

11-5-92



United States Department of the Interior

TAKE PRIDE IN AMERICA

BUREAU OF LAND MANAGEMENT

Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

IN REPLY REFER TO:

4100

(NV-241.4)

November 5, 1992

Dear Interested Party:

Please find enclosed for your review the second draft allotment evaluation for the Paiute Meadows Allotment.

This draft takes into consideration the November 22, 1991 Final Allotment Evaluation, Final Full Force and Effect Decision, and Livestock Use Agreement. It also considers the appeals received, the negotiated agreement to withdraw the appeals, the appeal of the May 11, 1992 decision to vacate the November 22, 1991 decision, and appeals of the 1992 grazing authorizations.

This draft allotment evaluation is considered to be in compliance with the negotiated agreement to withdraw the appeals of the November 22, 1991 Full Force and Effect Decision approved by the Bureau of Land Management on February 6, 1992. The agreement stated that the consultation, coordination and cooperation process would be re-initiated. At this time I am requesting your input into the draft of this allotment evaluation. If you have any information or have any comments to be included in the draft, please provide them to me by **December 4, 1992**. If you have any data that should be included in the final presentation, analysis and interpretation for the conclusions reached regarding the effectiveness of livestock grazing management in the Paiute Meadows Allotment, I would prefer that the actual data be submitted along with a written report. If you have any other alternatives for the recommendations section that you would like me to consider and present to the other interested parties, please submit them along with your comments for inclusion in the final draft allotment evaluation.

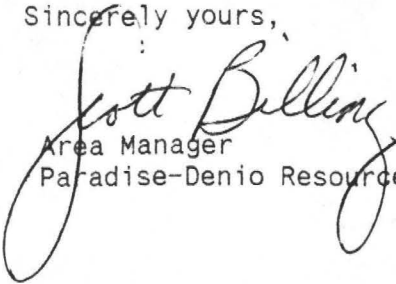
Due to the number of interested parties for this allotment evaluation, a consultation meeting is scheduled for **10:00 a.m. on December 17, 1992** at the Humboldt County Library in Winnemucca, to openly discuss the comments received.

A Selected Management Action will be developed in consultation with the Sonoma-Gerlach Resource Area prior to issuance of final decision and/or agreement.

The Soldier Meadows Draft Allotment Re-Evaluation should be available from the Sonoma-Gerlach Resource Area Manager shortly.

If you have any questions, please contact Bob Hopper of my staff.

Sincerely yours,


Area Manager
Paradise-Denio Resource Area

Enclosure

PAIUTE MEADOWS DRAFT
ALLOTMENT EVALUATION SUMMARY

I. INTRODUCTION

- A. Paiute Meadows Allotment (00057)
- B. Permittee - Daniel H. Russell
- C. Evaluation Period - 10/14/83 to present
- D. Selective Management Category I

II. INITIAL STOCKING LEVEL

A. Livestock Use

1. Grazing Preference (AUMs)

a.	Total Preference	- 9,932
b.	Suspended Preference	- 2,105
c.	Active Preference	- 7,827
d.	Not Scheduled (Nonuse)	- 3,477
e.	Scheduled Use	- 4,350

The authorized grazing use for the Paiute Meadows Allotment during 1990 was adjusted to 4,350 AUMs in conjunction with the transfer of grazing preference to Dan Russell dated 01/05/90.

2. Season of Use - 05/01-11/05

During 1990 the season of use was also adjusted in conjunction with the transfer of grazing preference to Dan Russell dated 01/05/90.

3. Kind and Class of Livestock - Cattle, Cow/Calf

4. Percent Federal - 97%

5. Grazing System

The Active Preference for the allotment was 7,827 AUMs from until 1990. The previous livestock operations did not utilize the full Active Preference on a regular basis during the evaluation period of 1983-1990. In 1990, in conjunction with the transfer of grazing preference to Dan Russell dated

01/05/90, the active preference was adjusted to 4350 AUMs, with 3477 AUMs held in non-use. The active grazing use was authorized north of Paiute Creek with herding practices designed to control drift of livestock south of Paiute Creek. For the years 1988-1989 cattle were also turned out north of Paiute Creek, controlling drift south of Paiute Creek. Prior to 1990 there has not been a stable livestock operation on this allotment since 1981. The grazing system has generally been to turn out in the spring and gather in the fall. Occasionally winter use would also be scheduled as allowed under the adjudication for this allotment. During the period 1983-1992 licensed livestock cattle use has varied as follows:

1983	No use
1984	6,283 AUMs
1985	4,896 AUMs
1986	No use
1987	No use
1988	1,143 AUMs
1989	2,342 AUMs
1990	4,350 AUMs
1991	4,350 AUMs
1992	4,350 AUMs

B. Wild Horse and Burro Use

The Black Rock East Herd Management Area (HMA) encompasses a portion of the allotment. The AML established by the Paradise-Denio Land Use Plan is 59 wild horses and 0 burros. In accordance with the June 1989 Interior Board of Land Appeals (IBLA) ruling, adjustments in wild horses will be made based on monitoring data, similar to adjustments for livestock.

C. Wildlife Use

1. Reasonable Numbers by big game species

<u>Mule Deer</u>	<u>Pronghorn Antelope</u>	<u>Bighorn Sheep</u>
1,838 AUMs	307 AUMs	180 AUMs

2. Wildlife Use Areas within the allotment:

Black Rock DY-13	2,134 acres
Black Rock DW-10	41,678 acres
Black Rock DS-6	45,856 acres
Black Rock PS-15	45,965 acres
Black Rock PY-14	35,274 acres
Leonard Creek PW-17 (Concentration)	2,043 acres
Paiute Creek PW-16 (Concentration)	31,466 acres
Black Rock BY-15 (Potential)	69,939 acres

These measurements correspond to the wildlife use areas as of the URA update of 1986-1988. Since then, in consultation with NDOW, the boundaries have been redrawn to reconcile discrepancies at the S-G/P-D Resource Area Boundary along the crest of the Black Rock Range.

3. Sage Grouse

Two sage grouse strutting grounds have been identified in the Paiute Meadows allotment, one at the south end and one at the east end. One additional strutting ground is identified adjacent to the allotment in the Bartlett Creek drainage. However, several brooding areas are identified scattered throughout the allotment which would indicate that additional strutting grounds are present. Two winter use areas for sage grouse have also been identified, one each near the Paiute Creek and Bartlett Creek drainages.

4. Bighorn Sheep

Eleven bighorn sheep were released into the Black Rock Range in February of 1992.

III. ALLOTMENT PROFILE

A. Description

The Paiute Meadows Allotment is located in the western portion of Humboldt County. The allotment is approximately 40 air miles south, southwest of Denio, Nevada and encompasses the east side of the Black Rock Range. The allotment ranges in elevation from 4,000' to 8,631'. The lower elevations are dominated by shadscale and greasewood vegetation types. As elevation increases vegetation changes to sagebrush; mountain browse; aspen and mountain mahogany vegetation types.

B. Acreage

1. Allotment Acres

a.	Public acres	177,096 acres
b.	Private acres	5,170 acres
c.	Allotment Total	182,266 acres

C. Objectives

1. Land Use Plan Objectives

a. Objective RM-1

To provide forage on a sustained yield basis through natural regeneration. Reverse downward deterioration of public grazing lands by improving 1,000,000 acres in poor condition to fair condition, and 400,000 acres in fair condition to good condition within 30 years.

b. Objective RM-2

Increase existing allocatable livestock forage by artificial methods from the present 103,721 AUMs to approximately 193,472 AUMs (89,751 AUM increase) within 30 years.

c. Objective WLA-1

Improve and maintain the condition of all the aquatic habitat of each stream, lake, or reservoir having the potential to support a sport fishery at a level conducive to the establishment and maintenance of a healthy fish community.

d. Objective WL-1

Improvement and maintenance of a sufficient quantity, quality, and diversity of habitat for all species of wildlife in the planning area.

e. Objective W-1

Preservation and improvement of quality water necessary to support current and future uses.

f. Objective W-2

Provision of adequate water to support public land uses.

g. Objective W-3

Reduction of soil loss and associated flood and sediment damage from public lands caused by accelerated erosion (man-induced) from wind and water.

h. Objective WH/B-1

Maintain wild horses and burros on public lands, where there were wild horses or burro use as of December 15, 1971, and maintain a natural ecological balance on the public lands.

2. Rangeland Program Summary Objectives

a. Livestock Management Objectives

- 1) Increase available forage for livestock to sustain an active preference of 7,827 AUMs.
- 2) Improve range condition from poor to fair on 161,158 acres and fair to good on 15,938 acres.
- 3) Develop a livestock grazing plan that will alleviate the following problems:
 - a) Inadequate livestock distribution.
 - b) Excessive stocking rate.
 - c) Improper season of use.
 - d) Livestock Drift

b. Wildlife Management Objectives

- 1) Manage rangeland habitat and forage condition to support reasonable numbers of wildlife demand as follows:

Deer	1,838 AUMs
Antelope	307 AUMs
Bighorn Sheep	180 AUMs
(when introduced)	
- 2) Improve condition of deteriorating upland meadows.
- 3) Protect sage grouse breeding complexes.
- 4) Improve and maintain the condition of aquatic habitat and riparian zones having the potential to support a sport fishery on Battle, Bartlett, and Paiute Creeks.

c. ~~Wild Horse Management Objective~~

- 1) ~~Graze 59 (708 AUMs) wild horses in the Black Rock Range - East Herd Use Area.~~

3. Allotment Objectives

add Soldier Meadows

The allotment specific objectives tie the Land Use Plan and RPS Objectives together into quantified objectives for this allotment.

a. Short Term

- 1) Utilization of key streambank riparian plant species shall not exceed 30% on Paiute, Battle and Bartlett Creeks. [1] *cowes too?*
- 2) Utilization of key plant species in wetland riparian habitats shall not exceed 50%. [1]
- 3) Utilization of key plant species in upland habitats shall not exceed 50%. [1]
- 4) Utilization of crested wheatgrass shall not exceed 50%. [1]

b. Long Term

- 1) Manage, maintain, or improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep. (WL-1, W-3, RPS b)
 - a) Improve to or maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent mule deer habitat condition.
 - b) Improve or maintain 45,965 acres in Black Rock PS-15 in good pronghorn habitat condition. Improve to or maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Paiute Creek PW-16 in fair or good pronghorn habitat condition.

- c) Improve to or maintain 69,939 acres in Black Rock BY-15 in good to excellent bighorn sheep habitat condition.
- 2) Manage, maintain, or improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with an initial stocking level of 7,827 AUMs. (RM-1 a, RPS a)
- 3) Improve range condition from poor to fair on 161,158 acres and from fair to good on 15,938 acres. [2] (RM-1, RM-2, RPS a.2)
- 4) Maintain and improve the free-roaming behavior of wild horses by protecting and enhancing their home ranges. (WH/B-1)
 - a) Manage, maintain, or improve public rangeland conditions to provide an initial level of 708 AUMs of forage on a sustained yield basis for 59 wild horses and maintain a thriving natural ecological balance. (WH/B-1, RPS c)
 - b) Maintain and improve wild horse habitat by assuring free access to water. (WH/B-1, RPS C.)
- 5) Improve to or maintain 86 acres of ceanothus habitat types in good condition. [2] (WL-1, RPS b.1)
- 6) Improve to or maintain 345 acres of mahogany habitat types in good condition. [2] (WL-1, RPS b.1)
- 7) Improve to or maintain 188 acres of aspen habitat types in good condition. [2] (WL-1, RPS b.1)
- 8) Improve to or maintain 529 acres of riparian and meadow habitat types in good condition. [2] (WL-1, W-3, RPS b 4.)
- 9) Improve to or maintain 15 acres of serviceberry, 82 acres of bitterbrush, 55 acres of ephedra, and 112 acres of winterfat vegetation types in good condition. [2]

- 10) Improve to and maintain stream habitat conditions from 43% on Paiute Creek, 58% on Battle Creek, and 50% on Bartlett Creek to an overall optimum of 60% or above. (WLA-1, RPS b.4)
 - a) Streambank cover 60% or above.
 - b) Streambank stability 60% or above.
 - c) Maximum summer water temperatures below 70° F.
 - d) Sedimentation below 10%.
- 11) Protect sage grouse strutting grounds and brooding areas. Maintain a minimum of 30% cover of sagebrush for nesting and winter use. (WL-1, RPS b.3)
- 12) Improve to and maintain the water quality of Paiute, Battle and Bartlett Creeks to the State criteria set for the following beneficial uses: livestock drinking water, cold water aquatic life, wading (water contact recreation), and wildlife propagation. (WL-1)
- 13) Improve to or maintain the 1000 acre Paiute seeding in good condition. (5-10 acres per AUM) (RM-2)
 - [1] The utilization levels will be used to evaluate and adjust management practices over a period of time.
 - [2] Ecological status will be used to redefine/quantify these objectives where applicable.

D. Key Species Monitored

1. Upland Habitat

<u>Symbol</u>	<u>Scientific Name</u>	<u>Common Name</u>
STTH2	<u>Stipa thurberiana</u>	Thurber's needlegrass
FEID	<u>Festuca idahoensis</u>	Idaho Fescue
STCO3	<u>Stipa columbiana</u>	Columbia needlegrass
POSE	<u>Poa secunda</u>	Sandberg's bluegrass
ORHY	<u>Oryzopsis hymenoides</u>	Indian ricegrass
ELCI2	<u>Elymus cinereus</u>	basin wildrye
AGSP	<u>Agropyron spicatum</u>	bluebunch wheatgrass
<u>Symbol</u>	<u>Scientific Name</u>	<u>Common Name</u>
ATCO	<u>Atriplex confertifolia</u>	shadscale
BASA3	<u>Balsamorhiza sagittata</u>	arrowleaf balsamroot
CRAC2	<u>Crepis acuminata</u>	tapertip hawksbeard
AMAL2	<u>Amelanchier alnifolia</u>	serviceberry
ARSP	<u>Artemisia spinescens</u>	bud sagebrush
PUTR2	<u>Purshia tridentata</u>	antelope bitterbrush
SYOR	<u>Symphoricarpos oreophilus</u>	snowberry
EULA5	<u>Eurotia lanata</u>	winterfat
LUPIN	<u>Lupinus</u>	lupine
SIHY	<u>Sitanion hystrix</u>	bottlebrush squirreltail
EPHED	<u>Ephedra</u>	ephedra

2. Riparian Habitat

<u>Symbol</u>	<u>Scientific Name</u>	<u>Common Name</u>
AGIN2	<u>Agropyron intermedium</u>	intermediate wheatgrass
CAREX	<u>Carex</u> spp.	sedge
POA++	<u>Poa</u> spp.	bluegrass
JUNCUS	<u>Juncus</u> spp.	rush
POTR5	<u>Populus tremuloides</u>	quaking aspen
ROWO	<u>Rosa woodsii</u>	woods rose
SALIX	<u>Salix</u> spp.	willow

IV. MANAGEMENT EVALUATION

A. Purpose

The purpose of this monitoring evaluation is to assess if current management practices are meeting the allotment specific and LUP objectives and to identify management changes needed to meet objectives.

B. Summary of Studies Data

1. Actual Use

a. Livestock

<u>Year</u>	<u>AUMs Used</u>
1983	0
1984	6,283
1985	4,896
1986	0
1987	0
1988	1,143
1989	2,342
1990	4,350

b. Wildlife (Existing Numbers)

The P-D EIS 1982 indicated the forage use was 1,869 AUMs for mule deer and 204 AUMs for pronghorn on this allotment for the period 1971-1975. The 1986 forage use was determined to be 2,552 AUMs for mule deer and 615 AUMs by pronghorn. Survey methods to determine forage use differed between the two time periods, so data is not comparable. In general population trends for big game animals has increased on the Black Rock Range in the last 10 years.

c. Wild Horses

1) Aerial Count Data

Records indicate that the Black Rock East HMA has had census or distribution flights conducted 17 times since 1969. These flights were either conducted by fixed wing or helicopter. Data collected for the period 1969-1992 for both the Black Rock Range East and West HMAs is also presented and summarized in Appendix 3. Total numbers for the East HMA are as follows:

<u>Year</u>	<u>Date</u>	<u># Horses</u>	<u>Aircraft*</u>
1969	March 12	18	Unspecified
1970	Nov. 10	73	Unspecified
1974	Oct. 7	123	FW (Super Cub)
1975	Feb. 10	92	H (Bell B-2)
1975	July 1	115	Unspecified
1977	Apr. 4-5	282	H (Bell B-1)
1979	Feb. 6	261	Unspecified
1979	Sept. 17	471	Unspecified
1980	July 24-25	46	H (Bell B-1)
1986	June 12	1075	H (Bell B-1)
1987	Oct. 6,8	666	H (Bell B-1)
1989	March 2	141	FW (Cessna 206)
1989	July 17-18	651	H (Bell Soloy)
1990	Feb. 12-14	508	H (Bell Soloy)
1991	July 26	558	FW (Maule 5)
1991	Dec. 26-28	733	H (Hughes 500-D)
1992	March 10	255	FW (Cessna 210)
1992	May 23	525	FW (Maule 5)
1992	July 22	299	FW (Maule 5)

* FW = fixed wing; H = helicopter

migration

The current population of wild horses within the Black Rock Range East HMA is 262+ animals. These horses are distributed from the north end above Rough Canyon to the south end below Emigrant Trail.

The 1987, 1989, 1990, 1991 and 1992 distribution/census indicated wild horses were found north and south of Paiute Creek as follows:

<u>Census Date</u>	<u>Paiute South</u>	<u>Paiute North</u>	<u>Total</u>
1987 (October 6, 7)	448	218	666
1989 (July 17, 18)	408	243	651
1990 (February 12-14)	264	244	508
1991 (December 28)	349	180	529 *
1992 (May 23)	279	163	442
1992 (July 22)	160	97	257**

Soldiers?

* an additional 173 adults were counted outside the HMA boundary to the east

** includes 5 animals found just outside the HMA boundary but does not include foals

2) Wild Horse Gathers

Four wild horse gathers have been completed on the Black Rock East and West HMA's since the winter of 1979-1980. The number of wild horses removed during each gather is as follows:

<u>Year</u>	<u>Black Rock East</u>	<u>Black Rock West</u>	<u>Total</u>
1979/1980	81	944	1,025
1986	27	166	193
1988	445*	259	704
1992**	489	0	489

* 245 horses were removed from south of Paiute Creek
200 horses were removed from north of Paiute Creek

** 137 wild horses were released back into the HMA following the gather in accordance with Bureau policy on unadoptable animals. Approximately 60 wild horses identified within the HMA were never gathered, leaving the total in the HMA following the gather at approximately 200.

3) Actual Use

Forage (AUMs) consumed by wild horses in the Black Rock East (HMA) for the years 1987-1990 indicates more forage was consumed south of Paiute Creek.

Black Rock East (HMA)--Forage Consumption

Year	South of Paiute Creek		North of Paiute Creek		Total # in HMA	Annual Total
	# of Wild Horses	Actual Use (AUMS)	# of Wild Horses	Actual Use (AUMS)		
1987	448	4,928	218	2,398	7,326	
1987 ¹	203	203	18	18	221	7,547
1988	203	2,436	18	216	2,652	2,652
1989	203	1,328	18	118	1,446	
1989 ²	408	2,227	243	1,326	3,553	4,999
1990	408	604	243	360	964	
1990 ³	264	2,778	244	2,567	5,345	6,309
1991	264	1,848	244	1,708	3,556	
1991 ⁴	369	1,845	20	100	1,945	5,501
1992 ⁵	349	698	180	360	1,058	
1992 ⁶	160	480	91	273	753	
1992 ⁷	279	558	163	326	884	
1992 ⁸	160	320	97	194	514	3,209

2. Climatological Data

Climatological Data (NOAA 1983-1991):

Two NOAA stations are presented due to their locations in relation to the allotment. The Leonard Creek Station is approximately 15 air miles NW of Paiute Meadows Ranch, and the Gerlach Station is approximately 36 air miles SW of Paiute Meadows Ranch. 1986 was the first year data was collected at Gerlach.

¹ Horse numbers change 12/01/87 due to gather 12/87 to 01/88.

² Horse numbers increase to reflect census on 7/18/89.

³ Horse numbers decrease to reflect census on 2/14/90.

⁴ Horse numbers increase to reflect census on July 26, 1991. In addition, 213 horses were counted along the common boundary with the West HMA. These horses may have utilized portions of the south and north areas in the East HMA.

⁵ Horse numbers adjust to reflect census on 12/28/91. In addition, 173 animals were counted outside the HMA boundary to the east which may have been utilizing portions of the lower elevations of the HMA.

⁶ Horse numbers decrease following gather of February 1992, and to reflect census on March 10, 1992.

⁷ Horse numbers increase to reflect census on May 23, 1992.

⁸ Horse numbers adjust to reflect census on July 22, 1992. This represents the most current data on population distribution.

Leonard Creek Ranch Station
Precipitation (inches)

<u>Year</u>	<u>Growing Season</u>	<u>Annual Total</u>
1983	6.94 M	17.24 M
1984	3.00 M	8.50 M
1985	2.48	6.82 M
1986	4.85 M	9.60 M
1987	5.42	9.30
1988	2.94	8.11
1989	3.98	7.48
1990	4.67	7.19
1991	4.70	8.68

Nine year annual average = 9.21 M

Gerlach Station
Precipitation in Inches

<u>Year</u>	<u>Growing Season</u>	<u>Annual Total</u>
1986	3.71	7.20
1987	6.74	8.82
1988	2.72	6.68 M
1989	3.80	6.69
1990	6.28	8.38 M
1991	4.63	8.47

Six year annual average = 7.70 M

Growing season March - August
M = Partial or incomplete data

It takes approximately five months to receive the precipitation data from NOAA following the data collection, therefore 1992 data is not available at this time.

A Remote Automated Weather Systems (RAWS) meteorological station (Dry Canyon) was installed in June of 1986 approximately nine miles north of Soldier Meadows Ranch on the west side of the Black Rock Range at an elevation of 4,900'. This station is approximately ten air miles from the Paiute Meadows Allotment.

Dry Canyon RAWS Data
Precipitation (Inches)

<u>Year</u>	<u>Annual Total</u>
1986	1.2 M
1987	8.7
1988	5.8
1989	5.6
1990	3.9

M = partial data

3. Utilization Data

a. Use Pattern Mapping (UPM)

Use Pattern Mapping (UPM) has been conducted for four (4) years over the period 1987 through 1990. A partial UPM was completed in April of 1991. In 1991 and 1992 utilization data at the four key areas and additional utilization study sites was collected and is summarized in the next section.

In general, UPM data indicates that the largest area containing the highest levels of utilization was consistently occurred south of Paiute Creek.

The UPMs are on file at the Winnemucca Office for reference.

For the years 1988 through 1991, cattle were authorized north of Paiute Creek only with some drift south of Paiute Creek. In 1992 data has only been collected through mid-July, with the current use extending into November 1992. Monitoring data is generally collected following removal of the livestock from the allotment, prior to the winter use period by wild horses and wildlife.

In these summaries, percent of area is the percent of the area that was actually UPMd, not the percent of the whole allotment.

1) North of Paiute Creek

a) 1987

UPM completed in Fall 1987 to map Spring/Summer use. Wild horse use only.

Heavy grazing use covered approximately 2% of the north area and was associated with the lower end of Paiute Creek.

- b) 1988
UPM completed in Fall 1988 to map Spring/Summer use. Wild horse use only.

Heavy grazing use covered approximately 1% of the north area and was indicated near Burnt Springs and Butte Creek.

A small area of moderate use was recorded along Bartlett Creek. Battle Creek was not mapped in 1988.

- c) 1988/1989
UPM completed Spring 1989 to map year-round use by wild horses and winter use by cattle.

Heavy grazing use covered approximately 1% of the north area and was indicated near the upper end of Paiute Creek. Battle Creek and Bartlett Creeks were not mapped.

- d) 1989
UPM completed Fall 1989 to map Spring/Summer use. Wild horse use only.

Severe grazing use covered less than 1% of the north area. No heavy use was recorded. Slight to light utilization of streambank riparian vegetation occurred along Paiute and Battle Creeks. Bartlett Creek was not mapped in 1989.

- e) 1989/1990
UPM completed Spring 1990 to map year-round use by wild horses and winter use by cattle.

Heavy grazing use covered approximately 19% of the north area. Severe grazing use occurred on less than 1/100 of a percent of the allotment.

Slight to light utilization of streambank riparian vegetation occurred along Paiute Creek. Light use was recorded along Bartlett Creek and light to moderate use along Battle Creek.

- f) 1990
UPM completed in Fall 1990 to map Spring/Summer use. Wild horse and cattle use.

Heavy grazing use covered approximately 49% of the north area. Severe grazing use covered less than 1% of the north area. Heavy use of streambank riparian vegetation occurred along the north and south forks of Battle Creek. Severe grazing use of streambank riparian vegetation occurred along Paiute Creek, Battle Creek and Bartlett Creek.

2) South of Paiute Creek

a) 1987

UPM completed in Fall 1987 to map Spring/Summer use. Wild horse use only.

Heavy grazing use covered approximately 10% of the south area and was indicated primarily near developed water sources to include Opal Spring and Sheep Spring.

Severe grazing use covered approximately 11% of the south area and was indicated primarily near Indian and Pidgeon Springs.

b) 1988

UPM completed in Fall 1988 to map Spring/Summer use. Wild horse use only.

Heavy grazing use covered approximately 2% of the south area.

Severe use covered approximately 1% of the south area primarily near the seeding.

c) 1989

UPM completed in Spring 1989 to map year-round use. Wild horse use only.

Heavy use covered approximately 12% of the south area.

Severe use covered approximately 16% of the south area and was indicated near Indian Cave and Pidgeon Springs.

d) 1989

UPM completed Fall 1989 to map Spring/Summer use. Wild horse use only.

Heavy grazing use occurred on approximately 2% of the south area and was primarily near Horse, Cherry and Pidgeon Springs.

Severe use was not recorded.

- e) 1989/1990
UPM completed Spring 1990 to map year-round use.
Wild horse use only.

Heavy grazing use covered approximately 39% of the south area. The heavy use was located in three different areas. The first area was around the Paiute seeding, the second was west of Elephant Mountain, and the last area was south of Pidgeon Springs.

Severe grazing use covered approximately 18% of the south area. The severe use occurred between Cain Springs and Pidgeon Springs.

- f) 1990
UPM completed Fall 1990 to map Spring/Summer use.
Wild horse use only.

Heavy grazing use covered approximately 42% of the south area. Severe grazing use covered approximately 16% of the south area primarily on the Paiute Seeding. Severe grazing use was also recorded near some water sources to include Trough Spring, Cancer Spring, Indian Spring, White Rock Spring.

3) Paiute Seeding--South Paiute

The following information is a description of the grazing use patterns by year and use periods for the Paiute Seeding, which was generally UPMd concurrently with the South Paiute area.

- a) 1987
Heavy grazing use covered approximately 100% of the seeded area.

- b) 1988
Heavy grazing use covered approximately 62% of the seeded area.

Severe grazing use covered approximately 38% of the seeded area.

- c) 1989
Severe grazing use covered approximately 100% of the seeded area.

b. Utilization Data

Four key areas were established during the spring of 1990.

<u>Key Area</u>	<u>Location</u>
Big Mountain (057-01)	T.39N., R.26E., Sec. 6, SE $\frac{1}{4}$, South of Paiute Creek
Battle Ck. #1 (057-02)	T.41N., R.26E., Sec. 25, NW $\frac{1}{4}$, North of Paiute Creek
Battle Ck. #2 (057-03)	T.41N., R.26E., Sec. 13, SE $\frac{1}{4}$, North of Paiute Creek
Emigrant (057-04)	T.38N., R.27E., Sec. 30, NE $\frac{1}{4}$, South of Paiute Creek

A total of 30 utilization cages were established, including those at the four key areas. Utilization data as per the Key Forage Plant Method has been collected at the study sites and/or the key areas since 1990. The following table summarizes the utilization data at the study sites. The summary is broken down into the general locations of the cages as well.

South of Paiute Creek--Low elevation:

nc = not checked

Utilization Level

<u>Cage No.</u>	1990				1992	
	<u>Summer</u>	<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>	<u>Summer</u>
1	nc	nc	nc	slight	slight	nc
2	nc	nc	nc	heavy	heavy	no use
3 (057-04)	light	heavy	heavy	moderate	heavy	slight
4	nc	nc	nc	moderate	light	slight
5	nc	nc	nc	slight	light	no use
6	nc	nc	nc	light	slight	moderate
7	nc	nc	nc	no use	no use	nc
8	nc	nc	nc	light	light	nc
9	nc	nc	nc	nc	nc	nc

South of Paiute Creek--High Elevation:
Utilization Level

<u>Cage No.</u>	<u>1990 Summer</u>	<u>Fall</u>	<u>1991 Spring</u>	<u>Fall</u>	<u>1992 Spring</u>	<u>Summer</u>
10	nc	nc	nc	light	moderate	light
11	nc	nc	nc	slight	light	no use
12	nc	nc	nc	light	light	light
13	nc	nc	nc	light	moderate	no use
14 (057-01)	slight	moderate	moderate	nc	moderate	light
15	nc	nc	nc	nc	moderate	moderate

North of Paiute Creek -- High Elevation:

Utilization Level						
<u>Cage No.</u>	<u>1990 Summer</u>	<u>Fall</u>	<u>1991 Spring</u>	<u>Fall</u>	<u>1992 Spring</u>	<u>Summer</u>
16	nc	nc	nc	heavy	heavy	slight
17	nc	nc	nc	moderate	heavy	slight
18	nc	nc	nc	nc	nc	moderate
19	nc	nc	nc	severe	severe	heavy
20	nc	nc	nc	nc	heavy	moderate
21	nc	nc	nc	light	heavy	slight
22	nc	nc	nc	moderate	heavy	light
23	nc	nc	nc	slight	light	slight
24 (057-02)	light	light	moderate	light	heavy	moderate
25	nc	nc	nc	nc	nc	nc
26 (057-03)	slight	moderate	moderate	heavy	nc	slight
27	nc	nc	nc	nc	nc	light
28	nc	nc	nc	nc	moderate	heavy
29	nc	nc	nc	nc	moderate	heavy
30	nc	nc	nc	nc	nc	no use

nc = not checked due to access restrictions or time/manpower restraints

Utilization levels =

no use	
slight	(1-20%)
light	(21-40%)
moderate	(41-60%)
heavy	(61-80%)
severe	(81-100%)

Utilization levels measured in the spring are based on the previous grazing year's entire growth and utilization. It does not reflect utilization on the current year's growth of vegetation. Spring monitoring was completed prior to or just after livestock turnout on May 01. Summer or fall utilization is based on the amount of forage utilized to date of the current year's growth. Monitoring in the fall is conducted following removal of the livestock from the allotment.

All four of the key areas are located in upland sites. These key areas were selected in coordination with affected interests in a field tour conducted in the spring of 1990. No key areas were selected in riparian habitats at that time. The existing key areas indicate that use levels change dramatically from year to year and season to season in the uplands.

- c. The Quadrat Frequency Trend study method was initiated at the four key areas during the spring of 1990. Additional data is needed to quantify a change or trend at each key area.

Trend data was collected in 1979 at the Paiute Seeding Exclosure. No further data has been collected at this location. More data is needed to quantify a change or trend.

The Paradise-Denio EIS identifies observed trend as downward. (Refer to PD EIS Appendix G, Table 6-1 and Chapter II, 209 PD EIS)

5. Range Survey Data

- a. A phase one watershed inventory was conducted in portions of the Paradise-Denio Resource Area from 1971-1974. Livestock forage condition was determined based upon data extrapolation and computations from this inventory. This data extrapolation resulted in the following condition classifications for the Paiute Meadows Allotment:

<u>Good</u>	<u>Fair</u>	<u>Poor</u>
0	15,938	161,158

Appendix G, Pg-28 of the P-D EIS provides more discussion on origin of livestock forage condition.

- b. In 1978 a range survey was conducted using the Ocular Reconnaissance Method to provide baseline data for analysis purposes in the Paradise-Denio EIS. The survey, along with suitability criteria indicated that 1,403 AUMs were available in 1978 for livestock and wild horse use in the Paiute Meadows allotment.

6. Ecological Status Inventory

The order 3 soil survey field work has been completed on this allotment. The Ecological Status Inventory has not been completed.

Ecological status was collected at four key areas during the spring 1990. The ecological status is as follows:

<u>Key Area</u>	<u>Ecological Status</u>
Big Mountain (057-01)	Mid Seral (39%)
Battle Ck. #1 (057-02)	Mid Seral (42%)
Battle Ck. #2 (057-03)	Mid Seral (33%)
Emigrant (057-04)	Mid Seral (49%)

7. Wildlife Habitat Inventory

- a. Priority Species: Mule deer, sage grouse, pronghorn, bighorn sheep and trout.
- b. Paiute, Battle and Bartlett Creeks are designated as potential recovery habitat for the threatened Lahontan cutthroat trout.
- c. Other species: chukar, Hungarian partridge and California quail.
- d. Special habitat features
- 1) A special habitat features inventory was conducted in 1977 and 1978. This inventory identified the location and acres of special habitats, listed observed plant and wildlife species, and documented ocular observations of the condition and utilization of these habitats. This information was analyzed in the Paradise-Denio EIS.

- 2) Special Habitat acreage calculations are approximate figures that will be field checked as time permits.

Riparian habitat	529 acres
Aspen	108 acres
Curlleaf mountain mahogany	345 acres
Ceanothus	86 acres
Serviceberry	15 acres
Bitterbrush	82 acres
Winterfat	112 acres
Ephedra	55 acres

e. Habitat Evaluation

A habitat evaluation has not been conducted on this allotment.

8. Riparian/Fisheries Habitat

a. Stream Survey

Paiute Creek was surveyed in 1976 at 51% of optimum and in 1988 at 43%. Battle Creek was also surveyed in 1976 and was rated at 59% of optimum; Battle Creek rated 58% in 1988. Bartlett Creek was 54% of optimum when surveyed in 1976 and 50% of optimum in 1988.

Summaries of the stream survey findings follow:

1) Bartlett Creek

The pool-riffle ratio index was 78% of optimum in 1976, with riffles being dominant. Quality pools were seldom observed. In 1988, pools were even scarcer, with a pool-riffle ratio index of 12%, and no quality pools.

The stream bottom had an improved proportion of desirable materials: 64% in 1976 versus 76% in 1988. There was also a slight reduction in sedimentation: 22% sand and silt in 1976 versus 18% in 1988. However, there was also a shift in the proportions of the coarser rock substrate materials, resulting in a reduction of spawning gravel from 48% to 26%.

Bank cover and stability were 50% and 61% of optimum, respectively, in 1976. This had improved to 76% and 86% in 1988. The degree of ungulate damage, however, had increased from 50% in 1976 to 86% in 1988.

On the portions of Bartlett Creek which were surveyed in 1976, 56% was shaded. This percentage was not determined during the 1988 stream survey.

In 1976, the water was relatively clear at the upper stations, but became increasingly turbid downstream (30 Jackson Turbidity Units (JTUs) at S-1). Turbidity was not measured in 1988.

In 1989, water quality was measured by NDOW, but was taken at one point in time and will not be interpreted for this report.

The habitat was 54% of optimum in 1976, with the main limiting factors being the lack of quality pools and the lack of bank cover. In 1988, the habitat condition index was 50%. While bank cover had improved considerably, the continued occurrence of high levels of damage to the streambanks had prevented channel evolution processes from generating pool structure.

Although a BLM stream survey was not conducted in 1992, visual observations and monitoring of key streambank riparian plant species were conducted in 1991 and 1992 by the resource area fishery biologist. Results of this data indicated moderate to heavy livestock use on key riparian plants and woody species. Several locations along Bartlett Creek are showing heavy trailing which is contributing significant amounts of sediment to the stream. Streambanks are not recovering as they should be due to continuous livestock use in the stream/riparian zone. Heavy to severe use on young aspen trees has also been observed. These young aspen are critical in providing streambank stability and cover.

2) Battle Creek

The stream survey of Battle Creek in 1976 found that pools constituted 39% of the stream (pool/riffle ratio index equal to 78%), but also found that few of these were quality pools. This dropped pool quality index for the stream to 41% of optimum. In 1988, only 24% of the stream was in pools, and the pool quality index had dropped to 35%.

The stream bottom materials of Battle Creek in 1976 included 59% desirable materials and 28% sediments. Spawning gravel made up 37% of the bottom materials. In 1988 the bottom materials were 89% desirable materials and 15% sediments. Spawning gravel had decreased to 25% of the bottom materials.

Bank cover and stability of Battle Creek were 52% and 64% of optimum, respectively, in 1976. Ungulate damage ranged from 10% to 50%. In 1988, bank cover was 50% and bank stability was 71%. Bank damage was rated at 91%. The long periods of livestock use on this portion of the allotment have contributed to the increased bank damage that was observed between 1976 and 1988.

Only 34% of the stream was shaded in 1976. The peak water temperature recorded during the two day survey in July was 64°F. Neither the percentage shaded, nor water temperature were determined in 1988. During the summer of 1990, a recording thermograph placed in Battle Creek indicated a peak temperature of 67.8°F.

The habitat in Battle Creek was 59% of optimum in 1976. In 1988, the habitat condition index was 58%. The lack of pools and pool quality were the chief limiting factors. The bank damage has prevented channel evolution from generating and maintaining increased pool and quality pool structure. The time spent along the creek is a function of the high numbers of large herbivores present on the allotment. This is due mostly to cattle use season long (May 01 through November 01) and wild horse use year long. The wild horse population on the Black Rock Range has increased to levels where they have impacted the vegetation resources in their preferred use areas, including riparian communities.

Data collected in the 1992 NDOW stream survey conducted on the North Fork of Battle Creek is not available at this time. However, visual observations and key forage plant monitoring by the area fishery biologist indicate that stream and riparian conditions are declining. The sixth year of drought, combined with use by livestock and wild horses in excess of the carrying capacity, are impeding any progress towards recovery of the North Fork of Battle Creek. although adequate water flows are present year round, streambanks are being degraded faster than they can be recovered. Very few quality pools exist due to excessive sediment loads.

3) Paiute Creek

The pool-riffle ratio index of Paiute Creek was near the optimum at 92%, but the small extent of quality pools reduced the pool quality rating to 26% of optimum in 1976. By the time of the 1988 stream survey, the proportion of the stream in pools at the five stations surveyed that year had decreased to 0%.

The stream bottom of Paiute Creek in 1976 was 41% desirable materials and 30% sediments. Spawning gravel made up 36% of the stream bottom. In 1988, desirable materials comprised 98% of the bottom materials. Sedimentation was 9%. Spawning gravel were reduced to 31%.

Much of the banks were deeply eroded, reflected as ungulate damage ratings of 50% to 90% throughout the four stations surveyed in 1976. Bank cover and stability were 39% and 58%, respectively. In 1988, bank damage was rated at 100%; severe bank erosion and accelerated erosion and sloughing occurred over virtually all of the surveyed portions of the stream channel. Bank cover and stability were 53% and 63%.

Only 37% of the stream was shaded in 1976. The creek averaged 0.16 feet deep, with a flow of 1.03 cfs. These factors resulted in a maximum water temperature of 80°F, exceeding water quality standards. The percentage shading and water temperature were not determined in 1988, however the depth averaged 0.20 feet and, as stated above, bank cover still did not meet the objective.

In 1976, the habitat condition index for Paiute Creek was 50%. Warm water temperatures, a scarcity of quality pools, and poor benthic composition were the primary limiting factors. The habitat condition declined to 43% of optimum in 1988 without livestock use in 1986 and 1987. The lack of pools and the degree of damage to the streambanks, which counteracts channel development toward providing better pool structure, were still the most critical factors in the poor habitat conditions. This is due to the growth of the wild horse population of the Black Rock Range and their use of Paiute Creek in the absence of livestock at the time. Current impacts to the stream have been documented to be attributable primarily to the livestock use combined with the remaining wild horse use. The current riparian conflicts on Battle and Bartlett Creeks tend to be the result of the livestock management on those portions of the allotment. In addition, there has been a significant increase in

wild horse use of the Battle Creek and Bartlett Creek drainages in recent years. More wild horses were observed in the North Fork of Battle Creek in 1992 during collection of monitoring data than in 1991, even following a wild horse gather in 1992. Seasonal use of these drainages by wild horses which migrate between Black Rock Range West and East HMAs also contributes to excessive use during the hotter parts of the year.

Paiute Meadows Allotment Stream Survey Data

Paiute Creek Stream Survey Data

Date of Survey	Survey Agency	Percent of Optimum	Percent Sedimentation (% Opt.)	Bank Cover (% Opt.)	Bank Stability (% Opt.)	Water Temp. (°F)
(Objective Levels)		>60	<10	>60	>60	<70
<u>Paiute Creek</u> (all stations)						
8/3/76	BLM	51	30	58	58	80
7/13/88	BLM	43	9	63	63	--

Battle Creek Stream Survey Data

Date of Survey	Survey Agency	Percent of Optimum	Percent Sedimentation (% Opt.)	Bank Cover (% Opt.)	Bank Stability (% Opt.)	Water Temp. (°F)
(Objective Levels)		>60	<10	>60	>60	<70
<u>Battle Creek</u> (all stations)						
8/4/76	BLM	59	28	52	64	64
7/18/88	BLM	58	15	50	71	--

Bartlett Creek Stream Survey Data

Date of Survey	Survey Agency	Percent of Optimum	Percent Sedimentation (% Opt.)	Bank Cover (% Opt.)	Bank Stability (% Opt.)	Water Temp. (°F)
(Objective Levels)		>60	<10	>60	>60	<70
<u>Bartlett Creek (all stations)</u>						
8/2/76	BLM	54	22	50	61	63
7/11/88	BLM	50	18	76	86	--

9. Wild Horse and Burro Habitat

Population Data

Utilization data for the Black Rock East HMA as indicated by census data shows that forage utilization and populations are consistently greater south of Paiute Creek compared to north of Paiute Creek. For the period 1987 through July 1992 forage consumed by horses south of Paiute Creek was 20,273 AUMs or 3,379 AUMs avg/year with only a portion of 1992 concluded, and north of Paiute Creek 9,964 or 1,661 AUMs avg/year for a total average of 5040 AUMs.

UPM data collected from 1987 to 1990 indicated that the highest levels of utilization occurred south of Paiute Creek. Use patterns indicate that the southeast portion of the HMA from Lone Spring and White Rock Spring south is the recognized winter use area. Horses are scattered over the allotment the remainder of the year.

Utilization data collected at utilization study sites and key areas throughout the allotment indicate seasonal use patterns by wild horses vary depending upon the climate conditions. In the winter of 1991 to 1992, conditions were dry and mild. Wild horses were gathered from the lower elevations in February, which did reduce somewhat the amount of use in AUMs made through the winter. However, concentrations of animals were still greatest in the lower elevations of the southern half of the allotment and HMA. The condition of the wild horses as they were removed varied from quite poor to healthy. The utilization levels and patterns exhibited in 1991-1992 closely resembled those patterns and levels documented in the UPMs of 1987-1990. Some areas did receive much lighter use due to more open conditions over the winter, allowing the wild horses to disperse to the higher elevations throughout the winter months, and earlier in the spring than was apparent in past years.

Census data for 1987 through 1992 indicates an irregular population as well as distribution pattern both in the Black Rock East HMA and south and north of Paiute Creek. General distribution in December 1991 placed 34% of the population north of Paiute Creek, and 66% south of Paiute Creek, demonstrating the key winter area of use is south of Paiute Creek. Distribution of wild horses following the 1992 gather has been erratic due to nearly immediate migration of animals from the West HMA into the East HMA following the conclusion of the gather. The July 1992 distribution flight indicates that at the present time there are 267 adult wild horses within the Black Rock Range East HMA. Of this population, 97 animals or 36% are north of Paiute Creek, and 170 or 64% are south of Paiute Creek.

Data indicates that in 1980 the wild horse population on the HMA as observed by census was 46 animals. This census was conducted immediately following a wild horse removal from the East HMA. The 1986 census indicated a population increase to 1,075 animals. The number indicates a high probability of wild horses moving within the Black Rock Range between the West and East HMAs as this total far exceeds what would be expected from an isolated population. It is also possible that horses are migrating into the HMA from other HMAs. In 1985 and 1986 no livestock were turned out on the allotment providing an opportunity for horses to migrate into unused areas.

Census data does indicate as numbers of horses increase, the population expands further out into the Black Rock West and East HMAs. Wild horses have moved east of the Black Rock East HMA and south out of both HMAs. The wild horses of both HMAs have expanded their range north beyond Rough Canyon and Summit Lake Mountain, and as far north as the Mahogany Creek Enclosure and Dry Lake. This expansion has occurred with the presence of livestock in the north half of the Paiute Meadows allotment.

10. Water Quality

Available data - Lab water quality analysis was done in 1976 and 1979 on Bartlett Creek and Paiute Creek. Stream survey water quality analysis with a Hach Kit was done in 1976 on Battle, Bartlett, and Paiute Creeks.

Battle Creek - Temperatures are consistently too high for cold water aquatic life and fecal coliform and turbidity may also be problems, but more data is needed. TDS was low (1976).

This data predates the evaluation period and the current management applied to this allotment. Therefore, it is not indicative of the present status of the water quality within the three streams.

11. Other Information

Normal maintenance on most range improvements has not been conducted, leaving them in poor condition. The majority of the developed water sources are in need of reconstruction. There are no boundary fences on the allotment with the exception of the northern boundary between Paiute Meadows and the Pine Forest allotment along Bartlett Creek. The Paiute Seeding fence is in need of total reconstruction or complete abandonment with removal of materials. Several drift fences constructed over the years are of limited effectiveness due to maintenance and traffic.

The Rough Canyon Wildlife Exclosure located between Rough Canyon and the North Fork of Battle Creek has suffered from several factors. Evaluation of the effectiveness of this exclosure should be completed. A developed reservoir exists at the southwest end of the exclosure, just outside the fence which provides water to wild horses, wildlife and livestock. Pressure from grazing animals upon the fence as the result of this proximity is great. Modifications should be made in the design of this exclosure in order to accomplish its purpose and objectives. Elimination of the reservoir should be considered, to allow the moisture that is currently trapped outside the exclosure to filter through the meadows complex and enhance its recovery. Currently this reservoir only holds water into late June. In addition, cattleguards should be placed at both ends of the exclosure on the main road to eliminate the need to open gates for vehicular traffic. Fence maintenance has been completed annually by the BLM however, the gates are continually left open due to high traffic, allowing livestock and wild horses access to the meadow.

V. CONCLUSIONS

A. Short Term Objectives

Refer to Section III C.3 for Short and Long Term Objectives.

1. Use pattern mapping and utilization studies completed during 1990-1992 indicate this objective is not being met on Paiute Creek, Battle and Bartlett Creeks.
2. Use pattern mapping and utilization studies completed during 1990-1992 indicate this objective is not being met.
3. Use pattern mapping collected from 1987-1990, and utilization studies conducted from 1990-1992 indicate this objective is not being met. During 1987-1989, the highest levels of utilization have been south of Paiute Creek, which has been made by wild horses; however, use greater than 50% has occurred north of Paiute Creek in varying areas since 1989.

4. Use pattern mapping indicates this objective is not being met for all years 1987, 1988, 1989 and 1990. Utilization studies in 1991 and 1992 confirm that this objective was not met in those years.

B. Long Term Objectives

1. Baseline and ESI information has not been collected to evaluate progress in attaining this objective. Current demand for mule deer is 2,552 AUMs, 615 AUMs for antelope and 0 AUMs for bighorn. Existing populations are above reasonable numbers for mule deer and pronghorn antelope.
2. Baseline data has been collected during the initial year of establishment during 1990; however, additional data is needed to evaluate the progress towards achievement of this objective. Analysis of the short-term upland habitat objectives primarily south of Paiute Creek is an indication that progress towards achievement of this objective is not being made in this area of the allotment.
3. Baseline and ESI data has not been collected to evaluate the progress towards achievement of this objective. This objective will be redefined/quantified with ecological status condition as information becomes available.
4.
 - a. Baseline data has been collected during the initial year of establishment during 1990, however additional data is needed to evaluate the progress towards achievement of this objective, analysis of the short-term upland habitat objectives primarily south of Paiute Creek indicates utilization in the uplands is not being met. Use Pattern Mapping data indicates that the country south of Paiute Creek has received the highest levels of utilization.
 - b. This objective is being met.
5. Baseline and ESI information has not been collected to evaluate the progress towards achievement of good condition in ceanothus vegetation types.
6. Baseline and ESI information has not been collected to evaluate the progress towards achievement of good condition in mahogany vegetation types.
7. Baseline and ESI information has not been collected to evaluate the progress towards achievement of good condition in aspen vegetation types.
8. Baseline and ESI information has not been collected to evaluate the achievement of this objective. Analysis of short term objectives is an indication that progress is not occurring on 52 acres of riparian and meadow habitat but may be occurring on the other 477 acres of riparian and meadow habitats.

9. Baseline and ESI information has not been collected to evaluate the achievement of good condition in serviceberry, bitterbrush, ephedra and winterfat vegetation types. Monitoring of age and form class structure in 1990 was satisfactory.
10. Comparison of stream survey data from 1976 with that from 1988 indicates that habitat conditions during that period declined on Bartlett Creek and Paiute Creek, and that no significant progress was made on Battle Creek. Analysis of use pattern maps since 1988 in relation to the short term objectives for the riverine riparian vegetation indicates that progress is not being made on any of the three streams. Use levels in 1991 and 1992 continue to be in excess of the objectives for streambank riparian habitats. The use is attributable to livestock in Bartlett Creek, with little use by wild horses. In Battle and Paiute Creeks, the use is attributable to both wild horses and livestock.
11. Baseline information and habitat condition has not been collected to evaluate the progress towards achievement of this objective. No vegetation treatments to reduce sagebrush have occurred during the evaluation period.
12. Baseline data has not been collected to evaluate the progress towards achievement of this objective.
13. Baseline and trend information has not been collected to evaluate the achievement of this objective. However, analysis of short term objectives indicates that progress is not being made towards this objective due to heavy and severe utilization by wild horses.

VI. TECHNICAL RECOMMENDATIONS

Background:

On November 22, 1991 a Final Full Force and Effect Multiple-Use Decision for the Paiute Meadows Allotment was issued along with the Black Rock Range East Herd Management Area Gather Plan and a Livestock Use Agreement with Dan Russell, permittee. An Environmental Assessment was prepared for the gather analyzing the alternatives to gathering and the impacts to the vegetative resources in the Paiute Meadows Allotment. The grazing decision was subsequently appealed by the Nevada Department of Wildlife, the Sierra Club and the Natural Resources Defense Council to an Administrative Law Judge (ALJ). The grazing decision and the wild horse gather plan were appealed by the Nevada Commission for the Preservation of Wild Horses, Wild Horse Organized Assistance, the American Horse Protection Association and the Humane Society of the United States of America to the Interior Board of Land Appeals. Additional consultation with these groups and the permittee took place from December 10, 1991 through January 1992 discussing the appeals and the potential for an agreement to withdraw said appeals. This consultation resulted in an agreement to proceed with the gather provided that the November 22, 1991 decision be vacated following the removal and that the interim number of horses to be left on the range would be 200 head. This agreement was signed on February 6, 1992 by the State Director.

Provisions of the agreement have been met as they relate to the wild horse issue. The wild horse gather commenced on February 12, 1992 and concluded February 22, 1992. Two hundred wild horses were released back to or remained in the HMA. On March 10, 1992 a distribution flight of the HMA was conducted. The number of wild horses observed within the Black Rock Range East HMA was 255, an increase of at least 55 animals in less than three weeks following the conclusion of the gather. The increase is most likely due to migration from the Black Rock Range West HMA which did not have any wild horses removed. Another distribution flight was conducted on May 23, 1992 which indicated 442 adult wild horses within the East HMA, an increase of 187 animals. A third distribution flight was conducted on July 22, 1992 which indicated that 267 adult wild horses are within the HMA and adjacent areas.

Upon appeal of the November 22, 1991 Full Force and Effect Multiple Use Decision, the decision and the appeals were transmitted to IBLA and the Office of Hearings and Appeals (OHA). Following the conclusion of the gather, the Bureau submitted a request to IBLA and OHA on March 6, 1992 to remand the decision and the appeals that were not withdrawn back to the Area Manager for reconsideration. Authority to supercede or vacate the decision could not be exercised until this action was completed. The resource area received an order from the ALJ remanding the decision and setting aside the appeals of the livestock portion of the MUD on March 27, 1992. The resource area received an order from IBLA remanding the decision and dismissing the appeals in part and setting aside the appeals in part on April 28, 1992. According to 43 CFR 4160.3(c), "Except where grazing use the preceding year was authorized on a temporary basis under §4110.3-1(a) of this title, an applicant who was granted use in the preceding year may continue at that level of authorized active use pending final action on the appeal." The appeals of the wild horse gather were withdrawn, however the livestock portion and the remainder of the wild horse decision appeals remained in effect until the decision and the appeals were remanded back to the Area Manager for reconsideration as referenced above.

Another provision contained within the agreement pertained to consultation and process requirements prior to the issuance of a new decision. On February 19, 1992 a consultation meeting was held in Reno, Nevada for interested parties in the allotment evaluation process within the Paradise-Denio Resource Area. This meeting was attended by NDOW, WHOA, the Commission for the Preservation of Wild Horses, the Sierra Club, permittees and their representatives. Discussed at this meeting were several topics of concern to all parties including setting carrying capacities for livestock and wild horses, allotment specific multiple-use objectives and utilization levels. On March 10, 1992 a second consultation meeting was held in Winnemucca, Nevada specifically for the affected interests of the Paiute Meadows Allotment. This meeting was attended by the Nevada Department of Wildlife and the BLM. Several of the interest groups refused to attend on the basis that their appeals were still pending, a new decision had not been issued to vacate the previous Final Full Force and Effect Multiple-Use Decision, and upon advice of legal counsel. At this particular meeting, attendees (NDOW) were advised of the status of the decision and the effect on the 1992 grazing license.

On May 11, 1992 a proposed decision to vacate the November 22, 1991 Final Full Force and Effect MUD was issued to interested parties. This proposed decision became final on May 27, 1992 in absence of any protests. This decision was appealed by the permittee on June 11, 1992 and is pending.

In addition, the agreement stated that the Bureau would issue a new, proposed multiple-use decision for the Paiute Meadows allotment following consultation requirements. A new decision could not be issued until IBLA remanded the case back to the district for reconsideration. This precluded the Bureau's ability to issue a decision to the permittee affecting only his license. The agreement specified a proposed "multiple-use decision" would be issued. All of these factors resulted in the authorization of active preference to the permittee in the 1992 grazing season, in spite of numbers of wild horses in excess of the AML and the carrying capacity. For 1992, this will result in an approximate actual use by wild horses and livestock of 10,000 AUMs, and will exceed the carrying capacity by over 6000 AUMs, or 150%.

The agreement also stipulated that a new decision action cannot take place without further consultation and coordination with the Sonoma-Gerlach Resource Area's planning efforts for the Soldier Meadows Allotment and the Black Rock Range West HMA. The Paradise-Denio Resource Area is working closely with the Sonoma-Gerlach Resource Area to identify the interrelationships between the two HMAs in the Black Rock Range and the two allotments. Recommendations have been developed in the form of several alternatives to management of the Paiute Meadows allotment and the Black Rock Range East HMA and are presented in the revised Technical Recommendations section below. The body of the Draft Evaluation has not been revised with the exception of the appendices where reference to 1991-1992 is made. This second draft allotment evaluation is the next step in the consultation process following the withdrawal of the appeals and the subsequent remanding of the decision to the district for reconsideration. No changes have been made through Section VI. It has been revised from Section VII - Technical Recommendations. As this is considered a second draft allotment evaluation, the contents through Section IX - Summary of Comments and Responses will be revised following the comment period for this draft, and presented in the Final Evaluation. The Selected Management Action may be determined from these recommendations and any other alternative designed to meet management objectives that are presented to the Bureau in the consultation process. Additional drafts and/or public meetings may be held to discuss additional alternatives if it is warranted.

1. Recommended Alternatives

The following alternatives, in addition to the range of alternatives analyzed within the 1981 EIS, have been developed following consultation with affected interests for the Paiute Meadows Allotment. These alternatives are presented first for the carrying capacity and the wild horse and livestock grazing management of the allotment. Additional recommendations are presented for revision of the allotment specific multiple-use objectives.

Alternative 1.

a. Carrying Capacity

The combined carrying capacity for livestock and wild horses shall be 3942 AUMs as determined through analysis of the monitoring data collected from 1987 through 1990. Monitoring data collected in 1991 and 1992 indicate that utilization levels and distribution are similar to previous patterns. Wild horse numbers increased in 1991 and decreased in 1992, while livestock numbers in the North Paiute use area remained the same through the monitoring period.

Analysis was completed in accordance with BLM Technical Reference 4400-7, "Analysis, Interpretation and Evaluation", utilizing the Desired Stocking Level Formula and a weighted average of utilization using the heavy and severe use zones (see Appendix No. 2 for details). At the present time, key areas have only been designated in upland sites.

b. Wild Horses

Combine the AML of the Black Rock Range East HMA with that of the Black Rock Range West HMA due to the documented migration of wild horses between the two HMAs and/or determine that the two HMAs shall be managed as one, with one AML. The combined AML would be based on the carrying capacities and thriving natural ecological balances within each allotment. The HMAs would be combined to assist in orderly administration of the Paiute Meadows and Soldier Meadows allotments. This would be accomplished by allowing both HMAs a percentage of the total AML based on historical distribution, and by making adjustments in other resource uses.

This action is necessary due to the historical migration and distribution patterns of the wild horses within both HMAs. Distribution flights and census conducted from 1969 to the present, indicate a tendency for the wild horses to regularly migrate between the two HMAs. The numbers of animals and the patterns of use are not consistent within the HMAs.

A reduction in the AML for the Black Rock Range East HMA is necessary to "preserve and maintain a thriving natural ecological balance and multiple-use relationship" (Public Law 92-195 aka The Wild Horse and Burro Act of 1971). Livestock use has been one of the multiple-uses of this allotment since prior to the signing of the Taylor Grazing Act in 1935. The livestock grazing active preference was adjusted by 44 percent in 1990 from 7827 AUMs to 4350 AUMs in a transfer to the current permittee to provide forage for the existing population of wild horses and wildlife. The livestock grazing preference may be adjusted again to achieve the carrying capacity of the allotment during the interim and the long term management of the allotment.

There were several years in the mid 1980s when the livestock operator did not activate the grazing preference for use. This was voluntary, and did not eliminate the preference from availability for use at any

time. During this period the Total Preference for the Paiute Meadows Allotment remained at 7827 AUMs, with 4350 AUMs of Active Preference and 3477 AUMs of Non-Use.

MO PE → It is recommended that the combined AML for the Black Rock East/Black Rock West HMAs be 242 animals under this alternative. The recommended AML has been derived by using the monitoring data from the Paiute Meadows and Soldier Meadows allotments. Analysis of the monitoring data for Paiute Meadows indicates that the carrying capacity for livestock and wild horses is 3,942 AUMs. Adjustments for use will be made using the Land Use Plan proportion of wild horses and livestock within the Paiute Meadows allotment: 92% livestock to 8% wild horses. Allocation of the carrying capacity following that proportion will result in 312 AUMs for wild horses in the Black Rock East HMA. In the Black Rock West HMA, based on a 20 percent use level in rested pastures, the forage available for wild horses is 2,592 AUMs (see Soldier Meadows Evaluation for rationale). In combining the East and West Black Rock HMAs, there would be 2,904 AUMs of forage available for an AML of 242 adult wild horses. We propose to call the combined HMA the Black Rock Mountain HMA.

wildlife? → Natural tendencies for the animals to distribute through both HMAs/allotments should result in approximately 121 animals utilizing the Black Rock Range East HMA year round. This estimate is based on historical distribution and census data that indicates that the proportional distribution of wild horses between the two HMAs is approximately 50% in the West HMA and 50% in the East HMA. This would result in a total of 1,453 AUMs used by wild horses in the Paiute Meadows Allotment. The remaining 2,490 AUMs could then be used by livestock.

The Strategic Plan for the Management of Wild Horses on the Public Lands was signed June 6, 1992. The policy states that unadoptable wild horses will remain on the public lands, and that other measures such as fertility control may be utilized for population management. At the present time it is the BLM's policy in Nevada to return unadoptable wild horses to the public lands they were gathered from that are six years of age or older. At the time of the 1992 gather, this policy was to return wild horses in excess of nine years of age. Following the 1992 gather, 137 wild horses of the 632 total that were gathered were returned to the HMA. The 137 wild horses returned to the range along with the 63 adults that were not captured equal the 200 wild horses that we agreed to leave on the Black Rock East HMA until the re-evaluation of the allotment. A model has been developed to estimate the population dynamics for the herd that currently resides in the Black Rock Range East HMA as a result of the 1992 gather. The population model uses age specific survival and fecundity rates derived from the results of the 1992 Black Rock East gather. For details see Appendix 4. To determine year-to-year survival, the number of animals in each age class is multiplied by the appropriate survival parameter, rounded to the nearest integer, and added to the next year's age class. The foals produced each year is calculated by multiplying the number of females in each age class by the appropriate fecundity parameter, summing the total, rounding to the nearest integer

and dividing the foals equally between the male and female zero age class (i.e. a 50:50 sex ratio at birth is assumed). The model also incorporates a random mortality generator in the 4-9 age classes to simulate mortality which occurs, but is not caught by the model due to rounding. This involves randomly subtracting zero or one from the total number in each of these age classes.

Only one gather of the 0-5 age class is assumed. If a second gather of these same age classes is done, it will result in the virtual extinction of the population because the most fecund age classes have been removed. The following scenario illustrates this. Assume gathers of 0-5 year olds in fall 1993 and 1999.

<u>Year</u>	<u># Adult Males</u>	<u># Adult Females</u>	<u># Adults</u>
1992	161	184	345
1993	163	184	347
1994	86	92	178
1995	87	92	179
1996	84	87	171
1997	78	80	158
1998	73	74	147
1999	71	69	140
2000	23	17	40
2001	18	13	31
2002	14	10	24
2003	12	8	20
2004	10	7	17
2005	8	7	15
2006	7	6	13
2007	7	7	14
2008	8	7	15
2009	7	6	13
2010	8	6	14
2011	8	6	14
2012	7	6	13
2013	7	7	14
2014	8	8	16
2015	9	10	19
2016	8	10	18
2017	9	11	20
2018	11	12	23
2019	14	13	27
2020	16	16	32
2021	18	18	36

In this case the population is not totally wiped out. This is due to the abnormally large percentage of older animals in the initial population, which were returned to the range following the 1992 gather. These animals, despite their low fecundity, will produce enough foals to maintain the population, albeit at a very low level, for several years. Wild horse populations at these levels for such a long time are much more susceptible to catastrophic events such as accidents, disease, and droughts which can seriously decimate if not totally extinguish the

population. The results of the model indicate that the AML will not be reached with one gather. A second gather that removes part of the 0-5 age class will be necessary in 1999. During the interim period the wild horses would require the entire carrying capacity in 1993, and from 66% to 75% of the carrying capacity between 1994 and 1999. Therefore, active use by livestock will be adjusted to meet the carrying capacity.

c. Livestock

1. 2490 AUMs would be available to livestock for use within the Paiute Meadows Allotment. Grazing management must be compatible with other uses within the allotment, including wild horses and wildlife. Current monitoring data indicates utilization by livestock in excess of management objectives in riparian habitats in the North Paiute Use Area on Bartlett, Battle and Paiute Creeks at the previous authorized level of 4350 AUMS during a season long use period from May through October. A reduction in preference to 2490 AUMs and a change in the season of use would provide for the achievement of management objectives for the vegetative and aquatic resources. The grazing management of the Paiute Meadows Allotment would be changed as follows:

From:

	Preference				
Total	Suspended	Active	Not Scheduled	Active Use	
9932	2105	7827	3477	4350	

To:

	Preference				
Total	Suspended	Active	Not Scheduled	Active Use	
9932	7442	2490	0	2490	

Current BLM regulations state that reductions shall be implemented by decision or agreement, with adjustments exceeding 10% of the Active Use implemented over a five year period unless an agreement can be reached with the permittee to implement it sooner.

2. Implement a deferred grazing system in the North Paiute Use Area only. Livestock grazing will not be scheduled for the South Paiute Use Area until such time as monitoring data indicates that livestock grazing may resume in a thriving natural ecological balance with the other multiple-uses.

The grazing system for the Paiute Meadows Allotment would be as follows:

← North Paiute
622 cattle 03/15 to 07/15 2490 AUMs

Use will begin in the lower elevations east of the Leonard Creek Road. Livestock use of the higher elevations will be deferred until after May 01.

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No livestock use is authorized north of Paiute Creek after July 15 of each year. No livestock use will be authorized in the South Paiute Use Area. No winter use by livestock would be authorized due to direct conflicts with wildlife and wild horse use of the area during winter months.

Designated Areas of Use:

The areas of use are unfenced, with some natural barriers preventing livestock drift. Intensive herding practices will be required to ensure that livestock remain in the designated use area. This may entail a full time range rider to be working livestock during the authorized use period.

Use Areas:

1) North Paiute Use Area:

This area would include all the lower foothills and alluvial fans along the eastern portion of the allotment north of Paiute Creek that fall below 1550 meters in elevation. The high elevation use area would include Paiute Creek above the drift fence and higher country above 1550 meters in elevation.

3) South Paiute Use Area:

This use area would not be authorized for livestock use. This area is the southern portion of the allotment specifically from Paiute Creek south including the higher country above 1550 meters in elevation and the low elevation country below 1550 meters, and would be designated for wild horse and wildlife use only.

outside herd area

Terms and Conditions:

Flexibility in turnout, movement between use areas, and removal dates will be allowed if approved in advance by BLM and if consistent with management objectives.

agreement between all parties?

Salt and/or mineral blocks shall not be placed within one quarter (1/4) mile of springs, streams, meadows, riparian habitats or aspen stands.

The permittee is required to perform normal maintenance on the range improvements to which he has been assigned maintenance responsibility.

The permittee will be required to do the necessary riding to keep livestock in the proper use area during the proper time periods.

Range Improvements

Existing range improvements in need of normal maintenance and/or reconstruction will be identified and project maintenance will be conducted prior to authorization of livestock in the areas designated for livestock use. Field survey of feasibility for development of alternate water sources within the allotment will also be conducted within that time frame. Project planning will incorporate development of previously undeveloped water sources to improve water availability for wildlife, wild horses and livestock. All spring sources will be fenced to exclude wild horse or livestock use and damage, with access to water at a trough or reservoir outside the spring enclosure.

The permittee will be required to maintain any range improvements that benefit the livestock operation. Maintenance will be performed prior to scheduled use.

Paiute Seeding

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The Paiute Seeding Fence will not be reconstructed. The seeding area is in poor to fair condition following over 10 years of use without adequate fencing. Existing fence materials will be removed, and the area will be managed along with the adjacent uplands. Wild horse and wildlife populations rely upon the existing reservoir in the seeding for water during the summer months. This water is critical to wild horses and wildlife in drought years.

Other Fences

Several areas along the western boundary of the Paiute Meadows allotment above Battle Creek and Bartlett Creek have been identified as providing opportunities for drift to occur into neighboring allotments and their riparian habitats. Construction design and implementation of "gap" or "drift" fences will be initiated to restrict drift of livestock. These fences will not be continuous, and may require modification as livestock and wild horses adjust to their presence. Project planning of these fences will be coordinated with interested parties.

Rationale:

The Paiute Meadows Allotment has experienced inconsistent management of livestock for the past 13 years. The livestock operation has changed hands, non-use has been taken in varying amounts, from 20% to 100% due to fluctuations in the livestock operators, use areas have changed due to a transfer of the preference to the current permittee, range improvements have not been maintained, water availability is minimal in some areas due to drought, etc..

The wild horse population has likewise experienced great variation in numbers and management. The AML established by the Land Use Plan has

not been achieved except for short periods immediately following a gather. Numbers of wild horses have increased in both the West HMA and the East HMA due to absence of livestock, and migration from adjacent HMAs. Regular gathers to achieve the Land Use Plan AML of 59 have not been performed. Gathers have occasionally been conducted on the East HMA and not the West HMA, creating a niche in the habitat for migration in the short term, and making retention of the population at or close to the AML impossible.

It is the objective of the Bureau to manage for a thriving natural ecological balance and multiple-use relationship in the Paiute Meadows Allotment. The livestock operation has voluntarily taken 44% non-use of the active preference since 1990 as a result of a transfer to the current permittee. The livestock active grazing preference will again receive a reduction as a result of this option, for a reduction in total preference of 72%. The wild horse AML would be combined with the West HMA for a combined AML of 242 wild horses, to ensure that management objectives are achieved for the vegetation resource within both HMAs and allotments. This combination of adjustments is necessary to achieve the carrying capacity of the Paiute Meadows allotment of 3942 AUMs.

This carrying capacity was derived from monitoring data collected on the allotment from 1987 through 1990, and confirmed with monitoring data from 1991-1992. The calculations are presented in Appendix 1. Monitoring data has indicated that vegetative objectives are not being achieved in the south half of the allotment with just wild horse use, or in the north half of the allotment with wild horse and livestock use. Therefore, an adjustment is needed in the authorized use by livestock and the wild horse population size to achieve the thriving natural ecological balance of the allotment.

In addition, long term stream habitat objectives have not been met in the North Paiute Use area. Wild horse populations use the stream habitats year round, but not in the same manner that livestock utilize them. Previous to transfer of the grazing preference to the current permittee, and authorization of 56% of the grazing permit, improvement in stream habitats was noted. A reduction in the season of use for livestock is necessary to ensure continued growth of riparian vegetation and improvement towards long term streambank riparian habitat conditions in the absence of riparian habitat protection fences. The additional reduction in active preference combined with the change in the season of use will ensure that progress.

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Alternative 2.

a. Carrying Capacity

The combined carrying capacity for livestock and wild horses shall be 3942 AUMs as determined through analysis of the monitoring data collected from 1987 through 1992. Monitoring data collected in 1991 and 1992 indicate that utilization levels and distribution are similar to previous patterns. Wild horse numbers increased in 1991 and decreased in 1992, while livestock numbers in the North Paiute use area remained the same through the monitoring period.

Analysis was completed in accordance with BLM Technical Reference 4400-7, "Analysis, Interpretation and Evaluation", utilizing the Desired Stocking Level Formula and a weighted average of utilization using the heavy and severe use zones (see Appendix No. 2 for details).

b. Wild Horses

Maintain the current Appropriate Management Level (AML) established in the Land Use Plan of 59 adult wild horses within the Black Rock Range East HMA. This AML is based upon monitoring data collected from 1987-1990 that indicates the combined carrying capacity for the allotment is 3942 AUMs. Adjustments to achieve the carrying capacity have been derived using the Land Use Plan proportion of wild horses and livestock within the Paiute Meadows Allotment of 92% livestock to 8% wild horses. If allocation of the carrying capacity follows that proportion it would result in an allocation of 315 AUMs for wild horses, and 3627 AUMs for livestock. This equates to an AML of 26 animals, which is too low to maintain a viable population in the absence of migration. Therefore, the LUP AML would be maintained, with an allocation of forage of 708 AUMs for wild horses and 3234 AUMs for livestock.

All current Bureau policies related to wild horse management will be followed in the achievement of the AML in that wild horses 16 years of age and older or wild horses that are deemed unadoptable due to other factors will be allowed to remain in the HMA until such time as the BLM can find a suitable range for them. Gather of excess wild horses will occur in FY94 (Fall 1993) and FY99 (Fall 1998) until the AML is reached, and then only on an as needed basis for maintenance when the wild horse population exceeds the AML of 59.

The Strategic Plan for the Management of Wild Horses on the Public Lands was signed June 6, 1992. In this plan, the BLM's wild horse program in the State of Nevada is given the direction for the management of wild horses. The policy states that unadoptable wild horses will remain on the public lands, and that other measures such as fertility control may be utilized for population management. At the present time it is the BLM's policy to return unadoptable wild horses to the public lands they were gathered from that are in excess of five years of age. At the time of the 1992 gather, this policy was wild horses in excess of nine years of age. Following the 1992 gather, 137 wild horses of the 632 total that were gathered were returned to the HMA. The 137 wild horses

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November 4, 1992

returned to the range along with the 63 adults that were not captured equal the 200 wild horses that we agreed to leave on the Black Rock East HMA until the re-evaluation of the allotment. A model has been developed to estimate the population dynamics for the herd that currently resides in the Black Rock Range East HMA as a result of the 1992 gather. The population model uses age specific survival and fecundity rates derived from the results of the 1992 Black Rock East gather. For details see Appendix 4. To determine year-to-year survival, the number of animals in each age class is multiplied by the appropriate survival parameter, rounded to the nearest integer, and added to the next year's age class. The foals produced each year is calculated by multiplying the number of females in each age class by the appropriate fecundity parameter, summing the total, rounding to the nearest integer and dividing the foals equally between the male and female zero age class (i.e. a 50:50 sex ratio at birth is assumed). The model also incorporates a random mortality generator in the 4-9 age classes to simulate mortality which occurs, but is not caught by the model due to rounding. This involves randomly subtracting zero or one from the total number in each of these age classes.

Only one gather of the 0-5 age class is assumed. If a second gather of these same age classes is done, it will result in the virtual extinction of the population because the most fecund age classes have been removed. The following scenario illustrates this. Assume gathers of 0-5 year olds in fall 1993 and 1999.

The following chart represents the expected population of wild horses within the Black Rock Range and the estimated amount of forage that will be utilized year round by this population (See Appendix 4 for complete model):

<u>Year</u>	<u># Adult Males</u>	<u># Adult Females</u>	<u># Adults</u>
1992	161	184	345
1993	163	184	347
1994	86	92	178
1995	87	92	179
1996	84	87	171
1997	78	80	158
1998	73	74	147
1999	71	69	140
2000	23	17	40
2001	18	13	31
2002	14	10	24
2003	12	8	20
2004	10	7	17
2005	8	7	15
2006	7	6	13
2007	7	7	14
2008	8	7	15
2009	7	6	13
2010	8	6	14
2011	8	6	14
2012	7	6	13

2013	7	7	14
2014	8	8	16
2015	9	10	19
2016	8	10	18
2017	9	11	20
2018	11	12	23
2019	14	13	27
2020	16	16	32
2021	18	18	36

In this case the population is not totally wiped out. This is due to the abnormally large percentage of older animals in the initial population, which were returned to the range following the 1992 gather. These animals, despite their low fecundity, will produce enough foals to maintain the population, albeit at a very low level, for several years. Wild horse populations at these levels for such a long time are much more susceptible to catastrophic events such as accidents, disease, and droughts which can seriously decimate if not totally extinguish the population.

The results of the model indicate that the AML will not be reached until after a partial gather in 1999. During the interim period the wild horses alone would require the entire carrying capacity in 1993, and between 30-68% of the carrying capacity between 1994 and 1999. Therefore, active use by livestock will be adjusted to meet the carrying capacity.

c. Livestock

1. Adjust livestock authorized active grazing preference to 3,234 AUMs.

From:

	Preference			
<u>Total</u>	<u>Suspended</u>	<u>Active</u>	<u>Not Scheduled</u>	<u>Active Use</u>
9932	2105	7827	3477	4350

To:

	Preference			
<u>Total</u>	<u>Suspended</u>	<u>Active</u>	<u>Not Scheduled</u>	<u>Active Use</u>
9932	6698	3234	0	3234

2. Implement a deferred rotation grazing system as follows:

North Paiute

Low Elevation	535 Cattle	05/01 to 05/31	544 AUMs
High Elevation	535 Cattle	06/01 to 07/15	792 AUMs

South Paiute

High Elevation	535 Cattle	07/16 to 09/30	1354 AUMs
Low Elevation	535 Cattle	10/01 to 10/31	544 AUMs

No livestock use is authorized north of Paiute Creek after July 15 of each year.

The Paiute Seeding fence would be reconstructed to restrict wild horse use. Use of the Paiute Seeding by livestock will be deferred until after seedripeness. Grazing use by livestock will be authorized in the seeding from July 16 through September 30 along with the use period in the high elevation area of the South Paiute use area. The utilization objective for the Paiute Seeding will be 50% of the standing crop.

All livestock would be removed from the allotment by November 01 of each year. Future adjustments to livestock preference would be based upon monitoring data analyzed in a re-evaluation process following three years of implementation of the grazing system. If objectives have not been met for two years in a row, re-evaluation will be initiated immediately, and adjustments may be made prior to the third year of implementation. Achievement of the AML may take as long as seven years to reach given population dynamics and current policies on the removal of wild horses from public rangelands.

Designated Areas of Use:

The areas of use are unfenced, with some natural barriers preventing livestock drift.

Use Areas

1) North Paiute Low Elevation Use Area:

This area would include all the lower foothills and alluvial fans along the eastern portion of the allotment north of Paiute Creek that are below 1550 meters in elevation.

2) North Paiute High Elevation Use Area:

This use area would be the northern portion of the allotment specifically from Paiute Creek north including the higher country above 1550 meters in elevation.

3) South Paiute High Elevation Use Area:

This use area would be the southern portion of the allotment specifically from Paiute Creek south including the higher country above 1550 meters in elevation.

4) South Paiute Low Elevation Use Area:

This use area includes the southern portion of the allotment south of Paiute Creek in the lower country below 1550 meters in elevation.

Terms and Conditions:

Flexibility in turnout, movement between use areas, and removal dates will be allowed if approved in advance by BLM and if consistent with management objectives.

Salt and/or mineral blocks shall not be placed within one quarter ($\frac{1}{4}$) mile of springs, streams, meadows, riparian habitats or aspen stands.

The permittee is required to perform normal maintenance on the range improvements to which he has been assigned maintenance responsibility prior to the scheduled use each year.

The permittee will be required to do the necessary riding to keep livestock in the proper use area during the proper time periods. This may require a range rider to be present with the livestock at all times.

d. Range Improvements

1. Reconstruct the Paiute Seeding Fence to standards designed to restrict wild horse use of the seeding, but permit wildlife access. Defer use in the seeding until after seedripeness for two (2) years. Conduct vegetation production studies following fence construction and two years of rest to determine a stocking rate for the seeding. Maintenance responsibility for the seeding fence will remain with the permittee.

2. Construct an allotment boundary fence on the western boundary of the allotment/HMA to restrict wild horse migration into the HMA from neighboring HMAs. Fence should be continuous except where natural barriers to wild horses are present. Fence should be designed to restrict wild horses but allow for wildlife migration. Design will be coordinated with affected interests. This fence is necessary to maintain the AML of 59.

3. Construct a riparian enclosure on Bartlett Creek. An existing northern boundary fence can be combined with a fence along the southern watershed of the Bartlett Creek drainage to create a riparian enclosure. Design and construction of this fence would be coordinated with affected interests. Livestock use would not be authorized within the enclosure. Wild horse distribution is limited in this area as opposed to the Battle Creek drainages which have regular wild horse use, and would be less likely to impinge upon the wild and free roaming nature of the wild horses. Wild horse and livestock use of the Bartlett Creek drainage would be eliminated.

Rationale:

Achievement and maintenance of the AML is contingent upon the control of migration of other populations of wild horses into the HMA. Without horse-proof fences to prevent this migration, horses from neighboring HMAs will move into the area and immediately exceed the AML and then contribute to overutilization of the allotment. With the boundary of the allotment/HMA fenced, greater control of the movement of livestock could be exercised, eliminating drift into neighboring allotments. Use areas could be maintained with range riding on a regular basis. Control of horse movements within the HMA/allotment is not possible, therefore the year round wild horse population should be balanced to provide for a multiple-use relationship in the allotment.

This alternative confirms the Land Use Plan AML as providing for the thriving natural ecological balance and multiple-use relationship. The carrying capacity would be allocated to wild horses in a greater proportion than was allocated in the Land Use Plan to maintain that balance.

Problems with this alternative would be restricted movement of wild horses due to fencing.

Alternative 3.**a. Carrying Capacity**

The combined carrying capacity for livestock and wild horses shall be 3942 AUMs as determined through analysis of the monitoring data collected from 1987 through 1992. Monitoring data collected in 1991 and 1992 indicate that utilization levels and distribution are similar to previous patterns. Wild horse numbers increased in 1991 and decreased in 1992, while livestock numbers in the North Paiute use area remained the same through the monitoring period.

Analysis was completed in accordance with BLM Technical Reference 4400-7, "Analysis, Interpretation and Evaluation", utilizing the Desired Stocking Level Formula and a weighted average of utilization using the heavy and severe use zones (see Appendix No. 2 for details).

b. Wild Horses

The AML for the Black Rock Range East HMA shall remain 59 animals. Monitoring data indicates that this AML will result in the achievement of management objectives if it can be achieved and maintained. An AML of 59 animals would provide 708 AUMs for wild horses. The remainder of the AUMS (3234) would be allocated to livestock.

This AML is consistent with achieving a thriving natural ecological balance and maintaining the multiple-use relationship in the HMA. Monitoring data indicates that a reduction in the carrying capacity from the current 10000 AUMs of actual use to 3942 AUMs is necessary to stop continuing resource deterioration within the HMA and the allotment.

The Strategic Plan for the Management of Wild Horses on the Public Lands was signed June 6, 1992. In this plan, the BLM's wild horse program in the State of Nevada is given the direction for the management of wild horses. The policy states that unadoptable wild horses will remain on the public lands, and that other measures such as fertility control may be utilized for population management. At the present time it is the BLM's policy to return unadoptable wild horses to the public lands they were gathered from that are in excess of five years of age. At the time of the 1992 gather, this policy was wild horses in excess of nine years of age. Following the 1992 gather, 137 wild horses of the 632 total that were gathered were returned to the HMA. The 137 wild horses returned to the range along with the 63 adults that were not captured equal the 200 wild horses that we agreed to leave on the Black Rock East HMA until the re-evaluation of the allotment. A model has been developed to estimate the population dynamics for the herd that currently resides in the Black Rock Range East HMA as a result of the 1992 gather. The population model uses age specific survival and fecundity rates derived from the results of the 1992 Black Rock East gather. For details see Appendix 4. To determine year-to-year survival, the number of animals in each age class is multiplied by the appropriate survival parameter, rounded to the nearest integer, and added to the next year's age class. The foals produced each year is calculated by multiplying the number of females in each age class by the appropriate fecundity parameter, summing the total, rounding to the nearest integer and dividing the foals equally between the male and female zero age class (i.e. a 50:50 sex ratio at birth is assumed). The model also incorporates a random mortality generator in the 4-9 age classes to simulate mortality which occurs, but is not caught by the model due to rounding. This involves randomly subtracting zero or one from the total number in each of these age classes.

Only one gather of the 0-5 age class is assumed. If a second gather of these same age classes is done, it will result in the virtual extinction of the population because the most fecund age classes have been removed. The following scenario illustrates this. Assume gathers of 0-5 year olds in fall 1993 and 1999.

The following chart represents the expected population of wild horses within the Black Rock Range and the estimated amount of forage that will be utilized year round by this population (See Appendix 4 for complete model):

<u>Year</u>	<u># Adult Males</u>	<u># Adult Females</u>	<u># Adults</u>
1992	161	184	345
1993	163	184	347
1994	86	92	178
1995	87	92	179
1996	84	87	171
1997	78	80	158
1998	73	74	147
1999	71	69	140
2000	23	17	40
2001	18	13	31

2002	14	10	24
2003	12	8	20
2004	10	7	17
2005	8	7	15
2006	7	6	13
2007	7	7	14
2008	8	7	15
2009	7	6	13
2010	8	6	14
2011	8	6	14
2012	7	6	13
2013	7	7	14
2014	8	8	16
2015	9	10	19
2016	8	10	18
2017	9	11	20
2018	11	12	23
2019	14	13	27
2020	16	16	32
2021	18	18	36

In this case the population is not totally wiped out. This is due to the abnormally large percentage of older animals in the initial population, which were returned to the range following the 1992 gather. These animals, despite their low fecundity, will produce enough foals to maintain the population, albeit at a very low level, for several years. Wild horse populations at these levels for such a long time are much more susceptible to catastrophic events such as accidents, disease, and droughts which can seriously decimate if not totally extinguish the population.

The results of the model indicate that the AML will not be reached until after a second partial gather in 1999. During the interim period the wild horses alone would require the entire carrying capacity in 1993, and from 30-68% of the carrying capacity from 1994 to 1999. Therefore, active use by livestock will be adjusted to meet the carrying capacity.

c. Livestock

1. Adjust livestock authorized active grazing preference to 3,234 AUMs.

From:

<u>Total</u>	<u>Preference</u>		<u>Not Scheduled</u>	<u>Active Use</u>
	<u>Suspended</u>	<u>Active</u>		
9932	2105	7827	3477	4350

To:

<u>Total</u>	<u>Preference</u>		<u>Not Scheduled</u>	<u>Active Use</u>
	<u>Suspended</u>	<u>Active</u>		
9932	6698	3234	0	3234

2. Implement a deferred rotation grazing system as follows:

Year 1

North Paiute

Low Elevation			
808 Cattle	03/15 to 05/15	1617 AUMs	
High Elevation			
808 Cattle	05/16 to 07/15	1617 AUMs	

South Paiute

High Elevation	REST	
Low Elevation	REST	

No livestock use is authorized north of Paiute Creek after July 15 in this year. No livestock use will be authorized south of Paiute Creek during Year 1.

Year 2

South Paiute

Low Elevation			
808 Cattle	03/15 to 05/15	1617 AUMs	
High Elevation			
808 Cattle	05/16 to 07/15	1617 AUMs	

North Paiute

High Elevation	REST	
Low Elevation	REST	

Livestock would not be authorized any use north of Paiute Creek in Year 2. Livestock would not be authorized south of Paiute creek after July 15 in Year 2.

The Paiute Seeding fence would be reconstructed to restrict wild horse use. Use of the Paiute Seeding by livestock will be scheduled for concurrent use with the South Paiute use area, receiving complete rest every other year.

The utilization objective for the Paiute Seeding will be 50% of the standing crop.

Approximately one half of the allotment would be rested from livestock use each year, providing forage and range for the wild horses on at least one half of the allotment every year. Future adjustments to livestock preference would be based upon monitoring data analyzed in a re-evaluation process following three years of

implementation of the grazing system. If objectives have not been met for two years in a row, re-evaluation will be initiated immediately, and adjustments may be made prior to the third year of implementation. Achievement of the AML may take as long as seven years to reach given population dynamics and current policies on the removal of wild horses from public rangelands.

Designated Areas of Use:

The areas of use are unfenced, with some natural barriers preventing livestock drift.

Use Areas

1) North Paiute Low Elevation Use Area:

This area would include all the lower foothills and alluvial fans along the eastern portion of the allotment north of Paiute Creek that are below 1550 meters in elevation.

2) North Paiute High Elevation Use Area:

This use area would be the northern portion of the allotment specifically from Paiute Creek north including the higher country above 1550 meters in elevation.

3) South Paiute High Elevation Use Area:

This use area would be the southern portion of the allotment specifically from Paiute Creek south including the higher country above 1550 meters in elevation.

4) South Paiute Low Elevation Use Area:

This use area includes the southern portion of the allotment south of Paiute Creek in the lower country below 1550 meters in elevation.

Terms and Conditions:

Flexibility in turnout, movement between use areas, and removal dates will be allowed if approved in advance by BLM and if consistent with management objectives.

Salt and/or mineral blocks shall not be placed within one quarter ($\frac{1}{4}$) mile of springs, streams, meadows, riparian habitats or aspen stands.

The permittee is required to perform normal maintenance on the range improvements to which he has been assigned maintenance responsibility prior to the scheduled use each year.

The permittee will be required to do the necessary riding to keep livestock in the proper use area during the proper time periods. This may require a range rider to be present with the livestock at all times.

Non-Use

Non-Use shall be taken for the equivalent AUMs utilized by wild horses in excess of the AML of 59 to meet the carrying capacity of the allotment. Non-use will be held in the Not Scheduled category on an annual basis with the amount determined annually based on a census of wild horses within the allotment by March 31 of each year.

d. Range Improvements

1. Reconstruct the Paiute Seeding Fence to standards designed to restrict wild horse use of the seeding, but permit wildlife access. Conduct vegetation production studies following fence construction and two years of rest to determine a stocking rate for the seeding. Maintenance responsibility for the seeding fence will remain with the permittee.
2. Construct an allotment boundary fence on the western boundary of the allotment/HMA to restrict wild horse migration into the HMA from neighboring HMAs. Fence should be continuous except where natural barriers to wild horses are present. Fence should be designed to restrict wild horses but allow for wildlife migration. Design will be coordinated with affected interests.
3. Construct a riparian enclosure on Bartlett Creek. An existing northern boundary fence can be combined with a fence along the southern watershed of the Bartlett Creek drainage to create a riparian enclosure. Design and construction of this fence would be coordinated with affected interests. Livestock use would not be authorized within the enclosure. Wild horse distribution is limited in this area as opposed to the Battle Creek drainages which have regular wild horse use, and would be less likely to impinge upon the wild and free roaming nature of the wild horses. Wild horse and livestock use of the Bartlett Creek drainage would be eliminated.

Rationale:

Achievement and maintenance of the AML is contingent upon the control of migration of other populations of wild horses into the HMA. Without horse-proof fences to prevent this migration, horses from neighboring HMAs will move into the area and immediately exceed the AML and then contribute to overutilization of the allotment. With the boundary of the allotment/HMA fenced, greater control of the movement of livestock could be exercised, eliminating drift into neighboring allotments. Use areas could be maintained with range riding on a regular basis. Control of horse

movements within the HMA/allotment is not possible, therefore the year round wild horse population should be balanced to provide for a multiple-use relationship in the allotment.

This alternative confirms the Land Use Plan AML as providing for the thriving natural ecological balance and multiple-use relationship. The carrying capacity would be allocated to wild horses in a greater proportion than was allocated in the Land Use Plan to maintain that balance.

Complete rest of half the allotment from livestock use each year will provide progress towards meeting long term management objectives, as well as provide at least half the allotment to the wild horses for use year round while still achieving short term objectives for the whole allotment that year. With an adjustment to both wild horses and livestock, the streams in the north half of the allotment will not be utilized during the hot season in any year by livestock, and will be utilized minimally in the rested year by wild horses. This will ensure long term progress towards management objectives.

3. Objectives:

Revise the allotment specific objectives to the following:

Short Term

The objective for utilization of key streambank riparian plant species (Carex, Juncus, Salix and Poa spp.) on Paiute, Battle and Bartlett Creeks is 30%. Utilization data will be collected at the end of the grazing period. [1]

The objective for utilization of key plant species (Carex, Juncus and Poa spp.) in wetland riparian habitats is 50%. Utilization data will be collected at the end of the grazing period. [1]

The objective for utilization of key plant species (STTH, AGSP, FEID, ELCI, POA, ORHY, AMAL, PUTR, SYMPH, EPHEDRA, EULA) in upland habitats is 50%. Utilization data will be collected at the end of the grazing period. [1]

The objective for utilization of crested wheatgrass is 50%. Utilization data will be collected at the end of the grazing period. [1]

Long Term

Manage, maintain, or improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.

- 1) Improve to or maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent mule deer habitat condition.

- 2) Improve to or maintain 45,965 acres in Black Rock PS-15 in good pronghorn habitat condition. Improve to or maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Paiute Creek PW-16 in fair or good pronghorn habitat condition.

- 3) Improve to or maintain 69,939 acres in Black Rock BY-15 in good to excellent bighorn sheep habitat condition.

Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of (2490 or 3234) AUMs.

Improve range condition from poor to fair on 161,158 acres and from fair to good on 15,938 acres. [2]

Maintain and improve the free-roaming behavior of wild horses by protecting and enhancing their home ranges.

- 1) Manage, maintain, or improve public rangeland conditions to provide forage on a sustained yield basis for the selected AML for wild horses to maintain a thriving natural ecological balance.

- 2) Maintain and improve wild horse habitat by assuring free access to water.

Improve to or maintain 86 acres of ceanothus habitat types in good condition. [2]

Improve to or maintain 345 acres of mahogany habitat types in good condition. [2]

Improve to or maintain 188 acres of aspen habitat types in good condition. [2]

Improve to or maintain 529 acres of riparian and meadow habitat types in good condition. [2]

Improve to or maintain 15 acres of serviceberry, 82 acres of bitterbrush, 55 acres of ephedra, and 112 acres of winterfat vegetation types in good condition. [2]

Improve to and maintain stream habitat conditions from the 1988 levels of 43% on Paiute Creek, 58% on Battle Creek, and 50% on Bartlett Creek to an overall optimum of 60% or above.

- 1) Streambank cover 60% or above.

- 2) Streambank stability 60% or above.
- 3) Maximum summer water temperatures below 70° F.
- 4) Sedimentation below 10%.

Protect sage grouse strutting grounds and brooding areas. Maintain the big sagebrush sites within two miles of active strutting grounds in mid to late seral stage with a minimum of 30% shrub composition by weight or 30% canopy cover.

Improve to and maintain the water quality of Paiute, Battle and Bartlett Creeks to the State criteria set for the following beneficial uses: livestock drinking water, cold water aquatic life, wading (water contact recreation), and wildlife propagation.

Improve to or maintain the 1000 acre Paiute seeding in good condition. (5-10 acres per AUM)

Footnotes:

- [1] The utilization levels will be used to evaluate and adjust management practices over a period of time.
- [2] Ecological status will be used to redefine/quantify these objectives where applicable.

It is expected that utilization levels will vary over the years due to climatic changes and environmental fluctuations but the target is the stated objective level. The short term objectives also contain a time at which the utilization data will be collected which will be after the grazing period in order to assess utilization as well as mechanical damage to streambank riparian habitats. Monitoring data may be collected at other times as well. For instance, data collected at the end of the growing season will reflect any regrowth of herbaceous species on riparian areas recognizing that a major function of these species is for protection and improvement of streambanks and meadows, reducing impacts from high water runoff and improving shading and structure. Woody species are particularly important along streams as they are essential for the shading and bank stability, and thereby require a lower utilization level and monitoring data collected at the end of the grazing periods.

APPENDIX 1

Stocking Level Calculations Paiute Meadows Allotment.

1. Stocking Level Calculation Procedures

Monitoring data indicates that wild horses have contributed to over utilization in the allotment. Target utilization levels were exceeded south of Paiute Creek where the use was by wild horses. Use levels north of Paiute Creek resulted from livestock and wild horses. The total amount of actual use made by livestock and wild horses was determined north and south of Paiute Creek for each year.

The stocking level for the allotment was determined using the following Actual Use/Utilization formula.

$$\frac{\text{Actual Use}}{\text{Average/Weighted Average Utilization}} = \frac{\text{Desired Actual Use}}{\text{Desired Average Utilization}}$$

The stocking level was determined for the area north of Paiute Creek and south of Paiute Creek for each year data was available and then computing the average mean for those figures.

Stocking rates were calculated as follows:

South of Paiute Creek - The average calculated stocking rate is 1708 AUMs. This was based on the four years of use pattern mapping data and the desired yearlong utilization level of 50%.

North of Paiute Creek - The average calculated stocking rate is 2234 AUMs. This was based on the four years of use pattern mapping data and the desired yearlong utilization level of 50%.

Wild horse census data and cattle licensed use were used to calculate stocking levels. Wildlife AUMs were not calculated. Utilization was determined from use pattern mapping using the Average/Weighted Average Utilization formula for those areas where forage was utilized heavy and/or severe. These figures were then used to determine the amount of reduction from the present demand necessary to achieve management objectives. The procedures for doing the calculations are outlined as follows:

- 1) Planimeter Use Pattern Map by utilization category for each year.
- 2) Figure acreage by utilization category for north of Paiute Creek and for south of Paiute Creek.
- 3) Using Weighted Average Utilization Formula, determine percent utilization level on acreage for heavy and severe use areas only. (As identified in the Nevada Rangeland Monitoring Handbook, 1984)

- 4) The Average/Weighted Average Utilization figure was entered into the Actual Use/Utilization Formula and a stocking level was determined.
- 5) Actual Use AUMs include cattle and wild horses only.

In the determination of a stocking rate both wild horse and livestock actual use were correlated to the dates of data collection. In some years data was collected in the fall of the year and then again at the end of winter. In these cases the data collected following the winter season (spring) was used to determine a stocking rate as it represents the entire grazing year. In 1987 data was collected in the fall only, in which case actual use was correlated to the dates of data collection and a stocking rate determined from the available data.

Use pattern maps used for these calculations were those completed in fall 1987 through spring 1991. Utilization studies using the Key Forage Plant Method were used for data collection from the fall 1991 through summer 1992. These studies cannot be entered into the weighted average calculation as they represent the utilization at the study sites only. The current key areas do not encompass the streambank riparian habitats of Bartlett and Paiute Creeks, and the majority of Battle Creek and are therefore not indicative of the more sensitive areas within the allotment. Additional key areas focusing primarily on the riparian habitats will be selected in the future in consultation and coordination with affected interests. Using the current Key Areas for calculation of the Desired Stocking Rate would not consider the streambank riparian habitats. Therefore, the weighted average and desired stocking level calculations were used for the calculating the carrying capacity by considering all heavy and severe use areas in the calculation as the actual utilization.

2. Actual Use Calculations
Wild Horses

A. 1987

South Paiute

448 H - 03/01/87-08/08/87 - 2,371 AUMs

North Paiute

218 H - 03/01/87-08/08/87 - 1,154 AUMs

UPM completed August 8, 1987 and measures use 03/01-08/08

No cattle use

Census conducted Oct. 6-8, 1987, numbers are based on census.

Wild Horse gather conducted December 1987-January 1988.

B. 1988

South Paiute

203 H - 03/01/88-02/28/89 - 2,436 AUMs

North Paiute

18 H - 03/01/88-02/28/89 - 216 AUMs
595 C - 10/17/88-01/01/89 - 1,143 AUMs
1,359 AUMs

UPM completed 04/06/89 and measures use for 03/01/88-02/28/89.

Cattle use 1,143 AUMs.

C. 1989

South Paiute

203 H - 03/01/89-07/17/89 - 928 AUMs
 408 H - 07/18/89-02/14/90 - 2,844 AUMs
 264 H - 02/15/90-02/28/90 - 122 AUMs
 3,894 AUMs

North Paiute

18 H - 03/01/89-07/17/89 - 82 AUMs
 243 H - 07/18/89-02/14/90 - 1,694 AUMs
 244 H - 02/15/90-02/28/90 - 112 AUMs
 131-701 C - 10/26/89-02/28/90 - 2,342 AUMs
 4,230 AUMs

UPM completed 04/04/90 and measures use for 03/01/89-02/28/90.
 On 07/18/89 a census was done and on 02/14/90 a census was again conducted.
 Cattle use - 2,342 AUMs

D. 1990

South Paiute

264 H - 03/01/90-02/28/91 - 3,168 AUMs

North Paiute

244 H - 03/01/90-02/28/91 - 2,928 AUMs
 700 C - 05/03/90-10/31/90 - 4,017 AUMs
 6,943 AUMs

UPM completed 04/17/91 and measures use from 03/01/90-02/28/91. Wild horse numbers are based on the 02/14/90 census date.
 Cattle use - 4,017 AUMs.

3. Weighted Average Utilization Calculations

Paiute Meadows Allotment (South Paiute) Heavy and Severe Use Zone Acreage

Grazing Year	Total Acres Mapped	Use Zone	Total Acres Per Zone
1987	25,949	Heavy	6,465
		Severe	6,820
1988	23,047	Heavy	4,910
		Severe	9,340
1989	46,437	Heavy	23,965
		Severe	10,763
1990	59,178	Heavy	25,359
		Severe	6,850

Paiute Meadows Allotment (North Paiute) Heavy and Severe Use Zone Acreage

Grazing Year	Total Acres Mapped	Use Zone	Total Acres Per Zone
1987	10,227	Heavy	2,298
		Severe	0
1988	42,754	Heavy	6,227
		Severe	74
1989	53,974	Heavy	21,175
		Severe	0
1990	81,956	Heavy	46,934
		Severe	72

Note- The above tables display data for full grazing year (beginning 03/01 and ending 02/28) as indicated by use pattern mapping conducted in the spring. The exception to this 1987 when use pattern mapping was conducted in the fall only, and not in the following spring.

Paiute Meadows

November 4, 1992

1987

North Paiute	South Paiute
$\frac{2,298 \text{ Ac.} \times 70\%}{2,298 \text{ Ac}} = 70\%$	$\frac{(6,820 \text{ Ac.} \times 90\%) + (6,465 \text{ Ac.} \times 70\%)}{13,285 \text{ Ac}} = 80\%$

1988

North Paiute	South Paiute
$\frac{(6,227 \text{ Ac.} \times 70\%) + (74 \text{ Ac} \times 90\%)}{6,301 \text{ Ac}} = 70\%$	$\frac{(9,340 \text{ Ac.} \times 90\%) + (4,910 \text{ Ac.} \times 70\%)}{14,250 \text{ Ac}} = 83\%$

1989

North Paiute	South Paiute
$\frac{(21,175 \text{ Ac.} \times 70\%) + (0 \text{ Ac} \times 90\%)}{21,175 \text{ Ac}} = 70\%$	$\frac{(23,965 \text{ Ac.} \times 70\%) + (10,763 \text{ Ac.} \times 90\%)}{34,728 \text{ Ac}} = 76\%$

1990

North Paiute	South Paiute
$\frac{(46,934 \text{ Ac.} \times 70\%) + (72 \text{ Ac} \times 90\%)}{47,006 \text{ Ac}} = 70\%$	$\frac{(25,359 \text{ Ac.} \times 70\%) + (6,850 \text{ Ac.} \times 90\%)}{32,209 \text{ Ac}} = 74\%$

4. Stocking Level Calculations*

	<u>South Paiute</u>	<u>North Paiute</u>
<u>1987</u>	$\frac{2,371 \text{ AUMs} \times 50\%}{80\%} = 1,482 \text{ AUMs}$	$\frac{1,154 \text{ AUMs} \times 50\%}{70\%} = 824 \text{ AUMs}$
<u>1988</u>	$\frac{2,436 \text{ AUMs} \times 50\%}{83\%} = 1,467 \text{ AUMs}$	$\frac{1,359 \text{ AUMs} \times 50\%}{70\%} = 971 \text{ AUMs}$
<u>1989</u>	$\frac{3,894 \text{ AUMs} \times 50\%}{76\%} = 2,562 \text{ AUMs}$	$\frac{4,230 \text{ AUMs} \times 50\%}{70\%} = 3,021 \text{ AUMs}$
<u>1990</u>	$\frac{3,168 \text{ AUMs} \times 50\%}{74\%} = 2,141 \text{ AUMs}$	$\frac{6,943 \text{ AUMs} \times 50\%}{70\%} = 4,959 \text{ AUMs}$
	<hr style="width: 50%; margin: 0 auto;"/> 6, 830 AUMs	<hr style="width: 50%; margin: 0 auto;"/> 8,934 AUMs

$6,830 \div 4 = 1,708 \text{ AUMs Avg. South Paiute}$
 $8,934 \div 4 = 2,234 \text{ AUMs Avg. North Paiute}$
 3,942 AUMs Total

The calculations have been revised from those presented in the Appendix section of the Draft Allotment Evaluation of July 1991. Final review determined that the dates presented for the wild horse gather of December 1988-January 1989 were incorrect in that version. The referenced gather actually took place in December 1987-January 1988. This significantly affected the Actual Use figures used in the calculations which resulted in the lower figures.

APPENDIX 2

The following indicates the actual use by livestock and wild horses for grazing years 1987-1990. These actual use figures were used in the development of recommendations to adjust livestock and wild horse forage demand to available forage levels. The years 1987-1990 were used as these are the years of data collection and also the years of recent wild horse census.

Wild horse Actual Use - 1987-1990

Year	South Paiute			North Paiute		
	# of Wild Horses	Period	AUMs	# of Wild Horses	Period	AUMs
1987	448 H	03/01-11/30	4,050	218 H	03/01-11/30	1,971
	203 H	12/01-02/28	601	18 H	12/01-02/28	53
1988	203 H	03/01-02/28	2,436	18 H	03/01-02/28	216
1989	203 H	03/01-07/18	934	18 H	03/01-07/18	83
	408 H	07/19-02/14	2,830	243 H	07/19-02/14	1,686
	264 H	02/15-02/28	122	244 H	02/15-02/28	112
1990	264 H	03/01-02/28	3,168	244 H	03/01-02/28	2,928

South Paiute	North Paiute
1987 - 4,651 AUMs	1987 - 2,024 AUMs
1988 - 2,436 AUMs	1988 - 216 AUMs
1989 - 3,886 AUMs	1989 - 1,881 AUMs
1990 - 3,168 AUMs	1990 - 2,928 AUMs
14,141 AUMs	7,049 AUMs

The actual use (AUMs) were determined by utilizing the AUMs.BAS computer program calculation. This program calculates AUMs based on the grazing years.

14,141 AUMs Actual Use South Paiute
7,049 AUMs Actual Use North Paiute
 21,190 AUMs Total

The total actual use figure of 21,190 AUMs was then divided by 4 years to determine an actual use average as follows;

$21,190 \text{ AUMs} \div 4 = 5,290 \text{ AUMs Avg. (4 years) wild horses.}$

A census was conducted during Oct. 6-8, 1987. This number was carried back to the beginning of the calendar year.

During Dec. 1987 and Jan. 1988 horses were gathered which reduced numbers beginning 12/87.

A census was completed on 07/18/89 which increased numbers.

A census was again completed on 02/14/90 which decreased numbers.

Livestock Authorized Actual Use

1987	No Use
1988	1,143 AUMs
1989	2,342 AUMs
1990	<u>4,017</u> AUMs
Total	7,502 AUMs

7,502 AUMs ÷ 4 yrs = 1,876 AUMs Avg. Livestock Use
The authorized use in 1991 and 1992 was 4350 AUMs.

APPENDIX 3

Historical Distribution of Wild Horses in the Black Rock Range West and East HMAs

This table is based upon actual wild horse counts made by air from 1969 through 1992. This table does not include estimates, ground observations or numbers of animals removed in a gather process.

<u>Year</u>	<u>Date</u>	<u>No. in West HMA</u>	<u>% of Total</u>	<u>No. in East HMA</u>	<u>% of Total</u>	<u>Total</u>
1969*	03/12	3	14	18	86	21
1970	11/10	170	70	73	30	243
1974	10/07	258	68	123	32	381
1975	02/10	160	63	92	37	252
1975	07/01	200	63	115	37	315
1977	04/04	333	54	282	46	615
1979	09/17	463	49	471	51	934
1980**	winter	310	88	40	12	350
1980**	07/24	344	88	46	12	390
1986***	06/12	238	18	1075	82	1313
1987***	10/06	537	45	666	55	1203
1989***	07/17	485	43	651	57	1136
1991	07/26	521	48	558	52	1079
1991	12/28	435	37	733	63	1168
1992**	03/10	338	57	255	43	593
1992**	05/23	316	37	525	63	841
1992	07/22	<u>383</u>	<u>56</u>	<u>299</u>	<u>44</u>	<u>682</u>
		5,494	X = 48%	6,022	X = 52%	11,516

* flight conducted to determine presence of wild horses only

** post-gather flights--gather conducted in December/January 79/80 and February 1992

*** 1986 and 1987 total non-use was taken by permittees on both Paiute Meadows Allotment and Soldier Meadows Allotment; 1988 85% non-use in Paiute Meadows; 1989 70% non-use in Paiute Meadows; 1990-1991 44% non-use in Paiute Meadows.

Average distribution using all years of distribution flights equals 48% in the West HMA and 52% in the East HMA. However, average distribution of wild horses to the two HMAs by using all years except 1969 and 1980 is approximately 50% to each HMA. This figure is more accurate because the 1969 flight was solely to determine presence of wild horses and was not a complete census. The 1980 flights were immediately following a removal of wild horses to below 50 head on the East HMA only, leaving full numbers in the West HMA, which skews the distribution data. 1992 was included as approx. 200 animals were left in the East HMA following the gather, establishing a significant presence of animals in relation to the West HMA and retaining a distribution pattern.

Expected distribution with a combined AML will be 50/50 with any number of animals is determined. Fluctuations in actual numbers can be expected from year to year, and season to season depending on environmental factors and livestock operation fluctuations.

Appendix 4

POPULATION MODEL

The population model uses age specific survival and fecundity rates derived from the results of the 1992 Black Rock East gather. For details see Appendix 4. To determine year-to-year survival, the number of animals in each age class is multiplied by the appropriate survival parameter, rounded to the nearest integer, and added to the next year's age class. The foals produced each year is calculated by multiplying the number of females in each age class by the appropriate fecundity parameter, summing the total, rounding to the nearest integer and dividing the foals equally between the male and female zero age class (i.e. a 50:50 sex ratio at birth is assumed). The model also incorporates a random mortality generator in the 4-9 age classes to simulate mortality which occurs, but is not caught by the model due to rounding. This involves randomly subtracting zero or one from the total number in each of these age classes.

Only one gather of the 0-5 age class is assumed. If a second gather of these same age classes is done, it will result in the virtual extinction of the population because the most fecund age classes have been removed. The following scenario illustrates this. Assume gathers of 0-5 year olds in fall 1993 and 1999.

<u>Year</u>	<u># Adult Males</u>	<u># Adult Females</u>	<u># Adults</u>
1992	161	184	345
1993	163	184	347
1994	86	92	178
1995	87	92	179
1996	84	87	171
1997	78	80	158
1998	73	74	147
1999	71	69	140
2000	23	17	40
2001	18	13	31
2002	14	10	24
2003	12	8	20
2004	10	7	17
2005	8	7	15
2006	7	6	13
2007	7	7	14
2008	8	7	15
2009	7	6	13
2010	8	6	14
2011	8	6	14
2012	7	6	13
2013	7	7	14
2014	8	8	16
2015	9	10	19
2016	8	10	18
2017	9	11	20
2018	11	12	23
2019	14	13	27
2020	16	16	32
2021	18	18	36

In this case the population is not totally wiped out. This is due to the abnormally large percentage of older animals in the initial population, which were returned to the range following the 1992 gather. These animals, despite their low fecundity, will produce enough foals to maintain the population, albeit at a very low level, for several years. Wild horse populations at these levels for such a long time are much more susceptible to catastrophic events such as accidents, disease, and droughts which can seriously decimate if not totally extinguish the population.

Age Specific Survival

Assumptions:

1. Essentially all horses within this population are dead after 20 years.
2. Mortality favors younger age classes i.e. 0-3. Mortality is higher in young males than it is in young females.
3. Mortality increases in older animals i.e. 8-20. Mortality is higher in older females than in older males.
4. Mortality increases dramatically in age classes 14-20.

AGE CLASS	% SURVIVAL	
	MALES	FEMALES
0-1	.84	.86
1-2	.86	.88
2-3	.87	.89
3-4	.92	.92
4-5	.95	.95
5-6	.96	.96
6-7	.96	.96
7-8	.96	.96
8-9	.96	.94
9-10	.95	.93
10-11	.94	.92
11-12	.91	.89
12-13	.90	.88
13-14	.89	.87
14-15	.87	.85
15-16	.84	.82
16-17	.78	.72
17-18	.70	.64
18-19	.55	.45
19-20	.55	.45
20+	0	0

It is recognized that some wild horses live past twenty; however both their numbers and contribution to the population are negligible.

Paiute Meadows

November 4, 1992

Age Specific Fecundity

AGE CLASS	% FECUNDITY
0-1	0
2	.30
3	.50
4-9	.75
10-13	.35
14-20	.15

Paiute Meadows

November 4, 1992

PAIUTE MEADOWS ALLOTMENT WILD HORSE POPULATION MODEL
 INITIAL POPULATION 345 ADULTS, GATHER FALL 1993 0-5 YEAR OLDS

Year	1992		1993		1994		1995		1996		1997		1998		1999		2000		2001	
Sex	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	26	29	34	34	31	31	26	26	21	21	20	20	13	13	9	9	5	5	5	5
	13	16	22	25	0	0	26	27	22	22	18	18	0	0	11	11	8	8	4	4
	11	14	11	14	0	0	0	0	22	24	19	19	0	0	0	0	9	10	7	7
	12	14	10	12	0	0	0	0	0	0	19	21	0	0	0	0	0	0	8	9
	9	13	11	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	9	10	8	12	10	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8	8	8	9	7	11	10	12	0	0	0	0	0	0	0	0	0	0	0	0
	6	8	8	8	7	8	6	10	9	11	0	0	0	0	0	0	0	0	0	0
	7	6	5	7	7	7	7	7	5	9	9	11	0	0	0	0	0	0	0	0
	6	6	7	6	5	6	6	7	6	6	5	8	8	10	0	0	0	0	0	0
	14	17	6	6	7	6	5	6	6	7	6	6	5	7	8	9	0	0	0	0
	7	16	13	16	6	6	7	6	5	6	6	6	6	6	5	6	8	8	0	0
	15	10	6	14	12	14	5	5	6	5	5	5	5	5	5	5	5	5	7	7
	14	12	14	9	5	12	11	12	5	4	5	4	5	4	5	4	5	4	5	4
	9	8	12	10	12	8	4	10	10	10	4	3	4	3	4	3	4	3	4	3
	8	5	8	7	10	9	10	7	3	9	9	9	3	3	3	3	3	3	3	3
	4	8	7	4	7	6	8	7	8	6	3	7	8	7	3	2	3	2	3	2
	1	7	3	6	5	3	5	4	6	5	6	4	2	5	6	5	2	1	2	1
	2	3	1	4	2	4	4	2	4	3	4	3	4	3	1	3	4	3	1	1
	1	1	1	1	1	2	1	2	2	1	2	1	2	1	2	1	1	1	2	1
	5	2	1	0	1	0	1	1	1	1	1	0	1	0	1	0	1	0	1	0
Total Ad.	345		346		181		182		175		162		150		141		138		140	
AUM's	4,140		4,152		2,172		2,184		2,100		1,944		1,800		1,692		1,680		1,752	

Paiute Meadows

November 4, 1992

YEAR	2002		2003		2004		2005		2006		2007		2008		2009		2010		
SEX	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
	6	6	7	7	8	8	9	9	10	10	10	10	10	10	10	10	11	11	
	4	4	5	5	6	6	7	7	8	8	8	9	8	9	8	9	8	9	
	3	4	3	4	4	4	5	5	6	6	7	7	7	8	7	8	7	8	
	6	6	3	4	3	4	3	4	4	4	5	5	6	6	6	7	6	7	
	7	8	6	6	3	4	3	4	3	4	4	4	5	5	6	6	6	6	
	0	0	7	8	5	5	2	3	3	4	2	3	4	3	5	5	5	5	
	0	0	0	0	7	8	5	5	1	2	3	3	1	3	4	2	4	4	
	0	0	0	0	0	0	6	8	4	4	1	1	3	2	1	3	4	2	
	0	0	0	0	0	0	0	0	5	7	4	3	1	1	3	1	1	2	
	0	0	0	0	0	0	0	0	0	0	5	6	4	3	0	1	2	0	
	0	0	0	0	0	0	0	0	0	0	0	0	5	6	4	3	0	1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	4	3	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	
	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	3	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	3	3	3	3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	
	3	2	3	2	3	2	3	3	0	0	0	0	0	0	0	0	0	0	
	2	1	2	1	2	1	2	1	2	2	0	0	0	0	0	0	0	0	
	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	
	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	0	
	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	0	
Total Ad.	146				154		165		177		192		210		233		258		
AUM's	1,752				1,848		1,920		2,124		2,304		2,520		2,796		3,096		3,384

Paiute Meadows

November 4, 1992

<u>Year</u>	<u>No. Ad. Male</u>	<u>No. Ad. Female</u>	<u>No. Adults</u>	<u>AUMs</u>
1992	161	184	345	4,140
1993	164	182	346	4,152
1994	89	92	181	2,172
1995	91	91	182	2,184
1996	88	87	175	2,100
1997	82	80	162	1,944
1998	76	74	150	1,800
1999	72	69	141	1,692
2000	71	67	138	1,656
2001	72	68	140	1,680
2002	74	72	146	1,752
2003	78	76	154	1,848
2004	84	81	165	1,980
2005	88	89	177	2,124
2006	95	97	192	2,304
2007	104	106	210	2,520
2008	115	118	233	2,796
2009	128	130	258	3,096
2010	140	142	282	3,384

11-28-92

BOB MILLER
Governor

STATE OF NEVADA

CATHERINE BARCOMB
Executive Director



COMMISSION FOR THE
PRESERVATION OF WILD HORSES

Stewart Facility
Capitol Complex
Carson City, Nevada 89710
(702) 687-5589

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Steven Fulstone
Smith Valley, Nevada
Dawn Lappin
Reno, Nevada

November 28, 1992

Scott Billing, Area Manager
Paradise-Denio Resource Area
BLM-Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

RE: Paiute Meadows Appeal

Dear Mr. Billing,

This letter is in response to your October 28, 1992, letter refusing our second appeal of a decision you made on the Paiute Meadows Allotment wherein you changed and reauthorized grazing on that allotment.

We formally appeal your decision to refuse our appeal dated September 18, 1992, wherein we appealed the issuance of the grazing authorization for the remainder of the 1992 grazing year on the Paiute Meadows Allotment.

According to our rights under the law we have the ability to appeal a decision by a District. We have been working with you on this appeal since November of 1991. The original appeal was withdrawn with stipulations. The first stipulation was a withdrawal of the original decision by BLM, authorizing use for the 1992 season as well as consultation and coordination before a permit was issued for that season. This was not done by the Bureau, in fact a new decision authorizing grazing on the Paiute Meadows Allotment was issued starting May 1, 1992, without public participation, and the original decision wasn't withdrawn until you were reminded by us that you had not followed through with your agreement. This was 3 months after the agreement with our agency was signed.

According to the law, we have attempted to work within the land use planning process by providing comments to documents, protesting when we feel that our comments have been ignored, and then in frustration appealing to the Interior Board of Land Appeals (IBLA), for relief from a decision we feel that was made in violation of BLM policy, procedure, and law, as well as with violations of NEPA and FLPMA. When an appeal is filed we believe that it is to gain relief and to obtain an independent decision as

Scott Billing, Area Manager
November 28, 1992
Page 2

to the procedure by that District. We were completely unaware that the authority of the IBLA was delegated to your individual District to decide for the IBLA on an issue. We appealed to IBLA a decision you made, you chose on your own not to allow that appeal. If a criminal were to rob a bank it is not his decision if he is to go to jail or not, it is the courts decision. We believe under the law that when we filed our appeal that it was to be IBLA that would decide if our appeal was valid, not the offending District. Please provide us with the law, that we are unaware of, that delegates the IBLA authority to you to decide on our appeal to them.

According to the "National Wildlife Federation v. BLM Appeal of the San Juan Resource's issuance of a grazing permit and schedule for the 1991-92 season on the Comb Wash Allotment," it has already been determined that the issuance of a grazing permit and schedule of use is appealable. According to the above we believe that your decision of October 28, 1992, is in violation and error.

Therefore we strongly request that you file our September 18, 1992, formal appeal as well as your delinquent filing of our June 25, 1992, formal appeal of your decisions for use on that allotment with IBLA. You have stalled these appeals being presented to IBLA long enough and we don't believe you have that authority. By law it is your charge to protect the habitat for all users of the public land and we believe under that law you have been negligent in your duties. It is our belief, at this point and for all of the previous months that it is under the jurisdiction of the IBLA to decide if you are negligent and not the District itself!

Please advise us how this matter will now proceed. If you have any questions or would care to discuss this matter, we would welcome the opportunity to discuss this with you further.

Sincerely,



CATHERINE BARCOMB
Executive Director

W H O A

WILD HORSE ORGANIZED ASSISTANCE

P.O. BOX 555

RENO, NEVADA 89504

(702) 851-4817

BOARD OF TRUSTEES

DAVID R. BELDING

JACK C. McELWEE

GORDON W. HARRIS

In Memoriam

LOUISE C. HARRISON

VELMA B. JOHNSTON, "Wild Horse Annie"

GERTRUDE BRONN

11/28/92

Black Rock E

November 28, 1992

Scott Billing, Area Manager
Paradise-Denio Resource Area
BLM-Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

RE: Paiute Meadows Appeal

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Scott Billing, Area Manager
November 28, 1992
Page 2

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Please advise us how this matter will now proceed. If you have any questions or would care to discuss this matter, we would welcome the opportunity to discuss this with you further.

Sincerely,

DAWN Y. LAPPIN
Director



STATE OF NEVADA
DEPARTMENT OF WILDLIFE

1100 Valley Road
P.O. Box 10678
Reno, Nevada 89520-0022
(702) 688-1500
Fax (702) 688-1595

BOB MILLER
Governor

WILLIAM A. MOLINI
Director

November 30, 1992

Mr. Scott Billings
Paradise-Denio Resource Area
Bureau of Land Management
705 East Fourth Street
Winnemucca, Nevada 89445

RE: Draft Paiute Meadows Allotment Evaluation

Dear Scott:

Our agency has received the 1992 Paiute Meadows Allotment Evaluation. As you are aware, the Department has appealed all grazing authorizations for the Paiute Meadows Allotment beginning with the Multiple Use Decision of November 22, 1992; the 1992 Grazing Permit issued May 1, 1992; Manager's Decision June 30, 1992; and Re-authorization of the 1992 Grazing Permit on August 6, 1992. In addition to our appeals, various affected interests have issued appeals concerning the management of this allotment. These appeals focus upon the Bureau of Land Management's planning evaluation processes, compliance to its land use plan and errors in decisions that adversely affect fish and wildlife habitats.

The 1992 Draft Paiute Meadows Allotment Evaluation is incomplete, has contrary rangeland monitoring data and did not consider the concerns and issues expressed by the Department in previous comments and appeals. Failure to recognize these issues and concerns of other affected interests have resulted in serious shortcomings in this allotment evaluation's recommended management alternatives. We suggest that the District broaden its scope to include data, analysis and recommendations that will consider the natural resources found on the Paiute Meadows Allotment.

Mr. Scott Billings
November 30, 1992
Page 2

The Allotment Evaluation is incomplete.

Actual use of livestock per pasture by year is not presented. Licensed livestock use in 1991 and 1992 is not shown. Grazing permits and mid-season authorizations were appealed by the Department based upon known practices that are harmful to fish and wildlife habitats. These data were collected by the District and must be included in this evaluation.

Wild horses have and are causing damage to the range. We agree with the District that the wild horses inhabiting the Black Rock Range do not limit their distribution to a Resource Area or allotment boundary. Data clearly show the herd's distribution encompasses both the Paiute Meadows and Soldier Meadows Allotments. The Soldier Meadows Allotment Evaluation has not been completed. The Soldier Meadows Allotment Evaluation must be available prior to making final comments on the Paiute Meadows Allotment Evaluation.

Stream survey data for waters in the Paiute Meadows Allotment have been completed, but not included in the Draft Paiute Meadows Allotment Evaluation. Cooperative General Aquatic Wildlife Surveys for streams on this allotment were completed by our agencies in 1989 with formal reports submitted to your office in 1990. In addition to these federal stream surveys, the Paradise-Denio Resource Area conducted Bureau of Land Management stream surveys in 1991 and 1992. In 1992, General Aquatic Wildlife Surveys were again conducted on streams within the allotment. These data were not included in the Draft Paiute Meadows Allotment Evaluation.

The allotment evaluation has contrary data.

The only new rangeland monitoring data collected since 1989 are presented on page 19 and 20. Since use pattern mapping data were not presented on maps and cage sites are not shown, the Department of Wildlife visited the District on November 17, 1992 to retrieve data and consult with the range conservationist. From this meeting, the Department was advised that there may be serious errors in the data presented. District stream survey data are contrary to data collected by the range conservationist.

For example, Site 14 is a cage located in the key area within the seeding of the South Pasture. This location was used by livestock, wild horses and antelope. The range conservationist monitored the site in the spring of 1992 and recorded "moderate" use (41 to 60 percent). On June 23, 1992 the Department of Wildlife photographed this cage and observed significant use by wild horses of perennial grasses. This observation would agree with the range conservationist's observation in May 1992. However, on

Mr. Scott Billings
November 30, 1992
Page 3

July 7, 1992 the same range conservationist recorded "slight" (21 to 40 percent) at Site 14. In absence of any precipitation, without regard for the end of the growing season and with season long continuous use by wild horses, the utilization of key species decreased.

Based on our conversations with the acting range conservationist, we concluded that serious errors in monitoring sites and observations are continued in the draft document. In addition to this problem, we found the stream survey data to be contrary to the draft allotment evaluation. Data from these stream surveys were not considered. Rangeland monitoring data found in this draft document is not credible and will require major revision.

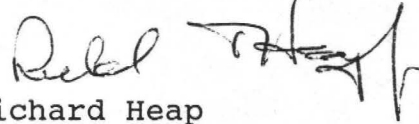
The allotment evaluation did not consider the Department's concerns.

The Department of Wildlife has repetitively pointed out the District's errors in estimating the livestock carrying capacity for the Paiute Meadows Allotment (See appeals). Methodology use in the draft allotment evaluation did not properly weight critical riparian habitats. Rangeland monitoring data collected since 1987 can show that the alternatives' stocking rates and seasons of use will cause damage to critical riparian habitats on this allotment. On page 34, the District states: "For 1992, this will result in an approximate actual use by wild horses and livestock of 10,000 AUMs, and will exceed the carrying capacity by over 6000 AUMs, or 150%." According to the Department's Appeal June 18, 1992, the 1992 livestock authorization and wild horse use of the allotment exceeded the carrying capacity by at least 200 percent. We suggest the District review previous appeals and submit an alternative that will stop resource damage.

We suggest that another draft allotment evaluation be prepared that will consider our concerns. In addition, the Soldier Meadows Allotment Evaluation must be available to assess wild horse numbers, distribution and impacts to wildlife habitats.

Sincerely,

WILLIAM A. MOLINI, DIRECTOR



Richard Heap
Regional Manager
Region I

CC: Habitat, Reno
Cathy Barcomb, Wild Horse Commission ✓
Rose Strickland, Sierra Club
Johanna Wald, NRDC



**COMMISSION FOR THE
PRESERVATION OF WILD HORSES**

Stewart Facility
Capitol Complex
Carson City, Nevada 89710
(702) 687-5589

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Las Vegas, Nevada

Michael Kirk, D.V.M., *Chairman*
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Paula S. Askew
Carson City, Nevada

Steven Fulstone
Smith Valley, Nevada

Dawn Lappin
Reno, Nevada

December 4, 1992

Scott Billing, Area Manager
Paradise-Denio Resource Area
BLM-Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

RE: Draft Paiute Meadows Allotment Evaluation

Dear Mr. Billing,

Thank you for the opportunity to review and comment on the Draft Paiute Meadows Allotment Evaluation (AE). However, according to the agreement signed last February 7, 1992, by ourselves and Billy Templeton, Nevada State Director, "...planning for the two Black Rock HMA's will be coordinated, in recognition of the migration of horses between the two herd areas and other relationships." Therefore, we protest the issuance of this entire draft AE:

- 1) Because it violates the agreement of February 7, 1992;
- 2) There are obvious flaws in the monitoring data which shows heavy use after the growing period but shows slight use to justify livestock use (page 20).
- 3) How can you determine an overall number of an AML for the two combined areas when the allotment evaluation which analyzes that monitoring data for Black Rock West has not been issued or even considered in this document.

We have already protested, appealed, and discussed all of the above issues in great detail previously to no avail. We recommend that another draft AE be prepared or at the very least that consideration of this proposal be postponed until the AE is issued on Black Rock West.

If you have any questions, please feel free to call.

Sincerely,

CATHERINE BARCOMB
Executive Director

12-3-92

Paiute Livestock Co.
P.O. Box 2991
Winnemucca, NV 89445

DATE: December 3, 1992
TO: B.L.M. Interested Party's
FROM: Gail Phillips
SUBJECT: Regarding Allotment Evaluation of Paiute Meadows

THE BASIS OF A WORKING RANCH AND THE B.L.M.

The rancher, when purchasing most ranches in Nevada and a lot of the western states, buys B.L.M. rights or animal units per month (A.U.M.'s). They purchase these rights just like one would buy a house or purchase a piece of land. Some ranches may only have a couple hundred acres of deeded land, but may have thousands of A.U.M.'s. If these animal units are taken away from them they virtually have nothing. It's like stealing the house and leaving the bathroom. That's what seems to be happening today to Americas Ranchers.

My primary interest, however, is the Paiute Meadows Ranch. This has been a working cattle ranch for years and I have picked this place to work and enjoy; hopefully, to pass on to my son and his children; to keep the cattle ranching heritage going, a way of life all of my family loves and have worked hard to keep. I, along with hundreds of others, feel threatened and harassed by the way things are going today.

The horse groups are worried about the horses. We Ranchers like the horses too; but things got out of hand when people from the cities started thinking they were an "endangered species," which seems to be a good word for action in todays political environment. If one were to talk to someone who knows wild horses, (wild, meaning never domesticated), these were not of that origin to start with. Moreover, these horses have been left, to the most part, to roam free on B.L.M. land that ranchers have bought the rights to use. We have taken care of these horses for years, but now they are completely out of hand. There is no breeding program for these horses; they have inbred so badly that someday they will be so small that people will want them for pets like dogs; or they may even self destruct themselves. We Ranchers don't have the time to wait for this to happen.

This ranch has been on the chopping block for several years; there was an agreement to remove some of the horses, which the B.L.M. did do. However, the agreement was not fully enforced as the numbers were supposed to be approximately 57 head. For example, there was supposed to be a gather on the west side of the Blackrock Range (Soldier Meadows) that was never enforced and the horses from that side have drifted to the east side. (Paiute Meadows). The result being, there is no control over the drift because no agreement has been forthcoming to allow the building of fences or barriers to stop the drift from occurring.

We want our B.L.M. rights returned to the original figures of 7,827 A.U.M.'s (at one time they were 9,321). We want to control our cattle movement incorporating what is best for the land and out cattle operation. We would like to turn out on to North Barlett Creek, April 15th. Although, numbers and date will depend upon the condition of the feed; movement of cattle will be done on an as needed basis, utilizing all the feed in the high country without overgrazing. We want to leave our lower country for winter use.

We see the success of our operation as working in the above described manner. Moreover, THE HORSES NEED TO BE REMOVED down to the 57 head, and spot fences need to be built to stop the drift. The only other alternative we see is for the Horse Groups / Environmentalists, and so on to buy our B.L.M. rights; that way the rights would be theirs to do with what they want.

On December 17, 1992, there will be a consultation meeting held at Humboldt County Library in Winnemucca, Nevada, at 10:00 A.M. All interested are welcome to attend.

Sincerely,

Gail Phillips

The Phillips Family

Written by: Gail Phillips
November 22, 1992

cc:



SIERRA CLUB

Toiyabe Chapter - Nevada and Eastern California
P.O. Box 8096, Reno, Nevada 89507

December 9, 1992

Scott Billing, Manager
BLM/Paradise-Denio RA
705 E. 4th St.
Winnemucca, NV 89445

Re: draft Paiute Meadows Allotment Reevaluation (11/5/92)

Dear Manager Billing,

Thank you for sending the Sierra Club a copy of the second draft allotment evaluation (AE) for the Paiute Meadows Allotment in the Paradise-Denio Resource Area of NW Nevada. I am submitting these comments on behalf of the Sierra Club and Johanna Wald of NRDC.

We have awaited this AE since we settled our appeals early this year on grazing decisions for Paiute Meadows so that excessive wild horse use could be curtailed. We are not surprised that wild horse reductions taken unilaterally in one allotment merely provided an opportunity for wild horses in the adjacent overgrazed allotment to fill the newly open niche.

We had hoped that the BLM would follow through on its promises to include critical protections for the environment in its next grazing decisions (other than reducing wild horse numbers). We are surprised, however, by the incomplete nature of this draft second evaluation as well as the inconsistencies in its monitoring data. We are uncertain that the carrying capacity estimates based on incomplete or flawed data are adequate to stop environmental damage occurring on this allotment from livestock and wild horses.

Lastly, we are appalled by the fact that the BLM has "honored" its regulations (pp. 33 & 34) to authorize grazing use but violated its regulations to protect the environment from abusive livestock overgrazing. The draft actually admits that for 1992, wild horse and livestock use was 10,000 AUMs, exceeding "the carrying capacity by over 6,000 AUMs, or 150%."

At this point, we doubt the usefulness of our "consulting" with BLM as affected interests on our environmental concerns since the agency appears unable or unwilling to provide the environmental protections required by federal laws and regulations in the Paiute Meadows allotment. But, we'll try one more time. Our specific comments and questions follow:

1. Missing data.

- a. Please supply the actual use data for livestock (p.10) for 1991 and 1992.

b. Why is the 1992 NV Dept. of Wildlife (NDOW) stream survey data not available (p.25)? All data should be incorporated in the AE.

c. What is meant by the statement on p. 24 "In 1989, water quality was measured by NDOW, but was taken at one point in time and will not be interpreted for this report?"

d. Are there any other stream survey or other riparian monitoring data available since 1976 and 1988 not incorporated in this AE? All data should be used in the AE.

e. To properly manage wild horses in this allotment, the BLM must know and coordinate with management requirements of the adjacent allotment, Soldier Meadows. In support of this assertion, we need only look at what happened when wild horses were removed from Paiute Meadows and replaced by wild horses from Soldier Meadows Allotment. Why is this AE proceeding without the Soldier Meadows AE? Is there some time constraint under which we are operating? If not, the two AEs should be considered together.

2. Questionable data. The utilization data shown on pp. 19-20 appears less than reliable. Please send me copies of the range conservationist's data score cards for the following "cages."

- On p. 19, data from cage no. 3 show heavy spring use in 1992 followed by slight summer use. What is the growing season for the plants monitored? How can heavy (over 60% use) change into slight (less than 20% use) in a short time, especially given the photos taken by the NDOW two weeks before the "summer" monitoring showing a totally devastated area? Please explain.

- Other strange data:

a. cage nos. 10 & 14 - moderate to light use

b. cage nos. 16, 17, & 20 - heavy to slight use

c. cage no. 22 - heavy to light use

- Please explain these data. Also, how were these data actually used in setting carrying capacity? If the data are in error, carrying capacities will have to be recalculated.

3. Questions:

a. How did BLM compute ecological status (p. 22) for four key areas in 1990? Was ecological status re-computed in 1992?

b. Why were no riparians (p. 22) selected as key areas?

c. Doesn't UPM data (pp.15-17) show wild horse impacts were minimal north of Paiute Creek through 1989 and significant heavy and severe use did not occur until cattle were permitted into the

area in 1990 and 1991? Why does BLM permit livestock use to cause environmental damage in the No. Paiute area?

d. What grazing animals used the Paiute Seeding from 1987-1989? What was the utilization in 1990-1992 and which animals are responsible?

e. Why hasn't normal maintenance been conducted on most range improvements? Isn't this a violation of permit conditions? What are the penalties for non-compliance with permit conditions? Why hasn't BLM enforced these permit conditions?

f. Why didn't BLM use its authority to prevent resource damage and cancel all or part of the grazing permit in 1992 instead of authorizing (p. 34) livestock use which along with wild horse use exceeded the carrying capacity by over 6,000 AUMs?

4. Alternatives recommendations - questions and concerns:

a. Alt. 1:

- If "intensive herding" (p. 39) does not occur (highly doubtful since the permittee is unwilling or unable to perform annual maintenance on range improvements) and livestock use occurs outside designated use areas, what actions will the BLM take? Will the permit be cancelled, in part or in whole? Will livestock be officially trespassed by BLM? Or will BLM take no action until the next evaluation period, 3 to 5 years from now?

- If maintenance and/or reconstruction of range improvements (p. 40) doesn't occur prior to 3/15/93, the turn-out date for livestock, what actions will the BLM take? Will the permit not be issued for 1993?

- When (p. 40) will "all spring sources will be fenced?"

- How much livestock "drift" is occurring (p. 40) into neighboring allotments? Whose livestock are "drifting" into which allotments? I don't recall reading of a livestock trespass problem in the draft AE. Why wasn't it mentioned? Will "gap" or "drift" fences interfere with the free roaming wild horse movements?

Conclusions: There are some good things in this alternative-reducing livestock numbers, combining HMAs, and requiring range improvement maintenance or no permit (if I understand this correctly), and total livestock rest of So. Paiute. There are many questionable things - the accuracy of the 3942 AUM carrying capacity, the change in the season of use, the inequitable split between wild horses and livestock, the five year phase in of livestock number reductions which officially permits continued livestock overgrazing, fencing which may overly restrict wild horse free-roaming, no specific guidelines for resource

rehabilitation before So. Paiute can be used again by livestock, and the pollyanna over-reliance on "intensive herding." The critical flaw in this alternative is the certain continued livestock devastation of riparian areas and the threatened Lahontan Cutthroat Trout recovery streams in No. Paiute.

b. Alt. 2:

- same questions as on Alt. 1.

Conclusions: Riparian fencing to protect Bartlett Creek in No. Paiute is the most positive action yet from the BLM to protect riparians from livestock devastation. Still questionable - will the riparian fence be built before livestock use is permitted in No. Paiute? Also questionable - whether any grazing should be permitted in So. Paiute until the area has recovered in a measureable way from the double problems of severe overgrazing and six years of drought, whether the allotment is suitable for a deferred rotation grazing system, and what the impacts of additional fencing will be on wild horse movements.

c. Alt. 3:

- same questions as on Alts. 1 and 2.

5. What happened to #2 which should be on p. 53 between 1. Alternatives and 3. Objectives?

6. ST and LT Objectives - changes:

- We object to any changes in the Short Term objectives without going through the NEPA process to evaluate whether the changes are environmentally beneficial or detrimental. While we appreciate seeing the key species and commitments on monitoring, we believe the appropriate places for this kind of specificity are in the grazing permit and monitoring plan as well as in the AE.

- We object to any changes in the Long Term objectives without amending the land use plan. Again, we appreciate BLM's recognition that livestock numbers must be adjusted to the carrying capacity of the allotment as well as its intent to correct the overly optimistic long term livestock forage objectives in the land use plan. We disagree with the way the BLM is attempting to do this in the draft document.

7. Appendix 1:

- How does calculating the carrying capacity on the 50% utilization objective comply with the 30% riparian utilization objective?

- No actual use figures by livestock were provided in the draft AE for 1991 and 1992. What numbers were used in the

formula?

- What does "Average/Weighted Average Utilization" mean?

- Using this formula, will BLM be authorizing livestock use in excess of the 1708 AUMs and 2234 AUMs in North and South Pauite areas, respectively, while phasing in reductions of livestock numbers?

Thank you for considering our concerns. We'd appreciate written responses to our questions.

Sincerely,

15/
Rose Strickland, Chair
Public Lands Committee

cc: Johanna Wald, NRDC
NDOW
Wild Horse interests