



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City Field Office
5665 Morgan Mill Road
Carson City, Nevada 89701
<http://www.nv.blm.gov>



In Reply Refer To:
4130
(NV-032)
CF-273011

AUG 05 2005

Dear Interested Public:

Enclosed are the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis and Environmental Assessment. If you would like to make comments, please do so by September 5, 2005.

If you have any questions, please call Peter Raffetto, Rangeland Management Specialist at (775) 885-6152.

Sincerely

Peter Raffetto
Rangeland Management Specialist
Renewable Resources

Enclosures:

- (1) 2004 Cleaver Peak Allotment Standards and Guidelines Analysis.
- (2) Cleaver Peak Allotment Environmental Assessment.

Environmental Assessment

Cleaver Peak Allotment

EA-NV-030-05-16

CF-273011

June 23, 2005

**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

1. Introduction:

This environmental assessment (EA) analyzes the impacts resulting from the use of the Cleaver Peak Allotment (Figure 1) for grazing purposes. It analyzes the impacts that are anticipated to result from the implementation of the proposed action, modification of the existing utilization levels by adoption of the technical recommendations presented in the Cleaver Peak Allotment Standards and Guidelines Analysis (2004), and the No Action Alternative, and No Grazing alternative. This EA relies on and incorporates by reference a large portion of the recent Cleaver Peak Allotment Standards and Guidelines Analysis (2004) which is attached to the EA for your convenience.

On February 12, 1997, Secretary of the Interior Bruce Babbitt approved the Standards and Guidelines for Rangeland Health and Grazing Management to be applied to BLM public lands in the State of Nevada. These standards and guidelines were developed in consultation with the Resource Advisory Councils (RAC) for the Bureau of Land Management (BLM) in Nevada to help ensure that grazing use of these public lands result in productive and sustainable rangelands for the use and enjoyment of future generations.

Standards and Guidelines are being implemented through two processes; (1) determination that the terms and conditions of the grazing permit are consistent with the Standards and Guidelines applicable to the allotment and (2) the allotment evaluation process to determine whether or not the current grazing utilization is expected to achieve the specific resource goals and objectives identified for the Cleaver Peak Allotment in the applicable Resource Management Plan (RMP) and Rangeland Program Summary (RPS).

The EA references parts of the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis and standards and guidelines developed for the Sierra Front - Northwestern Great Basin Area (the specific area that includes the Cleaver Peak Allotment).

2. Purpose and Need:

The purpose of the proposed action is two fold; (1) Administer grazing and implement grazing practices on the Cleaver Peak Allotment in a manner consistent with the attainment of site specific objectives for the allotment found in the Carson City Field Office Consolidated Resource Management Plan 2001 and the December 1989 Lahontan Rangeland Program Summary (RPS), and (2) Implement grazing practices that would ensure compliance with the Standards and Guidelines 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 of the Cleaver Peak Allotment as well as requirements to conduct grazing activities in a manner consistent with the principles of multiple use and sustained yield and in an ecologically sound manner are found in the provisions of the Taylor Grazing Act of 1934, the Federal Land Policy and Management Act of 1976 (FLPMA), the recently adopted 1995 Standards and Guidelines for the Rangeland Health and Grazing Management, as well as various other federal laws and regulations.

3. Land Use Plan Conformance Statement:

The proposed action and alternatives described below are in conformance with the Carson City Field Office Consolidated Resource Management Plan, pages LSG-2.

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

The following activity plans apply to the geographic area of the proposed action and alternatives:

- A. 2004 Cleaver Peak Allotment Standards and Guidelines Analysis, June 2004.

II. PROPOSED ACTION AND ALTERNATIVES

1. Proposed Action:

Implement the technical recommendations in the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis in order to improve management of the range resource.

- A. In the Cleaver Peak Allotment, 250 cattle would be grazed with a period of use (November 1 to March 31) each year, for a total of 1,250 AUMs. The BLM Federal Range is 100% of the allotment.
- B. Limit utilization on desirable shrubs (winterfat (EULA) and four-wing saltbush (ATCA2)) so as not to exceed 35% in the upland key areas in the allotment. The utilization levels would be checked and when maximum utilization is reached, animals would be removed from the area.

- C. Limit utilization on desirable grasses (Indian ricegrass (ORHY) and Needle-and-thread grass (STCO4)) so as not to exceed 55% in the upland key areas in the allotment. The utilization levels would be checked and when maximum utilization is reached, animals would be removed from the area.
- D. Improve existing ecological condition and trend.

2. Alternatives:

No Action.

Maintain current management and status of the Cleaver Peak Allotment.

- A. In the Cleaver Peak Allotment, 250 cattle would be grazed with a period of use (November 1 to March 31) each year, for a total of 1,250 AUMs. The BLM Federal Range is 100% of the allotment.
- B. Maintain utilization not to exceed 55% on all identified key species on the upland key areas.
- C. Maintain existing ecological condition and trend.

3. No Grazing Alternative:

- A. Under this alternative, no Term Grazing Permit would be issued, and no grazing would occur on this allotment in the future. There would be no further range improvements constructed on the allotment, and no grazing permittee to maintain current range improvements, including fences and water sources. A permittee would not be present on the allotment to continue proper day-to-day management, so these vital activities would no longer be performed.

III. AFFECTED ENVIRONMENT

1. SCOPING AND ISSUE IDENTIFICATION:

On December 1, 2004 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 Carson City Field Office. The purpose of the scoping letter was to gather information and determine who would be further interested in participating in the evaluation process on the Carson City grazing allotments.

The Environmental Assessment for the Cleaver Peak Allotment Standards and Guidelines Analysis would be sent out for public review. A copy would be sent to the Nevada State Clearinghouse for distribution amongst state agencies. In addition, copies would be sent to the following:

Robert Depaoli	Yerington Paiute Tribe
Western Watersheds Project	Fallon Paiute-Shoshone Tribe
Walker River Paiute Tribe	Pyramid Lake Paiute Tribe

The Internal scoping with the BLM staff occurred from May through August of 2004, which included the Cleaver Peak Allotment Standards and Guidelines Analysis and this Environmental Assessment.

2. **PROPOSED ACTION:**

A. **General Setting:**

The Cleaver Peak Allotment is primarily arid-land fan with rugged mountain foot hills and mountains. Within the allotment is Cleaver Peak with an elevation of 6,711 feet. Grazing occurs around the peak on sandy, 5-8" rainfall range sites. Approximately 50% of the 41,229 acres in the allotment is unavailable to livestock due to topography. This allotment has historically been a cattle and domestic horse allotment during the winter. The area is mostly salt desert shrub communities.

B. **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, Native American Religious Concerns, Hazardous or Solid Wastes, Threatened, Endangered, and Sensitive Species, Wetlands/Riparian, Water Quality, Wilderness, Wild and Scenic Rivers, Environmental Justice, and Paleontology.

Cultural Resources:

Required Section 106 reviews and a Class I literature search was conducted. It was determined that no cultural resource reconnaissance was necessary for the Cleaver Peak Allotment (CRR3-2253). For further details regarding the assessment of grazing impacts upon cultural resources, refer to the Carson City Field Office Protocols for Rangeland Activities in Compliance with Section 106 of the National Historic Preservation Act, per Washington Office IM No. 99-021 and protocol agreements between the BLM and the Nevada State Historic Preservation

Offices. Notification letters were sent to the following tribes: (1) Yerington Paiute Tribe, (2) Fallon Paiute-Shoshone Tribe, (3) Walker River Paiute Tribe, and (4) Pyramid Lake Paiute Tribe. No comments or concerns were raised.

Requirements of Section 106 of the National Historic Preservation Act will be met prior to construction and/or implementation of any individual range improvement projects proposed for this allotment. All projects with the potential to affect cultural resources are required to have a Class III cultural resource inventory conducted over the project area.

Determinations of cultural resource eligibility and project effect could be made through consultation with the Nevada State Historic Preservation Office. Any National Register eligible or listed properties within the project area will either be avoided or mitigated to a "No Adverse Effect" project determination pursuant to Section 106 of the National Historic Preservation Act.

Further proposed actions would require a review and Native American coordination and determination of consultation or notification.

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: Geologic Resources and Lands, Forestry, Wild Horses & Burro, and Socioeconomic.

D. **Resources Present and Brought Forward for Analysis:**

1. **Livestock:**

1,250 AUMs are currently authorized on the Cleaver Peak Allotment. Within the allotment is Cleaver Peak, elevation 6,711 feet. Grazing occurs around the peak on the sandy, 5"- 8" rainfall range sites. Approximately 50% of the 41,229 acres in the allotment is unavailable to livestock due to topography. This allotment has historically been a cattle and domestic horse allotment during the winter.

Most of the utilization monitoring in this allotment has been measured on Indian ricegrass (*Oryzopsis hymenoides*). Since this is a winter allotment, it is important to consider shrubs in the management of this allotment. In the winter, grasses are dormant and little affected by grazing as most of their stored food reserves are in the plant roots. 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 than during spring growth, but they are at a disadvantage compared to grasses. In the winter, livestock graze both shrubs and grasses. If cattle are to subsist during the winter on range forage, a mixture of shrubs and grasses will come closer to meeting the requirements of a balanced ration than either one alone. Shrubs are higher in protein, phosphorus, and carotene (vitamin A) than grasses, whereas grasses are superior only in energy-yielding qualities.

Livestock grazing is authorized as a cow/calf operation. In the allotment, 250 cattle are permitted from November 1 to March 31. See pages 2 & 3 in the 2004 Cleaver Peak Allotment Standards and Guideline Analysis.

The current grazing system has a winter and spring grazing strategy. See page 3 in the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis.

2. Wildlife:

There are no known T & E animals on the allotment.

Overall, the wildlife habitat looks to be in fair condition. The only birds noted during the site visits were horned larks (*Eremophila alpestris*) and common ravens (*Corvus corax*). Other species such as coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*), mountain cottontail (*Sylvilagus nuttali*), least chipmunk (*Tamias minimus*), white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), deer mice (*Peromyscus maniculatus*), kangaroo mice (*Dipodomys sp.*), mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), White-crowned Sparrows (*Zonotrichia leucophrys*), prairie falcons (*Falco mexicanus*), dark-eyed juncos (*Junco hyemalis*), and chukar (*Chukar alectoris*) may all occur on the allotment.

Most sites had a diverse amount of annual forbs that were widespread throughout. This may only be a factor of adequate winter and spring precipitation this year, but shows a good seed source exists on site. These forbs are good spring time forage for mule deer and pronghorn antelope, allowing for potential expansion of these animals into the area.

Unfortunately, in some areas, grass abundance is extremely low. This may be a result of grazing, but it is more likely due to the previous years' drought. In addition, some sites within the allotment showed a decrease in shrubs due to insect outbreaks. Both the loss of grasses and shrubs negatively impacts wildlife habitat by reducing cover and forage.

Executive order #13186 titled "Responsibilities of Federal Agencies to Protect Migratory Birds," signed 01/10/01, requires that the BLM evaluate the effects of federal actions on migratory birds. No migratory bird inventory has been completed for the proposed project area. However, migratory birds fly over the area and may use the water sources on the allotment. Migratory birds very likely would nest in the allotment along with many other species of birds. Common migratory birds which may use the area as habitat include various species of sparrows, blackbirds, hawks, finches, and doves. The decrease of both shrubs and grasses on the allotment means a possible decrease in the habitat quality and quantity of grass and shrub nesting migratory birds within the allotment.

3. Soils:

The soils in the Cleaver Peak Allotment vary from sandy to silt loams, with varying amounts of intermixed gravel and rocks. These soils are susceptible to wind and water erosion. High intensity, short-duration summer rainstorms have historically caused gully washing and sheet erosion.

For detailed soil descriptions see the Lyon County Soil Survey, published 1984.

4. Vegetation:

Key upland species on the Cleaver Peak Allotment include two shrubs and two grass species. They are winterfat, four-wing saltbush, Indian ricegrass, and Needle-and-thread grass. See page 2 of the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis.

5. Invasive, Nonnative Species:

There is one known location of tall whitetop (*Lepidium latifolium*) plants in the allotment. They were found next to the water troughs

at Hooten Well. During the course of the field work required to gather information for the Standards and Guidelines Assessment, this one new sighting of noxious weeds was observed.

6. Recreation:

The area encompassed by the Allotment is very popular with hunters and recreationists, because of its proximity to Reno and Fallon. Off-road racing occurs on the allotment. Access to the public lands is limited in many areas because of lack of roads.

7. Visual Resources:

The allotment is managed under both Class III and Class IV Visual Resource Management designations. In a Class III area, the objective is to partially retain the existing character of the landscape. Management activities may attract the attention but should not dominate the view of the casual observer. In a Class IV area, the objective is to provide for management activities which require major modification of the landscape. Management activities may dominate the view and be the major focus of viewer attention; however, every attempt should be made to minimize the impact of these activities.

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

1. Proposed Action:

A. Environmental Impacts:

Each of the technical recommendations would be evaluated for environmental impacts and will be identified based on the letters on pages 4 & 5.

1. Livestock:

(A.), (B.), (C.), (D.). The maximum number of 250 cattle would be run on the allotment. Implementation of the Proposed Action would not change the location and number of livestock utilizing the

allotment. With the reduction of use (35%) on the winterfat and four-wing saltbush plants, the allotment would have a shorter period of use on those shrub plants than the no action alternative. The level of utilization would be checked during the grazing season and cattle would have to move out of the area when 35% is reached. This proposed action should increase the amount of winterfat and four-wing saltbush plants on areas where the plants were lost due to shrub die-off in the early 1990's. This lower utilization (35%) would provide better livestock distribution over most of the allotment and over time should improve the condition of the vegetation in the areas currently grazed. The length of time on areas of the allotment would be shortened when the maximum utilization levels are reached, allowing more of the allotment to be used during the grazing season. The desirable shrub vegetation that is grazed would have no more than the maximum proposed utilization level (35%) and would have more rest and should produce larger plants because of better plant reserves.

(A.), (B.), & (D.). The maximum allowable utilization level on winterfat and four-wing saltbush shrubs will change by 20% and will be in the light category. The maximum utilization level would change to 35%. Growth patterns on shrubs rested or with lower uses should produce larger plants because of better plant reserves.

(A.), (C.), & (D.). The maximum allowable utilization level on grasses will stay at 55% and still be in the moderate category. Growth patterns on rested or less used areas (reduced utilization levels on key shrub species) should produce larger plants because of better plant reserves.

2. Wildlife:

(A.), (B.), (C.), & (D.). Implementation of the Proposed Action would increase shrubs, and would positively, affect wildlife utilizing the allotment. The proposed objectives would serve to protect and restore some wildlife habitat. The larger and more abundant shrub plants would provide greater cover for wildlife in general and more habitats for shrub-nesting migratory birds. Wildlife may utilize the allotment for a longer period of time, due to the greater availability of food and cover. See the wildlife sections on pages 9 & 14 of the 2004 Cleaver Peak Allotment Standards and Guidelines Analysis.

(A.), (B.), (C.), & (D.). The proposed action would not restore grass abundance or cover on the allotment and habitat quality for grass-nests for migratory bird species or wildlife would remain low as a result.

3. Soils:

(A.), (B.), (C.), & (D.). Since some of the soils within the Cleaver Peak Allotment have moderate to severe water erosion hazard ratings, the Proposed Action would have a slight potential to positively impact this resource due to the utilization levels proposed. The length of time by cattle using these areas would be shorter when either grazing utilization level is reached. Cattle would have to be removed from that area. Most of these erosive soils however are located on very steep slopes which are not normally utilized by livestock, and so the actual impacts should not differ from the present situation.

(A.), (B.), (C.), & (D.). Soils around the trails to the water troughs could become compacted and the surface around the troughs could become broken up and turn into a powder substance.

4. Vegetation:

(A.), (B.), (C.), & (D.). The utilization level would remain the same for grasses at 55% and be reduced from 55% to 35% for shrubs. There would be no change in the utilization category (Moderate Use Class - 41% to 60%) for grasses. The shrub level would be changed to the Light Use Class (21% to 40%). The general allotment use is from 11/01 to 03/31. These grass plants can sustain as much as 55% use on the current year's growth without damage to the plant. The shrub utilization level would be decreased to increase the potential number of winterfat and four-wing saltbush plants. This utilization level was needed because of the shrub die-off that occurred in the 1990's. The grasses and shrubs enter dormancy after 08/15. The grass utilization levels were recommended in the Nevada Rangeland Monitoring Handbook on page 23 as proper use. The proper use is 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.

5. Invasive, Nonnative Species:

(A.), (B.), (C.), & (D.). At this time, only one area has noxious weeds which are known to exist on the allotment. In the future, noxious weed seeds could be spread by animals (cattle, wild horses, and wildlife), people, wind, and by machinery (road grader, truck or car). The proposed action could create opportunities for the introduction of noxious weeds because of the water sites and the increased management on the allotment. However, traffic and activity related to livestock grazing is only a small portion of the total public use on the allotment. A continuous inventory would be maintained at the same time that utilization is assessed, and any infestations found would be treated using Integrated Weed Management Techniques.

6. Recreation:

(A.), (B.), (C.), & (D.). There would be no impacts to recreation resources or opportunities as a result of the proposed action.

7. Visual Resources:

(A.), (B.), (C.), & (D.). The difference between the Proposed Action and the No Action Alternative from a visual resources standpoint is indistinguishable. The Proposed Action would meet VRM Class III and Class IV objectives. No surface disturbing projects are being proposed in this EA. If range improvement projects are proposed in the future a separate EA would be prepared at that time to analyze potential impacts to Visual Resources.

2. Alternatives (No Action):

A. Environmental Impacts :

1. Livestock:

(A.), (B.), & (C.). Implementation of the No Action Alternative would not change the current number of livestock utilizing the allotment, authorized AUMs or the season of use.

2. Wildlife:

(A.), (B.), & (C.). Implementation of the No Action Alternative would keep the current use level at 55% for all vegetation classes.

Continuing with these objectives would not serve to protect wildlife habitat. Continuing this current use level would possibly impact shrub and grass restoration within the allotment. The smaller and less abundant shrub and grass plants would continue to provide inadequate cover for wildlife and inadequate habitat for shrub and grass-nesting migratory birds. Wildlife will probably utilize the area for only short periods of time due to the lack of food and cover.

3. Soils:

(A.), (B.), & (C.). Since some of the soils within the Cleaver Peak Allotment have moderate to severe water erosion hazard ratings, the No Action Alternative would have a slight potential to negatively impact this resource due to the utilization levels proposed. With the higher utilization levels on shrubs, the cattle may remain longer on the winterfat and four-wing saltbush plant areas during the winter causing more stamping of soils at each site.

4. Vegetation:

(A.), (B.), & (C.). This alternative would not increase the four-wing saltbush and winterfat plants as quickly as the proposed action on page 12. With the higher use level (55%) on winterfat and four-wing saltbush plants, these plants would be smaller and it would take longer for these plants to establish and grow larger. The general allotment use is from 11/01 to 03/31. When cattle are turned out in the allotment on 11/01, both the shrubs and grasses are dormant. These grass plants can sustain as much as 55% of the current year's growth without damage to the plant. The growing period for the key plant species is from 03/01 to 08/15 each year. The grass utilization levels were below the "Degree of Allowable Use" level in the Nevada Rangeland Monitoring Handbook on page 23 as proper use. This alternative meets vegetation objectives established for the allotment.

5. Invasive, Nonnative Species:

(A.), (B.), & (C.). Effects of this alternative would be the same as the proposed action on page 13. At this time, one noxious weed site (Hooten Well) has been identified on the allotment. In the future, noxious weed seed can be spread by animals, wind and machinery. A continuous inventory will be maintained at the same time utilization is assessed, and any infestations found will be

treated using Integrated Weed Management Techniques.

6. Recreation:

(A.), (B.), & (C.). Effects of this alternative would be the same as the proposed action on page 13. There would be no impacts to recreation resources or opportunities as a result of the no action alternative.

7. Visual Resources:

(A.), (B.), & (C.). Effects of this alternative would be the same as the proposed action on page 13. The difference between the Proposed Action and the No Action Alternative from a visual resources standpoint is indistinguishable.

3. Alternatives (No Grazing):

A. Environmental Impacts :

1. Livestock:

(A.). Implementation of the No Grazing Alternative would result in no cattle utilizing the allotment.

(A.). Implementation of the No Grazing Alternative would result in no maintenance of range improvements. The water development sites would have no water because the permittee would not be hauling water during the grazing season.

(A.). Removal of livestock would also mean removal of the permittee. Loss of this presence on the allotment would be detrimental to maintenance of the vegetation found on the allotment. The permittee has alerted the BLM to a number of abuses, by both miners and recreationists, on the allotment, and this has prompted action by the BLM to protect various areas. Maintenance of range improvements by the permittee also serves to protect the vegetation found on the allotment from uncontrolled use by trespass livestock.

2. Wildlife:

(A.). Implementation of the No Grazing Alternative would eliminate utilization by livestock. This alternative would probably

have the greatest effect on wildlife in the allotment. It would improve both food and cover for wildlife by reducing livestock utilization. Both the grasses and shrubs would increase in abundance, volume and cover as a result. Greater grass and shrub cover would mean an increase in the quality and quantity of habitat for migratory birds and common wildlife species.

(A.). Implementation of the No Grazing Alternative would result in no maintenance of range improvements. The water development sites would have no water because the permittee would not be using water during the grazing season. Wildlife and migratory bird use on the allotment may decrease due to lack of available water.

3. Soils:

(A.). Since some of the soils within the Cleaver Peak Allotment have moderate to severe water erosion hazard ratings, the No Grazing Alternative would have a potential to positively impact this resource due to the lack of grazing and hoof action by livestock. Most of these erosive soils are located on very steep slopes which are not normally utilized by livestock, and so this alternative should result in very little change in impacts to the soil resource compared with the present situation. Due to the lack of utilization proposed in this alternative, there is a potential to have a net positive impact.

4. Vegetation:

(A.). The No Grazing Alternative proposed would have a number of effects. The vegetation across the allotment would continue to improve. Eventually, the forage species on some areas of the allotment would reach an over mature stage of growth, and the vigor of the plants would suffer. Grass plants may become wolfy with dead crown centers. This alternative would also not allow for the proper use of a renewable resource (range forage) as allowed for in the Carson City Field Office Consolidated Resource Management Plan 2001.

5. Invasive, Nonnative Species:

(A.). At this time, there is only one known site of noxious weeds (tall whitetop) identified on the allotment. It is found at Hooten Well. No cattle use at the Hooten Well would increase the chance of noxious weeds. If water is flowing onto the surface from the water trough, and cattle would not be grazing the tall whitetop

which would mean more plants growing at this site. In the future, noxious weed seed can be spread by wildlife, wind and machinery. A continuous inventory would be maintained, and any infestations found will be treated using Integrated Weed Management Techniques.

6. Recreation:

(A.). The No Grazing Alternative would be the same as the proposed action on page 13. There would be no impacts to recreation resources or opportunities as a result of the No Grazing alternative.

7. Visual Resources:

(A.). The No Grazing Alternative would mean that the range improvements such as the three existing wells and corrals would not be used. Trash from the public could increase at these sites because these range improvements would not be cleaned up. The difference between the Proposed Action and the No Grazing Alternative from a visual resources standpoint is slight. The public would not see cattle on the allotment during the grazing season. There would be no distribution of cattle over the allotment which would improve the vegetation cover for a few years.

4. Mitigation Measures:

A. Proposed Action:

1. Range improvement sites would be maintained in a sanitary condition at all times, waste materials at those sites would be disposed of promptly at an appropriate waste disposal site. Waste means all discarded matter including, but not limited to, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
2. Bird ramps should be included at all water developments.
3. To reduce impacts on the visual landscape, water storage tanks may be camouflaged and/or partially buried.
4. The Carson City Field Office (CCFO) would send an inspector to all the new project sites to ensure conformance with BLM standards.

B. No Action:

The mitigation measures are the same for No Action Alternative as the Proposed Action.

C. No Grazing Alternative:

No mitigation is needed.

5. Residual Impacts:

A. Proposed Action:

The proposed action, with the mitigation listed above, would have some vegetation impacts around winterfat and four-wing saltbush areas and the water development sources. The winterfat and four-wing saltbush plant numbers would increase because of the maximum 35% utilization levels established. The cattle would be removed from these areas when 35% utilization is reached. The distribution of livestock and wildlife over the whole allotment would improve which is a positive effect.

B. No Action:

The No Action Alternative, with the mitigation listed above, would maintain current impacts around shrub (winterfat and four-wing saltbush) die-off areas and the water development sources. The winterfat and four-wing saltbush plant numbers would probably remain the same because of the maximum 55% utilization levels. The distribution of livestock and wildlife over the whole allotment would remain the same which is a negative effect.

C. No Grazing Alternative:

The No Grazing alternative would have improved vegetation impacts around the water sources. Most areas on the Cleaver Peak Allotment would be impacted because most of the water sources would not be used. There would be no distribution of cattle over the allotment which would improve the vegetation cover for a few years. This would be a positive impact on the vegetation and on wildlife.

6. **Cumulative Impacts:**

A. **Proposed Action:**

Hunters may use the existing water developments to hunt birds. The existing water developments provide water to the wildlife. Some hunters may damage these existing water developments by shooting them. Damaged water developments may not be repaired for some time. The permittee may not find out about the condition of these range improvements for some time because of weather, road conditions or his planned visits to the range improvement on the allotment. These range improvements may not provide any water to livestock and wildlife until they are fixed. The overall livestock distribution on the allotment may be reduced causing over used areas where the other water exists.

As time passes, there will be more hunters using this allotment. This will increase traffic levels on the allotment, and may lead to damaged roads and the possibility of increased levels of noxious weeds..

B. **No Action:**

The No Action would be the same as the Proposed Action.

C. **No Grazing Alternative:**

There would be no cumulative impacts with the no grazing alternative because livestock grazing doesn't occur.

7. **Monitoring:**

Range Monitoring would continue for the Cleaver Peak Allotment. The types of monitoring could include (1) Quadratic Frequency, (2) Photo Points, (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**

1. **List of Preparers:**

- | | | |
|----|--------------------|-------------------------------------|
| 1. | Peter A. Raffetto | Rangeland Management Specialist |
| 2. | Russell Suminski | Senior Rangeland Management Special |
| 3. | Susan McCabe | Archaeologist |
| 4. | James T. DeLaureal | Soil Scientist |

- | | | |
|----|-----------------|---------------------------|
| 5. | Terry F. Knight | Recreation Planner |
| 6. | Jim Schroeder | Hydrologist |
| 7. | Claudia Funari | Wildlife Biologist |
| 8. | Desna Young | Environmental Coordinator |

2. Persons, Groups or Agencies Consulted:

Robert Depaoli	Western Watersheds Project
Yerington Paiute Tribe	Fallon Paiute-Shoshone Tribe
Walker River Paiute Tribe	Pyramid Lake Paiute Tribe
Nevada State Clearing House	

VI. APPENDICES OR ATTACHMENTS:

Attached is the 2004 Cleaver Peak Allotment Standards & Guidelines Analysis.

A. List of Preparers:

Peter Raffetto 06/23/05
Peter Raffetto Date
Rangeland Management Specialist

Russell Suminski 7-18-05
Russell Suminski Date
Senior Rangeland Management Specialist

Susan McCabe 6/28/05
Susan McCabe Date
Archaeologist

James T. DeLaureal 6/30/05
James T. DeLaureal Date
Soil Scientist

Claudia Funari 6/27/05
Claudia Funari Date
Wildlife Biologist

Terry F. Knight 6/24/05
Terry F. Knight Date
Recreation Planner

Jim Schroeder 6-24-05
Jim Schroeder Date
Hydrologist

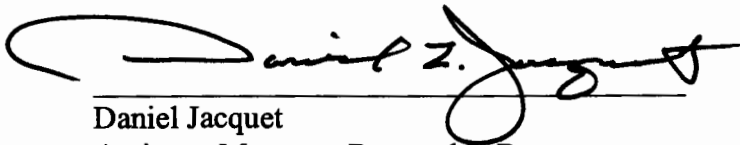
Desna Young 7-25-05
Desna Young Date
Environmental Coordinator

**FINDING OF NO SIGNIFICANT IMPACT
AND
DECISION RECORD**

**2004 Cleaver Peak Allotment Standards & Guidelines Analysis
EA-NV-030-05-16**

1. Finding of No Significant Impact:

I have reviewed this environmental assessment including the explanation and resolution of any potential significant environmental impacts. Based on the analysis of Environmental Assessment EA-NV-030-05-16, I have determined that the action will not have a significant effect on the human environment, and therefore, an environmental impact statement will not be prepared. I have determined that the proposed project is in conformance with the approved land use plan.



Daniel Jacquet
Assistant Manager, Renewable Resources
Carson City Field Office

8/4/05
Date

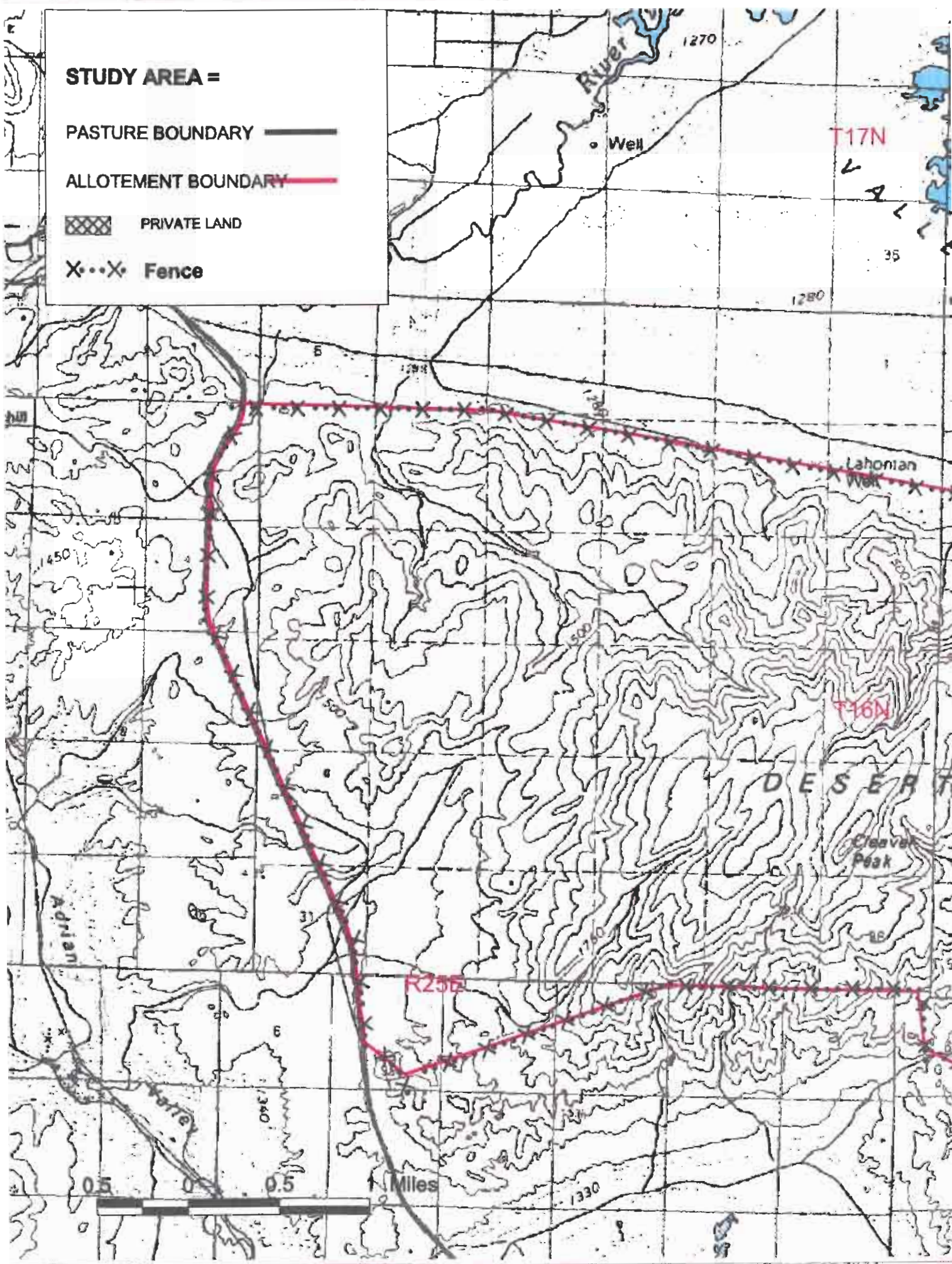
STUDY AREA =

PASTURE BOUNDARY ———

ALLOTMENT BOUNDARY ———

PRIVATE LAND

X...X Fence



Cleaver Peak Allotment



Cleaver Peak Allotment
2004 Standards & Guidelines Analysis

This analysis provides background information necessary to renew a Term Grazing Permit, as per guidance provided by the Washington Office. It is necessary to determine if Standards and Guidelines (S & G's) are being met, if substantial progress is being made towards meeting them, or if they are not being met, what changes are necessary in order to meet them. The S & G's for rangeland health that apply to the Carson City Field Office were developed by the Sierra Front - Northern Great Basin Resource Advisory Council and approved by the Secretary of the Interior on February 12th, 1997. The Standards are as follows:

1. Soils: Soil processes will be appropriate to soil types, climate and land form as indicated by: (1) Surface litter is appropriate to the potential of the site; (2) Soil crusting formation in shrub interspaces, and soil compaction are minimal or not in evidence, allowing for appropriate infiltration of water; (3) Hydrologic cycle, nutrient cycle and energy flow are adequate for the vegetative communities; (4) Plant communities are diverse and vigorous and there is evidence of recruitment; and (5) Basal and canopy cover (vegetative) is appropriate for site potential.

2. Riparian/Wetlands: Riparian/wetland systems are in properly function condition as indicated by: (1) Sinuosity, width/depth ratio and gradient are adequate to dissipate stream flow without excessive erosion or deposition; (2) Riparian vegetation is adequate to dissipate high flow energy and protect banks from excessive erosion; and (3) Plant species diversity is appropriate to riparian-wetland systems.

3. Water Quality: Water quality criteria in Nevada and California State Law shall be achieved or maintained as indicated by: (1) Chemical constituents do not exceed the water quality standards; (2) Physical constituents do not exceed the water quality standards; (3) Biological constituents do not exceed the water quality standards; and (4) The water quality of all water bodies, including ground water located on or influenced by BLM lands will meet or exceed the applicable Nevada or California water quality standards. Water quality Standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements as set forth under State law, and as found in Section 303(c) of the Clean Water Act.

4. Plant and Animal Habitat: Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse as indicated by: (1) Good representation of life forms and numbers of species; (2) Good diversity of height, size, and distribution of plants; (3) Number of wood stalks, seed stalks, and seed production adequate for stand maintenance; and (4) Vegetative mosaic, vegetative corridors for wildlife, and minimal habitat fragmentation.

5. Special Species Habitat: Habitat conditions meet the life cycle requirements of special status species as indicated by: (1) Habitat areas are large enough to support viable populations of special status species; (2) Special status plant and animal numbers and ages appear to ensure stable populations; (3) Good diversity of height, size, and distribution of plants; (4) Number of wood stalks, seed stalks, and seed production adequate for stand maintenance; and (5) Vegetative mosaic, vegetative corridors for wildlife, and minimal habitat fragmentation.

ALLOTMENT INFORMATION

The Cleaver Peak Allotment is located 5 miles south of Lahontan, Nevada. The entire allotment is located in Nevada and is administered by the Carson City Field Office (Nevada). The Allotment is located within the Desert Mountains, approximately 15 miles south and south east of Silver Springs, Nevada. Within the allotment is Cleaver Peak, elevation 6,711 feet. Grazing occurs around the peak on the sandy, 5-8" rainfall range site. Approximately 50% of the 41,229 acres in the allotment is unavailable to livestock due to lack of water and topography. This allotment has historically been a cattle and domestic horse allotment during the winter.

The area is not currently contained in a Habitat Management Plan area. Primary wildlife use is by non-game species. Main game species in the allotment are chukars and mourning dove.

The 1989 Rangeland Program Summary Update list zero wild horses in the portion of the HMA that is within this allotment.

The projects constructed in this allotment are three wells, two water reapers for livestock, three pit reservoirs, and fifteen wildlife guzzlers. Most of the allotment boundary is fenced.

Most of the utilization monitoring in this allotment has been measured on Indian ricegrass (ORHY). Since this is a winter allotment, it is also important to consider shrubs in the management of this allotment. In the winter grasses are dormant and little affected by grazing as most of their stored food reserves are in their roots. 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 than during spring growth, but they are at a disadvantage compared to grasses.

In the winter, livestock graze both shrubs and grasses. If cattle are to subsist during the winter on range forage, a mixture of shrubs and grasses will come closer to meeting the requirements of a balanced ration than either one alone. Shrubs are higher in protein, phosphorus, and carotene (vitamin A) than grasses, whereas grasses are superior only in energy-yielding qualities (Cook and others 1954).

Winterfat (EULA) and four-wing saltbush (ATCA2) are not presently identified as key species. They need to be recognized as such and monitored. They are important forage plants during the winter grazing period for cattle. It is important to limit utilization of shrubs to Moderate (41-60%) utilization on annual production to maintain the health and vigor of these plants.

A limiting factor to improved range condition in this allotment is spring grazing. The critical growing period for Indian ricegrass (ORHY) is March 1 through July 15, winterfat (EULA) is April 1 to July 15, and four-wing saltbush (ATCA2) is March 1 to September 1. This is when the plants are most susceptible to damage by grazing.

In 1993, using photos and field observations, there was a significant decline of four-wing saltbush noted in the northeastern portion of the allotment on sandy soils. This decline appears to have been occurring for the last twenty-two years (1982-2004). From field observations in the spring of 1993, an estimate of almost 90% of the four-wing saltbush has died or is dying with no regeneration of the population occurring. The area where Frequency Plot #1 is located, many dead four-wing saltbush can be found. There is also an observable die off of Nevada Dalea (DAPO2) and Hairy horsebrush (TECO2). None of these plants show heavy browsing. An initial field investigation with Richard Rust, entomologist from UNR, concluded that a combination of scale, mealy bugs, and root borer's, along with drought years, has

contributed to the massive die-off of the shrubs. An estimate of the area affected is around 2,000 acres. It appears that the vegetation in the north eastern portion of the allotment is changing from a shrub/grass mix to a grass mix with Needle-and-thread grass (STCO4) being the dominant grass in some locations.

Livestock grazing is authorized as a cow/calf operation. Grazing preference is 1,250 AUMs. In the allotment, 250 cattle are permitted from November 1 to March 31, with a public land rating of 100%.

The Allotment is classified as a category "M" (maintain) based upon the relatively low resource conflicts and its overall good condition.

There are no spring sources located on public lands. Some limited mining does occur. The area encompassed by the Allotment is very popular with hunters and recreationists, because of its proximity to Reno and Fallon. Off-road racing occurs on the allotment. Access to the public lands is limited in many areas because of lack of roads.

An Allotment Evaluation was completed in 1993. It covered the years of 1975-76 to 1991-92. For this period of time the average AUM harvest was 958 AUMs.

Additional monitoring data has been collected and is analyzed on the following pages. **It covers the period of 1992 to the present.**

MONITORING DATA

I. Billed and Actual Use

Livestock actual use is recorded from a report provided by the permittee at the end of specific grazing periods. Data are verified by field checks and occasional counts. Actual use data contain dates, numbers, and classes of livestock turned out, moved, or gathered, as well as deaths.

Between 1992-1993 and 2003-2004, livestock use (Table 1) occurred as follows:

TABLE 1. ACTUAL USE.

<u>Year</u>	<u>AUMs Billed</u>	<u>AUR AUMs</u>	<u>TAPU AUMs</u>
1992-1993	0	0	1,250
1993-1994	116	364	1,250
1994-1995	526	548	1,250
1995-1996	649	638	1,250
1996-1997	906	875	1,250
1997-1998	1,045	1,045	1,250
1998-1999	1,241	1,109	1,250
1999-2000	1,241	1,247	1,250
2000-2001	1,241	1,157	1,250
2001-2002	1,071	819	1,250
2002-2003	0	0	1,250
2003-2004	398	210	1,250
TOTAL	8,434	8,012	15,000
AVERAGE	703	668	1,250

AUR = Actual Use Records.

TAPU = Total Active Permitted Use.

The total active permitted use for the Robert Depaoli permit is 1,250 AUM's. The average actual use for this evaluation period was 668 AUM's or 53.4% of the total active preference 1,250 AUM's. There is no specific location of cattle on the allotment.

II. Frequency Data

Long-term monitoring measures changes in soil and vegetation over time and is used to periodically measure progress toward meeting long term grazing management objectives. Long term studies are usually done at permanent sampling locations in key areas.

There are several techniques used for long term monitoring, of which quadratic frequency is one. Quadratic frequency transect data indicate statistically significant changes in the frequency of occurrence of the key species. This change is then evaluated to see if the specific management objectives for the rangeland represented by the key area are being met. Frequency is collected using procedures contained within the Nevada Rangeland Monitoring Handbook.

Trend data in the Cleaver Peak Allotment is a measure of the frequency of key species on any transect. For any given species, an increase in frequency means that (1) the number of the plants has increased, or (2) the plant is more uniformly distributed over the range, or both. A decrease means the opposite.

CP-01:

The Cleaver Peak #1 frequency transect in the Cleaver Peak Allotment was established on 07/10/84 and is on a 027XY009NV range site which is a Sandy 5-8" P.Z.

TABLE 2. COMPARING FREQUENCY OF PLANTS FROM THE RANGE TREND PLOT DATA COLLECTED AT STUDY SITE CP-01 OVER THREE POINTS OF TIME (14 YEARS). FRAME SIZES ARE 20" & 40".

PLANT	09/26/91	08/24/99	05/04/04
INDIAN RICEGRASS (T) #	26.5	43.5 ^	23.0
INDIAN RICEGRASS (SD) #	15.5	0.5 ^	21.0 *
NEEDLE-ANDTHREAD (T) #	28.5	32.0	4.0 ^
NEEDLE-AND-THREAD (SD) #	9.0	0.0 ^	0.5 ^
FOUR-WING SALTBUSH #	2.5	0.0 ^	0.0 ^
NEVADA DALEA	7.5	3.0 *	7.5
FOUR-WING SALTBUSH # (40")	0.0	0.0	0.0
NEVADA DALEA (40")	0.0	12.0 ^	15.0 ^
VEGETATION	2.0	9.0 ^	9.5 ^
BARE GROUND	67.0	43.0 ^	67.5
LITTER	26.5	47.0 ^	21.0 *
ROCK	1.5	1.0	2.0
TOTAL	100.0	100.0	100.0

T = MATURE PLANTS + SEEDINGS IN THE FRAME.

SD = SEEDINGS IN THE FRAME.

= KEY SPECIES.

* = SIGNIFICANT AT 80%.

^ = SIGNIFICANT AT 95%.

(40") = 40" FRAME SIZE.

The two study dates are compared to 09/26/91.

Table 2 shows there were significant changes both at 80% and 95% levels between 1991 and 2004 readings. Note the plants with significant changes are Needle-and-Thread Grass (T) (95%), Needle-and-Thread Grass (SD) (95%), Four-wing saltbush (95%), and Nevada Dalea (40") (95%). The key species on the site were Indian ricegrass, Needle-and-Thread grass, and four-wing saltbush. The frame size of 20" did not meet the minimum frequency for four-wing saltbush and Nevada Dalea. Below 20% the frequency data does not approximate a normal statistical distribution within the range and the frame size. The frame size was increased to 40" for the four-wing saltbush and Nevada Dalea.

Over the past 14 years, the amount of Needle-and-Thread grass has significantly changed at the 95% confidence level, although there has been a decline. Four-wing saltbush has died off on the range site. From field observations in the spring of 1993, an estimate of almost 90% of the four-wing saltbush (ATCA2) has died with no regeneration of the population occurring. None of these plants show heavy browsing. An initial field investigation with Ph.D. Richard Rust, entomologist from UNR, concluded that a combination of scale, mealy bugs, and root borers along with drought years has contributed to the massive die-off of the shrubs. Nevada dalea was present in 1991, had decrease in 1999. Since that time, it has increased significantly back to the 1991 levels.

The data shows vegetative cover increased between 1991 and 1999 and then remained relatively stable through 2004. The amount of bare ground dramatically decreased between 1991 and 1999 and then increased again between 1999 and 2004. Overall the amount of bare ground between 1991 and 2004 has been stable. The amount of litter increased significantly between 1991 and 1999 and decreased significantly between 1999 and 2004. Again, the overall amount of litter has decreased significantly at 80%.

The change in the amount of annual production and exotic invasive plants, present on the ground, may be the result of several factors individually or collectively. Based upon the Rangeland Health Assessments (refer to Appendix II), there are many annual forbs (Russian thistle) and cheatgrass plants on the site. The open spaces due to lack of shrubs and the lack of precipitation over the last five years allowed these invasive plants on site. The site also had very few four-wing saltbush plants and seedlings. At the time of the study, the invasive plants created substantial amounts of seeds and litter still in association with the plants. At the time of the study, the invasive plants appeared to have the seeds, stems, and leaves still in contact with the plant. Since 1990, the region has been dominated by drought conditions (refer to the precipitation data section), with the exception of the mid-nineties. This in turn has affected the amount of vegetative production. Lastly, based on the billed and actual use data, the amount of use has been dramatically less than the total active preference. Livestock impacts are therefore not occurring at a level that would result in the hoof action knocking some of the perennial seeds into the soil.

CP-02:

The Cleaver Peak #2 frequency transect in the Cleaver Peak Allotment was established on 08/25/99 and is on a 027XY009NV range site which is a Sandy 5-8" P.Z.

TABLE 3. COMPARING FREQUENCY OF PLANTS FROM THE RANGE TREND PLOT DATA COLLECTED AT STUDY SITE CP-02 OVER TWO POINTS OF TIME (6 YEARS). FRAME SIZE IS 40".

PLANT	08/25/99	05/05/04
INDIAN RICEGRASS (T) #	76.0	40.5 ^
INDIAN RICEGRASS (SD) #	0.0	1.5
NEVADA DALEA	32.0	33.5
RUBBER RABITBRUSH	0.0	1.5
VEGETATION	20.5	11.0 ^
BARE GROUND	36.0	63.5 ^
LITTER	43.5	25.5 ^
ROCK	0.0	0.0
TOTAL	100.0	100.0

T = MATURE PLANTS + SEEDINGS IN THE FRAME.

SD = SEEDINGS IN THE FRAME.

= KEY SPECIES.

* = SIGNIFICANT AT 80%.

^ = SIGNIFICANT AT 95%.

Table 3 shows there were significant changes both at 80% and 95% levels between 1999 and 2004 readings. Note the plants with significant changes are Indian ricegrass (T) (95%). The key species on the site was Indian ricegrass. The frame size of 40" did not meet the minimum frequency for rubber rabbitbrush. Below 20% the frequency data does not approximate a normal statistical distribution within the range and the frame size.

Over the past 6 years, the amount of Indian ricegrass has significantly changed at the 80% and 95% confidence levels; there has been a large decline. Nevada dalea had a slight increase between 1999 and 2004. Rubber rabbitbrush was not noted as being present in 1999 but showed up in 2004.

The data shows vegetative cover decreased between 1999 and 2004. The amount of bare ground dramatically increased between 1999 and 2004. Overall the amount of bare ground has increased significantly. The amount of litter decreased significantly between 1999 and 2004.

The change in the amount of annual production and exotic invasive plants, present on the ground, may be the result of several factors individually or collectively. Based upon the Rangeland Health Assessments (refer to Appendix II), there are many annual forbs (Russian thistle) and cheatgrass plants on the site. The open spaces left by the shrub die off and the very lack of precipitation over the last five years allowed these invasive plants on site. The site also had very few four-wing saltbush plants and seedlings. At the time of the study, the invasive plants created substantial amounts of seeds and litter still in association with the plants. At the time of the study, the invasive plants appeared to have the seeds, stems, and leaves still in contact with the plant. Since 1990, the region has been dominated by drought conditions (refer to the precipitation data section), with the exception of the mid-nineties. This in turn has affected the amount of vegetative production. Lastly, based on the billed and actual use data, the amount of use has been dramatically less than the total active preference. Livestock impacts are therefore not occurring at a level that would result in the hoof action knocking some of the perennial seeds into the soil.

CP-03:

The Cleaver Peak #3 frequency transect in the Cleaver Peak Allotment was established on 08/27/99 and is on a 027XY018NV range site which is a Gravelly Loam 4-8" P.Z.

TABLE 4. COMPARING FREQUENCY OF PLANTS FROM THE RANGE TREND PLOT DATA COLLECTED AT STUDY SITE CP-03 OVER TWO POINTS OF TIME (6 YEARS). FRAME SIZE IS 40".

PLANT	08/27/99	05/06/04
INDIAN RICEGRASS #	76.0	26.0 ^
BOTTLEBRUSH SQUIRRELTAIL	3.5	0.5 ^
WINTERFAT #	51.5	51.5
BAILEY GREASEWOOD	18.0	12.0 *
NEVADA DALEA	13.5	5.5 ^
SHADSCALE	9.5	1.0 ^
SPINY HOPSAGE #	0.5	0.5
BUDSAGE #	1.5	2.5
SPINY HORSEBRUSH	2.0	3.0
VEGETATION	16.5	4.0 ^
BARE GROUND	58.0	67.0 ^
LITTER	22.5	14.0 ^
ROCK	3.0	15.0 ^
TOTAL	100.0	100.0

= KEY SPECIES.

* = SIGNIFICANT AT 80%.

^ = SIGNIFICANT AT 95%.

Table 4 shows there were significant changes both at 80% and 95% levels between 1999 and 2004 readings. Note the plants with significant changes are Indian ricegrass (T) (95%), bottlebrush squirreltail (95%), bailey greasewood (80%), Nevada dalea (95%), and shadscale (95%). The key species on the site were Indian ricegrass, winterfat, spiny hopsage, and budsage. The frame size of 40" did not meet the minimum frequency for Bailey greasewood, Nevada dalea, shadscale, spiny hopsage, budsage, and spiny horsebrush. Below 20% the frequency data does not approximate a normal statistical distribution within the range and the frame size.

Over the past 6 years, the amount of Indian ricegrass has significantly changed at the 95% confidence level. Bottlebrush squirreltail has decreased significantly. Nevada dalea has significantly changed at 95%. Between 1999 and 2004, this species has gradually declined. Shadscale has decreased significantly at 95%. Spiny hopsage was static.

The data shows vegetative cover decreased between 1999 and 2004. The amount of bare ground increased between 1999 and 2004. Overall the amount of bare ground has increased significantly. The amount of litter decreased significantly between 1999 and 2004. The overall amount of rock has increased significantly between 1999 and 2004. The difference between the amounts of rock showed that the placement of the 40" frame the second time was not exactly at the same points as the first study.

The change in the amount of annual production and exotic invasive plants, present on the ground, may be the result of several factors individually or collectively. Based upon the Rangeland Health Assessments (refer to Appendix II), there are many annual forbs (Russian thistle) and cheatgrass plants on the site. The open spaces left by lack of shrubs and the low precipitation over the last five years allowed these invasive plants on site. The site also had very few four-wing saltbush plants and seedlings. Invasive plants created substantial amounts of seeds and litter still in association with the plants. At the time of the study, the invasive plants appeared to have the seeds, stems, and leaves still in contact with the plant. Since 1990, the region has been dominated by drought conditions (refer to the precipitation data section), with the exception of the mid-nineties. This in turn has affected the amount of vegetative production. Lastly, based on the billed and actual use data, the amount of use has been dramatically less than the total active preference. Livestock impacts are therefore not occurring at a level that would result in the hoof action knocking some of the perennial seeds into the soil.

III. Special Status Species

There are no special status species known to inhabit the allotment. Sage grouse and mountain quail habitats are found approximately seven miles to the west of the allotment boundary.

IV. Wildlife

Overall, the wildlife habitat looks to be in good condition. Most sites had a diverse amount of annual forbs that was widespread throughout. This may only be a factor of adequate winter and spring precipitation this year and will need to be looked at in the next evaluation. Unfortunately, in some areas grass abundance is extremely low and provides poor wildlife habitat. The areas will have to be monitored during more moist years when drought is not a considered factor of their absence. On some sites, shrubs had decreased due to insect outbreaks which affected migratory shrub-nesting birds in the region. The only birds noted during the surveys were horned larks (*Eremophila alpestris*) and common ravens (*Corvus corax*).

The areas rich in forbs are good springtime forage for mule deer and antelope, and allow for the potential expansion in the number of mule deer and antelope into these areas.

V. Precipitation Data

Nevada has experienced drought conditions from 1999 to 2003 which varied in degree dependent on the year. The critical time for precipitation for the key species is during the winter and early spring periods. Moisture storage in the soil is essential for the plants to initiate new growth. This in turn allows the plants to increase rooting depth and size, increase root reserves, and enhance vigor.

No permanent weather station is located on the Cleaver Peak Allotment. To cover the area, Lahontan, Nevada weather data is included with this evaluation. The Lahontan, Nevada weather station is approximately 5 miles north from the Cleaver Peak Allotment boundary. Depending upon the path, intensity, and duration of storms, the Sierra Nevada Mountains influence precipitation amounts in the allotment. Therefore the data presented provides the reader with an idea of what may have occurred during the years shown. The higher elevations receive larger amounts of precipitation than what is recorded at the station. The mean precipitation is 4.50 inches.

TABLE 5. THE YEARLY PRECIPITATION FOR LAHONTAN, NEVADA.

Year	Amount in Inches
1992	2.51
1993	5.77
1994	2.62
1995	7.28
1996	5.51
1997	3.36
1998	6.01
1999	3.93
2000	3.51
2001	3.03
2002	1.99
2003	2.95
NOAA AVERAGE	4.50

As evidenced by the total precipitation data (Table 5), the amount received during the year is low. This appears to be the norm rather than the exception. The total precipitation varied from a low of 1.99 inches in 2002 to a high of 7.28 inches in 1995. The total precipitation was four years above average and eight years below average. Note the last five years were below average.

VI. Use Pattern Mapping

TABLE 6. THE AVERAGE UTILIZATION LEVELS IN THE CLEAVER PEAK ALLOTMENT BY YEAR. THE INFORMATION IS TAKEN FROM THE UTILIZATION MAPS. GRAZING PERIOD IS FROM 11/01 to 03/31.

Year	<u>Percent Utilization Level Classes</u>					Total	Average %	
	Slight	Light	Moderate	Heavy	Severe			
1992-1993		No Utilization Data						
1993-1994		No Utilization Data						
1994-1995		No Utilization Data						
1995-1996		No Utilization Data						
1996-1997	84.6	7.5	4.6	3.3	0.0	100.0	15.3	
1997-1998	59.7	19.6	20.3	0.5	0.0	100.1	22.3	
1998-1999	86.7	6.3	1.7	5.3	0.0	100.0	15.1	
1999-2000	71.0	11.4	8.1	9.5	0.0	100.0	21.2	
2000-2001		No Utilization Data						
2001-2002		No Utilization Data						
2002-2003		No Utilization Data						
2003-2004	77.7	9.3	12.0	1.0	0.0	100.0	17.2	

The five years of data show a high amount of slight, light and moderate use. The average percent utilization was well below the 55%. The highest average use was 22.3% in 1997-1998. To improve the distribution of livestock, water haul sites should be used on the allotment. The areas by the three wells had the highest utilization. By establishing new water haul sites, the utilization

levels on these areas can be reduced. The use pattern maps would fall between light and moderate use levels.

VII. Trend (Photo Plot Interpretation)

There were three photo trend plots established in the Cleaver Peak Allotment.

PP CP-01:

The Cleaver Peak #1 photo point in the Cleaver Peak Allotment was established on 09/01/77 and is on a 027XY009NV range site which is a Sandy 5-8" P.Z.

TABLE 7. COMPARING FREQUENCY OF PLANTS FROM THE PHOTO TREND PLOT DATA COLLECTED AT STUDY SITE PP CP-01 OVER FOUR POINTS OF TIME (28 YEARS). FRAME SIZE IS 5' X 5'.

<u>PLANT</u>	<u>09/01/77</u>	<u>08/02/79</u>	<u>09/26/91</u>	<u>05/04/04</u>	<u>TREND</u>
INDIAN RICEGRASS #	4	0	0	0	STATIC
FOUR-WING SALTBUSH #	1	1	0	0	STATIC

Table 7 shows there were no significant changes between the 1991 and 2004 readings. The full set of data (1971-2004) shows perennial plants in the beginning (1971) were in the plot. Note that there were no perennial plants in 1991 and 2004. The key species were Indian ricegrass and Four-wing saltbush. The frame size is 5' X 5'.

The plot was established in 1977 and was photographed again in 1981, 1982, 1985, 1991, 1999, and 2004. Plot PP CP-01 is located in T. 16 N., R. 27 E., and Section 18 NWNW. It lies about two miles and a half from the Hooten Well. There appears to be changes in the vegetation with less Indian ricegrass and four-wing saltbush. In the 08/02/79 study, there was one four-wing saltbush plant. There is an increase of Russian thistle in the area. The shrub component appears to be decreasing. There is apparent evidence of any soil movement with sand moving in the nearby road. The four-wing saltbush has died out in the surrounding area. The trend in the last 14 years looks static.

PP CP-02:

The Cleaver Peak #2 photo point in the Cleaver Peak Allotment was established on 09/01/77 and is on a 027XY018NV range site which is a Gravelly Loam 4-8" P.Z.

TABLE 8. COMPARING FREQUENCY OF PLANTS FROM THE PHOTO TREND PLOT DATA COLLECTED AT STUDY SITE PP CP-02 OVER TWO POINTS OF TIME (14 YEARS). FRAME SIZE IS 5' X 5'.

PLANT	09/26/91	05/04/04	TREND
INDIAN RICEGRASS #	5	0	DECREASE
BOTTLEBRUSH SQUIRRLTAIL	0	1	INCREASE
BUCKWHEAT	0	0	STATIC
DOUGLAS RABBITBRUSH	0	0	STATIC
BUDSAGE #	2	1	DECREASE
WINTERFAT #	1	1	STATIC
SHADSCALE	0	1	INCREASE
NEVADA DALEA	0	1	INCREASE

Table 8 shows there were significant changes between the 1991 and 2004 readings. Note that the plants with significant changes are Indian ricegrass, bottlebrush squirreltail, budsage, shadscale, and Nevada dalea. The key species were Indian ricegrass, budsage, and winterfat. The frame size is 5' X 5'.

The plot was established in 1977 and was photographed again in 1981, 1982, 1985, 1991, 1999, and 2004. Plot PP CP-02 is located in T. 16 N., R. 26 E., and Section 10 SESW. It lies about one mile and a half from the Hooten Well. There appears to be changes in the vegetation with less Indian ricegrass and budsage. The shrub component appears to be increasing. The shadscale and Nevada dalea have increased. There is no apparent evidence of any soil movement. The trend looks downward with the decline in Indian ricegrass.

PP CP-03:

The Cleaver Peak #3 photo point in the Cleaver Peak Allotment was established on 09/01/77 and is on a 027XY018NV range site which is a Gravelly Loam 4-8" P.Z.

TABLE 9. COMPARING FREQUENCY OF PLANTS FROM THE PHOTO TREND PLOT DATA COLLECTED AT STUDY SITE PP CP-03 OVER TWO POINTS OF TIME (14 YEARS). FRAME SIZE IS 5' X 5'.

PLANT	09/26/91	05/05/04	TREND
INDIAN RICEGRASS #	10	1	DECREASE
BOTTLEBRUSH SQUIRRELTAIL	1	0	DECREASE
SAND DROPSEED #	1	0	DECREASE
SHADSCALE	1	0	DECREASE
WINTERFAT #	0	0	STATIC
BAILEY GREASEWOOD	0	2	INCREASE

Table 9 shows there were significant changes between the 1991 and 2004 readings. Note that the plants with significant changes are Indian ricegrass, bottlebrush squirreltail, sand dropseed, and shadscale. Bailey greasewood increased. The key species were Indian ricegrass, sand dropseed, and winterfat. There is only one Indian ricegrass in the study plot. The frame size is 5' X 5'.

The plot was established in 1977 and was photographed again in 1981, 1982, 1985, 1991, 1999, and 2004. Plot PP CP-03 is located in T. 16 N., R. 25 E., and Section 29 SESW. It lies about one mile and a half from the highway reaper. There appears to be changes in the vegetation with less Indian ricegrass, bottlebrush squirreltail, and sand dropseed, and less shadscale. The shrub component appears to be increasing. There is no apparent evidence of any soil movement. The trend looks downward for the grasses and upward for shrubs.

VIII. Riparian Functionality

There are no spring sources on the allotment. The projects constructed in this allotment are three wells, two water reapers for livestock, three pit reservoirs, and fifteen wildlife guzzlers. There was no riparian functionality assessed.

XI. Rangeland Health

Rangeland Health write-ups were completed in the vicinity of each of the three photo trend plot and three quadratic frequency plots. These write-ups can be found in Appendix II. For all the sites, all factors were rated as stable for Soil/Site Stability and Hydrologic Function but unstable for the Biotic Integrity. There were high amounts of annuals including invasive plants such as Russian thistle and cheatgrass. There were very few shrubs such as four-wing saltbush. The areas between shrubs had filled up with annuals. There was still a big impact from the die-off of shrubs from the early 1990's. The drought the last five years didn't provide the plant seed and didn't give the seed germination for new shrubs. It might even be beneficial to utilize these areas with a high use level, at least every other year. This would allow for the perennial seeds to be covered in the soil. At all sites, it was noted that recruitment for invasive plants was occurring.

X. Water Quality

No samples were taken at any of the water sources. The source, as defined by the State of Nevada, is directly where the water comes out of the ground. The three well sites have well casing. The two reapers for livestock and fifteen wildlife guzzlers have fences around them. With all the well sources located on public land being fenced or capped, in all likelihood the water quality standards are being met.

XI. Noxious Weeds

There is one known location of Tall Whitetop (*Lepidium latifolium*) plants in the allotment. They were found next to the water troughs at Hooten Well. During the course of the field work required to gather information for this Standard and Guideline Assessment, one new sighting of noxious weeds was observed.

INTERPRETATION/CONCLUSIONS

Livestock Grazing

The current livestock management practices that are in place are meeting **Standard #1 (Soils), Standard #2 (Riparian/Wetlands), Standard #3, (Water Quality), Standard #4. (Plant and Animal Habitat), and Standard #5. (Special Species Habitat).**

The total active permitted use for the Robert Depaoli permit is 1,250 AUM's. The average actual use for this 12 year evaluation period was 668 AUM's or 53.4% of the total active preference 1,250 AUM's.

At all sites visited the soil component was stable. The vegetative component was diverse except for shrubs and of adequate density to protect the soil surface. There was no readily visible evidence of overland flows, rills, or terracettes.

No riparian areas are located on the allotment. The projects constructed in this allotment are three wells, two reapers for livestock, three pit reservoirs, and fifteen wildlife guzzlers. Most of the allotment boundary is fenced. Though no water quality samples were taken from the water sources, with the ground water sources being inaccessible to livestock, the likelihood of water quality standards being met are significant.

There is a diverse plant community present. In the last five years, there has been a drought in the area. The density of vegetation and the fact that recruitment for some species is occurring is resulting in plant and animal habitat remaining stable and in fair condition. The shrub component is gradually increasing in many areas of the allotment. The observable die-off had occurred in the 1990's. There are not an adequate number of mature plants to provide a viable seed source for recruitment. The grass component is adequate. There is a diverse amount of forbs present. If anything, livestock could be used as a tool to favor the expansion of shrubs and grasses in the allotment. This could be accomplished by utilizing the grass component in future identified areas at higher use levels. Over time by lowering the utilization levels to 35% where winterfat and four-wing saltbush exists, this would result in conditions that would favor both those shrubs.

A series of photographs, taken in the Cleaver Peak Allotment, are located in Appendix IV.

Wildlife

Overall, the wildlife habitat looks in good condition and the potential expansion in number of mule deer and antelope is not being impeded.

Recommendations

Nothing points to any immediate management changes being needed, prior to the start of the next grazing season, to meet or make progress towards meeting the Standards and Guidelines. Future considerations for changes in livestock management have been previously proposed. They are brought forward, with my revisions in bold, for review.

For reference, livestock grazing is authorized as a cow/calf operation. Grazing preference is 1,250 AUMs. In the Cleaver Peak Allotment, 250 cattle are permitted from November 1 to March 31, with a public land rating of 100%.

Objectives identified were as follows:

- 1) Limit utilization on desirable shrubs (winterfat (EULA) and four-wing saltbush (ATCA2)) **so as not exceed 35%**.
- 2) Limit utilization on desirable grasses (Indian ricegrass (ORHY) and Needle-and-thread grass (STCO4)) **so as not exceed 55%**.

LIST OF REVIEWERS/PARTICIPANTS

Peter Raffetto	Rangeland Management Specialist
Russell Suminski	Lead Rangeland Management Specialist
Claudia Funari	Wildlife Management Biologist
Jim deLaureal	Soil Scientist/Noxious Weeds
Jim Schroeder	Lead Hydrologist/Riparian Coordinator
Peggy Waski	Lead Archaeologist
Dean Tonenna	Botanist/Threatened and Endangered Species
Terry Knight	Lead Wilderness/Recreation Specialist
John Axtell	Wildlife Biologist
Jim Gianola	Lead Wild Horse and Burro Specialist