9-7-94

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Ely District Office
HC 33 Box 33500
Ely, Nevada 89301-9408

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:

4400.5 (NV-047)

SEP 7 1994

Dear Affected Interest:

Enclosed for your information and review as an affected interest is the Monte Cristo Allotment Evaluation. We appreciate your interest in being involved in the consultation process and encourage your written or verbal response to this evaluation. This is another opportunity for you to provide allotment specific information and comments to the evaluation. We would appreciate receiving your information and/or comments by October 7, 1994, to allow BLM adequate time to review all input and adhere to our schedule. All of the information received will be considered prior to the development of the Management Action Selection Report and Proposed Multiple Use Decision.

We appreciate your participation and solicit your continued involvement in the consultation process. If you have any questions, please contact Mark Lowrie of my staff at (702) 289-4865.

Please forward your written comments to:

Mark Lowrie, Range Conservationist
Bureau of Land Management
Egan Resource Area
HC 33 Box 33500
Ely, NV 89301

Sincerely,

Gene L. Drais

Gene L. Drais, Manager
Egan Resource Area

2 Enclosures
1. Monte Cristo Allotment Evaluation (map #1 unattached)
2. Affected Interest Mailing List

The following are Affected Interests on the
Monte Cristo Allotment:

Duckwater Cattle Co.
c/o Alan Forsgren
Duckwater, NV 89314

Nevada Div. of Wildlife
Region II
1375 Mountain City Hwy.
Elko, NV 89801

N-4 Grazing Board
c/o Bill Davidson
P.O. Box 1077
McGill, NV 89318

Resource Concepts, Inc.
340 N. Minnesota St.
Carson City, NV 89703

U.S. Fish & Wildlife Service
Reno Field Station
4600 Kietzke Lane, Bldg. C - 125
Reno, NV 89502

Sierra Club
Toiyabe Chapter - Nevada & Eastern California
P.O. Box 8096
Reno, NV 89507

Natural Resources Defense Council
71 Stevenson St.
San Francisco, CA 94105

The Wilderness Society
116 New Montgomery St., Suite 526
San Francisco, CA 94105

Nevada Farm Bureau
1300 Marietta Way
Sparks, NV 89431

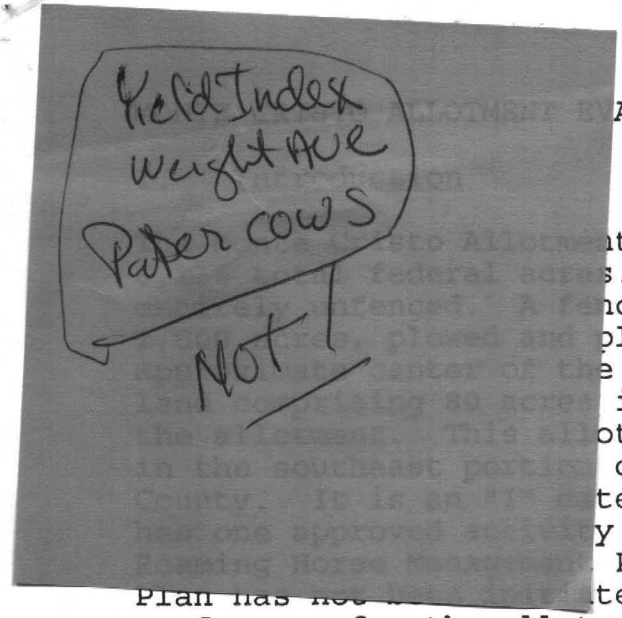
International Society for the Protection of Mustangs & Burros
6212 E. Sweetwater Ave.
Scottsdale, AZ 85254

Animal Protection Institute of America
2831 Fruitridge Road
P.O. Box 22505
Sacramento, CA 95822

Commission for the Preservation of Wild Horses & Burros
Cathy Barcomb, Executive Director
50 Freeport Blvd., #2
Sparks, NV 89431

Wild Horse Organized Assistance
P.O. Box 555
Reno, NV 89504

Humane Equine Rescue & Development Society
1767 Fieldcrest Dr.
Sparks, NV 89434



ALUATION SUMMARY

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planted in 1966, is located in the
e allotment (Map 1). A private parcel of
is situated in the southeast corner of
otment is located west of Mount Hamilton,
of Newark Valley, in western White Pine
tegory allotment (improve category) and
y plan, the Monte Cristo Wild and Free
Plan of 1977. An Allotment Management
Plan has not been completed for the allotment. Total active preference for the allotment is 1,129 AUMs cattle use, with no AUMs in suspended non use. Mr. Alan Forsgren, of Duckwater Cattle Company, is the sole permittee for this allotment. Map 2 illustrates the general location of the allotment within the Egan Resource Area.

Initial Stocking Level

The active preference for the allotment is 1,129 AUMs cattle use. The three year average licensed use documented in the Rangeland Program Summary (RPS) is 372 AUMs per year of cattle use (calculated for 1979 - 1981). Licensed use has averaged 271 AUMs for the last five years, 1989 - 1993).

No formal grazing system is in use on the Monte Cristo Allotment. Typically, Duckwater Cattle Company has grazed the allotment with up to 350 head of cattle during summer and fall, from July through October, in conjunction with their cattle permit on their U.S. Forest Service (USFS) Treasure Hill Allotment. Duckwater Cattle Company made very little cattle grazing use of the allotment during the 1991 and 1992 grazing years. The only documented use was 69 AUMs drift and corral cattle use for both years. Corral cattle use means that cattle were held in the Monte Cristo Seeding temporarily before trailing to the USFS Treasure Hill Allotment.

A. Wild Horse Use

The Monte Cristo Allotment lies entirely within the boundaries of the Monte Cristo Wild Horse Herd Management Area (HMA) (Map 3). The Rangeland Program Summary objective for this allotment is to provide habitat and forage for 2 wild horses (24 AUMs) within the Monte Cristo HMA.

The Monte Cristo Herd is currently managed under a cooperative Herd Management Area Plan (HMAP) finalized and signed in 1977 by

MONTE CRISTO ALLOTMENT EVALUATION SUMMARY

I. Introduction

The Monte Cristo Allotment (0614) is comprised of approximately 6,138 total federal acres. The boundaries of the allotment are entirely unfenced. A fenced Nordan crested wheatgrass seeding of 1,000 acres, plowed and planted in 1966, is located in the approximate center of the allotment (Map 1). A private parcel of land comprising 80 acres is situated in the southeast corner of the allotment. This allotment is located west of Mount Hamilton, in the southeast portion of Newark Valley, in western White Pine County. It is an "I" category allotment (improve category) and has one approved activity plan, the Monte Cristo Wild and Free Roaming Horse Management Plan of 1977. An Allotment Management Plan has not been initiated for the allotment. Total active preference for the allotment is 1,129 AUMs cattle use, with no AUMs in suspended non use. Mr. Alan Forsgren, of Duckwater Cattle Company, is the sole permittee for this allotment. Map 2 illustrates the general location of the allotment within the Egan Resource Area.

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The Monte Cristo Herd is currently managed under a cooperative Herd Management Area Plan (HMAP) finalized and signed in 1977 by

personnel of the White Pine Ranger District, Humboldt National Forest, and personnel of the Egan Resource Area, Ely District BLM. This HMAP is in need of revision to incorporate changes in the wild horse and burro program. However, this document presents excellent history on the Monte Cristo herd area, documents certain wild horse forage preferences, lists water sources, and discusses range condition and livestock and wild horse conflicts during the early 1970's. This document is available for review at the Ely District BLM office.

The Egan Resource Area of the Ely District BLM and Ely Ranger District of the Humboldt National Forest reached an agreement and compromise on March 20, 1992, regarding the division of Monte Cristo Herd use between the BLM and Forest Service. It was agreed that on an annual basis approximately 70% of the Monte Cristo Herd has been and will continue to forage on BLM lands whereas 30% of the herd has been and will continue to forage on USFS lands. This consensus was based upon BLM aerial census, USFS ground surveys, and professional judgments, and was arrived at following conference and discussion between the two agencies. During some years wild horses use BLM lands yearlong; during other years wild horses use USFS lands yearlong. Many wild horses summer on the Forest while using BLM lands during other seasons. During open winters, increased wild horse use occurs on the Forest, whereas harsher winters with snow move wild horses to the valley BLM lands.

For a thorough discussion of wild horse actual use of the allotment see the wild horse actual use section of this evaluation on page nine.

B. Wildlife Use

The RPS objective for this allotment is to provide forage and habitat for reasonable numbers of wildlife, i.e., 150 AUMs for mule deer and 10 AUMs for pronghorn antelope.

This allotment is entirely within Nevada Division of Wildlife (NDOW) mule deer and pronghorn antelope Management Area (MA) 13. Mule deer populations in this area of Nevada have been static to decreasing due to the persistent drought. Fawn production has been reduced and the animals that survive until their first winter are entering the winter period in less than optimum condition. Mule deer are browsers and with the persistent drought, browse production has been limited and higher than normal winter mortality in the fawn segment of the population has been experienced. Very little antelope use occurs on the allotment. For a thorough discussion of existing wildlife use in the allotment see the Wildlife Actual Use section of this evaluation beginning on page eight.

1. Mule Deer
   a. Reasonable numbers: RPS objective - 150 AUMs
   b. Existing use: RPS - 90 AUMs
   c. Existing use from wildlife studies:
      > Resident use (4/1 - 11/30) - 32 AUMs
      > Winter use for mild winters (12/1 - 3/31) - 28 AUMs
      > Winter use for severe winters - 0 AUMs
      > Migratory use (fall/winter) - 60 AUMs
      > Migratory use (spring) - 100 AUMs
   d. Key/Crucial Areas: T.16N., R.56E., Sec.19, SE1/4 NE1/4 - Pinyon-Juniper/ Wyoming sagebrush/bitterbrush range

2. Pronghorn Antelope
   a. Reasonable numbers: RPS objective - 10 AUMs
   b. Existing use: RPS - 0 AUMs
   c. Existing use from wildlife studies:
      > Occasional use - 0 AUMs
   d. Key/Crucial Areas: None identified

III. Allotment Profile

A. Description

The Monte Cristo Allotment (0614) is a category "I" allotment involving 6,138 acres. It is located in White Pine County, Nevada, approximately 50 miles west of Ely in the western portion of the Ely District. Main access to the allotment is via U.S. Highway 50 and the Green Springs/Belmont Road. While the crested wheatgrass seeding within the allotment is entirely fenced, the allotment boundaries are entirely unfenced. To the east of the seeding are Mohawk Canyon, Seligman Canyon, and the lower slopes of Mt. Hamilton, all lands of the Humboldt National Forest. North of the allotment lies the BLM Six Mile Allotment (0613), while to the northwest and west lies the BLM South Pancake Allotment (0615). The BLM Duckwater Allotment (0701) borders Monte Cristo to the south.

Allotment elevations range from 6300 feet in the western valley bottom to 7000 feet in the east. Topography is gently rolling slopes to smooth alluvial fans. The gradient is mild. The range aspect is generally west, with some north facing slopes in the southwest of the allotment.

Water for cattle in this allotment is provided by a well and three stock tanks, two of which are placed inside the seeding. There are also two small overflow ponds inside the seeding. Horses foraging on the allotment water mainly at Emigrant Spring, to the northeast of the allotment, or at the stock tanks and

small water catchments inside the seeding.

The main vegetation types within the Monte Cristo Allotment are as follows:

> Pinyon-Juniper/big sagebrush/perennial bunchgrass plant communities, mainly in the east of the allotment. The Pinyon-Juniper forest is dense on many of the western slopes of Mt. Hamilton and is becoming denser and more widespread as evidenced by many young Pinyon and Juniper trees. There is a fair bunchgrass component in parts of this range, and also some antelope bitterbrush; however, grasses and shrubs are being shaded out by Pinyon and Juniper.

> Northern desert shrub plant communities (big sagebrush/perennial bunchgrass), mainly to the east of the Green Springs Road.

> Desert shrub plant communities, dominated by black sagebrush or winterfat, mainly on lower elevation ground to the west of the main Green Springs Road.

B. Allotment Specific Objectives

1. Land Use Plan (RMP) Objectives

(a) Rangeland Management - "All vegetation will be managed for those successional stages which would best meet the objective of this proposed plan." (Egan Resource Area Record of Decision (ROD), p. 3).

(b) Wild Horses and Burros - Wild horses will be managed at a total of 96 animals within the Monte Cristo HMA. (Egan ROD, p. 6). *

"Future adjustments in wild horse numbers will be based on data provided through the rangeland monitoring program." (Egan ROD, p. 6). Actual wild horse numbers will be determined by this evaluation based upon monitoring data in order to maintain a thriving natural ecological balance and prevent deterioration of the range.

* The 96 horses yearlong in the Monte Cristo HMA is no longer a valid AML. The Interior Board of Land Appeals June 7, 1989 decision (IBLA 88-591, 88-638, 88-648, 88-679) ruled in part: "An AML established for administrative reasons because it was the level of wild horse use at a particular point in time cannot be justified under the statute." The IBLA further ruled that AML must be established through monitoring "in terms of the optimum number which results in a thriving natural ecological balance and avoids deterioration of the range."

(c) Wildlife - "Habitat will be managed for "reasonable numbers" of wildlife species as determined by the Nevada Department of Wildlife" (Egan ROD, p. 6).

"Reintroductions of big game species will be accomplished in cooperation with the Nevada Department of Wildlife, where such reintroductions would not conflict with existing uses and if sufficient forage is available." (Egan ROD. p. 8).

"Forage will be provided for "reasonable numbers" of big game as determined by the Nevada Department of Wildlife." (Egan ROD, p. 8).

(d) Watershed - "Establish utilization limits to maintain watershed cover, plant vigor and soil fertility in consideration of plant phenology, physiology, terrain, water availability, wildlife needs, grazing systems and aesthetic values." (Egan ROD, p. 44).

2. Rangeland Program Summary Objectives

Range

(a) "Provide forage for up to 372 AUMs of livestock use."

(b) Maintain or improve the current ecological condition of the native range with utilization levels not to exceed Nevada Rangeland Monitoring Handbook (NRMH) levels on key species. Allowable use levels for winterfat and perennial grass species are 50%.

(c) Maintain the seeding in good or better condition. *

* This objective was inadvertently left out of the RPS; however, it is consistent with all other seeding objectives in the resource area.

Wild Horses

(d) "Initially manage rangeland habitat to support an Appropriate Management Level (AML) of 2 horses in the Monte Cristo Allotment as part of the Monte Cristo HMA. Provide forage for up to 24 AUMs of wild horse use. (The 2 horses identified in the RPS is no longer a valid AML. See asterisk note above under B.1.(b) for reasons why).

Wildlife/Riparian

(e) "Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: Mule deer 150 AUMs, Pronghorn antelope 10 AUMs."

(f) "Maintain or improve mule deer yearlong habitat in good or better condition."

(g) Protect Sage Grouse breeding complexes by maintaining the big sagebrush sites within 2 miles of active strutting grounds for mid to late seral stage with a minimum of 30% shrub composition by weight.

(h) Protect Ferruginous hawk nest sites by limiting utilization to 50% on winterfat flats within 2 miles of nest sites.

3. Monte Cristo Wild and Free Roaming Horses Management Plan Objectives

The objectives of this plan deal primarily with AMLs for specific areas which are no longer valid (See asterisk note under objective B.1.(b) above). The general objectives for this plan are covered under the Land Use Plan Objectives for the Monte Cristo Allotment.

4. Key Species Identification

Key forage plants for cattle, sheep, wild horses, and deer for this allotment are as follows:

Seeding - Crested wheatgrass (Agropyron cristatum) - AGCR
Native - Indian ricegrass (Oryzopsis hymenoides) - ORHY
- Needle-and-thread (Stipa comata) - STCO
- Bottlebrush squirreltail (Sitanion hystrix) - SIHY
- Winterfat (Eurotia lanata) - EULA
- Antelope bitterbrush (Purshia tridentata) - PUTR and spring grasses and forbs for mule deer

IV. Management Evaluation

A. Purpose

The purpose of this evaluation is to assess whether current management practices are meeting the multiple use objectives for the allotment and to determine the appropriate stocking level and management system for domestic livestock and appropriate management level (AML) for wild horses.

B. Summary of Studies Data

Livestock actual use data has been collected for the allotment since 1987. Wildlife actual use has been determined by the Egan Resource Area Wildlife Biologist. Wild horse actual use has been based on aerial wild horse census, many wild horse ground sightings both within and nearby the allotment, and the consensus of various resource specialists of the Ely District. Precipitation data from the Snowball Ranch Station will be used for this evaluation. Utilization studies have been accomplished inside the seeding in 1977, 1981, 1982, 1987, 1991, 1992, and 1993. Utilization mapping for the seeding has been accomplished in 1987, 1990, 1991, 1992, and 1993. Utilization studies and mapping for native range have been conducted in 1990, 1991, 1992, and 1993. There are two utilization cages established inside the seeding and three in native range. There is currently one frequency trend study for this allotment on native sagebrush/ricegrass range with frequency trend and ecological status (condition) studies established at the key area (MC 1). A utilization cage has also been placed at this key area. A forage condition study was conducted in the seeding in 1993. A phototrend study plot was established inside the seeding in 1976. This plot was photographed in 1976, 1977, 1987, and 1991. A wildlife key area has also been established on the allotment. At this site frequency trend, utilization and cover studies have been read.

1. Livestock Actual Use Calculations - Monte Cristo Allotment

a. Crested wheatgrass seeding

Actual use breakdown (AUMs)

Year	Cattle	Horses	Total AUMs
1990	390*	36	426
1991	22*	72	94
1992	27*	72	99
1993	260	0	260

* Each of these years includes 10 AUMs estimated drift cattle use from the USFS.

b. Monte Cristo native range

Actual use breakdown (AUMs)

Year	Cattle	Horses	Total AUMs
1990	93*	180	273
1991	10**	360	370
1992	10**	360	370
1993	455	288	743

* Corral use during June. Cattle were corralled temporarily in the seeding before trailing to the Treasure Hill USFS Allotment.
** Drift cattle use from the Forest.

2. Wildlife Actual Use

Following is a breakdown of estimated wildlife actual use for the allotment:

Mule Deer

Mule deer use of the allotment is not extensive nor prolonged. Deer resident use of the allotment is limited because of the lack of free water. It is estimated, due to the close proximity of Mt. Hamilton, that 20 deer reside on the allotment from April 1 through November 30, 32 AUMs.

Mule deer winter use of the allotment is contingent on snow depths. The allotment is on a migratory route of deer leaving USFS administered lands to winter west of the Mt. Hamilton area in the Duckwater allotment. Approximately 250 to 350 deer move through the allotment for one month in the fall/winter period, 60 AUMs. If snow depths do not preclude deer from wintering on the allotment it is expected that 30 to 40 deer would spend 4 months wintering on the allotment from December 1 through March 31, 28 AUMs. When deer migrate back toward their summer range on USFS lands it is estimated that approximately 100 AUMs of use is made for 2 months in the spring.

Total mule deer use of the allotment in normal years when snow depths do not preclude winter use is estimated at 220 AUMs. When snow depths are excessive, approximately 192 AUMs of deer use is made on the allotment.

Pronghorn Antelope

Pronghorn antelope use of the allotment is only occasional. There have been two documented sightings of pronghorn on the allotment in the past three years. These sightings were of small

groups of animals (one sighting of 5, the other of 6) in the north end of the allotment on native range. It is believed these animals originated from Railroad Valley to the south of the allotment and pioneered into the area. The allotment has been identified as part of a antelope reintroduction area. A pronghorn antelope augmentation to Newark Valley by NDOW took place in January 1993. The augmentation was to the north of the allotment and the possibility exists that pronghorns will pioneer onto the allotment and reside in the general area. It is estimated that less than 5 AUMs of pronghorn use takes place on the allotment.

Sage Grouse

There is one documented sage grouse lek (strutting ground) on the allotment. There is one sage grouse winter area. The two mile radius of two other leks extends into the allotment.

Candidate T/E Species

There are five documented ferruginous hawk nest sites on the allotment. The ferruginous hawk is a Category 2 species listed by the U.S. Fish and Wildlife Service (USFWS). This means that the hawk could be listed as threatened or endangered in the near future. Yearly nest inspection of the nest sites since 1981 has found as many as 4 of the 5 nests occupied in 1983. Since 1987, there have been no occupied nests on the allotment.

Other Category 2 species that could be found on the allotment, especially during migration periods, are the black tern, western least bittern and the white-faced ibis. The pygmy rabbit and loggerhead shrike can be found on the allotment in any season of the year.

3. Wild Horse Actual Use

Wild horses use all portions of the allotment. Wild horses have been observed inside the fenced seeding on several occasions as the north and south gates to the seeding have been left open on many occasions. More than 60 wild horses were observed in the seeding in one instance, on May 15, 1991.

Wild horses use the allotment yearlong. In winter and early spring they are more likely to forage in the winterfat meadows at valley bottom in the west of the allotment, while in later spring, summer, and fall they graze the Pinyon-Juniper/ big sagebrush/bunchgrass plant communities in the north and east of the allotment, especially below Seligman and Mohawk canyons.

Censused wild horse numbers for that portion of the Monte Cristo Herd Management Area within the boundaries of the Monte Cristo Allotment are shown in Table 1.

Table 1. Wild Horse Census Data, Monte Cristo Allotment

Year	Source	Number of Animals	AUMs Yearlong
1985	5/85 Census	0	0
1986	2/86 Census	2	24
1989	3/89 Census	0	0
1990	No census	0	0
1991	7/91 Census	36	432
1992	8/92 Census	0	0*
1993	2/93 Census	0	0**

* Many wild horses were sighted immediately to the northwest of the allotment, north of Belmont Mill on both BLM and USFS domain.

** A total of 25 wild horses were sighted in the South Pancake and Six Mile Allotments, which border Monte Cristo to the west and north.

In addition to the census data, the following information is provided regarding wild horse utilization of the allotment:

> On May 29, 1991, 31 wild horses were observed in the Monte Cristo Seeding by Joe Stratton, Egan Resource Area Wild Horse and Burro Specialist, and Mark Lowrie, Egan Resource Area Range Conservationist.

> On November 13, 1991, 24 wild horses were sighted in the Monte Cristo Allotment by Mark Lowrie.

> On March 19, 1992, 19 wild horses were observed in the Monte Cristo Seeding by Joe Stratton.

> On April 2, 1992, Lisa Diercks and Wayne Swenson of the White Pine Ranger District, Humboldt National Forest, counted 22 wild horses below Mohawk Canyon just northeast of the allotment.

> On April 10, 1992, 41 adult wild horses with 4 foals were observed in the allotment by Mark Lowrie. Immediately to the east were 13 adult and 2 foal wild horses.

> On April 15, 1992, 34 wild horses were observed on the allotment, 5 inside the seeding and 29 outside, by Joe Stratton.

> On April 27, 1992, 41 adult wild horses with 4 foals were observed in the Monte Cristo and Six Mile allotments and in the Humboldt National Forest northeast of Monte Cristo by Joe Stratton.

> On May 1, 1992, 40 wild horses were observed near the border of the Monte Cristo and Six Mile Allotments by Joe Stratton.

> On November 25, 1992, 8 wild horses were observed in the allotment by BLM personnel.

Based on the census data, wild horse sightings, and the professional opinions of the Wild Horse Specialists and other resource specialists of the Ely District BLM, wild horse actual use for the allotment is estimated as shown in Tables 2 and 3.

Table 2. Wild Horse Estimated Actual Use - Monte Cristo Seeding

Year	Number of Animals	AUMs Yearlong
1990	3	36
1991	6	72
1992	6	72
1993	0	0

Table 3. Wild Horse Estimated Actual Use - Monte Cristo Native

Year	Number of Animals	AUMs Yearlong
1990	15	180
1991	30	360
1992	30	360
1993	24	288

1. Precipitation Data

Data from the precipitation recording station at Snowball Ranch, on the western boundary of the Duckwater Allotment immediately south of the Monte Cristo Allotment, is being used for this evaluation. This data is reported to and summarized by the Office of the State Climatologist, University of Nevada, Reno. Data from the National Oceanic and Atmospheric Administration weather station located at Ely, Nevada, shows similar trends in monthly/annual rainfall patterns, with the exception of 1988, when significantly higher precipitation was measured at Snowball Ranch. Precipitation data will be used to calculate a yield index for each year (Sneva et al. 1983). The yield index will be used to adjust the utilization levels for above or below normal precipitation (compared to long term average). In calculating

the yield index, the first step is to calculate the crop yield (effective precipitation). For the Intermountain Big Sagebrush Region, this includes precipitation falling from September through June. The crop yield is then divided by the normal crop yield (long term average) to determine the precipitation index for each year. The yield index is then calculated using the linear regression equation Y = -23 + 1.23x, where Y is the yield index and x is the precipitation index. Table 6 shows the yield indices for the Snowball Ranch Station for the evaluation years.

Table 6. Yield Indices, Snowball Ranch Station

Year	Crop Yield	Precip Index	Yield Index
1990	5.82	.85	.81
1991	5.36	.78	.73
1992	6.61	.97	.96
1993	6.42	.94	.93

2. Riparian Data

There are no riparian areas, and thus no riparian data, for this allotment.

3. Use Pattern Mapping

Use patterns were mapped for the allotment, both in native range and in the seeding, in 1991, 1992, 1993, and 1994. This measured utilization for the 1990, 1991, 1992, and 1993 grazing years. Use pattern mapping accomplished in spring reflects the previous year's utilization. Results by use class and percent of total acres mapped for native range are shown in Table 7.

Table 7. Use pattern mapping summary - acres and (percent of mapped acres) by use class for native range in the Monte Cristo Allotment

Year	Slight (0 - 20%)	Light (21 - 40%)	Moderate (41 - 60%)	Heavy (61 - 80%)	Severe (81-100%)
1990	<0>	590(11%)	3174(62%)	1374(27%)	<0>
1991	<0>	456(09%)	3226(63%)	1456(28%)	<0>
1992	<0>	942(18%)	3405(66%)	791(16%)	<0>
1993	88(02%)	741(14%)	2379(46%)	1853(36%)	77(02%)

Results of utilization mapping by use class and percent of total acres mapped for the crested wheatgrass seeding are shown in Table 8.

Table 8. Use pattern mapping summary - acres and (percent of mapped acres) by use class for the crested wheatgrass seeding in the Monte Cristo Allotment

Year	Slight (0 - 20%)	Light (21 - 40%)	Moderate (41 - 60%)	Heavy (61 - 80%)	Severe (81-100%)
1990	<0>	<0>	149(15%)	805(80%)	46(05%)
1991	<0>	<0>	444(44%)	520(52%)	36(04%)
1992	152(15%)	551(55%)	297(30%)	<0>	<0>
1993	<0>	195(20%)	290(29%)	515(51%)	<0>

4. Ecological Status

Ecological status studies were completed at key area MC 01 during the summer of both 1991 and 1992. Ecological status estimates the state of succession at a given site by measuring species composition and comparing it to composition of the Potential Natural Community (PNC) or climax for that site. This is estimated as a percentage of PNC, and classifications include Early Seral, or poor, (0 - 25% PNC); Mid Seral, or fair, (26 - 50% PNC); Late Seral, or good, (51 - 75% PNC); and Potential Natural Community, or excellent, (76 - 100% PNC).

A summary of the two ecological condition studies conducted in 1991 and 1992 follows:

Date: 8/29/91
Type of study: Ecological status write up (ocular method)
Form NV 4400-13
Ecological site: 28BY080 NV (Wyoming big sagebrush/ricegrass site)
Precipitation: 8 - 10" Soil Unit: 450 (shallow loam)
Elevation: 6460' Aspect: West Slope: 0 - 8%
Normal production for PNC plant community: 400 lbs/acre
Potential vegetative composition is about 55% grasses, 10% forbs, and 35% shrubs and trees.
Current composition of plant community about 49% of PNC.
Grasses compose 11% of this total
Ecological status: Mid Seral (fair)
Notes: Good species diversity but poor to fair plant vigor; Poor age class distribution - few young seedlings; Few seedstalks; P/J invasion beginning; Desert pavement soil; Little erosion; Mostly old cow sign; Some fresh wild horse sign.

Date: 8/12/92
Type of study: Total annual yield and composition record
Ecological site: 28BY080 NV (Wyoming big sagebrush/ricegrass site)
Precipitation: 8 - 10" Soil Unit: 450 (shallow loam)
Elevation: 6460' Aspect: West Slope: 0 - 8%
Normal production for PNC plant community: 400 lbs/acre
Potential vegetative composition is about 55% grasses, 10% forbs, and 35% shrubs and trees.
Current production of plant community about 233 lbs/acre
Current composition of plant community about 36% grasses
Ecological status: Mid seral (fair)

Notes: Good species diversity; Good ricegrass component; Low production; Poor age class distribution; P/J encroachment beginning; Desert pavement soil; Little erosion; Some current wild horse use.

5. Frequency Trend

A frequency trend study and utilization cage were established in the allotment at key area MC 01 on 8/29/91 and reread on 8/12/92. This study was placed in a wyoming big sagebrush/ricegrass range site in the south of the allotment where cattle and wild horses commonly graze. The legal location of the study is T 16N, R 56E, S 24, SE 1/4 of the NW 1/4. The study is located within a 2 mile radius of a documented sage grouse lek.

This frequency trend study will be reread at 3 and 5 years after establishment to determine long term forage trend. The rereadings will occur during the allotment reevaluation period. For the present, this study has value in that it reveals good plant species diversity and a fair grass component on this site.

7. Forage Condition

Four forage condition studies were completed inside the crested wheatgrass seeding in July of 1993 in order to ascertain the approximate annual plant production of the seeding in air dry weight. Crop year precipitation for the Snowball Ranch Station for September of 1992 through June of 1993 was 6.42 inches, or 92% of the 23 year norm of 6.81 inches.

Production data is as follows:

	Crested Wheatgrass	Wyoming Big Sagebrush
Average production of four studies	294 lbs/acre	471 lbs/acre

Insignificant amounts of needle-and-thread grass and small rabbitbrush were also found in the seeding.

8. Phototrend Plot

One phototrend plot, established inside the crested wheatgrass seeding in 1976, reveals the following information about the seeding.

August, 1976 - Both plot and general range view photos indicate abundant, grazed crested wheatgrass plants beginning to cure. Utilization appears light to moderate. Abundant wyoming big sagebrush is also indicated.

June, 1977 - Both plot and general range view photos indicate abundant, green, vigorous, ungrazed crested wheatgrass plants. Again, abundant big sagebrush is indicated.

August 1987 - Both plot and general range view photos indicate a mixture of grazed and ungrazed cured wheatgrass forage. Crested wheatgrass plants are abundant. Some are wolfy. Big sagebrush is also plentiful.

August 1991 - Both plot and general range view photos indicate very little available forage. The crested wheatgrass plants are droughty, of poor vigor, and overgrazed. The general range view also indicates marked increase in frequency and production of big sagebrush over the 15 year span of this study.

9. Wildlife Study

A wildlife vegetation study was established in May 1984. The study was established in an area utilized by mule deer in the summer months as well as during migration periods. The initial study information was analyzed through the Bureau's WILDIVE program and the study rated the mule deer habitat in good condition. The study was reread in July 1989. With a 95% confidence level, there was significant downward trend noted for one perennial grass species and three forb species. The downward trend depicted for the forb species could be attributed to the drought. Documented excessive wild horse use of the area could be the reason for the downward trend of the perennial grass. The reread study was also analyzed through the Bureau's WILDIVE program and the study area was rated to be in a high fair condition.

V. Conclusions

A. Land Use Plan Objectives

III. B. 1. (a) - Not met
Rationale: The existing vegetation at key area MC1 is in mid seral ecological condition with key grasses composing 24% of the Potential Natural Community (PNC). Grasses should compose approximately 55% of PNC at this site. Utilization has been recorded as moderate at this site for the four years of the evaluation, with use by cattle and wild horses. Utilization by cattle and wild horses has exceeded allowable use levels in other key areas of the allotment. Continued heavy use will result in degraded ecological conditions. Actual cattle use has been far below active preference all four years. If full preference were used, areas of overuse would be even more extensive.

III. B. 1. (b) - Not met
Rationale: Allowable use levels have been exceeded on key areas of the allotment grazed by wild horses and livestock.

III. B. 1. (c) - Met
Rationale: Mule deer habitat in the allotment is rated in high fair condition according to the wildlife study conducted in 1989. Although deer numbers have fluctuated with drought, severe winter, or other weather conditions, there is no indication from our monitoring data that indicates livestock or wild horse use has contributed to the fluctuating numbers.

III. B. 1. (d) - Not met
Rationale: Allowable use levels have been exceeded on key areas of the allotment.

B. Rangeland Program Summary Objectives

III. B. 2. (a) - Not met
Rationale: Forage is available for 372 AUMs of livestock use; however, allowable utilization levels have been exceeded both inside the seeding and in native range. The native range is not being maintained in the appropriate seral stage.

III. B. 2. (b) - Not met
Rationale: Utilization levels have exceeded NRMH allowable use levels on key areas of the native range in the allotment. During the years of the evaluation the north and central native portions of the allotment have been in the heavy use class.

III. B. 2. (c) - Not met
Rationale: The seeding is currently in fair condition at best, with crested wheatgrass producing an average of 294 lbs/acre air dry weight and Wyoming big sagebrush producing an average of 471 lbs/acre air dry weight. Much of the seeding was use mapped as

heavy for the 1990, 1991, and 1993 grazing years and a portion of the seeding was use mapped as severe during the 1990 and 1991 grazing years.

III. B. 2. (d) - Not met
Rationale: Forage is available for 24 AUMs of wild horse use; however, range monitoring studies show that many more than two wild horses are utilizing the allotment yearlong, resulting in heavy use on key areas of the allotment. The AML of 2 as identified in the RPS is no longer a valid AML (see asterisk note under B.1.(b) on page 4).

III. B. 2. (e) - Met
Rationale: Allowable use levels on the majority of mule deer habitat in the eastern portions of the allotment have not been exceeded. Mule deer habitat is rated as good according to the wildlife study conducted in 1989. Livestock and wild horse use has not contributed to fluctuating deer numbers in the allotment.

III. B. 2. (f) - Not met
Rationale: Mule deer yearlong habitat is currently in high fair condition.

III. B. 2. (g) - Met
Rationale: Big sagebrush sites within two miles of active sage grouse strutting grounds are being maintained in mid seral stage with 52% shrub composition by weight.

III. B. 2. (h) - Met
Rationale: Moderate or less use levels have been documented in the small winterfat flat in the northwest portion of the allotment during all four years of the evaluation.

VI. Technical Recommendations

A. Resource Problems

The primary resource problem in the Monte Cristo Allotment is overutilization of key forage species by wild horses and cattle. On native range the key forage species involved include Indian ricegrass, needle and thread grass, and winterfat. Both wild horses and cattle have contributed towards the overutilization of crested wheatgrass inside the Monte Cristo Seeding. The overutilization problems have been aggravated by a five year drought. Mule deer have not contributed towards the overutilization of key forage species in this allotment.

B. Utilization and Stocking Rate Calculations

Data will be analyzed and proper stocking levels calculated for both the seeding and the native range of the allotment. Appropriate stocking levels will be based on monitoring information and calculated using the following formula:

$$\frac{\text{Actual Use (AUMs)}}{\text{Corrected Utilization (\%)*}} = \frac{\text{Proper Stocking Level (AUMs)}}{\text{Desired Utilization (\%)**}}$$

* Value from use pattern mapping, adjusted using yield index.
** Value from Nevada Rangeland Monitoring Handbook - perennial grasses (native) 50%, winterfat 50%, crested wheatgrass 60%.

The Desired Utilization (Proper Use Factor) used in the Stocking Rate Calculations for the Monte Cristo Allotment, native range, is 50% allowable use for winterfat and perennial grasses. The allowable use factor of 50% is supported by current range literature. The proper use factor used in the calculations for the crested wheatgrass seeding is 60% allowable use, also supported by current range literature. Land Use Plan Objectives are expected to be accomplished using the "take half - leave half" benchmark for livestock grazing in native range and the 60% allowable use level in the seeding.

The Monte Cristo Seeding has not previously been adjudicated. The seeding was fenced in 1966 prior to the Wild and Free Roaming Horses and Burros Act of 1971 and is not part of the HMA. The seeding was intended for livestock use only. A proper stocking level for the seeding will be set based on utilization studies.

Utilization/Stocking Rate Calculations - Monte Cristo Seeding

Year	Raw Utiliz.	Yield Index	Corrected Utilization	Actual Use AUMs	Proper Stocking Level AUMs
1990	73%	.81	59.1%	426	432
1991	63%	.73	46.0%	94	123
1992	35%	.96	33.6%	99	177
1993	59%	.93	54.9%	260	284

The average proper stocking level is 254 AUMs. Since this seeding was fenced to exclude wild horses, this stocking level will be apportioned to cattle.

Cattle - 100% of demand x 254 AUMs = 254 AUMs

This stocking rate works out to 3.94 acres per AUM. This figure is very comparable to an average stocking rate of 3.67 acres per AUM for 4 other crested wheatgrass seedings recently decisioned by the Egan Resource Area.

In the Monte Cristo native range, involving combined use by both cattle and wild horses, the calculated proper stocking level will be apportioned to cattle and wild horses based on percentage of demand. Demand AUMs for the allotment will be considered the total of livestock preference adjudicated to the allotment, plus existing wild horse use, based on the latest estimate.

Utilization/Stocking Rate Calculations - Native Range

Year	Raw Utiliz.	Yield Index	Corrected Utilization	Actual Use AUMs	Proper Stocking Level AUMs
1990	55%	.81	44.6%	273	306
1991	54%	.73	39.4%	370	470
1992	57%	.96	54.7%	370	338
1993	72%	.93	67.0%	743	554

The average proper stocking level is 417 AUMs. Since this is combined use, the stocking level will be proportioned to cattle and wild horses based on preference demand for cattle and four year average actual use by wild horses.

1. Forage Demand (AUMs)

Cattle Preference	1,129 (79.7%)
Sheep Preference	0 (0)
Wild Horses (most recent estimate 2/93)	288 (20.3%)
	1,417 (100.0%)

2. Average Actual Use And Wild Horse Census (AUMs)

Cattle	142 (32.3%)
Sheep	0 (0)
Wild Horses (four year average)	297 (67.7%)
	439 (100.0%)

3. Stocking Rate Adjustments

a.

Demand	1,417 AUMs
Less adjudication to seeding	276 AUMs
Adjusted demand	1,141 AUMs
Stocking level	417 AUMs
Reduction	724 AUMs

b. Reduction by user - Based on percentage of average actual use & most recent wild horse estimate.

Cattle	724 AUMs	X .323	=	234 AUMs
Wild horses	724 AUMs	X .677	=	490 AUMs*

* Since a reduction in current demand based on this data would require a reduction of 490 AUMs to horses, or 202 AUMs more than current wild horse demand, the new stocking level will be proportioned based upon preference demand for cattle and the most recent wild horse estimate.

c. New stocking level - Native range

Cattle	417 AUMs	X .797	=	332 AUMs
Wild horses	417 AUMs	X .203	=	85 AUMs

4. New Livestock Preference by Permittee

Only one permittee grazes the Monte Cristo Allotment, Duckwater Cattle Company.

Permittee	Prefer. - Individ. Reduct. = New Prefer.
Duckwater Cattle Co.	1,129 AUMs - 543 AUMs = 586 AUMs*

* Of the 586 AUMs new preference, 254 AUMs will be authorized in the fenced seeding and 332 AUMs will be authorized in the native range.

5. Total Use Authorizations (AUMs) and Wild Horse AML

a. Demand less reduction = authorization

Cattle	1,129	- 543	=	586 AUMs
Wild Horses	288	- 203	=	85 AUMs AML (7 wild horses yearlong)
	1,417	- 746	=	671 Total Use

C. Short Term Solutions

> Set the stocking rate at 586 AUMs for cattle, as indicated by monitoring studies. Adjudicate 254 AUMs to the seeding and 332 AUMs to native range. When cattle are authorized to graze the seeding, all seeding gates will be kept closed. All seeding gates will also be kept closed when cattle are authorized to graze the native range.

> Establish a wild horse AML of 85 AUMs (7 wild horses yearlong), as indicated by monitoring studies.

> Maintain cattle season of use for Duckwater Cattle Co. in this allotment as summer/fall (from 7/1 to 10/31).

> Salt and supplements will not be allowed within 1/2 mile of stock waters, nor in winterfat vegetation.

D. Long Term Solutions

The following long term solutions should be implemented. Any projects recommended will be initiated when time, funding, and manpower allows.

(a) Continue to monitor to determine if further adjustments to livestock and wild horse use are necessary, including rereading existing studies, establishing new studies, accomplishing yearly utilization surveys, wild horse census, and other studies as needed.

(b) Manage wild horse numbers at a level which will maintain a thriving natural ecological balance and prevent deterioration of the range as determined through monitoring.

(c) Authorize improvement of the well and stock tank east of the seeding and/or develop an additional pipeline and troughs from the well in order to better distribute livestock use if National Environmental Policy Act (NEPA) considerations are in compliance.

(d) Implement a vegetation conversion project in the dense Pinyon-Juniper range via a prescribed burn, chaining only, or chaining and seeding. This would benefit mule deer, cattle, wild horses, and other wildlife.

(e) Construct an east/west fence in cooperation with Duckwater Cattle Company dividing the Monte Cristo Allotment from the Green Springs Use Area of the Duckwater Allotment to the south. This will facilitate better control of livestock grazing.

E. Additional Monitoring Data Required

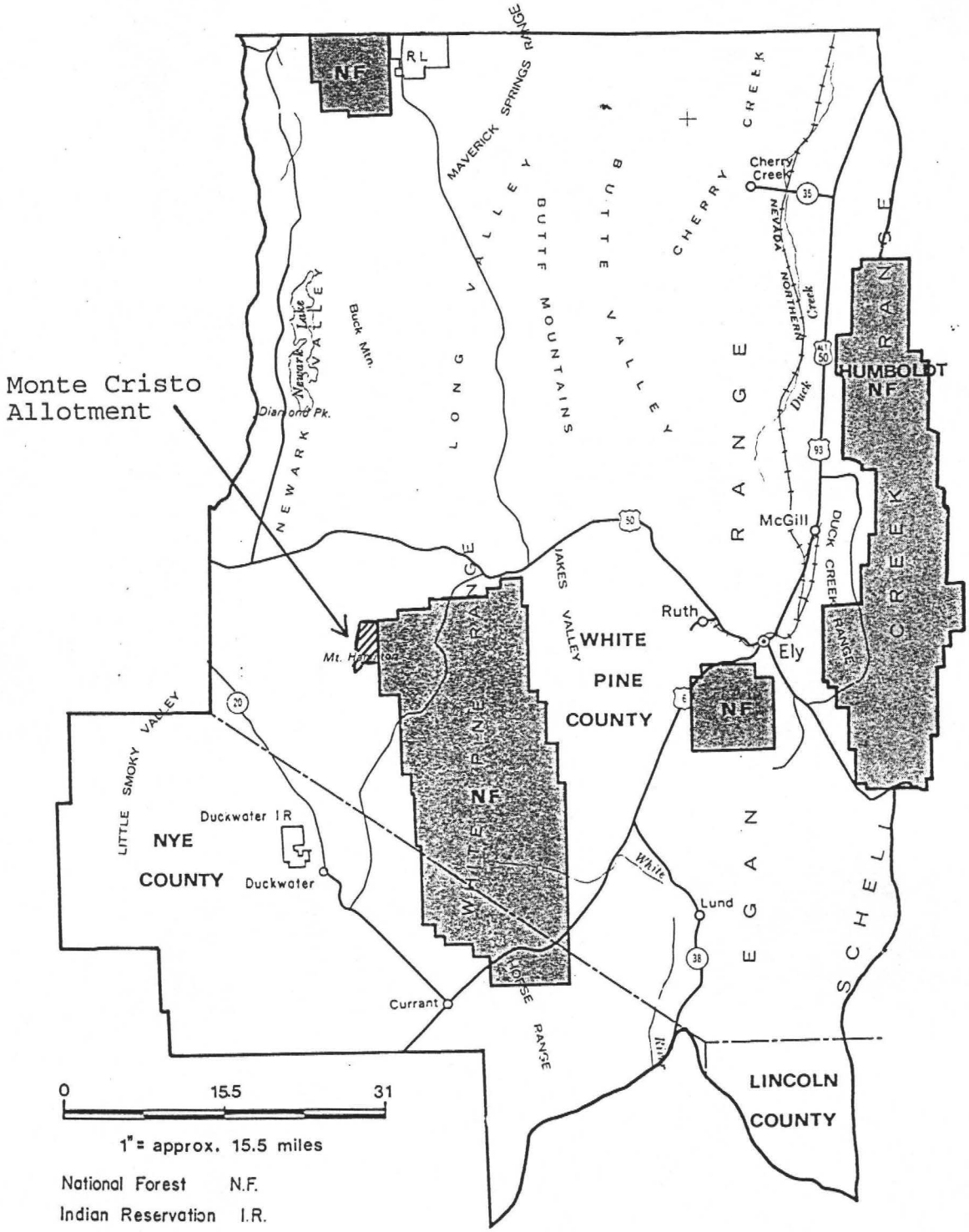
Continue to conduct use pattern mapping, key area utilization, and re-read frequency studies to insure correct stocking rates.

Continue to monitor livestock, wild horse, and wildlife actual use.

Continue to conduct aerial census of wild horses to monitor movements and actual use. Document wild horse observations.

MAP 2 - MONTE CRISTO ALLOTMENT

WITHIN EGAN RESOURCE AREA



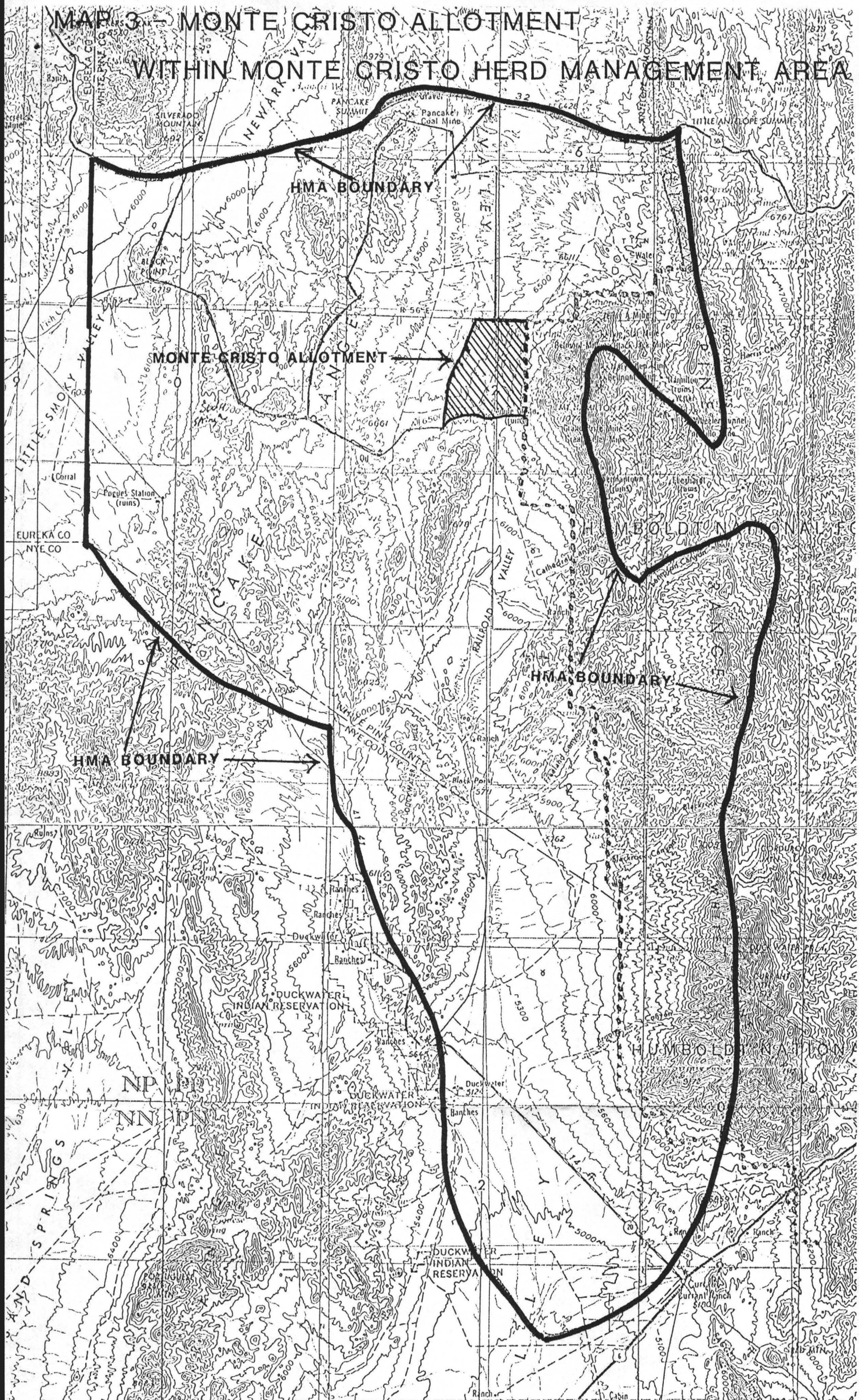
EGAN R.A.

ELY DISTRICT

BUREAU OF LAND MANAGEMENT

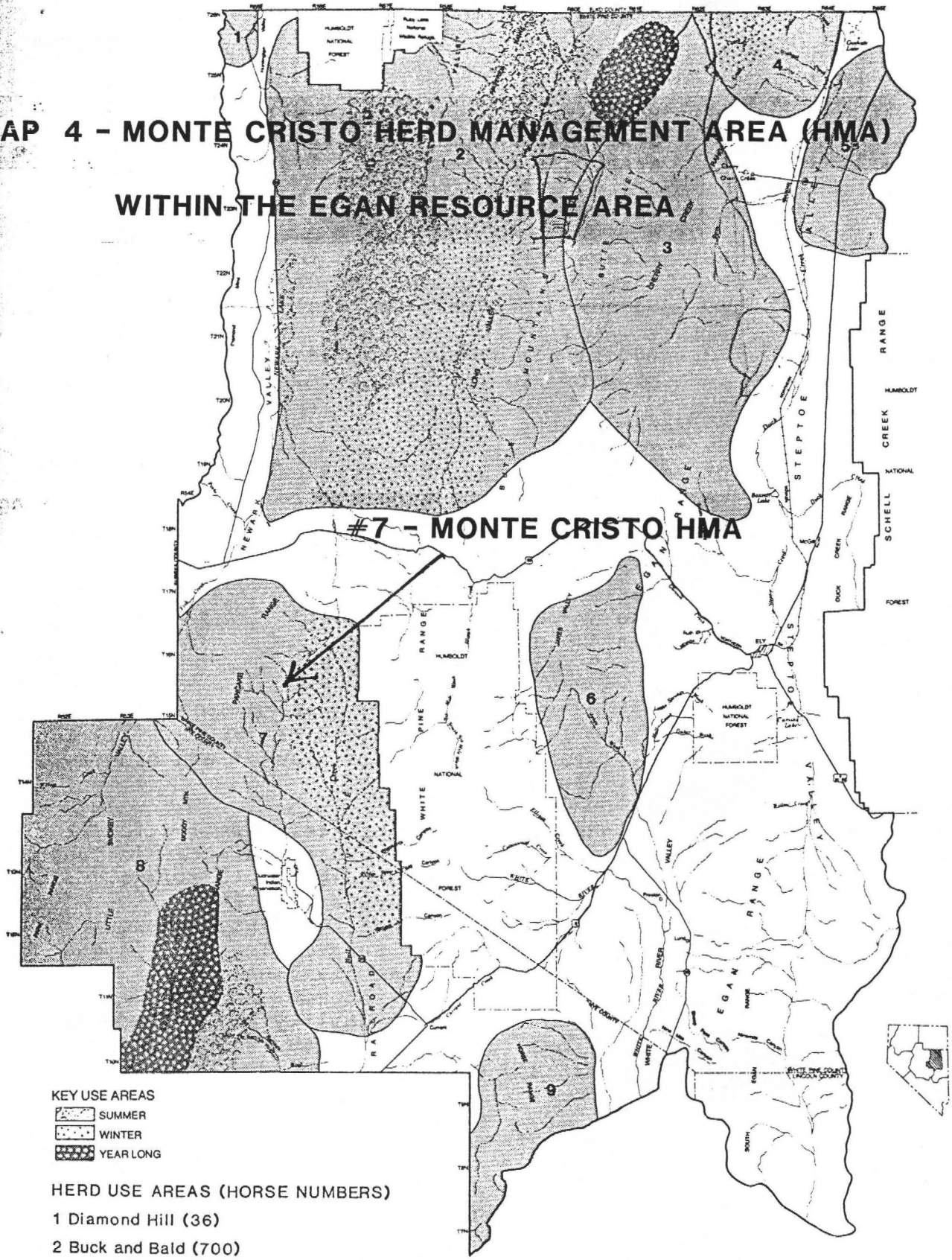
U. S. DEPARTMENT OF THE INTERIOR

MAP 3 – MONTE CRISTO ALLOTMENT WITHIN MONTE CRISTO HERD MANAGEMENT AREA



MAP 4 - MONTE CRISTO HERD MANAGEMENT AREA (HMA)

WITHIN THE EGAN RESOURCE AREA



KEY USE AREAS

- SUMMER
- WINTER
- YEAR LONG

HERD USE AREAS (HORSE NUMBERS)

1 Diamond Hill (36)

2 Buck and Bald (700)

3 Butte (60)

4 Cherry Creek (11)

5 Antelope (14)

6 Jakes Wash (20)

7 Monte Cristo (96)

8 Sand Springs (494)

9 White River (20)

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EGAN RESOURCE AREA

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EGAN RECORD OF DECISION

WILD HORSE HERD USE AREAS

1986

MAP 1
MONTE CRISTO ALLOTMENT (0614)

NEWARK VALLEY

SOUTH PANCAKE ALLOTMENT

SIX MILE ALLOTMENT

TO HWY. 50

HUMBOLDT NATIONAL FOREST

MONTE CRISTO SEEDING

SEEDING

DUCKWATER ALLOTMENT

TO GREEN SPRINGS

PANCAKE

Monte Cristo Spring

Selgman

T 17 N
T 16 N

R 56 E
R 57 E

The following are Affected Interests on the
Monte Cristo Allotment:

Duckwater Cattle Co.
c/o Alan Forsgren
Duckwater, NV 89314

Nevada Div. of Wildlife
Region II
1375 Mountain City Hwy.
Elko, NV 89801

N-4 Grazing Board
c/o Bill Davidson
P.O. Box 1077
McGill, NV 89318

Resource Concepts, Inc.
340 N. Minnesota St.
Carson City, NV 89703

U.S. Fish & Wildlife Service
Reno Field Station
4600 Kietzke Lane, Bldg. C - 125
Reno, NV 89502

Sierra Club
Toiyabe Chapter - Nevada & Eastern California
P.O. Box 8096
Reno, NV 89507

Natural Resources Defense Council
71 Stevenson St.
San Francisco, CA 94105

The Wilderness Society
116 New Montgomery St., Suite 526
San Francisco, CA 94105

Nevada Farm Bureau
1300 Marietta Way
Sparks, NV 89431

International Society for the Protection of Mustangs & Burros
6212 E. Sweetwater Ave.
Scottsdale, AZ 85254

Animal Protection Institute of America
2831 Fruitridge Road
P.O. Box 22505
Sacramento, CA 95822

Commission for the Preservation of Wild Horses & Burros
Cathy Barcomb, Executive Director
50 Freeport Blvd., #2
Sparks, NV 89431

Wild Horse Organized Assistance
P.O. Box 555
Reno, NV 89504

Humane Equine Rescue & Development Society
1767 Fieldcrest Dr.
Sparks, NV 89434

9-21-94

BOB MILLER
Governor

STATE OF NEVADA

CATHERINE BARCOMB
Executive Director

COMMISSION FOR THE PRESERVATION OF WILD HORSES
255 W. Moana Lane
Suite 207A
Reno, Nevada 89509
(702) 688-2626

September 21, 1994

Mr. Gene L. Drais
Egan Resource Area
Bureau of Land Management
HC 33 Box 333500
Ely, Nevada 89301-9408

Subject: Monte Cristo Allotment Evaluation

Dear Mr. Drais:

The Nevada Commission for the Preservation of Wild Horses has reviewed the draft allotment evaluation. We have the following specific comments:

Page 12, Yield Indices

Use of yield indices significantly compromises the actual observed utilization data. In years of severe drought yield indices will compute stocking rates known to cause resource damage.

Page 18, Utilization and Stocking Rate Calculations

Weight averaging observed utilization data and applying yield indices has masked the computations for an allotment carrying capacity. For example, during 1990 livestock and wild horse actual use (426 AUMs) were taken from the Monte Cristo Seeding. Use pattern mapping data showed that 80 percent of the seeding suffered "heavy utilization" or exceeded the carrying capacity. The "Proper Stocking Level AUMs" indicate the proper stocking level is 432 AUMs, which is greater than the 1990 stocking level known to cause significant damage to the seeding. Carrying capacity computations are flawed.

Page 19, Forage Demand

Necessary adjustments or the allocation of available forage is based upon "paper cows". Forage demand is Total Preference and not the actual use data use to determine a livestock carrying capacity.
Reducing from Total Livestock Preference and from actual wild horse use is bias against horses and will not correct the resource problems of this allotment.

Please consider the comments of this Commission prior to the issuance of a final document or proposed multiple use decision.

Sincerely,

Catherine Barcomb

Catherine Barcomb
Executive Director

PAPER COWS!

worst example of CC computation in State