



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Carson City District Office
1535 Hot Springs Rd., Ste. 300
Carson City, NV 89706-0638

11/2/92
TAKE
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AMERICA

IN REPLY REFER TO:

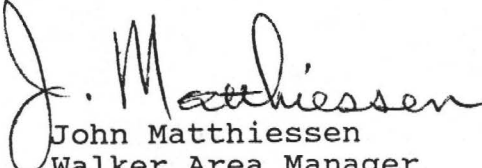
4320
(NV-03582)

NOV. 02 1992

Dear Interested Party:

Enclosed is the Record of Decision/Finding of No Significant Impact for the Churchill Canyon and Horse Springs allotments conversion of grazing from sheep use to cattle use. Through the analysis process we selected an alternative to the original proposal. The alternative allows the conversion, but will require fencing of portions of the allotment boundary, provides forage for wild horses within their herd area, and allocates to cattle only that portion of the forage of the allotment reasonably usable by cattle. Thank you for your participation in the environmental analysis of this proposal.

Sincerely yours,


John Matthiessen
Walker Area Manager

enc: Record of Decision/Finding of No Significant Impact

Record of Decision / Finding of No Significant Impacts (FONSI)

A. Record of Decision

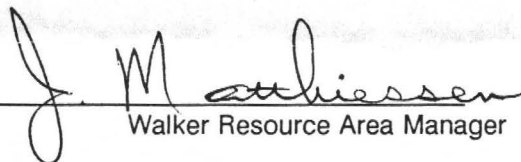
Environmental Assessment NV-030-92-031 (Change in Kind of Livestock and Season of Use in Churchill Canyon and Horse Springs Allotments) analyzed a proposal from the livestock operator to change grazing use in the allotments from sheep to cattle. Three comments were received by this office relating to the proposed decision to allow the proposed conversion, but with some modifications. One of the commentors favored Alternative B, which was our proposed alternative, but expressed additional concerns in favor of allowing the wild horse population to be unhampered. Two of the comments did not address any of the alternatives specifically, or even sheep grazing versus cattle grazing generally, but rather provided comments and thoughts which could be more appropriately considered in an allotment evaluation process.

Based on the Environmental Assessment (EA), the proposed action would damage the environment through overallocation of the resource. The Proposed Alternative, however, factors in the difference in diets between sheep and cattle and also the presence of wild horses in the upper pastures. By balancing the allocations to the resource this proposed alternative should not result in any adverse impacts to the environment. Because of the lack of monitoring data relating to cattle use and distribution in these allotments, my decision is to approve the grazing change from sheep to cattle and issue a three-year permit based on the Proposed Alternative. At the end of three years an analysis of monitoring data will be performed and a decision on a long term permit will be rendered.

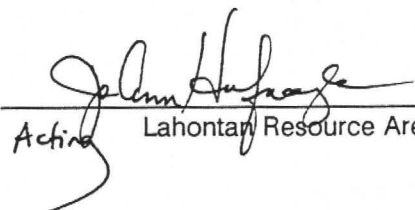
This proposed action (the Proposed Alternative) is in compliance with the Walker and Lahontan Resource Management Plans.

B. FONSI

The EA adequately analyzes the environmental impacts of the proposed alternative. Since no significant impacts are expected as a result of implementing the decision, an EIS is not required.


Walker Resource Area Manager

16 oct 92
Date


Acting Lahontan Resource Area Manager

10-26-92
Date

[Handwritten scribble]



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

CARSON CITY DISTRICT OFFICE
1535 HOT SPRINGS RD., STE. 300
CARSON CITY, NV 89706-0638



IN REPLY REFER TO:

4700
(NV-03840)
AUG 31 1992

Dear Interested Party:

Enclosed is an Environmental Assessment (EA) and draft Finding of No Significant Impact Statement (FONSI) for the release of 20 unadoptable wild horses. This EA does not become final until the Finding of No Significant Impact/Decision of record is signed. Please submit your comments to this office by close of business October 2, 1992, to be considered.

Sincerely yours,

James W. Elliott
James W. Elliott
District Manager

Enclosure:

1. Release of Unadoptable Wild Horses EA and FONSI, 7pp.

ENVIRONMENTAL ASSESSMENT EA No. NV-030-92-049

Release of Unadoptable Wild Horses

INTRODUCTION

Need for the Proposed Action.

There are currently 20 unadoptable wild horses (9 studs, 11 mares) that were captured during the Horse Mountain Emergency Wild Horse Removal. Because the sole source of water for the Horse Mountain horses dried up these wild horses were removed from the Horse Mountain Herd Management Area (HMA). Until such a time that alternate water can be provided wild horses will not be placed back into the Horse Mountain HMA. Because of the length of time involved in securing alternate water sources maintaining these wild horses at Palomino Valley Corrals is not feasible. Therefore, these wild horses need to be relocated to another HMA, since they cannot be placed through the adoption program. These animals have never left the District.

Conformance With Land Use Plan.

This EA is tiered to the Lahontan Resource Management Plan Environmental Impact Statement (RMP/EIS) which analyzed the general ecological impacts of managing rangelands in the Clan Alpine Mts. area under a program including the monitoring and adjustment of wild horses and livestock. This EA is a project specific refinement of the EIS focused on the management of wild horses in the Clan Alpine Mt. HMA. The decisions regarding overall rangeland management analyzed in the RMP/EIS will not be changed by the release of wild horses within the HMA. These documents are available for public review at the Carson City District Office.

PROPOSED ACTION AND ALTERNATIVES

Proposed Action.

The proposed action is to release 20 unadoptable wild horses in the Cow Canyon Allotment within the Clan Alpine HMA. All mares will be spayed prior to release.

Alternatives Considered but not Analyzed.

The following alternatives were considered but not analyzed in detail:

Releasing the animals in the Augusta Mt., Flanigan, Fort Sage, Dogskin Mt., Desatoya, Granite Peak, Lahontan, New Pass and N. Stillwater HMAs would increase the animals further above the carrying capacity of these HMAs. In addition, due to the extended drought there are only limited water sources in these areas. Continuation of this drought may cause many of these waters to dry up.

Because of the small size of the South Stillwater HMA, released animals would most likely establish home ranges outside of the HMA.

Keeping the wild horses at PVC indefinitely is not a feasible alternative. PVC is designed to process and adopt wild horses. Keeping wild horses at PVC would impair the primary mission of the facility as well as exposing the horses to perpetual confinement.

Sending wild horses to a sanctuary is no longer an option since current plans are being formulated to demobilize the sanctuaries.

Euthanizing healthy wild horses is also not a option as Congress has withheld appropriations for such an action.

AFFECTED ENVIRONMENT

General Setting.

The topography of the HMA ranges from rolling hills through mountainous terrain from 4,000 to 10,000 feet in elevation. There are 7 creeks with perennial water along with many springs and seeps. Water availability will not be a problem in areas where the wild horses would be released.

Affected Resources.

Currently wild horses at the upper elevations in the Cow Canyon Allotment portion of the Clan Alpine HMA are not adversely affecting the environment. There is adequate forage and available water.

ENVIRONMENTAL IMPACTS

Impacts of the Proposed Action.

The action will increase the population of wild horses in the Cow Canyon Allotment portion of the HMA by 20 head. Currently the vegetation in this area is not being adversely impacted by wild horses and an increase of 20 head will not change the situation.

Since the mares will be spayed they will not accelerate the rate of population increase. It is not anticipated that releasing spayed animals will adversely impact the animals. An X-2 freeze mark will be applied to each horse on the hip for permanent identification from the ground or air to verify that the spayed mares do indeed interact normally within a band.

Nine stallions will be released. The precise impacts of these stallions and mares to the social structure of the herd and the behavior of individual animals is unknown, however, because of the small number of animals released it is assumed to be minimal. U.C. Davis analyzed blood taken from wild horses within the Clan Alpine HMA and found no unusual characteristics, therefore, releasing the Horse Mountain studs will not adversely impact the genetics of the Clan Alpine herd.

Mares will not be released until they have fully recovered from being spayed.

The animals will be monitored to insure that they become familiar with water sources, and will be released along a creek.

Mitigation Measures.

We do not anticipate any adverse impacts associated with the proposed actions, therefore, mitigation measures are not needed.

Residual impacts.

The only residual impact occurring with the proposed action would be the increase of the population by 20 wild horses within the Cow Canyon Allotment portion of the HMA. All of the released animals are 10 years of age or older, therefore, they would all be expected to die of natural causes within 10 to 15 years.

In all of the alternatives the release of additional wild horses would exacerbate existing resource problems (overutilization of vegetation) or jeopardize the animals since the available water is extremely limited or drying up due to drought conditions. These problems would be overutilization of vegetation, horses returning to areas of removal and wild horses moving outside of HMAs.

CONSULTATION AND COORDINATION

Persons and Agencies Consulted.

This environmental assessment is being sent to the following persons, groups and government agencies for review and comment.

American Bashkir Curley Register
Animal Protection Institute
Barbara Eustis-Cross Executive Director L.I.F. E. Foundation
Bobbi Royle
C. Jean Richards
Carson City District Grazing Advisory Board
Commission for the Preservation of Wild Horses
Craig C. Downer
Dan Keiserman
Debora Allard
Fund for Animals
Humane Society of Southern Nevada
International Society for the Protection of Wild Horses and Burros
Joyce Casey
Michael Kirk
Kathy McCovey
Nan Sherwood
National Mustang Association
National Wild Horse Association
Nevada Cattlemen's Association
Nevada Department of Wildlife
Nevada Federation of Animal Protection Organization
Nevada Humane Society
Nevada Land Action Association
Nevada State Clearinghouse
Nevada State Division of Agriculture
Paula Askew
Rebecca Kunow
Resource Concepts Inc.
Save the Mustangs
Sierra Club
Steven Fulstone
Swan Alder
The Nature Conservancy
U.S. Fish and Wildlife Service
U.S. Humane Society
United States Wild Horse and Burro Foundation
Wild Horse Organized Assistance

LIST OF PREPARERS

Prepared by:

John Axtell
John Axtell
Wild Horse and Burro Specialist
Lahontan Resource Area

27 Aug 92
Date

Reviewed by:

David Loomis
David Loomis
Environmental Coordinator
Carson City District

8-27-92
Date

Karl S. Kipping
Karl Kipping
Associate District Manager
Carson City District

8-28-92
Date

Draft

FINDING OF NO SIGNIFICANT IMPACT / DECISION RECORD

For EA # 92049

Finding of No Significant Impacts: Based on the analysis of potential environmental impacts contained in the attached environmental assessment, we have determined that impacts are not expected to be significant and the environmental impact statement is not required.

Rational for decision: The decision to implement the release of unadoptable wild horses is in conformance with the Lahontan RMP, approved in 1985, and will not adversely impact any of the resources in the Clan Alpine HMA.

Decision: Based on the EA and FONSI the decision is to release the 20 unadoptable wild horses inside the Cow Canyon Allotment portion of the Clan Alpine Herd Management Area.

Recommend Approval:

James M. Phillips
Area Manager
Lahontan Resource Area

Date

Approved:

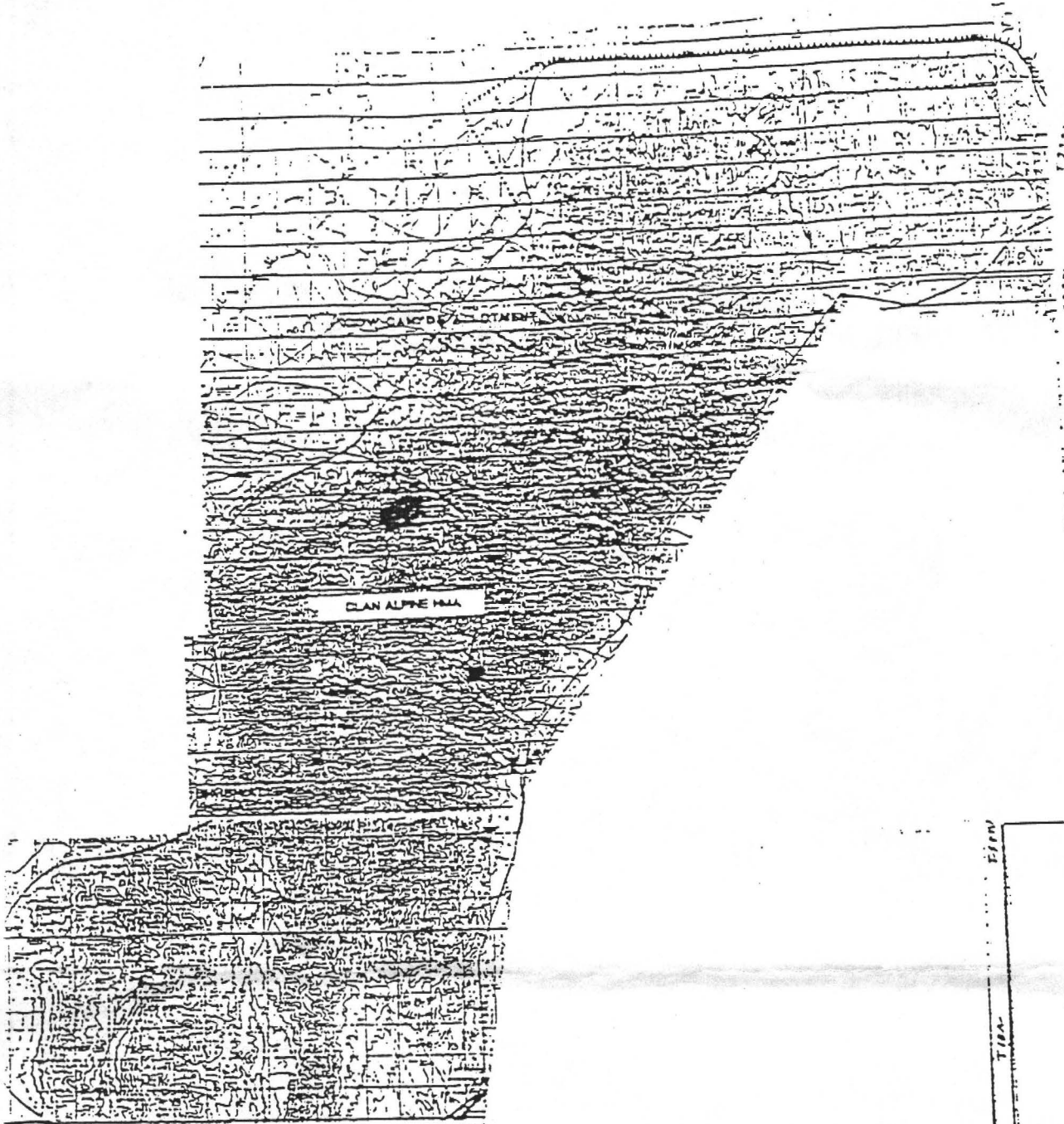
James W. Elliott
District Manager

Date

--- HMA Boundary

⊗ Release Area

*** Fences



CLAN ALPINE HMA

N 101° 15' E 1.00 MI
N 101° 15' E 1.00 MI

T 101° 15' E 1.00 MI

U.S. GEOLOGICAL SURVEY



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

CARSON CITY DISTRICT OFFICE
1535 HOT SPRINGS RD., STE. 300
CARSON CITY, NV 89706-0638



IN REPLY REFER TO:
4150/9230
(NV-035)

June 19, 1992

Dear Interested party:

Enclosed for your review is an Environmental Assessment (EA) and draft Record of Decision / Finding of No Significant Impacts. This Environmental Analysis was prepared to address a change in the kind of livestock (from sheep to cattle) in the Churchill Canyon and Horse Springs allotments. If you have comments please send them to this office prior to July 27, 1992.

Sincerely yours,

John Matthiessen
Area Manager
Walker Resource Area

ENVIRONMENTAL ASSESSMENT
NUMBER NV-030-92-031

Change in Kind of Livestock and Season of Use
in Churchill Canyon and Horse Springs Allotments

Name of Applicant: Sario Livestock Company

Office and Location: Bureau of Land Management
Carson City District Office
1535 Hot Springs Road, Suite 300
Carson City, Nevada 89706-0638

Preparation Date: October 30, 1991; Revised May 18, 1992

I. Need for Proposed Action

Churchill Canyon allotment lies in the foothills of the Pine Nut Mountains, about 10 miles west of Wabuska. It consists of some 48,000 acres of land of which 44,000 is public (see attached map). Horse Springs allotment lies just south of Fernley and is about 31,000 acres in size, with 15,000 acres of this public land. The Churchill Canyon and Horse Springs allotments have historically been grazed by sheep during winter and spring, with grazing continuing in Churchill Canyon until mid-July. Churchill Canyon was adjudicated at 5394 AUMs with no suspended use, and the Horse Springs allotment at 1700 AUMs with no suspended use. In 1986 an Allotment Management Plan detailed a Rest and Deferred rotational strategy for the two allotments with the low elevations of Churchill Canyon and the Horse Springs allotment used from December 1 through May 15, the mid-elevations of Churchill Canyon used from May 16 to June 15, and the high elevations used June 16 to July 15 (see the "Churchill Canyon-Horse Spring Allotment Management Plan" for detailed information). By this time, however, I&M Sheep Company had leased the Sario ranch. The public land allotments did not fit well with their sheep operation and very little grazing use was made of the allotments. With the allotments no longer needed for their sheep operation, Sario Livestock Co. has now made application to graze the allotments with cattle.

Churchill Canyon is an "Improve" category allotment, meaning that the Bureau wanted to improve range conditions through improved management, reduce conflicts (between sheep and deer in Churchill Canyon) and then periodically evaluate progress toward reaching these desired improved conditions. This temporary lack of livestock grazing since the development of the Allotment Management Plan leaves us with very little to evaluate other than impacts of horse use. On the lower elevations where wild horse use has been minimal this lack of grazing has resulted in a gain in shrub vigor, but in grasses with reduced plant vigor and lower palatability as several years growth accumulated in the plant without removal. In the higher elevation pastures where horses graze heavily the grasses are reduced in vigor from overuse, but the forage which is produced is highly palatable. Shrubs in these higher elevation pastures are used very little by horses but are generally being outcompeted by pinyon trees.

Continued non-use of this allotment is not in conformance with the land use plan: in 1991 the Bureau served notice on I&M Sheep Company (and Sario Livestock Company) that they must graze the area or lose the grazing privileges. Sario Livestock, as the most affected party to this "proposed decision" has now made application to graze the allotments. But present economic patterns are making sheep ranching less profitable and so Sario Livestock has applied to use the

area with cattle rather than the traditional sheep. This has resulted in the request to change the grazing use from sheep to cattle.

In accordance with the Reno Management Framework Plan the bureau will develop grazing management systems which achieve proper livestock use periods (RM 1.2) while encouraging a maximum possible vegetative cover through equitable use of vegetation by livestock, wildlife, and wild horses (W 3.2). And the Bureau will maintain viable populations of wild horses by providing the necessary forage, water, and habitat within herd management areas (WH 1). The Walker Resource Management Plan (RMP), which covers Churchill Canyon and the Lahontan RMP which covers the Horse Springs allotment plan for authorizing livestock grazing in balance with the capacity of the range resource (Walker RMP p. 2-4), and for planning Horse Springs allotment grazing in conjunction with Churchill Canyon grazing (Lahontan RPS 1989 Update Table 2). Grazing by either sheep or cattle is in conformance with the land use plan so long as it is managed to allow the forage plants to remain healthy, and the resource available is balanced equitably among the livestock, wildlife, and wild horses on the land.

II. Proposed Action and Alternatives

A. Proposed Action

The request consists of the following:

1. Change kind of livestock from sheep to cattle;
2. Change the season of use from 12/01 through 07/15 to 11/15 through 06/15;
3. Convert the AUMs on a 5 sheep = 1 cow basis, which would result in Churchill Canyon authorized use of 5394 AUMs and Horse Springs use of 1700 AUMs on public lands.

But an analysis of the range survey for the area shows that because of the types of forage on the allotments (primarily browse species) the rated capacity for cattle is much different than would be provided by a 5 to 1 conversion. On the Churchill Canyon allotment the original rating was 2674 AUMs for cattle (while in comparison, the capacity for sheep was estimated at over 6000 AUMs). And the Churchill Canyon allotment is now supporting part of the Pine Nut wild horse herd which is consuming an estimated 468 AUMs of forage, primarily from the mid and high elevation parts of the allotment. The Horse Springs allotment has no wild horses to support and the rating for cattle is for 606 AUMs.

The sheep were controlled by a herder, which allowed the division of the allotments into several use areas to provide a rotational grazing strategy which would allow growing-season grazing while maintaining healthy plants. The allotments have none of the internal fencing which is generally needed to keep cattle from staying too long in one area. Cattle use in the mid and high elevation Churchill Canyon pastures would require nearly 40 miles of fence; mostly in rough, steep country and with some needed inside the Herd Management Area where we are avoiding the construction of facilities which would restrict horse movements. So construction of fence to use these mid and high elevation pastures is not practicable. In the lower elevational pastures of these allotments control with water is practicable, but will allow only a modest level of rotational grazing management. Preventing overgrazing (by staying too long in one spot) of the cattle will require either a shortened season of use or the construction of more pasture fencing.

So the proposed alternative which follows is based on carrying capacity data which is more specific to cattle, factors in the wild horse population with the impracticality of using several of the Churchill Canyon pastures, and also considers the different management strategies practicable for cattle:

B. Proposed Alternative

1. Change kind of livestock from sheep to cattle;
2. Continue implementing the allotment management plan for a 6 month grazing period on the low-elevation Churchill canyon pastures in conjunction with the Horse Springs pastures. The season during which grazing could occur on the Churchill Canyon area would be sometime from 11/15 to 5/15 and on the Horse Springs area from 11/1 to 3/31; the normal operation would be to graze Horse Springs from early November until early February, and then move to Churchill Canyon from early February until early May.
3. Allocate Churchill Canyon initially at 1074 AUMs and Horse Springs at 606 AUMs. This would result in a cattle winter/spring grazing operation (assuming a lease of the non-permittee owned private lands within the allotments) of:
380 cattle from 11/1 to 5/1
4. Require construction of about six miles of fence (as marked on the map) to keep the cattle from drifting out of Churchill Canyon. Ribbon the fence following construction so that resident animals can learn its position. All fencing will be outside the Pinenut Horse Herd Management Area.

C. No Action Alternative

Under this alternative the Sario Livestock application would be rejected and the current situation would continue. Sheep would be authorized to graze in the allotments between 12/01 and 07/15; The maximum allowed public land use would be 5394 AUMs in Churchill Canyon and 1700 AUMs in Horse Springs. It is not clear at this time if the sheep would come from Sario Livestock Company, I&M Sheep, or from some other sheep operation. But these are good sheep allotments and would be used by someone.

D. Change kind of Livestock but use a different initial stocking rate

Both existing data and professional observation suggest that the proposed initial cattle stocking rate is a reasonable estimate which is in balance with wild horses and deer, and no data has been developed showing a better first estimate. This initial stocking rate would be adjusted using monitoring of utilization patterns in conjunction with actual use data. The pattern of utilization which would be most desirable would be a moderate level of use over much of the area, very limited heavy use in sandy bottoms or adjacent to watering points, and with modest portions of the units receiving light, slight, or no use.

E. Proposed Alternative with a different use period

The proposed use period takes in wintertime when plants are dormant and grazing management is relatively simple, as well as springtime when plants begin growing and

grazing animals travel well. The Churchill Canyon springtime use will require several moves of water point locations supplemented by riding for animal control. If this management is not successful in achieving the desired utilization timing and patterns the authorized season of use would need shifting. Fall or winter grazing would require less management effort to be successful, but the springtime grazing would tend to leave plants in a more palatable condition for other animals.

III. Affected Environment

A detailed description of the affected environment is contained in the "Churchill Canyon-Horse Springs Allotment Management Plan". This portion of the plan is attached as "Appendix A". A summary of the information is:

--Churchill Canyon allotment --classified as an "I" (Improve) Allotment in the Reno MFP and the Walker RMP.

Primary vegetative types are:

- Low sagebrush (with some squirreltail and cheatgrass) -- 43%;
- Pinyon/Juniper (with very sparse understory of grasses and sagebrush) -- 33%.

About 24% of the public land is mid- or late-seral (13% mid-seral, 11% late) while 68% is early seral. Although trend was estimated to be slightly downward at the time of the 1986 allotment management plan development, a comparison of 1975, 1980, and 1990 trend photos shows a static to slightly upward trend on the sites not covered by trees.

--Horse Springs allotment --classified as a "C" (Custodial) allotment in the Lahontan RMP.

Primary vegetative types are:

- Low sagebrush (with squirreltail and cheatgrass) -- 45%
- Shadscale/greasewood (with some winterfat, ricegrass, and squirreltail) -- 38%

About 65% of the allotment is mid-seral and 35% early seral.

The allotments are essentially unfenced, and depended on herding of the sheep to keep the animals from straying onto adjacent allotments.

IV. Environmental Consequences

A. Proposed Action

Since the proposed change in type of use somewhat lessens the grazing during the critical growth period of key forage species and provides for use on stagnant plants there should be a positive impact to vegetation from the change in grazing period. However, the proposed action would seriously overallocate the forage resource to cattle and the grass component of the vegetation would deteriorate as a consequence of this overuse.

B. Alternatives

Proposed Alternative: The proposed change in type of use balances the resource with the proposed users, further lessens the grazing during the critical growth period of key forage species, and provides for use on grass plants which are presently quite stagnant, so there should be a positive impact to vegetation. These allotments have been historically grazed by sheep whose movements were controlled by herders, consequently existing use pattern mapping data cannot be used to predict potential cattle distribution. However, with the proposed grazing in the cool parts of the year, and with some hauling of water to portions of the allotments not presently well watered, the cattle should achieve a good distribution of grazing. And the cattle will be somewhat better at creating a more palatable condition on the grass plants while creating less competition with wintering deer because of lessened use on browse plants.

Some trampling of vegetation would occur near water troughs. The greatest impacts are expected near the wells as these will be used as semi-permanent water sources. However the troughs at the wells would be shut-off periodically and water hauled to more distant sites to achieve a grazing rotation.

The allotments contain several small meadow areas around springs both on private and on public land, with the largest being on private land. The proposed cattle use by itself would allow full regrowth of riparian vegetation following livestock removal, and so would allow excellent riparian recovery. But many of these areas are presently receiving use by horses in late summer/early fall which is slowing or preventing recovery of the riparian vegetation under the current accessibility of these sources. This situation will remain unchanged until horse access to the riparian areas is better controlled.

No action: Under the no action alternative a continued failure to use the allotments would result in the loss of the grazing privilege to Sario Livestock and other sheep operators would soon apply for the grazing use on the allotments. The advantage of this alternative would be that sheep movements could be more directly controlled by herders, reducing the chance of livestock drift outside the allotment and eliminating the need for construction of fence. The disadvantage is that the sheep are more directly competitive with deer for browse species on the mule deer winter range, and would not be expected to keep the grass species in as palatable condition as would the cattle.

Other Alternatives: The impacts of Alternatives C (modestly different stocking rate) and D (different use period) would be similar to the proposed alternative so long as the physiological needs of the plants were cared for.

V. Public Involvement

The following people and organizations were initially consulted during the development of this Environmental Assessment (EA):

Sario Livestock Company, c/o Beatrice Presto
Orville Clark
Nevada Department of Wildlife

Preparation and Review

Prepared by:

Earl M. Kinney
Supervisory Range Conservationist, Walker Resource Area

5/20/92
Date

Reviewed by:

Richard L. Jackson
Wild Horse and Burro Specialist

6-12-92
Date

Randy M. Trujillo
Wildlife Biologist

5/20/92
Date

Paul Lorenis
Environmental Coordinator

5-20-92
Date

VI. Draft Record of Decision / Finding of No Significant Impacts (FONSI)

A. Draft Record of Decision

Based on the Environmental Assessment (EA), the proposed action would damage the environment through overallocation of the resource. The Proposed Alternative, however should not result in any adverse impacts to the environment. Because of the lack of monitoring data relating to cattle distribution in these allotments, my decision is to approve the grazing change from sheep to cattle and issue a three-year permit based on the Proposed Alternative. At the end of three years an analysis of monitoring data will be performed and a decision on a long term permit will be rendered.

This proposed action (the Proposed Alternative) is in compliance with the Walker and Lahontan Resource Management Plans.

B. Draft FONSI

The EA adequately analyzes the environmental impacts of the proposed alternative. Since no significant impacts are expected as a result of implementing the decision, an EIS is not required.

Walker Resource Area Manager

Date

Mid Elevation North Pasture

Wabuska
6 miles

Low Elevation North Pasture

High Elevation North Pasture

Mid Elevation South Pasture

Low Elevation South Pasture

High Elevation South Pasture

BUREAU OF LAND MANAGEMENT
Carson City District, Nevada
CHURCHILL CANYON
OFFICIAL GRAZING ALLOTMENT MAP

- Allotment Boundary
- ∇ Public Land
- B.P. Other Private Land
- Other Public Land
- Operator owned Land
- Operator leased Land
- Exchange of Use Land



Herd Mgt. Area Boundary



Fencing required

←→ Pasture Boundary
02615090 Existing Project Number
①-⑦ Proposed Improvement



CONTOUR INTERVAL 40 FEET
DATUM IS MSL SEA LEVEL



CHURCHILL CANYON ALLOTMENT

APPENDIX A

Ecological condition of the public lands as determined by the inventory of 1980-82 was as follows:

Churchill Canyon Allotment

Excellent Condition	4,733 Acres
Good Condition	5,859 Acres
Poor Condition	30,149 Acres
Unclassified (Rock Outcrop, Barren, etc.)	3,286 Acres
Unclassified (Private Land)	4,319 Acres
Total	48,346 Acres

Horse Spring Allotment

Good Condition	400 Acres
Fair Condition	9,926 Acres
Poor Condition	4,622 Acres
Unclassified	276 Acres
Total	15,224 Acres

Five (5) photo trend plots (5' x 5') were established in Churchill Canyon Allotment in 1975. Since establishment, the plots have been photographed 5 times and recorded twice. Two (2) photo trend plots were established in Horse Spring Allotment in 1977. Since establishment, the plots have been photographed 4 times and recorded once. Analysis of the photos and recordings gives little indication of trend. It is estimated that trend is static for most of both allotments with slightly downward trend apparent in the most heavily grazed areas.

3. Climate

The weather station most representative for Horse Spring Allotment is at Lahontan Dam. However, due to higher elevations in the allotment, precipitation could be expected to be somewhat higher and temperatures slightly cooler. The average annual precipitation at Lahontan Dam is 4.22 inches. Average temperature is 51 degrees F. with a recorded low of 0 degrees F. and a high of 104 degrees F.

BLM's Churchill Canyon Watershed Study provides allotment specific climatic data for Churchill Canyon Allotment. Average annual precipitation (based on 15 years of record) ranges from 7" in low elevations to 12" in high elevations. Average annual temperature is 50 degrees F.

APPENDIX A

In both allotments, the heaviest amounts of precipitation occur during the winter months in the form of snow at the higher elevations and rain in the lower elevations. Prevailing wind direction is west-southwest.

4. Recreation - Minerals

Recreational activities consist of bird hunting, rock hunting, mine scavenging and sightseeing. Mineral explorations are evident within the allotments, however, current activity is minimal.

5. Wildlife

Horse Spring Allotment

Moderate populations of chukar and mourning dove are found throughout the allotment. Valley quail and mule deer are occasionally found in the higher western elevations abutting the Curtiss Wright lands. Riparian areas, which greatly influence non-game and game populations are extremely limited in the allotment.

Churchill Canyon Allotment

Chukar

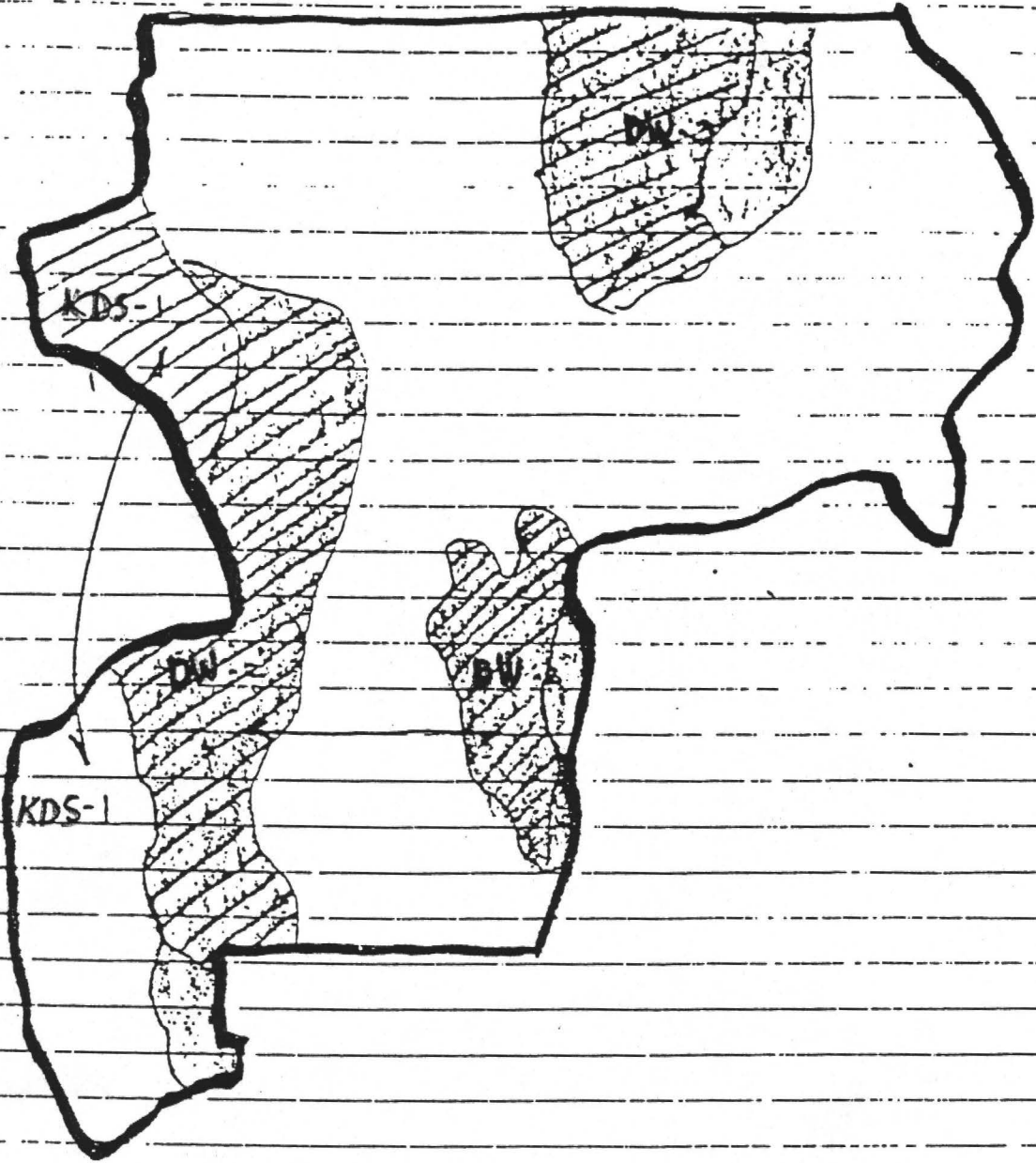
Chukar occur throughout the allotment exclusive of the dense pinyon-juniper zone. Habitats preferred by chukars have predominately cheatgrass understory vegetation.

Mule Deer

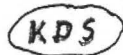
Deer summer and winter ranges are shown on ~~Attachment~~ ^{Page} No.V1.

APPENDIX A

Mule Deer Habitats and Conflict Areas



LEGEND



Key Deer Summer Range



Deer Winter Range



Areas where Competition Occurs with Deer