

12/23/93



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Ely District Office
HC 33 Box 33500
Ely, Nevada 89301-9408

IN REPLY REFER TO:

4400.5 (NV-047)

DEC 23 1993

Dear Participant:

We appreciate your interest in being involved in the allotment evaluation consultation process. Enclosed for your information and review is the Lovell Peak Allotment evaluation. This is your opportunity to provide allotment specific information and also provide comments to the evaluation which will be incorporated into Section VIII, Management Action Selection Report. We are especially interested in your input on the technical recommendations, in particular, management options we may have overlooked that would also provide for meeting management objectives for the allotment. We would appreciate receiving your information and/or comments by January 23, 1994, to allow adequate time to review all input and to adhere to our deadlines. All of the information received will be evaluated and considered in the final portion of the evaluation which is the selection of a management action.

We appreciate your participation and solicit your continued involvement in the consultation process.

Sincerely,

Gene L. Drais, Manager
Egan Resource Area

- 1 Enclosure
- 1. Lovell Peak Evaluation

LOVELL PEAK ALLOTMENT (0406) EVALUATION SUMMARY

I. INTRODUCTION

The Lovell Peak Allotment (0406) is located in the Egan Resource Area of the Ely District approximately 40 miles north of Ely on the west side of the Schell Creek Range. The allotment encompasses 2,360 total acres of which 2,352 acres are public and 8 acres are private. The allotment is categorized as an "M", or maintain, according to the selective management categorization process. The allotment is within the Antelope Wild Horse Herd Management Area (HMA). Lyman Rosenlund, the current operator in the allotment, is leasing from the owner, Intermountain Ranches, Ltd. (George Swallow).

II. INITIAL STOCKING LEVEL

A. Livestock Use

The total livestock preference for the allotment is 162 AUMs for sheep, 105 AUMs active preference and 57 AUMs suspended non-use. The season of use is from June 15 to September 3. The three year average use listed in the Egan Resource Management Plan (RMP) and Rangeland Program Summary (RPS) is 30 AUMs per year of sheep use (calculated for 1979-81).

B. Wild Horse Use

The Lovell Peak Allotment is located in the southwestern portion of the Antelope Herd Management Area (HMA). Of the total wild horse use for the herd area, the RPS objective for this allotment is to provide forage for 1 wild horse or 7 AUMs. Existing wild horse use is estimated at 93 AUMs or 8 horses year round. The Antelope HMA is managed under the Antelope Wild Horse Herd Management Area Plan (HMAP) which was implemented in 1987 and revised in 1992.

Wild horse use within the allotment usually occurs on a year round basis. Wild horse numbers increase during the summer months as more wild horses move to higher elevations and onto the allotment following the green-up of vegetation. As winter approaches wild horse numbers decrease and depending on the severity of the winter and the amount of snowpack, wild horse numbers may be zero to three or four. The majority of the wild horse use occurs in McMaughn Canyon and on the eastern slopes and ridge between Lovell Peak and North Lovell Peak. (see allotment map - Appendix III)

Determination of Wild Horse Actual Use

Wild horse census was flown in the Antelope HMA on the following dates: August 1978, January 1980, May 1983, June 1985, February 1987, February 1988, March 1990, October 1990, February 1991, February 1992, June 1992, August 1992, and November 1992. Table I gives the actual number of wild horses counted in the Lovell Peak Allotment during aerial census of the Antelope HMA.

Table I. Aerial Census of Wild Horses in Lovell Peak Allotment

DATE OF CENSUS	WILD HORSE NUMBERS
NOVEMBER 1992	0
AUGUST 1992	20
JUNE 1992	8
FEBRUARY 1992	3
FEBRUARY 1991	4
SEPTEMBER/OCTOBER 1990	11
MARCH 1990	0
JANUARY/FEBRUARY 1988	0
FEBRUARY 1987	5
JUNE 1985	25
MAY 1983	0
JANUARY 1980	N/A*
AUGUST 1978	N/A*

* Wild horse numbers not specific to allotment.

For the years 1978 through 1991, the number of wild horses in the allotment at the time of census multiplied by 12 months/year equals the total AUMs. Since an aerial census was conducted each quarter (3 months) during 1992, wild horse numbers were multiplied by 3 to determine wild horse AUMs in the allotment at the time census was taken. Table II gives the total AUM figures for each census and serves as the best information available to determine actual use.

Table II. Wild Horse Aums In The Lovell Peak Allotment

DATE OF CENSUS	WILD HORSE AUMS
NOVEMBER 1992	0
AUGUST 1992	60
JUNE 1992	24
FEBRUARY 1992	9
FEBRUARY 1991	48
SEPTEMBER/OCTOBER 1990	132
MARCH 1990	0
JANUARY/FEBRUARY 1988	0
FEBRUARY 1987	60
JUNE 1985	300
MAY 1983	0
JANUARY 1980	N/A*
AUGUST 1978	N/A*

* Wild horse AUMs not specific to allotment.

c. Wildlife Use

The RPS objective for this allotment is to provide forage and habitat for reasonable numbers of wildlife, i.e. 33 AUMs for deer, 3 AUMs for antelope and 12 AUMs for elk. Existing wildlife use listed in the RPS is 25 AUMs for deer and 2 AUMs for antelope. No elk use has been documented.

The estimates for mule deer use at the time of the publication of the RPS were in error. Existing wildlife use of the allotment is estimated by the Egan Resource Area wildlife biologist. The allotment is within Nevada Department of Wildlife's (NDOW) mule deer Management Area (MA) 11. It is also within elk and pronghorn antelope MA 11. Approximately 50 mule deer utilize the allotment from April 1 through November 30, 8 months, 80 AUMs. Rocky mountain elk have been observed on the allotment but it is believed these are wandering animals, and no resident population exists on the allotment at the present time. There are no documented sage grouse leks (strutting grounds) on the allotment. However, brooding sage

grouse and blue grouse have been observed in McMaughn Canyon. Category 2 species found on the allotment include the ferruginous hawk (1 nest site), loggerhead shrike and the pygmy rabbit.

d. Riparian

The 1982 Water Resource Inventory indicated that the Lovell Peak Allotment had 14 water resource sites, all of which are springs. Appendix I gives the legal locations of these riparian sites.

III. ALLOTMENT PROFILE

A. Description

The Lovell Peak Allotment is located on the west side of the Schell Creek Range approximately 40 miles north of Ely. The allotment encompasses 2,360 acres of which 2,352 acres are public (BLM) and 8 acres are private. Elevation ranges from 6850 feet on the west side of the allotment to 9414 feet at North Lovell Peak. The allotment is situated 2.5 miles northeast of Schellbourne Station and is bounded on the north and west by the North Steptoe Allotment (0405) and on the south by the Schellbourne Allotment (0407). On the east side the allotment boundary is the ridge line of the Schell Creek Range. There are no allotment boundary fences established at this time.

B. Temperatures

Temperatures vary considerably in the area with extremes of 100 degrees in the summer to -30 degrees in the winter with wind chill making it even colder. Average temperatures in the summer are 68 degrees Fahrenheit and 24 degrees Fahrenheit in the winter. Temperatures may vary daily as much as 45 degrees.

C. Growing Season

The growing season is short with approximately 60 to 90 frost-free days annually. Spring growth normally begins in May at the lower elevations and continues through June and July at the higher elevations in the allotment. Snowfall may occur in any month of the year but November through March are typically the months of heaviest snowfall accumulation.

D. Allotment Specific Objectives

1. Land Use Plan 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 Horse and Burros- "Wild horses will be managed at a total of 14 animals in the Antelope Herd Use Area." (Egan ROD, p.6). Actual wild horse numbers will be determined by this evaluation in conjunction with monitoring data to maintain a thriving natural ecological balance and prevent deterioration of the rangeland. (Note: The 14 animals identified above, as well as the 7 AUM's identified in the RPS are no longer valid AMLs. 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 purely for administrative reasons because it was the level of wild horse use at a particular point in time cannot be justified under the statute" (Dahl vs. Clark, Supra at 595). The IBLA further ruled that the AML must be established through monitoring "in terms of the optimum number which results in a thriving natural ecological balance and avoids a 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).

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

d. Riparian- "Where management objectives are not being obtained through application of management practices, fencing will be considered." (Egan ROD, p.13).

e. 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 system and aesthetic values." (Egan ROD, p.44).

2. Rangeland Program Summary Objectives

Range

a. "Provide forage for up to 30 AUMs of livestock use. Maintain or enhance native vegetation with utilization not to exceed Nevada Rangeland Monitoring Handbook levels on key species. Maintain or improve current ecological condition of native range."

Wild Horses

b. "Initially manage rangeland habitat to support Appropriate Management Level (AML) of 1 horse in the Lovell Peak Allotment as part of the Antelope HMA. Provide forage for up to 7 AUMs of wild horse use." Actual wild horse numbers will be determined by this evaluation in conjunction with monitoring data to maintain a thriving natural ecological balance and prevent deterioration of the rangeland.

Wildlife/Riparian

c. "Manage rangeland habitat and forage condition to support reasonable numbers of wildlife as follows: mule deer 33 AUMs, antelope 3 AUMs, elk 12 AUMs."

d. "Maintain or improve mule deer, elk, and antelope summer habitat to good or better condition."

e. "Maintain habitat condition of meadows and riparian in good or better condition for mule deer, elk, and antelope." Utilization levels will not exceed 55% on perennial grasses and grass-like species and 45% on shrubs along stream riparian areas and mesic meadows.

3. Antelope HMAP Objectives

Wild Horse Objectives

a. "The objective in the Antelope HMA is to maintain a healthy, viable population of wild horses in a thriving natural ecological balance with all other resources and users."

b. "The wild horses within the Antelope HMA will be managed in a manner that maintains their wild free-roaming characteristics."

c. "The wild horses within the Antelope HMA which exhibit the "Spanish Barb" characteristics will be maintained within the population. Removals and/or fertility control treatments

will exclude those horses that obviously exhibit those traits. No other characteristics or conformations will be selected. Only those animals with gross deformities or disease will be eliminated from the herd."

4. Key Species Identification

The landscape in the Lovell Peak Allotment is characterized by mountain mahogany (Cercocarpus ledifolius), singleleaf pinyon pine (Pinus monophylla), Utah juniper (Juniperus utahensis), mountain big sagebrush (Artemisia tridentata vaseyana), black sagebrush (Artemisia nova), low sagebrush (Artemisia arbuscula), green rabbitbrush (Chrysothamnus viscidiflorus), snowberry (Symphoricarpos spp.), chokecherry (Prunus virginiana), bitterbrush (Purshia tridentata), serviceberry (Amelanchier utahensis), oceanspray (Holodiscus monophyllus), ephedra (Ephedra nevadensis), lupine (Lupinus spp.), buckwheats (Eriogonum spp.), groundsel (Senecio spp.) and daisies (Erigeron spp.). The major grass species are: bluebunch wheatgrass (Agropyron spicatum), needle-and-thread grass (Stipa comata), Indian ricegrass (Oryzopsis hymenoides), great basin wild rye (Elymus cinereus), Sandberg bluegrass (Poa secunda) and bottlebrush squirreltail (Sitanion hystrix). White fir (Abies concolor) and limber pine (Pinus flexilis) are found at the very upper limits of the allotment.

The key forage species in the Lovell Peak Allotment for sheep are black sagebrush, bitterbrush, serviceberry, snowberry, chokecherry, indian ricegrass, bluebunch wheatgrass and needle-and-thread grass.

Native perennial grasses are key species for wild horses and elk; however, all users will utilize perennial grasses during spring greenup. Indian ricegrass, bluebunch wheatgrass and needle-and-thread grass are the most preferred with great basin wild rye, Sandberg bluegrass and bottlebrush squirreltail as important secondary species. Forbs are also important to the diet of wildlife and provide spring and summer forage.

The primary key species for mule deer are the same as sheep; however, mule deer will utilize big sagebrush to a greater degree than sheep.

IV. MANAGEMENT EVALUATION

A. Purpose

The purpose of this evaluation is to assess whether current multiple use management practices are meeting the multiple use objectives for the allotment and to determine the appropriate stocking level for domestic livestock, appropriate management level for wild horses and set a forage allocation figure for wildlife.

B. Summary of Studies Data

Use pattern mapping and utilization monitoring studies were conducted on the allotment in 1992. The following tables summarize precipitation data, use pattern mapping, actual use, estimated carrying capacity and recalculated livestock preference and wild horse AML.

1. Precipitation

Data from the National Oceanic and Atmospheric Administration (NOAA) weather station located at Ely is being used for this evaluation. The normal crop year precipitation for Ely for the period 1951-1980 was 7.75". Crop yield is the effective precipitation for plant growth. It is the "crop year" precipitation that is measured to compute yield indices. The crop year precipitation is measured from September of the previous year through June of the growth year in the Intermountain Big Sagebrush Region (Sneva et. al. 1983). The Sneva Crop Yield Index model has been chosen by the Ely District as the most appropriate for this region to account for the affect of yearly climatic variations on annual forage yield. The data provided by the National Oceanic and Atmospheric Administration weather station located at the Ely airport was used due to its proximity to the Lovell Peak Allotment as well as the long term and scientific nature of the precipitation data collected. No other long term source of precipitation data exists that is in closer proximity to the Lovell Peak Allotment that could be substituted for the NOAA station at Ely and statistically determine the long term average crop year precipitation which could be used in calculating the yield index. Table II illustrates the yield index for Ely in 1992.

Table II. - Yield Index For Ely

Year	Crop Yield	Precipitation Index	Yield Index
1992	7.10	92%	90%

Annual precipitation as measured by the NOAA weather station in Ely varies from 7-12 inches. The general precipitation pattern is one of limited moisture, yet moisture is normally available during the growing season. There is a slight increase in precipitation with a rise in elevation. Much of the total precipitation occurs during the winter months in the form of snow.

2. Use Pattern Mapping Summary - acres and percent of the allotment by use category.

<u>Year</u>	<u>Slight</u> (1-20%)	<u>Light</u> (21-40%)	<u>Moderate</u> (41-60%)	<u>Heavy</u> (61-80%)	<u>Severe</u> (81-100%)
1992	153 (6%)	915 (39%)	1292 (55%)	0	0

3. Estimated Actual Use Summary (AUMs)

<u>Year</u>	<u>Sheep</u>	<u>Wild Horses*</u>	<u>Deer**</u>
1992	0	93	80

* Wild horse census were conducted in the Antelope HMA during February, June, August and November 1992. Wild horse AUMs recorded during these census were added together to obtain the actual use made by wild horses on the Lovell Peak Allotment during the 1992 grazing season.

** Deer AUMs are an approximation supplied by the Egan Resource Area Wildlife Biologist since NDOW would not provide big game actual use numbers by allotment in the Egan Resource Area. (NDOW letter dated 12/11/91).

4. Livestock, Wildlife and Wild Horse Estimated Carrying Capacity

<u>Year</u>	<u>Actual* Use(AUMs)</u>	<u>Measured Util.(%)**</u>	<u>Yield Index</u>	<u>Adjusted Util.(%)</u>	<u>Desired Use(%)</u>	<u>Desired AUMs***</u>
1992	173	51%	.90	46%	50%	188

* Sheep did not use the allotment during the 1992 grazing season.

** Measured utilization was derived from averaging utilization transect data recorded in the heaviest use zones using the Key Forage Plant Utilization Method.

*** The "Desired AUMs" are calculated using the following formula:

$$\frac{\text{Actual Use (AUMs)}}{\text{Adjusted Util.(\%)}} = \frac{\text{Desired Use (AUMs)}}{\text{Desired Use (\%)}}$$

5. Recalculated Livestock Preference and Wildlife & Wild Horse AUMs

Supply: Desired Aums188 Aums
Demand: Adjudicated Preference105 Aums
Wild Horses (1992).....93 Aums
Total.....198 Aums
Deficit:10 Aums
Overall Reduction:5%*

* (See Technical Recommendations)

6. Riparian Data Summary

1) Springs

- a) The following spring sources have utilization levels not exceeding 55% on perennial grasses and grass-like species and 45% on shrubs along riparian areas and mesic meadows.

T23N, R65E, S29 NWNW
T23N, R65E, S30 NENE
T23N, R64E, S24 NWSE
T23N, R64E, S24 SWNE
T23N, R65E, S19 SENE
T23N, R65E, S20 NWSW
T23N, R65E, S30 NENE

- b) The following spring sources have been eliminated from monitoring due to inaccessibility of site.

T23N, R64E, S24 NENE
T23N, R65E, S19 NWSW
T23N, R65E, S19 NENW
T23N, R64E, S25 NWNE

- c) The following spring sources are nonexistent at the legal location specified.

T23N, R65E, S19 SESE (2)

- d) The following spring is located outside the allotment.

T23N, R65E, S31 NENW

V. CONCLUSIONS

A. Land Use Plan Objectives

III.,D.,1.,(a) - Met

Rationale: Existing vegetation is in the desired successional stages and short term utilization is within the allowable use levels.

III.,D.,1.,(b) - Met

Rationale: Proper utilization levels are being achieved in areas where wild horses are present and the thriving natural ecological balance of the range is being maintained.

III.,D.,1.,(c) - Met

Rationale: Utilization is within the allowable use levels and reasonable numbers for deer as established in the RPS are being exceeded.

III.,D.,1.,(d) - Met

Rationale: Utilization levels are not exceeding 55% on perennial grasses and grass-like species and 45% on shrubs within the riparian area.

III.,D.,1.,(e) - Met

Rationale: Allowable use levels on livestock, wildlife and wild horse key species are within the desired range on the allotment.

B. Rangeland Program Summary Objectives

III.,D.,2.,(a) - Met

Rationale: Utilization on key species are within NRMH guidelines.

III.,D.,2.,(b) - Met

Rationale: Monitoring studies indicate that the rangeland habitat is adequate to support previously established Appropriate Management Levels (AML) of wild horses.

III.,D.,2.,(c) - Met

Rationale: Utilization is within the allowable use levels and habitat is providing for at least "reasonable numbers" of deer.

III.,D.,2.,(d) - Met

Rationale: Allowable use levels on wildlife key species are not being exceeded in areas used by mule deer.

III.,D.,2.,(e) - Met

Rationale: Utilization levels are not exceeding 55% on perennial grasses and grass-like species and 45% on shrubs within the riparian areas.

C. Antelope HMAP Objectives

Wild Horse Objectives

III.,D.,3.,(a) - Met

Rationale: Monitoring studies indicate that the rangeland habitat is adequate to maintain a healthy, viable population of wild horses in a thriving natural ecological balance with all other resources and users.

III.,D.,3.,(b) - Met

Rationale: The wild horses within the Antelope HMA are managed to maintain their wild free-roaming characteristics.

III.,D.,3.,(c) - Met

Rationale: All wild horses within the Antelope HMA which exhibit the "Spanish Barb" characteristics, if any, have been maintained within the population.

VI. TECHNICAL RECOMMENDATIONS

A. Problem

There are no major resource problems or conflicts on this allotment at this time. All resource objectives are being met.

B. Solution

1. Short Term / Long Term

Total demand by livestock (105 AUMs) and wild horses (93 AUMs) are within the desired limits for the allotment. The five percent reduction (10 Aums) in grazing preference is considered to be within the margin of error for proper grazing by all grazing animals on the allotment. Also, the majority of the allotment has received light to moderate use and sheep can be herded into areas of under-utilization. Additional monitoring data will be collected

prior to the third and fifth year reevaluations to determine the final proper stocking rate for livestock and all other range resource users. Monitoring studies will be established to more accurately determine wildlife use made on the allotment. Therefore, the livestock preference will remain unchanged at 105 Aums and the wild horse AML will be established at 93 Aums. The season of use will be changed to 7/1 to 9/30 to better reflect actual growing conditions at the higher elevations on the Lovell Peak Allotment.

Additional Monitoring Data Required

Continue to conduct key forage plant utilization every 2-3 years to ensure correct stocking rates and utilization by livestock, wildlife and wild horses.

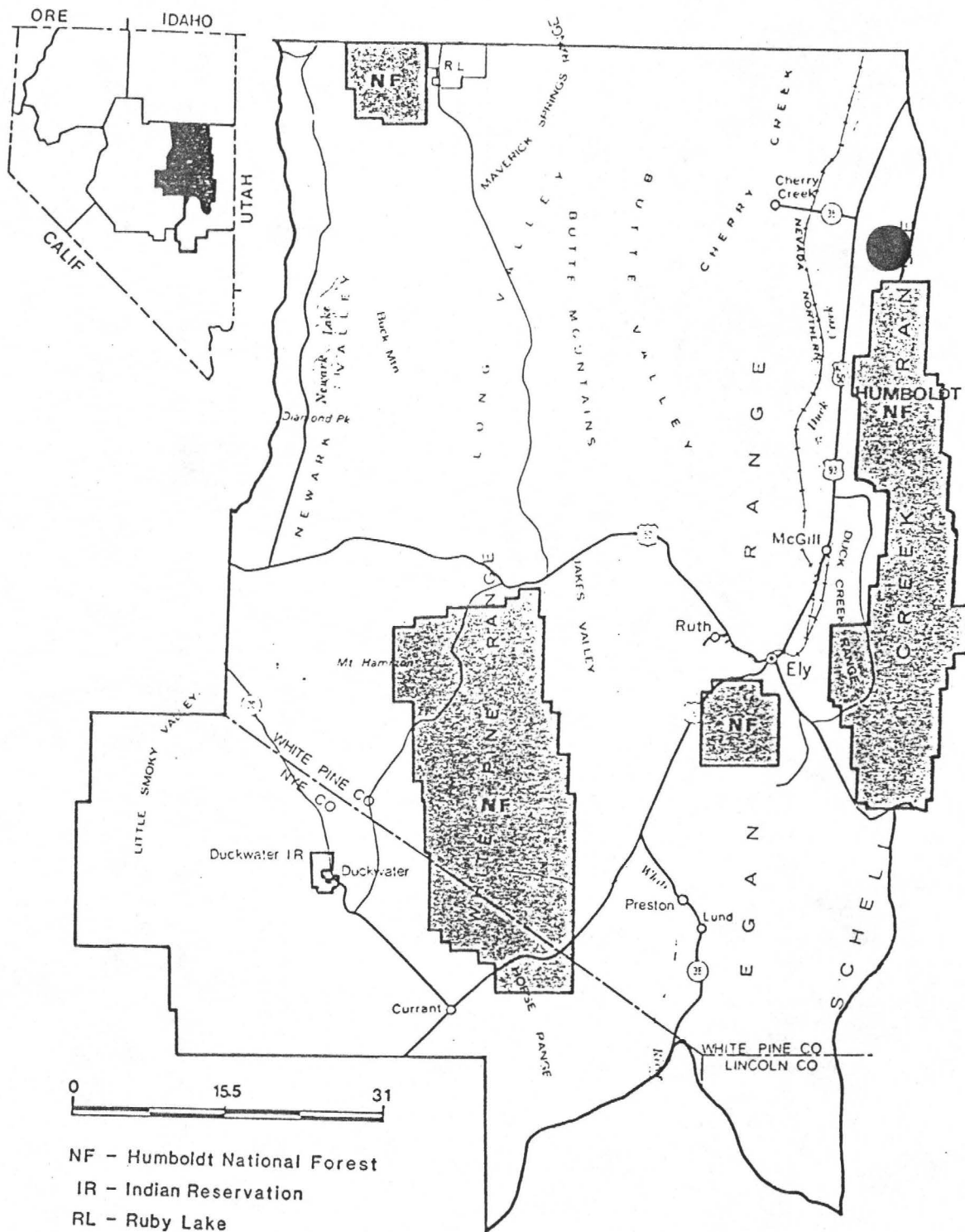
Continue to monitor livestock, wildlife and wild horse actual use.

Map ecological status for the allotment based on the completed third order soil survey and range site information.

Establish frequency trend study(s) on the allotment as funding and manpower allows.

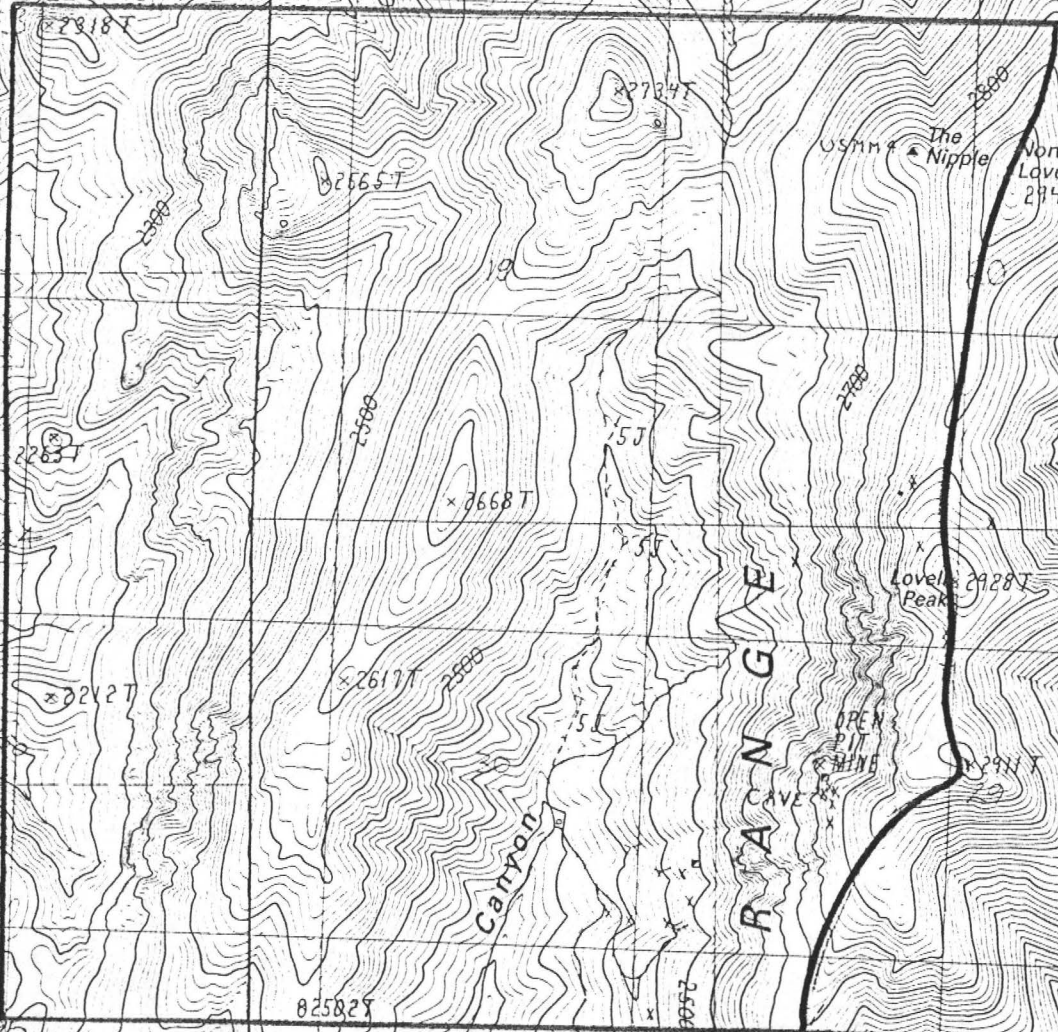
Appendix I.-1982 Water Resource Inventory on Lovell Peak Allotment

Site	Location				
UNNAMED SPRING	T23N	R64E	S24	NENE	
UNNAMED SPRING	T23N	R64E	S24	NWSE	
UNNAMED SPRING	T23N	R64E	S24	SWNE	
UNNAMED SPRING	T23N	R64E	S25	NWNE	
UNNAMED SPRING	T23N	R65E	S19	NWSW	
UNNAMED SPRING	T23N	R65E	S19	SENE	
UNNAMED SPRING	T23N	R65E	S19	SESE	
UNNAMED SPRING	T23N	R65E	S29	NWNW	
UNNAMED SPRING	T23N	R65E	S30	NENE	
UNNAMED SPRING	T23N	R65E	S19	NENW	
UNNAMED SPRING	T23N	R65E	S19	SESE	
UNNAMED SPRING	T23N	R65E	S20	NWSW	
UNNAMED SPRING	T23N	R65E	S30	NENE	
UNNAMED SPRING	T23N	R65E	S31	NENW (outside allotment)	



EGAN RESOURCE AREA
LOCATION MAP

APPENDIX III



LOVELL PEAK ALLOTMENT (0406)

T23N

T23N
T22N