); (3) effects to important over wintering areas.

Avifaunal Biomes that are found on the allotment are described by PIF [Beidleman 2000], PIF-Nevada (Neel 1999) and Nevada Wildlife Action Plan (Nevada Wildlife Action Plan Team 2006). The Intermountain West is the center of distribution for many western birds. Over half of the biome's Species of Continental Importance have 75% or more of their population here. Many breeding species from this biome migrate to winter in central and western Mexico or in the Southwestern biome (Beidleman 2000). There is no IBA associated with this allotment.

The species of concern listed by PIF that could occur in the allotment are shown in Appendix B.

4. Wild Horses and Burros

A portion (11,885 acres or 5%) of the PMHMA is contained within the allotment. The Appropriate Management Level (AML) for this portion of the PMHMA is a maximum of 24 wild horses.

5. Soils

The soils within the allotment vary considerably in physical, chemical, and biological characteristics. Parent material, surface and subsurface textures and rock fragments, elevation, aspect, and slope determine the inherent productivity. Erosion and runoff potential, while affected greatly by these factors, is also dependant upon the basal and canopy cover of vegetation on site. Also, roads, livestock and wild horse use, mining and other overland activities, and general motorized vehicle use have impacted soils in certain areas. Generally the soils in this allotment are classified as aridic, with much of the area within the four to eight inch precipitation zone. Soil reactions are moderately alkaline. Detailed descriptions of the soils within the allotment can be found within the Mineral County Soil Survey, issued in 1991 by the U.S. Dept. of Agriculture-Soil Conservation Service, now known as the Natural Resources Conservation Service (NRCS).

6. Vegetation

Important upland species on the allotment include five shrubs and four grass species. They are bitterbrush, Spiny hopsage, Budsage, Four-wing saltbush, Winterfat, Indian ricegrass, Thurber's needlegrass, Galleta grass, and Sandberg bluegrass.

Most of the utilization monitoring has been measured on the aforementioned grasses. However, twigs of shrubs, and leaves of those that are evergreen, are living tissue. Shrubs are less damaged by grazing during the cold weather period of dormancy. The allotment is grazed, for the most part, during this period.

7. Invasive, Nonnative Species

One small infestation of salt cedar has been located within the allotment about a mile southwest of Cedar Summit in a canyon.

8. Wetlands/Riparian

Eight separate riparian areas were assessed on the allotment between November 16, 2005 and April 26, 2006. Table 1 provides some basic data for each location, and Table 2 summarizes the condition ratings for all assessed sites. More than a third of the spring acres and more than a half of the stream miles were nonfunctioning (NF). These sites had clear signs of livestock and wild

horse damage, including hoof impact, overuse of riparian vegetation, and erosion.

9. Cultural Resources

The potential exists for adverse impacts to cultural resources and/or historic properties due to a continuation of livestock grazing with or without modifications to the grazing permit.

The allotment contains some locations of known cultural resources. To date, in and immediately adjacent to the BLM-managed lands of the Cedar Mountain Allotment, known cultural resources represent significant past human use of the landscape. These include prehistoric-period lithic scatters, stone alignments, and camp sites of a wide range of age ranging from the Paleoarchaic (over 8500 years ago) through the nineteenth-century. Also present are historic-period debris scatters, stone structures, and roads associated with mining, wood cutting, and transportation (MACTEC 2005; McCabe and Lane 2007; Pendleton et al. 1982).

Livestock grazing has been present in the immediate region for well over 80 years. Livestock numbers and grazing intensity were much greater, for periods through the 1930s, than the current permitted use in Mineral County. Specific to historic properties, the impacts that may have occurred likely reached their most detrimental levels decades before the present. By definition, an historic property is a “prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places” and includes “artifacts, records, and remains that are related to and located within such properties” (36 CFR 800.16(l)(1)). Compared to current levels with reduced numbers of livestock in the Cedar Mountain Allotment, and similar BLM CCFO allotments, AUMs were significantly higher prior to the late 1930s. Therefore, potential grazing related impacts to historic properties were probably greater at that time as well and have probably diminished to some degree since that time.

For most of the allotment, cultural resources generally lack potential for being sensitive and at-risk from proposed grazing activities. However, based on background analysis in 2005 (MACTEC 2005), and the current or proposed use of springs for watering livestock, four spring areas were identified as requiring additional fieldwork in order to evaluate the significant values of historic properties versus dispersed livestock range use and the concentration of livestock at springs. Other than for the four areas identified, the existing range use pattern is not anticipated to have current or future impacts to historic properties. The four areas of further investigation were Humdinger Spring, Graham Spring, Cedar Spring, and Bettles Ranch Spring. Additional areas of spring improvements are considered part of the proposed action. Actions at springs that are needed—including management of historic properties being present—are included in Table 1.

Table 1. 2005-2006 Riparian and Cultural Assessment Data for the Cedar Mountain Allotment

Name	Date Assessed	UTM Northing	UTM Easting	Rating ¹	Acres ²	Cultural Concern ³	Linear Miles	Management Recommendations
Humdinger Spring	11/16/2005	4268165	430001	FAR-UP	1.4	yes	0.3	
Cedar Spring	11/16/2005	4265969	432560	FAR-UP	0.1	TBD	--	
Douglas Basin Complex	4/26/2006	4265945	428716	NF	0.8	TBD	0.35	New Spring Ex-closure/Drift Fence
Graham Spring	4/12/2006	4252361	422168	NF/ FAR-DN	0.4	yes	--	Expand & Repair Existing Ex-closure
Bettles Ranch Spring	4/12/2006	4252095	423148	FAR-?	0.2	yes	--	New Ex-closure
Good Hope Spring	4/12/2006	4249710	423934	NF	<<0.1	TBD	--	
Lower Gunmetal Spring	4/12/2006	4249044	423529	NF	<0.1	TBD	--	New Ex-closure
South Scheelite Spring						no		

Table 2. Summary of 2005-2006 Riparian Assessments on the Cedar Mountain Allotment

Rating	Acres	Percent of Total	Miles	Percent of Total
PFC	--	--	--	--
FAR-UP	1.5	50.0	0.3	46.2
FAR-DN	0.2	6.7	--	--
FAR-?	0.2	6.7	--	--
NF	1.1	36.7	0.35	53.8
Total	3.0	100.0	0.65	100.0

10. Water Quality (Ground & Surface)

No class or designated waters are located within the allotment. Therefore, only the descriptive water quality standards pertaining to all surface waters in Nevada (NAC 445A.121) apply to water resources on the allotment. Water quality was not tested, but during riparian assessments it appeared that livestock grazing and wild horse use is affecting water quality.

At the Douglas Basin Complex and Humdinger, Graham, and Lower Gunmetal springs, hoof impact, reduced vegetative cover, and erosion are all grazing impacts that probably have affected water quality. Increases in total suspended solids and turbidity appeared to be caused by erosion due to hoof impact and lack of vegetative cover. Higher temperatures and lower dissolved oxygen levels are

1 Rating key: PFC = Proper Functioning Condition
 FAR-UP = Functional-At-Risk with an Upward Trend
 FAR-DN = Functional-At-Risk with a Downward Trend
 FAR-? = Functional-At-Risk with an Unknown Trend
 NF = Nonfunctioning

2 Acreages of riparian wetlands area were measured with GPS or estimated from digital orthophoto quarter quads. Area of historic properties at these springs are documented in a BLM technical report (McCabe and Lane 2007).

3 Based on review by BLM archaeologists, historic properties are present (yes), not present (no), or will be inventoried prior to decision record (TBD). If cultural resources are present, the size, location, and potential affect from new or repaired enclosure will need to consider these resources.

also probably occurring due to the lack of cover. Animal wastes provide nutrients that have likely caused algae to grow at sources such as Humdinger and Lower Gunmetal springs.

Good Hope Spring probably has poor water quality because of the total lack of vegetation and heavy animal use. Records do not show, however, that this source ever had a riparian community. It might have appeared during past mining activity near the site and received heavy use ever since.

Most of the impacts to water quality are correlated with riparian area damage that is attributed to livestock and wild horses. Prescribing management to improve the riparian areas would likely improve water quality at the same time.

E. Alternatives

The description of the affected environment for the No Action and No Grazing alternatives would be the same as that for the proposed action.

IV. ENVIRONMENTAL CONSEQUENCES

A. Proposed Action/Environmental Impacts

1. Livestock

Authorize 186 cattle which would be grazed from November 1 to March 31 each year, for a total of 925 AUMs. The public land rating would remain at 100%. Utilization levels would be established at 45% for desirable shrubs and key grasses. Water hauling would continue to distribute cattle throughout the allotment.

The level of utilization would be checked during the authorized period of use and cattle would be moved when the 45% use level is reached for shrubs and grasses.

2. Wildlife

Because general wildlife habitat is in adequate, though drought affected condition, livestock grazing isn't impacting general wildlife habitats in the allotment (Suminski 2007)

Livestock grazing would occur when wintering deer are on the allotment. Forage overlap would generally not affect deer use. The proposed limit on maximum shrub utilization would be beneficial as during periods of drought, livestock use of shrubs would increase. Four springs would be enclosed which would improve conditions and stabilize water flow. This would benefit mule deer habitat and especially fawning if that occurs in this allotment. Some of the springs might still be at risk or remain waterless.

Bighorn sheep do not do as well when they share ranges with cattle (Krausman et al1995). Livestock and bighorn use areas would not overlap extensively, so

competition for forage would not be great. Additionally, livestock would be out of the allotment just as grasses were greening, which would be best for the bighorn going into lambing season. The limited utilization levels on shrubs and grasses would be beneficial. Four springs would be enclosed. This would improve conditions and stabilize water flow which might benefit bighorn habitat conditions. Some of the springs might still be at risk or remain waterless.

Competition for forage between cattle and pronghorn is generally minor in grasslands that are in at least fair condition (Yoakum et al 1995). Livestock grazing at the moderate level can cause some rangelands to be in a sub-climax vegetative condition which is ideal for pronghorn (Yoakum et al 1993.) Forage competition in fall and winter between cattle and pronghorn on rangeland that is in fair to good condition is slight because pronghorn use forbs and shrubs, and cattle use grasses primarily (Yoakum et al 1995; Authenrieth et al 2006). The limited utilization levels on shrubs and grasses would be beneficial to maintain at least “fair” condition rangeland. Four springs would be enclosed which would improve conditions and stabilize water flow. This would benefit pronghorn habitat. Some of the springs might still be at risk or remain waterless.

Moderate grazing levels on upland areas as have been practiced in recent years, and that are proposed for this action would not have an affect on upland game bird species (Guthery 1995). Four springs would be enclosed which would improve conditions and stabilize water flow for mourning dove use. Some of the springs might still be at risk or remain waterless.

3. Special Status Species

BLM Sensitive Species

Potential effects of livestock grazing on desert bighorn sheep have been discussed. Livestock grazing allows some species to respond positively, some to respond negatively and some to have a mixed response (Finch et al 1993). This means only that some species may use a grazed area more, some may use it less. It doesn't necessarily preclude the presence of a species (Fagerstone and Ramey 1995). Livestock grazing in this allotment is not a threat to the BLM sensitive species because this allotment is in acceptable functioning condition overall for soils and vegetation, and utilization levels are generally moderate. Four of the springs would improve under this alternative and some benefit to BLM sensitive species would be made. However, other springs would remain at risk or non-functional.

Neo-tropical Migratory Birds

Livestock grazing allows some species to respond positively, some to respond negatively and some to have a mixed response (Finch et al 1993). This means only that some species may use a grazed area more, some may use it less. It doesn't necessarily preclude the presence of a species. Livestock grazing was not listed as a threat to loggerhead shrike (www.natureserve.com). Although overgrazing can be an issue for Brewer's sparrow and sage thrasher (www.natureserve.com, Finch et al 1993) this is not occurring. Livestock use typically doesn't fragment woodland habitat, the most serious threat to woodland

migratory birds (Beidleman, 2000). Because this allotment is in acceptable functioning condition for general non-riparian soils and vegetation, migratory birds that nested or foraged in this allotment would not be affected by livestock grazing.

The at-risk or non-functioning springs whose damage is caused in part by livestock, would have a negative impact on migratory birds associated with riparian areas. The proposed action would see four areas protected, but more springs would be at-risk or would not function. Riparian migratory birds would be partially benefited by the proposed action.

4. Wild Horses and Burros

The proposed action is essentially a continuation of the current grazing conditions and would not likely impact wild horses.

5. Soils

The implementation of this alternative would probably have a small positive effect on the overall soils resource within the allotment, since Graham Spring, Bettles Ranch Spring, Lower Gunmetal Spring, and the Douglas Basin complex riparian areas would be protected, and the acceptable utilization of key grasses and desirable shrubs would be monitored.

6. Vegetation

The utilization level for desirable shrubs and key grasses would be established at 45%. This would place the use in the Moderate Use Class - 41% to 60%. Grass plants can sustain moderate use on the current year's growth without damage to the plant, especially during the dormant period. Root reserves should not be stressed. Proper use is defined as the degree of utilization of current year's growth which, if continued, will maintain or improve the long term productivity of the site. This would meet vegetation objectives for the allotment. The period of use would remain 11/01 to 03/31.

The four proposed exclosures would improve the riparian vegetation cover around (1) Graham Spring, (2) Lower Gunmetal Spring, (3) Douglas Basin Areas and (4) Bettles Ranch Spring. These exclosures would keep wild horses and cattle from the springs and allow for rest. With an increase in vegetative cover, the flow level of water should increase.

Utilization levels would be checked during the authorized period of use and livestock would be moved from an area when the 45% use level is achieved on shrubs and grasses. The utilization level standard, over time should improve the condition and amount of the vegetation in the areas currently grazed, resulting in increased root reserves and number of plants.

7. Invasive, Nonnative Species

The implementation of this alternative would have little effect on noxious weed infestations, since the one area of salt cedar would continue to be sprayed and monitored.

8. Wetlands/Riparian

Riparian conditions would be improved somewhat by implementing the technical recommendations of the 2006 S & G's Analysis, though improvements could be limited by current livestock management that would continue under the proposed action. Wild horses would also continue to use the areas.

New fencing is proposed at the Douglas Basin Complex, Graham Spring, Lower Gunmetal Spring and Bettles Ranch Spring, but building new fences and repairing existing fences would not necessarily eliminate livestock and horse impacts. For example, Graham Spring already has a fence enclosure and hoof impacts just below the existing fence are so severe that there is about a one-foot grade drop along the fence line.

9. Cultural Resources

For the proposed alternative, no changes in kind or class of livestock, animal numbers, or livestock distribution, however, new range improvements or developments are proposed in order to protect NRHP eligible sites (historic properties). It is important that there is no net loss of scientific information regarding cultural resources, and that historic properties are managed so as to prevent or minimize adverse impacts. Cultural resource concerns regarding livestock grazing and related effects focus on NRHP eligibility of historic properties, site type, and the potential impacts from livestock-related activities.

Relative to NRHP eligibility, as discussed above in affected environment, specific spring areas within the allotment have a potential for affecting historic properties through current or future livestock activities. Impacts will be viewed relative to the elements making these properties eligible for inclusion on the NRHP prior to a final decision being issued.

The BLM recognizes the potential for grazing to impact historic properties can occur through two scenarios:

- (1) Potential grazing impacts from dispersed livestock distribution on historic properties not associated with existing range improvements, or natural conditions of shade, shelter, or water may attract and concentrate the animals.

Based on previous work by BLM throughout the Intermountain West and Southwestern U.S., BLM considers continued dispersed livestock grazing in this EA to have no effect on prehistoric or historical-era sites that are historic properties on the open landscape.

- (2) Potential grazing impacts from concentrated livestock distribution on historic properties located near or within range improvements (corrals, water troughs, tanks, loading chutes, stock ponds, etc.) or natural springs that attract the animals.

Types of historic properties are known at and around local springs and developed spring habitats, and these can potentially be impacted by concentrated livestock activity. The distribution and potential impact to historic properties relative to concentrated livestock distribution will be addressed through cultural resources reconnaissance at the locations identified in Table 1 prior to a final decision being issued. No additional areas of potential conflict between concentrated livestock use and historic properties are anticipated within the Cedar Mountain Allotment.

Determinations of project effects upon cultural resources deemed eligible for inclusion on the NRHP must be completed prior to project undertakings, and may include consultation with the Yomba Shoshone Tribe. In addition, within the area of potential effect for each spring enclosure or future proposed improvement project, BLM will insure that every historic property will have any potential adverse effects resolved, ideally through avoidance. Resolution of adverse effects will be completed prior to initiating an undertaking, pursuant to 36 CFR 800, and in consultation with the Yomba Shoshone Tribe and the Nevada State Historic Preservation Officer. If these cannot be accomplished, specific project undertakings will be cancelled, or the allotment use will be modified to result in no adverse effect to the historic property.

10. Water Quality (Ground & Surface)

Water quality would probably improve by implementing the technical recommendations of the 2006 S & G's Analysis, though improvements could be limited by current livestock management that would continue under the proposed action. Wild horses would also continue to use the areas.

B. No Action Alternative/Environmental Impacts

1. Livestock

Authorize 186 cattle which would be grazed from 11/01 to 03/31, totaling 925 AUMs. The public land rating would remain at 100%. No utilization level standards are in effect.

Water hauling would continue to distribute cattle throughout the Allotment.

2. Wildlife

Effects to general wildlife and game species would be the same as the proposed action except that grass and shrub utilization would be higher. This would not be as beneficial as utilization levels in the proposed action alternative.

3. **Special Status Species**

BLM Sensitive Species

Effects to BLM sensitive species would be the same as the proposed action except that grass and shrub utilization could be higher. This would not be as beneficial as utilization levels in the proposed action alternative.

Neo-tropical Migratory Birds

Effects to Neotropical migratory birds would be the same as the proposed action except that grass and shrub utilization could be higher. This would not be as beneficial as utilization levels in the proposed action alternative.

4. **Wild Horses and Burros**

Impacts would be similar to those associated with the proposed action.

5. **Soils**

The implementation of this alternative would have an effect on the soil resource, specifically in the riparian areas that have been assessed as being functional at risk or non-functional. Exclosures would not be constructed for riparian protection.

6. **Vegetation**

No utilization levels are in effect. Root reserves should not be stressed as the allotment is used during the majority of the dormant period for desirable shrubs and key grasses.

7. **Invasive, Nonnative Species**

The implementation of this alternative would have little effect on noxious weed infestations since spraying would continue at the site southwest of Cedar Summit.

8. **Wetlands/Riparian**

With not establishing a maximum utilization level on key grasses and desirable shrubs and no exclosures being constructed, damage to riparian areas would continue.

9. **Cultural Resources**

Proposed livestock use under the no action and proposed action alternatives is the same. Thus the impacts to cultural resources from livestock grazing are the same as those listed under the proposed action.

10. Water Quality (Ground and Surface)

With the exception of establishing a maximum utilization level on key grasses and desirable shrubs, this alternative is identical to the proposed action. Impacts to riparian areas would continue as no new range improvements (exclosures) would be constructed.

C. No Grazing Alternative/Environmental Impacts

1. Livestock

Implementation of the No Grazing Alternative would mean that no grazing would be allowed on the allotment.

Maintenance of range improvements would not occur. This action by the permittee serves to protect the vegetation found on the allotment from uncontrolled use by trespass livestock. Water developments would fall in disrepair. In the absence of water hauling, the potential for increased pressure on spring sources by wild horses and wildlife could increase.

2. Wildlife

Any forage competition, especially in drought stressed years, would be lessened. This alternative would eliminate any competition between general wildlife, game species and livestock. The overall benefits of no livestock grazing would outweigh not protecting the springs because these might still be protected by another funding avenue.

3. Special Status Species

BLM Sensitive Species

The response of BLM sensitive species would be reverse of the grazing alternatives as those species which responded positively to grazing might not be as abundant while those that respond with no grazing might increase. The overall benefits of no livestock grazing would outweigh not protecting the springs because these could still be protected by another funding avenue.

Neo-tropical Migratory Birds

The response of Neotropical migratory birds would be reverse of the grazing alternatives as those species which responded positively to grazing might not be as abundant while those that respond with no grazing might increase. The overall benefits of no livestock grazing would outweigh not protecting the springs because these could still be protected by another funding avenue.

4. Wild Horses and Burros

An increase in wild horse numbers could occur as more forage would be available. Due to the modest size of the PMHMA within the allotment and low productivity

of this area only a small increase in horse numbers (9 head) could be accommodated. However, increasing the AML may not be desirable as the forage production in this area is low and unpredictable.

5. Soils

The implementation of this alternative would have a small positive effect on the soil resource within the allotment, since utilization of desirable shrubs and key grasses would be much less, and, the riparian areas that have been assessed as being functional at risk, or non-functional would not be impacted by livestock.

6. Vegetation

The health of the vegetation would improve over the short term. Eventually, many of the forage species, particularly grasses, could reach an over mature stage of growth. The vigor and health of the plants could suffer over the long term. Grass plants may become wolfy with dead crown centers resulting in the loss of plants. This alternative would also not allow for the proper use of a renewable resource (range forage) as allowed for in the CCFO-CRMP of 2001.

7. Invasive, Nonnative Species

The implementation of this alternative would have little effect on noxious weed populations, since the one infestation would continue to be sprayed and monitored.

8. Wetlands/Riparian

Livestock impacts would be eliminated under this alternative. Wild horses would continue to use the riparian areas, so severe hoof impacts, vegetation damage, and erosion would still be expected in some riparian areas.

9. Cultural Resources

Under the no grazing alternative no potential to affect cultural resources would occur due to livestock or management activities.

10. Water Quality (Ground and Surface)

Livestock impacts would be eliminated under this alternative. Wild horses would continue to use the waters, so severe impacts would still be expected in some riparian areas. Water quality would also be affected.

D. Cumulative Impacts/Propose Action and Alternatives

The issuance of a Term Grazing Permit on the Cedar Mountain Allotment is a discrete action, and would cause no known cumulative effects to the environment when considered in combination with any known or anticipated actions on these or adjacent lands in the past, present, or foreseeable future. Any effects of the moderate grazing levels during the

time when plants are mostly dormant would be limited to the project area.

The grazing levels considered under these alternatives are either no grazing or grazing at a moderate use level. Grazing at these levels has not been shown to be injurious to plant or animal species in the area. The effects of grazing at moderate levels during the plants dormant period, along with associated activities in the management of this allotment such as maintenance or construction of range improvements, would be limited to the immediate area of the allotment. They would not combine with any known or reasonably foreseen, activities on these or adjacent lands to produce any detrimental cumulative effects in the area.

E. Monitoring

Range Monitoring would continue and include (1) Photo Point, (2) 100' Quadratic Frequency (3) Utilization, (4) Use Pattern Maps, (5) Rangeland Health Assessments, (6) Actual Use Reports, and (7) Weather Data. Actual methods used would depend on monitoring needs, conditions, and resources available.

V. CONSULTATION & COORDINATION

A. List of Preparers

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B. Persons, Groups or Agencies Consulted

Permittee of Record Western Watersheds Project Nevada State Clearinghouse

VI. APPENDICES OR ATTACHMENTS

Appendix A - BLM Sensitive Species Associated with the Cedar Mountain Allotment
Appendix B - Neo-tropical Migratory Birds, Species of Continental Importance on Cedar Mountain Allotment
Appendix C - Map No. 1 - Location of Cedar Mountain Allotment within the CCFO Boundary
Map No. 2 – Cedar Mountain Allotment

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APPENDIX A

BLM Sensitive Species associated with Cedar Mountain Allotment

Animal

Golden Eagle – *Aquila chrysaetos*
Ferruginous Hawk - *Buteo regalis*
Burrowing owl - *Athene cunicularia*
Prairie Falcon – *Falco columbarius*
Swainson’s Hawk- *Buteo swainsoni*
Short-eared Owl – *Asio flammeolus*
Junco Titmouse – *Baeolophus griseus*
Pinon Jay – *Gymnorhinus cyanocephalus*
Loggerhead shrike- *Lanius ludovicianus*
Vesper Sparrow – *Pooecetes gramineus*
Bendire thrasher – *Toxostoma bendirei*
Desert bighorn sheep – *Ovis Canadensis nelsoni*
Silver-haired bat – *Lasiorycteris noctivagans*
Townsend’s big-eared bat – *Corynorhinus townsendii*
Big brown bat – *Eptesicus fuscus*
Hoary bat – *Lasiurus cinereus*
Yuma myotis – *Myotis yumanensis*
Little brown bat – *Myotis lucifugus*
Long-legged myotis – *Myotis volans*
Pallid bat – *Antrozous pallidus*
Long-eared myotis – *Myotis evotus*
Spotted bat – *Euderma maculatum*
Western Pipistrelle Bat – *Pipistrellus hesperus*
Brazilian free-tailed bat - *Tadarida brasiliensis*
Fringed myotis – *Myotis thysanodes*
California myotis – *Myotis californicus*
Pygmy rabbit – *Brachylagus idahoensis*

Source: www.natureserve.com, www.heritage.nv.gov, CCFO Habitat Management Plans, misc. observ

APPENDIX B

Neo-tropical Migratory Birds, Species of Continental Importance on Cedar Mtn Allotment

Salt Desert Scrub (Beidleman 2000) – This biome experiences harsh climactic variation and is often dominated by salt-tolerant shrubs. Species of concern associated with this habitat type in the project area are,

Loggerhead Shrike – *Lanius ludovicianus* (Neel 1999, Nevada Wildlife Action Plan 2006)
Burrowing Owl – *Athene cunicularia* (Neel 1999)

Issues related to this habitat type include physical destruction of salt desert shrubs, habitat conversion and use of rangeland pesticides (Neel 1999). Off-road vehicle activity and non-native species invasion has also been identified as an issue (Nevada Wildlife Action Plan 2006).

Western Shrublands (Beidleman 2000) – Shrub steppe was identified as the highest priority habitat for conservation for breeding birds. This habitat type supports the largest nesting-bird species list of any upland vegetation type in the West (Beidleman 2000). Species of concern associated with this habitat type in the plan area,

Shrub-Steppe

Brewer's sparrow – *Spizella breweri* (Beidleman 2000)
Sage Sparrow – *Amphispiza belli* (Neel 1999, Beidleman 2000, Nevada Wildlife Action Plan 2006)
Sage Thrasher – *Oreoscoptes montanus* (Neel 1999, Beidleman 2000, Nevada Wildlife Action Plan 2006)

Issues related to this habitat type include fragmentation from man-caused activities. Threats to this habitat type include overgrazing of grasses and forbs that alter community structure, invasion of non-native grasses and fire suppression / crown-killing wildfire (Beidleman 2000). Loss of shrub understory, increasing human infrastructure which fragments and degrades habitat, and increases soil erosion was also identified (Nevada Wildlife Action Plan 2006).

Woodland – Pinyon-juniper woodlands are characteristic of this habitat type Species of concern associated with this habitat type in the plan area,

Gray Flycatcher – *Empidonax wrightii* (Beidleman 2000)
Gray Vireo - *Vireo vicinior* (Beidleman 2000)
Juniper Titmouse – *Baeolophus ridgwayi* (Beidleman 2000)
Mountain Bluebird – *Sialia currucoides* – cavity nester (Neel 1999)
Pinyon Jay – *Gymnorhinus cyanocephalus* (Neel 1999)
Western Bluebird- *Sialia mexicana* – snags / hollow tree (Neel 1999)

Issues related to this habitat type include fragmentation from man-caused activities (Beidleman, 2000).

Riparian – This habitat type supports the highest bird diversity of any western habitat type but is one of the rarest. Species of concern associated with this habitat type in the plan area,

Calliope hummingbird – *Stellula calliope*- (Beidleman 2000)

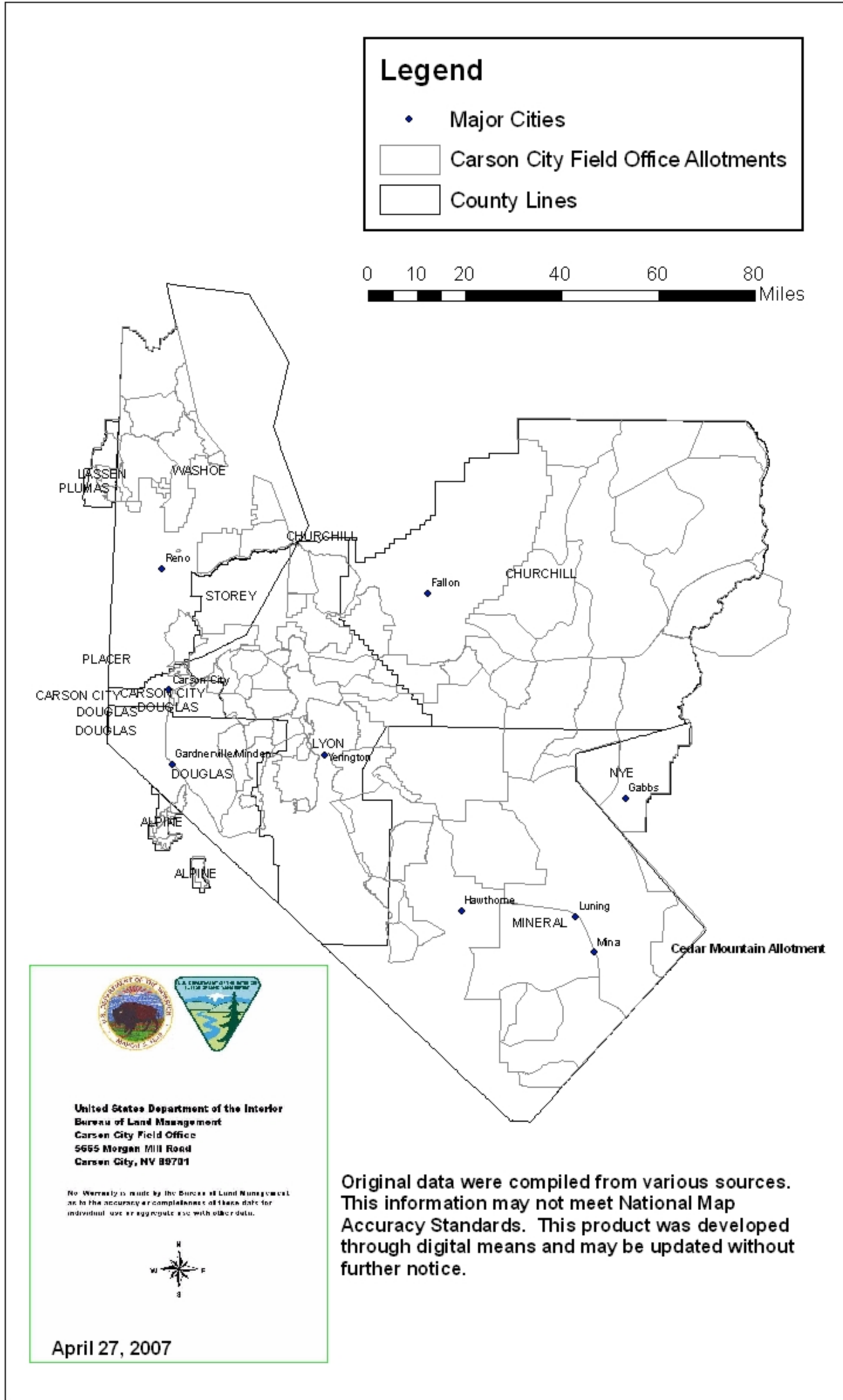
Issues related to this habitat type include de-watering and alteration of water flows / channels, road construction, nonnative species, logging, recreation and overgrazing (Beidleman 2000). Groundwater withdrawal and shallow aquifer pollution were mentioned as specific Nevada issues (Nevada Wildlife Action Plan 2006).

APPENDIX C

Map No. 1 - Location of Cedar Mountain Allotment within the CCFO Boundary

Map No. 2 – Cedar Mountain Allotment

Location of Cedar Mountain Allotment within the CCFO Boundary - Map No. 1



Cedar Mountain Allotment Map No. 2

