10-6-95

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:

IN REPLY REFER TO:

4400 (NV-046)

OCT 6 1995

Dear Participant:

Enclosed for your information and review is the draft Hardy Springs Allotment Monitoring Evaluation. We appreciate your interest in being involved in the consultation process. This is your opportunity again to provide allotment specific information and also to provide comments to the evaluation. We would appreciate receiving your information and/or comments by October 27, 1995, to allow adequate time to review all input and adhere to our schedule. All of the information received will be evaluated and considered prior to the development of the Management Action Selection Report which completes the monitoring evaluation process.

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

Sincerely,

Gerald M. Smith

Gerald M. Smith, Manager
Schell Resource Area

10-6-95

HARDY SPRINGS ALLOTMENT EVALUATION

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EVALUATION SUMMARY

DRAFT

I. INTRODUCTION

A. Allotment Name and Number: Hardy Springs, 01022

B. Permittee: Chester Johnson

C. Evaluation Period: 1982 - 1994

D. Selective management category and priority:
M category, moderate priority.

II. INITIAL STOCKING LEVEL

A. Livestock Use

1. Land Use Plan Objective

a. Total Preference: 5,762 AUMs

b. Suspended Preference: 16 AUMs

c. Active: 5,746 AUMs

2. Season of Use

a. EIS - 10/16 to 5/15

3. Kind and Class of Livestock

a. Cattle (Cow/Calf)

4. Percent Federal Range

a. 100% Federal Range

B. Wild Horse and Burro Use

1. Appropriate Management Levels (AML)

The Schell Record of Decision set the initial stocking level for each herd area as determined by the 1983 inventory. The 1987 Rangeland Program Summary document recognized wild horse use on the allotment; however, their use was minimal. Therefore, no specific number of AUMs were assigned.

2. Herd Management Area

A portion of the allotment is within the White River Herd Management Area (see Map 8). Wild horses use the western portion of the allotment and numbers have greatly increased in recent years.

C. Wildlife Use (See Map 4)

1. Mule Deer

a. Reasonable Numbers: 1,084 AUMs

b. Key/Critical Areas: The east bench of the Grant Range has been identified as key deer winter range.

2. Elk

a. Reasonable Numbers: None identified

b. Key/Critical Areas: None identified

3. Pronghorn Antelope

a. Reasonable Numbers: None identified. 80 pronghorn antelope were released in White River Valley in 1984, and another 36 in 1985.

b. Key/Critical Areas: None identified

4. Threatened and Endangered Species

Bald eagles, a threatened species, may be found on the allotment any time of the year, but no special use areas have been identified.

Category 2 candidate wildlife species that may be found on the allotment include the black tern, loggerhead shrike, white-faced ibis, ferruginous hawk, western least bittern, White River desert sucker, White River speckled dace, and White River wood nymph butterfly.

The Osgood Mountain milk-vetch (Astragalus yoder-williamsii), windloving buckwheat (Eriogonum anemophilum), Nevada oryctes (Oryctes nevadensis), and obscure scorpion plant (Phacelia inconspicua) are Category 2 candidate plant species that may be found on the allotment.

III. ALLOTMENT PROFILE

A. Description

The Hardy Springs Allotment is located in Nye, Lincoln, and White Pine Counties, Nevada within the Schell Resource Area of the Ely District. The allotment is 50 miles southwest of Ely, Nevada and is in the north half of White River Valley. Topography ranges from mountains on the east side (Egan Range) and valley (White River Valley) which is flat to rolling hills. The elevation ranges from 5,249 to 8,200 feet above sea level. Hardy Springs is bordered by the Egan Resource Area on the north, east, and west borders. Sunnyside Allotment, Reserve for Wildlife Area, and Forest Moon Allotment border on the southern end.

Water sources include the White River which flows during the spring runoff, developed springs, and wells. Hardy Springs Allotment is primarily fenced on its north and south borders. Also, U.S. Highway 318 is fenced on both sides of the right of way. Sheep currently trail through Hardy Springs Allotment along the White River Trail. The trail stretches across 9 miles of the allotment.

An estimated 20 percent of the South Egan Wilderness Stury Area (WSA) extends into the Hardy Springs Allotment.

There are 6 pending Desert Land Entries on the Hardy Springs Allotment totalling 1,920 acres.

B. Acreage (See Map 1)

1. Allotment total: Federal - 108,331 acres
   Private - 1,420 acres
2. Pastures: No offcial pastures, although Highway 318 is fenced on both sides of the right of way.

C. Allotment Specific Objectives (See Appendix II)

1. The following allotment specific objectives tie the Schell Resource Area Land Use Plan (LUP) and Rangeland Program Summary together into quantified objectives for the Hardy Springs Allotment.

a. Livestock

(1) The short term objective will be accomplished through managing the allowable use levels (AUL) by season of

use to improve or maintain the desired vegetation community (see appendix II).

(2) The long term objective is to improve those acres in poor or fair livestock forage condition and maintain all acres presently in good livestock forage condition by managing for those seral stages which optimize livestock forage production (see appendix II).

b. Wild Horses

(1) The short term objective will be accomplished through managing the allowable use level (AUL) by season of use to improve or maintain the desired vegetative community (see appendix II).

(2) The long term objective is to manage for the appropriate seral stage to provide desired quantity, quality, and variety of forage in order to meet the requirements of the wild horses (see appendix II).

c. Mule Deer

(1) The short term objective is to limit use on key browse species listed for mule deer to 30 percent by livestock and wild horses prior to November 1, and to 45 percent by all animals yearlong (see Appendix III).

(2) The long term objective is to maintain key deer winter range in at least good habitat condition (see Appendix III).

d. Pronghorn Antelope

(1) The short term objective is to limit yearlong use on key perennial grasses, grass-like plants, and forbs to 55 percent by all users, and to 45% for key shrubs.

(2) The long term objective is to maintain antelope range in at least fair habitat condition by providing appropriate vegetation quantity and quality.

e. Elk

(1) The short term objective is to limit yearlong use on key perennial grasses, grass-like plants, and forbs to 55 percent by all users, and to 45% for key shrubs.

(2) The long term objective is to manage for the most appropriate seral stage to provide the desired quantity, quality, and variety of forage in order to meet the requirements of elk.

f. Wilderness Study Areas

(1) The short term objective is to maintain/improve the current vegetation within the wilderness study area to provide future wilderness values and biodiversity.

(2) The long term objective is to manage the vegetative community to enhance or restore the natural ecosystem.

2. Activity Plan: None implemented.

D. Key Species Identification

1. Uplands (See Appendix I)

a. Livestock and Wild Horses

Key Area	Common Name	Genus Species
HS01:	Winterfat	Eurotia lanata (EULA5)
	Indian ricegrass	Oryzopsis hymenoides (ORHY)
HS02:	Winterfat	Eurotia lanata (EULA5)
	Indian ricegrass	Oryzopsis hymenoides (ORHY)
HS03:	Black sagebrush	Artemisia arbuscula nova (ARARN)
	Indian ricegrass	Oryzopsis hymenoides (ORHY)
HS04:	Indian ricegrass	Oryzopsis hymenoides (ORHY)
	Bottlebrush squirreltail	Sitanion hystrix (SIHY)
	Black sagebrush	Artemisia arbuscula nova (ARARN)

b. Wildlife

Mule Deer

Black sagebrush Artemisia arbuscula nova (ARARN)

Stansbury cliffrose	Cowania mexicana (COMES)
Green ephedra	Ephedra viridis (EPVI)
Antelope bitterbrush	Purshia tridentata (PUTR2)

Pronghorn Antelope

Bud sagebrush	Artemisia spinescens (ARSP5)
Black sagebrush	Artemisia arbuscula nova (ARARN)
Shadscale	Atriplex confertifolia (ATCO)
Globemallow	Sphaeralcea spp. (SPHAE)
Bbuckwheat	Eriogonum spp. (ERIOG)
Phlox	Phlox spp. (PHLOX)

Elk

Bluebunch wheatgrass	Agropyron spicatum (AGSP)
Indian ricegrass	Oryzopsis hymenoides (ORHY)
Bluegrass	Poa spp. (POA++)
Needle and thread	Stipa comata (STCO4)
Mountainmahogany	Cercocarpus spp. (CERCO)
Antelope bitterbrush	Purshia tridentata (PUTR2)

2. Crucial Habitat: None identified at this time.

IV. MANAGEMENT EVALUATION

A. Purpose

The purpose of this document is to evaluate the nature of grazing that has occurred on the Hardy Springs Allotment and to measure effectiveness in meeting specific management objectives identified in the land use plan (LUP). Included will be recommendations to make specific changes in current management where these LUP objectives are not being met.

B. Summaries of Studies Data

1. Appendix IV, Key Management Area Evaluation Summary (Form No. NV 4400-17) summarizes the monitoring studies data in graphic form. Compare Appendix IV with the following sections; actual use, precipitation, utilization, trend, and ecological status.

2. Actual Use (See Appendix I)

a. Livestock

Actual use during the evaluation period has ranged from a high of 5,400 AUMs in 1983 to a low of 3,185 AUMs in 1994 (see Appendix I). Actual use was determined from licensed use and actual grazing use report forms submitted during the evaluation period.

b. Wild Horses

Wild horse aerial censuses have been conducted in 1988, 1989, and 1991 through 1994 in the White River HMA. The following table shows the number of the White River HMA horses counted in the Hardy Springs Allotment during the aerial censuses (see Appendix I):

Date	Wild Horse Numbers
3/88	24
3/89	32
4/91	70
8/92	15
5/93	115
12/94	129

c. Wildlife

Mule deer use was extrapolated from Nevada Division of Wildlife's (NDOW) estimates of herd numbers (see Appendix I). The estimated use is based on the amount of deer range that is on the allotment and the season the animals are on that range. The number of AUMs listed in Appendix I is based on a normal winter when most of the deer in the herd migrate south onto the winter range. Since 1986, the winters have been more mild, and very few deer migrated onto Hardy Springs Allotment; therefore, the actual wildlife use for the past five years was considerably less than what is shown in Appendix I.

Pronghorn antelope and elk have been observed on the allotment, but no formal survey has been conducted to determine the extent of use.

3. Precipitation

Precipitation data for this evaluation was obtained from the National Oceanic and Atmospheric Administration weather station located at Sunnyside, Nevada. The average annual precipitation for the last fourteen reporting years was 11.37 inches with a range from 6.94 inches to 17.11 inches.

Precipitation data was used in the formulation of a yield index in the calculation of a long term stocking rate. The first step was to calculate the crop yield, the effective annual precipitation for plant growth occurring between September and June of each year. The crop yield for each year was arrayed to determine the median long term crop yield. The median crop yield for the Sunnyside reporting station was 8.78 inches. The individual yearly crop yields during the evaluation period were then divided by the long term median crop yield to determine a precipitation index for each year. The yield index was then determined from the precipitation index by using the linear regression equation $Y = -23 + 1.23X$, where Y represents the yield index and X represents the precipitation index. Table I shows the precipitation and yield indexes (Sneva, Forest, and Britton. August 1983).

Table 1. Crop Yield, Precipitation Index and Yield Index for Sunnyside Reporting Station, Nevada.

Year	Crop Yield	Precipitation Index	Yield Index
1982	8.52	97	96
1983	12.02	137	145
1984	6.42	73	67
1985	7.15	81	77
1986	8.92	102	102
1987	7.74	88	85
1988	12.33	140	150
1989	6.37	73	66
1990	6.49	74	68
1991	7.46	85	82
1992	9.80	112	114
1993	9.49	108	110

A yield index is not used to "correct" utilization levels. Whether or not allowable use level objectives were exceeded is based on the actual utilization that was measured. The index is used to account for the affect of yearly climatic variations in the calculation of an appropriate stocking level for all users. Since it is not feasible to adjust numbers of all grazing animals (livestock, wildlife, and wild horses) on a yearly basis to respond to annual fluctuations in precipitation, an average long-term carrying capacity was determined based on a "normal" year. The affects of precipitation on carrying capacity must be considered.

4. Utilization

a. Key Area

Key management areas have been established on the allotment (see Appendix II and map 1). The key management area utilization and actual use data was used in determining, establishing, and calculating the desired stocking rate analysis for the allotment.

b. Use Pattern Mapping

Use pattern mapping (UPM) was completed on the allotment 1989, 1991, and 1992. The patterns of grazing use for this allotment are shown on Maps 5-7.

5. Trend

Quadrat Frequency was established in 1981 at the four key areas. A gross statistical analysis using confidence intervals was applied to HSR01 key area. For statistical considerations additional frequency data will be collected in the future to further help quantify what direction trend is moving, ie. downward, static, or upward. At that time, data will be applied to a more detailed analysis. (see map 1).

Summary of Frequency Data:

HSR01- Due to the decrease of winterfat and indian ricegrass, and the great increase of halogeton, which is an indicator of a deteriorating range site, the data indicates that trend is moving in a downward direction from 1981 to 1994.

HSR02- Trend for the key area will require more data before any change in trend can be determined.

HSR03- Ecological status collected in 1984 and 1989 showed the key area trend to be static between 1984 and 1989. Further indication of trend for the key area will require more data before any change in trend can be determined.

HSR04- Ecological status collected in 1984 and 1989 showed the key area trend to be static between 1984 and 1989. Further indication of trend for the key area will require more data before any change in trend can be determined.

The key area HSR02 appears to have large amounts of traffic through the study area, and is becoming scattered with debris from sheep camps. The key areas HSR03 and HSR04 appear to be in areas of slight to light use due to their locations. It is recommended that the three key areas be evaluated and establish new areas that better represent the use area and utilization patterns.

6. Range Survey Data

The 1979 Ocular Reconnaissance Forage Survey indicated that there were 1,862 AUMs available for livestock.

7. Ecological Status

Ecological status survey was completed in 1984 and 1989 at three of the four key areas (see Appendix II and Map 1).

Key Area HSR01, is within a Silty 8-10 p.z." (028BY013NV) range site with a condition rating of 46% of Potential Natural Community (PNC) by air dry weight, placing it in Mid seral stage.

Key Area HSR02, no ecological status survey has been completed to date.

Key Area HSR03, is within a Shallow Calcareous Loam 8-10 p.z." (028BY011NV) range site with a condition rating of 36% of Potential Natural Community (PNC) by air dry weight, placing it in early mid seral stage.

Key Area HSR04, is within a Shallow Calcareous Loam 8-10 p.z." (028BY011NV) range site with a condition rating of 34% of Potential

Natural Community (PNC) by air dry weight, placing it in early mid seral stage.

8. Wildlife Habitat

The habitat condition for the key deer winter range (KDW) was determined in 1994/95. It was found to be in good condition.

9. Riparian/Fisheries Habitat

All springs except Lower Perish Spring are located on private lands. There is no riparian area associated with Lower Perish Spring because it is developed and the water is piped out into White River Valley. The White River is seasonal with water flowing down it only during spring run off. There is little riparian vegetation along the river channel, only vegetation associated with the Saline Meadow range site (028BY002NV i.e. alkali sacaton and inland saltgrass). Therefore, there are no riparian objectives for the Hardy Springs Allotment.

10. Wild Horse and Burro Habitat

Wild horses use the portion of the allotment west of the White River bottom. Wild horse seasonal movements are extensive. Water is only available at Riordan's Well when livestock are on the allotment (10/01 to 05/15) and wild horses use the Hardy Springs allotment during that time. When water is not available at Riordan's Well during the summer months (05/15 to 10/01), wild horses move south and use the southern portion of the allotment. Water is available at the lower end of the Lower Perish Spring pipeline (T. 7 N., R. 60 E., Sec. 10). Horses and livestock are causing heavy to severe utilization at that time. Horses also use the area just south of the allotment extensively during summer months. Numbers of wild horses have increased so dramatically in the White River HMA that the horses are forced to move outside the HMA for forage. The Seaman HMA is approximately three miles south of the White River HMA and mixing between the herds occurs, mostly due to horses being forced to seek forage outside the HMAs.

11. Wilderness Study Area

No ecological status has been collected on the portion of the allotment within the South Egan WSA.

V. CONCLUSIONS

Refer to by number from III.C., and Allotment Specific Objectives and Appendix II.

A. Livestock

(1) Objective Attainment Determination:

Not met.

(2) Rationale: Measured utilization at the key areas and use pattern mapping away from key areas, indicated the allowable use levels (AUL) objectives for the key forage species were exceeded in 1989 through 1992. Use pattern data indicates poor distribution of livestock and wild horses (see maps 5-7).

B. Wild horses

(1) Objective Attainment Determination:

Not met.

(2) Rationale: Measured utilization at the key areas and use pattern mapping away from key areas, indicated the allowable use levels (AUL) objectives for the key forage species was exceeded in 1989 through 1992. Use pattern data indicates poor distribution of livestock and wild horses (seee map 5-7).

C. Mule Deer

(1) Objective Attainment Determination:

Met

(2) Rationale: Allowable use levels for key browse species were not exceeded. In addition, key deer winter range is in good condition.

D. Pronghorn Antelope

(1) Objective Attainment Determination:

Unknown

(2) Rationale: No ecological status survey has been completed. Also, no use pattern mapping or utilization studies have been done on the key species identified for Pronghorn Antelope.

E. Elk

(1) Objective Attainment Determination:

Unknown

(2) Rationale: No ecological status survey has been completed. Also, no use pattern mapping or utilization studies have been done on the key species identified for elk.

F. Wilderness Study Area

(1) Objective Attainment Determination:

Met.

(2) Rationale: Use pattern mapping showed slight use in the Egan Range.

VI TECHNICAL RECOMMENDATIONS

A. Issues Identified on the Hardy Springs Allotment

-Insufficient forage available for livestock and wild horse demand.
-Allowable use levels exceeded by livestock and wild horses.
-Inadequate livestock and wild horse distribution.
-Period of use too long during critical spring growth.
-Trend direction appears to be downward at 1 and stactic at 2 of the 4 key areas.

B. Short Term Recommendations

1. Adjust Livestock and Wild Horse Use

Monitoring data indicates that livestock and wild horses have contributed to unacceptable levels and/or patterns of utilization within certain areas of the allotment. Active preference of 5,762 AUMs for livestock would be adjusted by 2,336 AUMs for attainment of allotment objectives. Leaving a stocking level of 3,426 AUMs (see Appendix V).

Wild horses would be managed at an appropriate management level of

467 AUMs or 39 animals yearlong ±15% (397 to 537 AUMs; 33 to 45 wild horses yearlong). The range of ±15% allows the wild horses to vary in numbers and allows for movement between allotments (see Appendix V).

The recommended permitted use for livestock and AML for wild horses would allow for proper carrying capacities based on sustained yields to improve the vigor and production of the key forage plants and attainment of the multiple use objectives.

2. Adjustment Of Season Of Use

The permittee has agreed to move livestock from the winterfat areas by April 10 of each year through water management and herding. The livestock will drift towards the private meadows until May 15 (35 days). This short time period during early spring should result in light use as cattle trail through the big sagebrush range sites to the private meadows. The change in season of use will increase forage production, grass and forb composition, winterfat vigor throughout the use areas, and avoid grazing during the critical growth period of the vegetation.

3. Salting

Salting will occur at least 1/2 mile away from all water sources. Salting at these locations will improve livestock and possibly wild horse distribution.

B. Long Term Recommendations

1. Vegetation Manipulation

2500 acres in White River Valley have been identified for two potential seedings (see map 3). The proposed areas are on Big Sagebrush (ARTR) sites with deep to very deep soils. The ARTR site identified for vegetation manipulation has very little value for wildlife, livestock, and wild horses in its present condition. The understory is poor due to the large ARTR plants, but soils would produce excellent grass and forb production. The proposed improvements would enhance livestock, wild horse, and wildlife habitat through the establishment of grasses and forbs. Once the seeding projects are completed, the areas will be rested for two growing seasons. An evaluation of the seedings will be done to determine an initial stocking rate. The seedings will continue to be evaluated to determine a stocking rate under a sustained yield basis.

2. Split Reserved For Wildlife Allotment

South of the allotment is an area identified in the LUP as "Reserved for Wildlife". The area is not fenced and wild horses and livestock both use the area. Wildlife occur in very small numbers in the area. A long term recommendation to livestock and wild horse drift problems south of the allotment is to split the "Reserved for Wildlife" Allotment between Hardy Springs and Forest Moon Allotments (See map 9). Fencing the resulting boundary would prevent drift. Wildlife do not use the "Reserved for Wildlife" allotment to any extent; eliminating this allotment would not impact wildlife and would enhance livestock control. Wild horses would still inhabit the White River HMA north of the fence and the Seaman HMA south of the fence but would not drift between the two HMAs. Splitting the Reserved for Wildlife Allotment would not impact wild horses, except to control drift that presently occurs between the HMAs.

C. Additional Monitoring Required

Continue to collect the following types of monitoring data to measure attainment of allotment objectives.

1. Utilization
2. Actual Use
3. Climate
4. Trend
5. Ecological Status
6. Establishment of additional key areas to facilitate subsequent evaluations.
7. Wild Horse Aerial Census

Literature Cited:

Sneva, Forest, and C.M. Britton, 1983. Adjusting and Forecasting Herbage Yields in the Intermountain Big Sagebrush Region of the Steppe Province. Agricultural Experiment Station Oregon State University, Station Bulletin 659. P. 61.

APPENDIX I
HARDY SPRINGS ALLOTMENT - ACTUAL USE

YEAR	CATTLE AUMS	HORSE AUMS	DEER AUMS*	ANTELOPE AUMS	ELK AUMS	TOTAL AUMS
82-83	4,550	****	608	***	***	5,158
83-84	5,400	****	642	***	***	6,042
84-85	5,150	****	874	***	***	6,024
85-86	5,150	****	1,153	***	***	6,303
86-87	5,150	****	1,332	***	***	6,482
87-88	5,312	****	1,216	***	***	6,528
88-89	4,937	288	1,002	***	***	6,227
89-90	5,153	384	822	***	***	6,359
90-91	3,373	612**	806	***	***	4,179
91-92	3,388	840	654	***	***	4,882
92-93	3,185	180	538	***	***	3,903
93-94	3,185	1,380	511	***	***	5,076
94-95	3,185	1,548	543	***	***	5,276

Period of use = Cattle 10/15 - 5/15

* Deer numbers reflect estimated total AUMs for portions of Deer Management Areas 13 and 22 on the Hardy Springs Allotment.

** Estimated number by averaging 1989 and 1991 census numbers.

*** Antelope and elk use on the allotment is low. The actual amount of use (AUMs) has not been determined.

**** Horse numbers not censused

APPENDIX II
KEY MANAGEMENT OBJECTIVES

ALLOTMENT : HARDY SPRINGS (Livestock and Horses)

			PRESENT SITUATION			LONG TERM OBJECTIVES			SHORT TERM OBJECTIVES			
Study No.	**Key Area location**	**Ecological Site No. ***	**Key Species**	**Key Spp % Comp by Weight**	**Seral Stage (% of PNC)**	**Maintain or Improve**	**Key Spp % Comp By Weight**	**Seral Stage (% of PNC)** **	**Allowable Use Levels** ***	**Season of Use**	**Met or Not Met**	**Rationale**
HSR01	T. 8 N. R. 60 E. SEC 26	028BY013NV Silty 8-10"	EULA5 ORHY SIHY	EULA5-90 ORHY-0 SIHY-1	46	IMPROVE	EULA5 <90 ORHY T-3 SIHY 3-5 GRASS 6-10 FORBS 2-5 SHRUBS <90	>46	GRASS 50% SHRUBS 50%	10/1 - 5/15	NOT MET	Measured utilization indicated AUL exceeded 1989-1992
HSR02	T. 8 N. R. 60 E. SEC 26	Unknown	EULA5 ORHY SIHY ARARN	No Ecological Status Completed To Date					GRASS 50% SHRUBS 50%	10/1 - 5/15	NOT MET	Measured utilization indicated AUL exceeded 1989-1992
HSR03	T. 9 N. R. 62 E. SEC 19	028BY011NV SHALLOW CALCAREOUS LOAM 8-10"	ARARN ORHY SIHY	ARARN-80 ORHY-T SIHY-1	36	IMPROVE	ARARN <80 ORHY 3-5 SIHY 3-5 GRASS 3-10 FORB 1-5 SHRUBS <80	>36	GRASS 50% SHRUB 50%	10/1 - 5/15	NOT MET	Measured utilization indicated AUL exceeded 1989-1992
HSR04	T. 9 N. R. 62 E. SEC 33	028BY011NV SHALLOW CALCAREOUS LOAM 8-10"	ARARN ORHY SIHY	ARARN-57 ORHY-0 SIHY-1	34	IMPROVE	ARARN <57 ORHY 3-5 SIHY 3-5 GRASS 3-10 FORBS 1-5 SHRUBS <57	>34	GRASS 50% SHRUBS 50%	10/1 - 5/15	NOT MET	Measured utilization indicated AUL exceeded 1989-1992

* Ecological Sites listed here can be refered to SCS Range Site Description for the Central Nevada Basin and Range - Major Land Resource Area 28B.
** This is the seral stage that would have the greatest value for all resource users (livestock, horse and wildlife).
*** Allowable use levels for utilization are the objectives established to meet the long term composition objectives.

APPENDIX III

ALLOTMENT: HARDY SPRING - WILDLIFE OBJECTIVES

				PRESENT SITUATION		LONG TERM OBJECTIVES	SHORT TERM OBJECTIVES			
Study No.	Key Area Location	Ecological Site No.	Key Species	Habitat Condition Rating	Maintain or Improve	Habitat Condition Rating	Allowable Use Level	Season of Use	Met or Not Met	Rationale
HSW1 - Lower Perish Spring KDW	T. 7 N., R. 59 E., Sec. 11, NWNE	N/A	COMES EPVI	Good	Maintain	Good	30% 45%	by 11/1 Yearlong	Met	AUL not exceeded

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
KEY MANAGEMENT AREA
EVALUATION SUMMARY

APPENDIX IV

District: ELY

Planning Area: WHITE RIVER

Date: 1994

Allotment: HARDY SPRINGS

Key Management Area: HSR 01

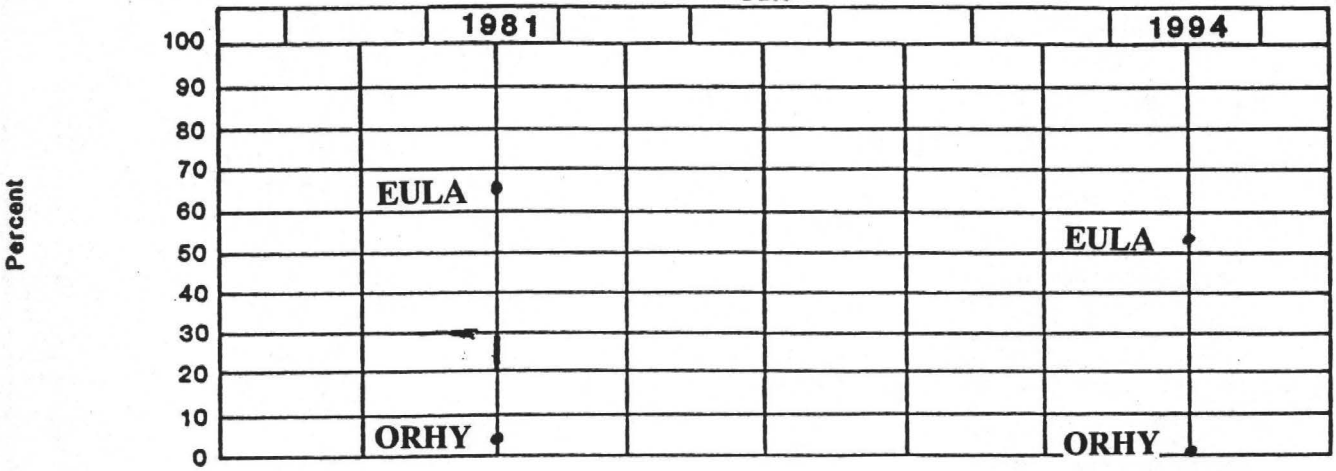
Trend Index (Frequency)

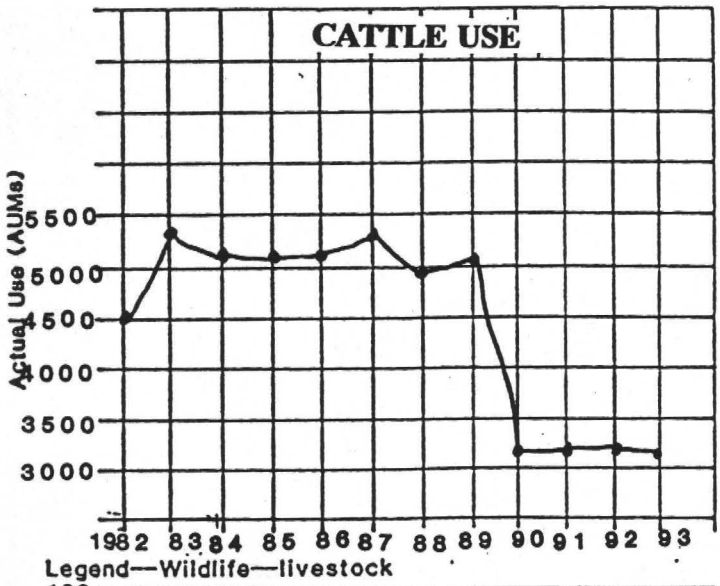
Date: 1981 — 1994

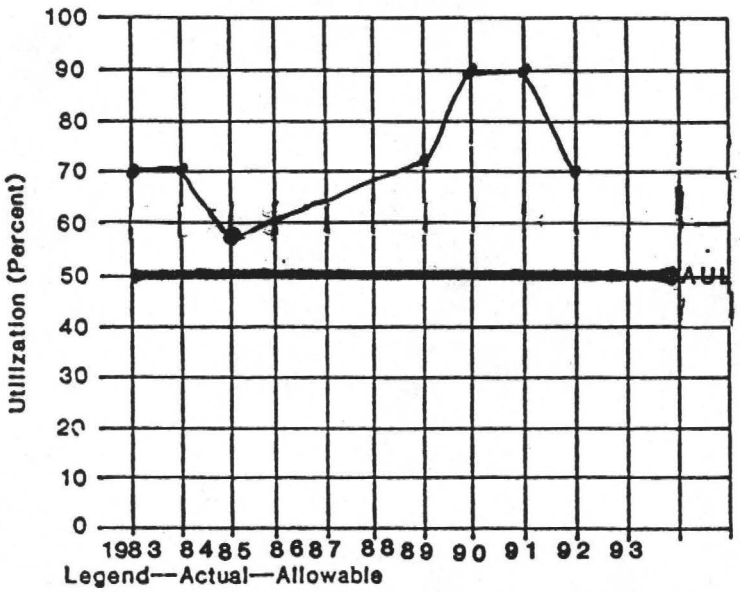
Code Key Species-Co

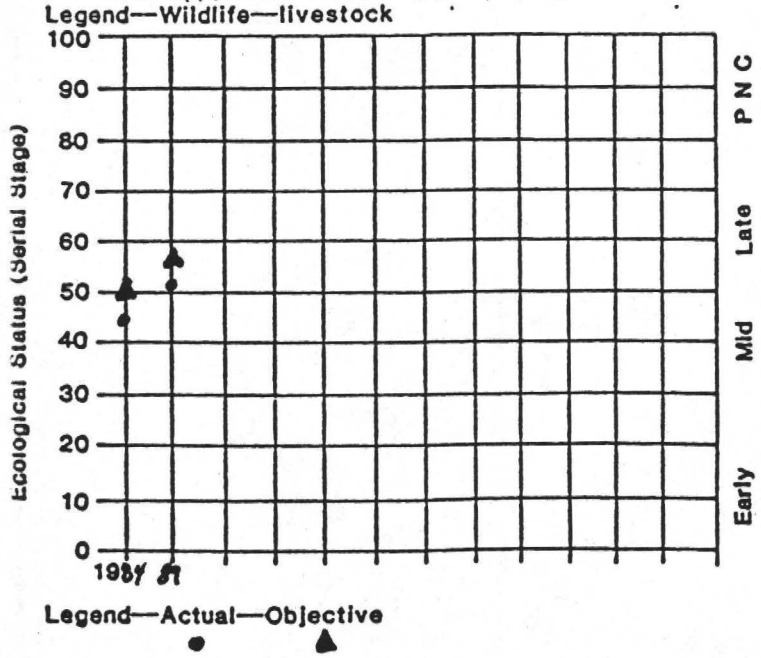
EULA5

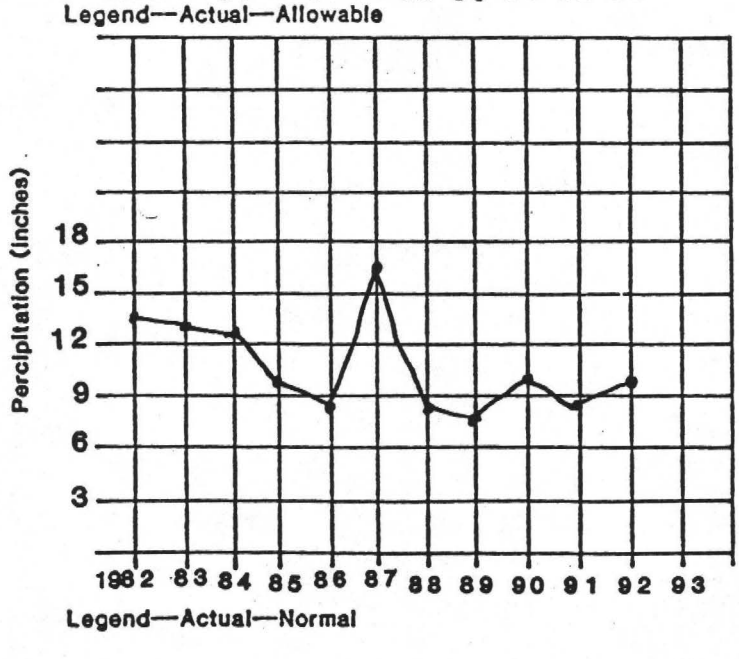
ORHY











UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
KEY MANAGEMENT AREA
EVALUATION SUMMARY

APPENDIX IV

District: ELY

Planning Area: WHITE RIVER

Date: 1994

Allotment: HARDY SPRINGS

Key Management Area: HSR 02

Trend Index (Frequency)

Date

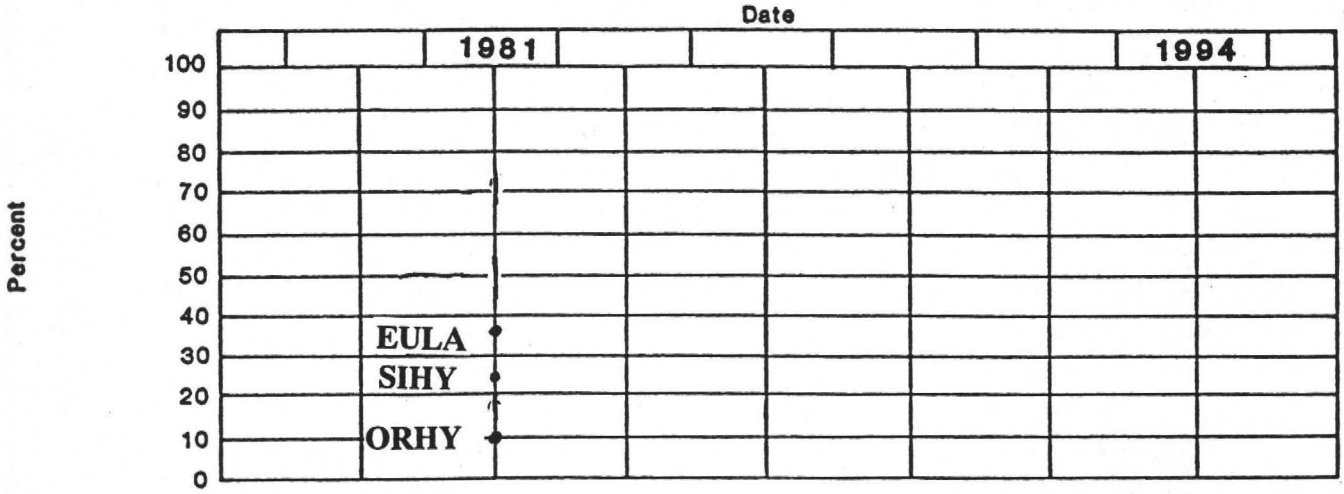
Code

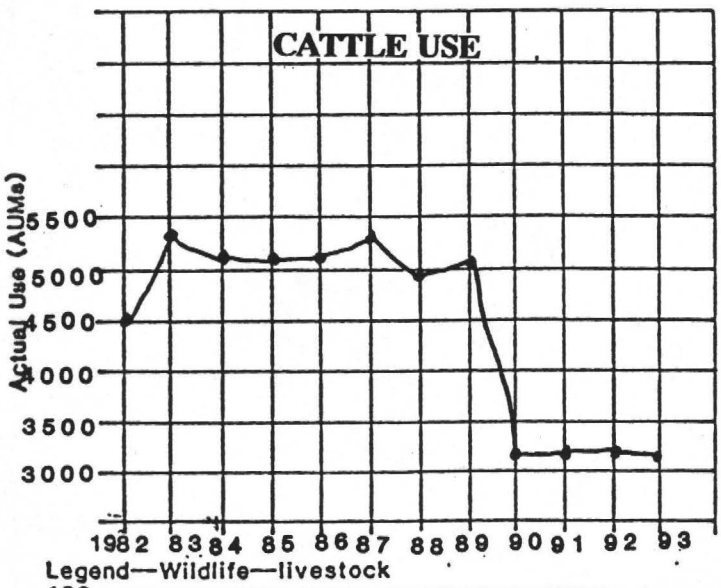
Key Species-Col

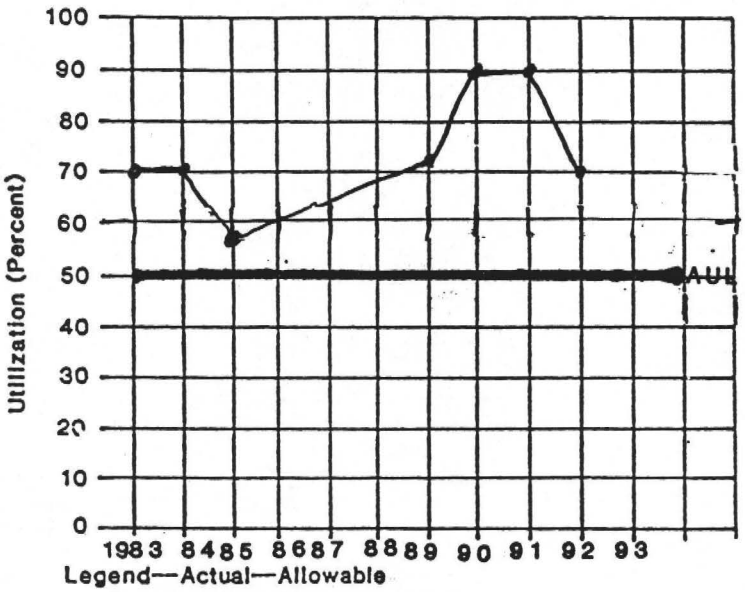
EULA5

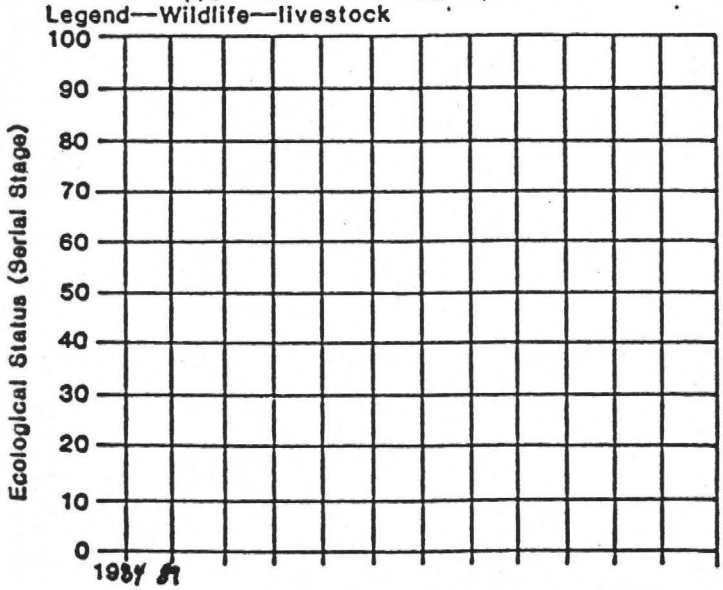
ORHY

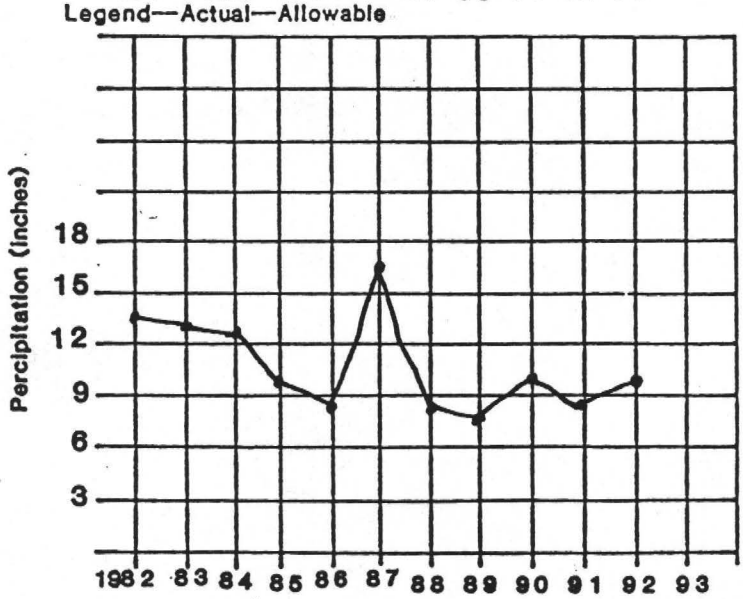
SIHY











UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
KEY MANAGEMENT AREA
EVALUATION SUMMARY

APPENDIX IV

District: ELY

Planning Area: WHITE RIVER

Date: 1994

Allotment: HARDY SPRINGS

Key Management Area: HSR 03

Trend Index (Frequency)

Date

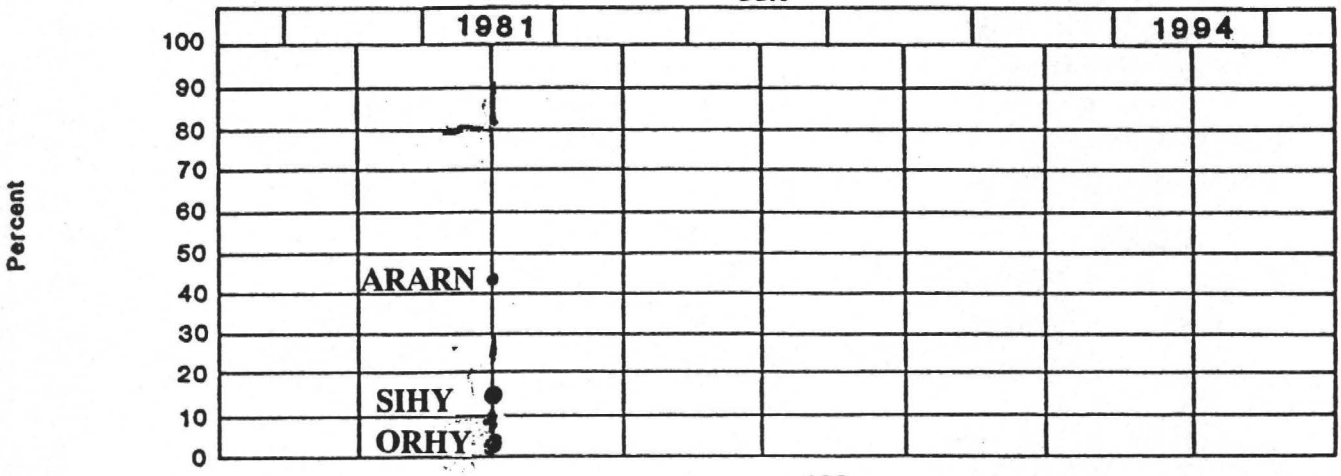
Code

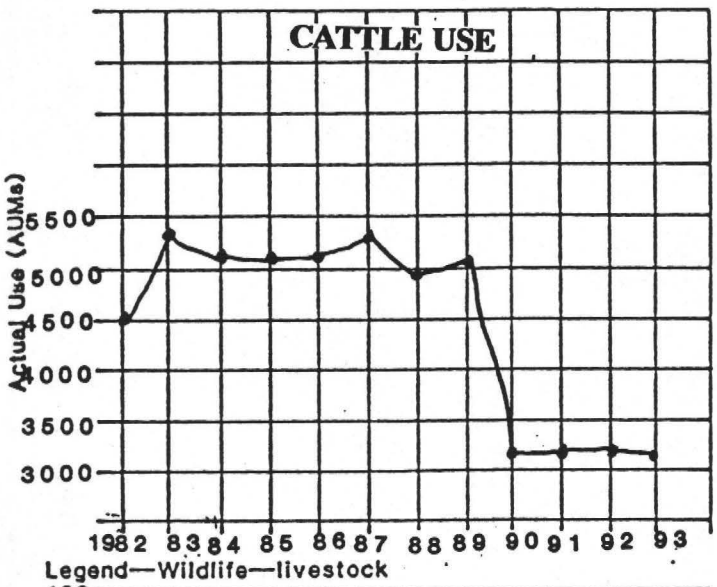
Key Species-Colc

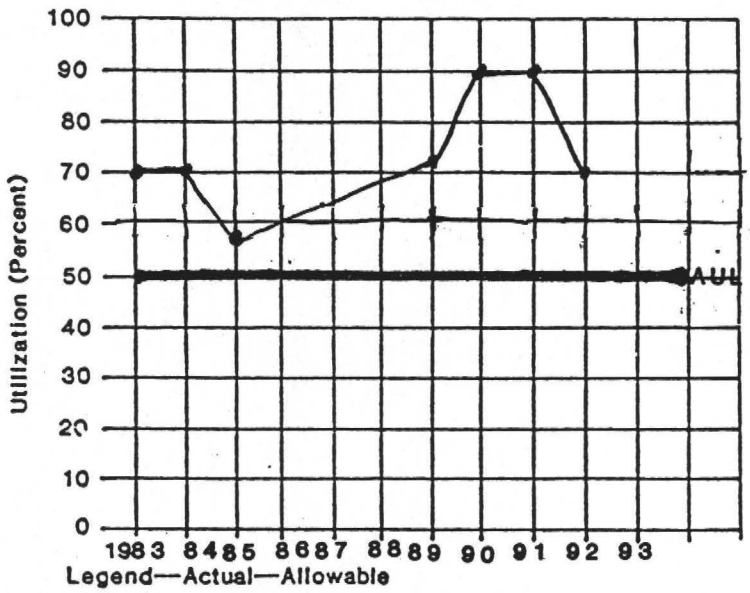
ARARN

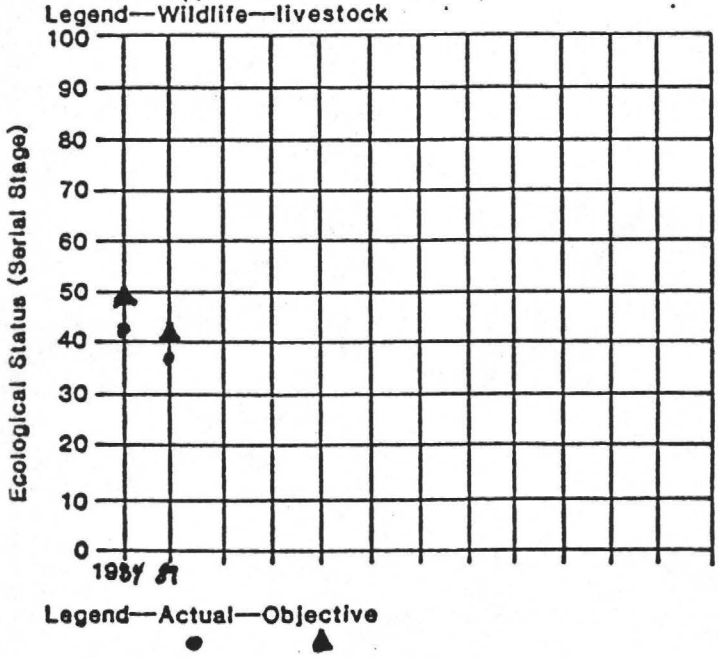
ORHY

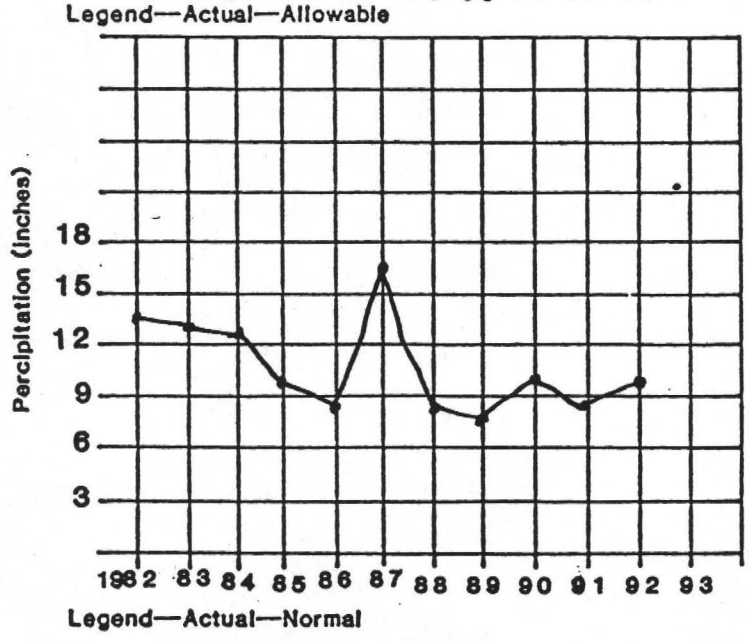
SIHY











APPENDIX IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
KEY MANAGEMENT AREA
EVALUATION SUMMARY

District: ELY

Planning Area: WHITE RIVER

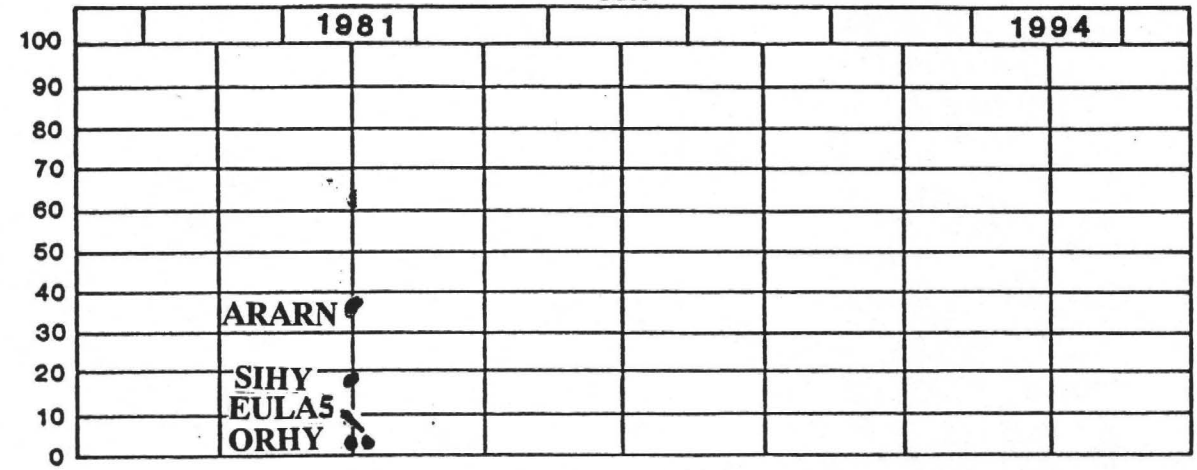
Date: 1994

Allotment: HARDY SPRINGS

Key Management Area: HSR 04

Trend Index (Frequency)

Date



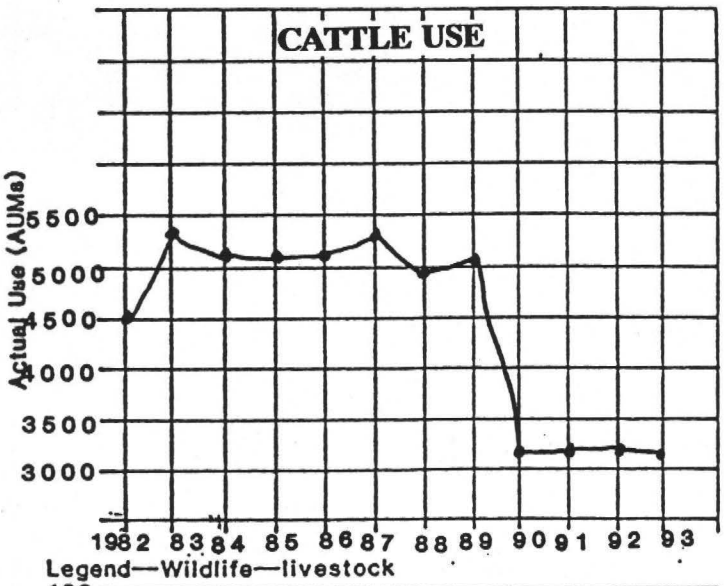
Code
Key Species-Col

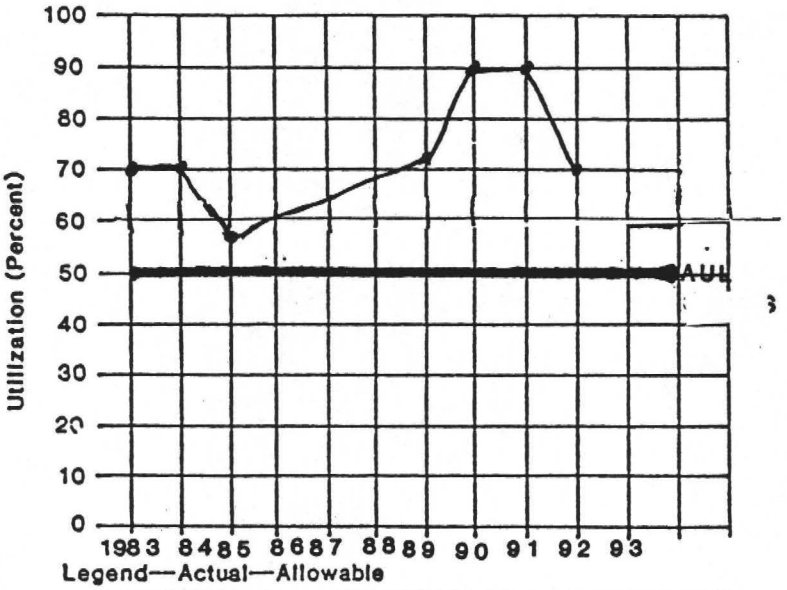
ARARN

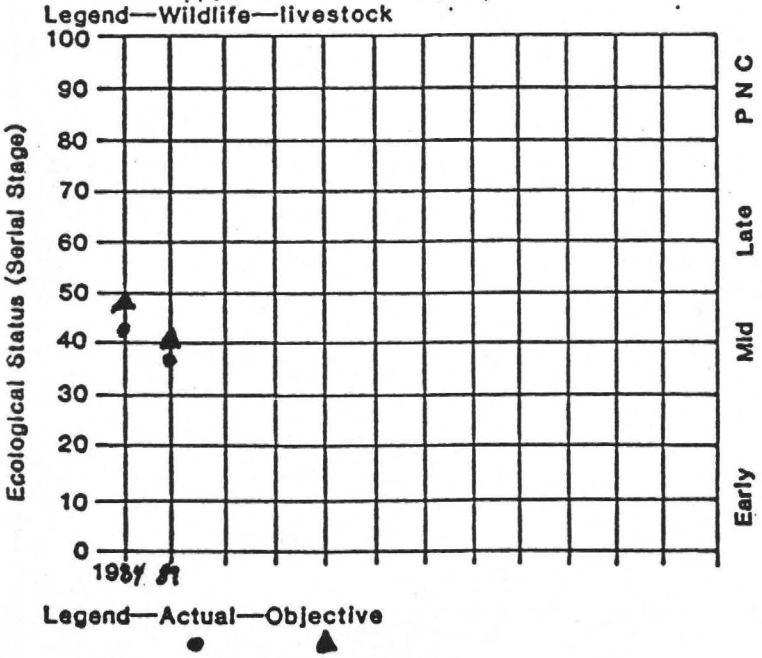
EULA5

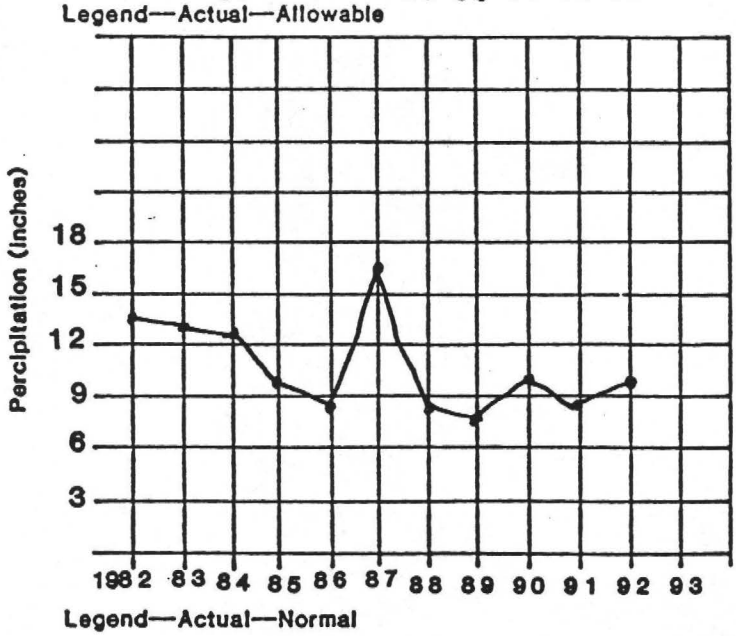
ORHY

SIHY









APPENDIX IV

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
KEY MANAGEMENT AREA
EVALUATION SUMMARY

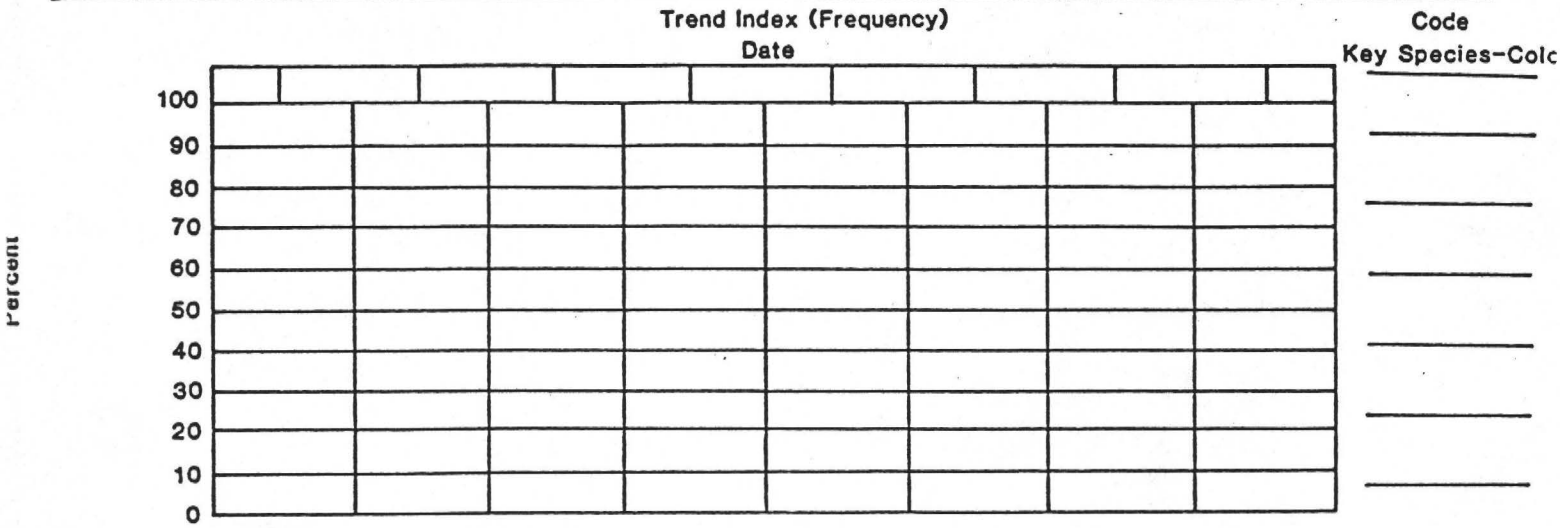
District: **ELY**

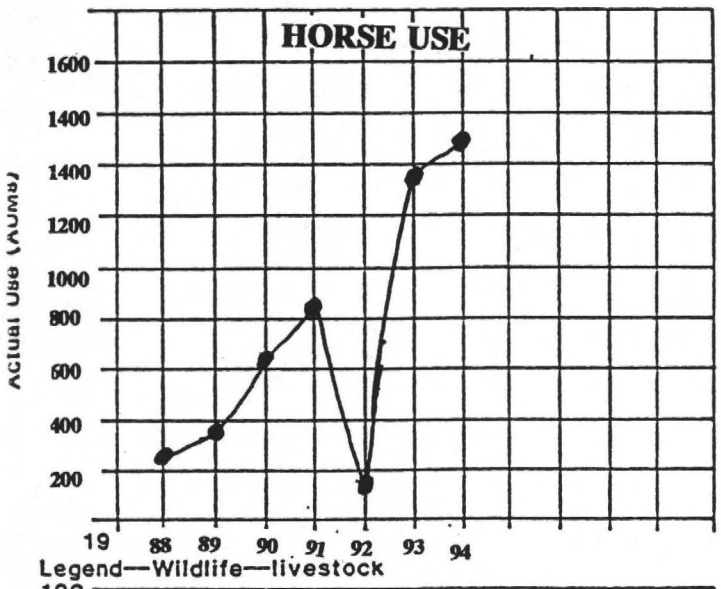
Planning Area: **WHITE RIVER**

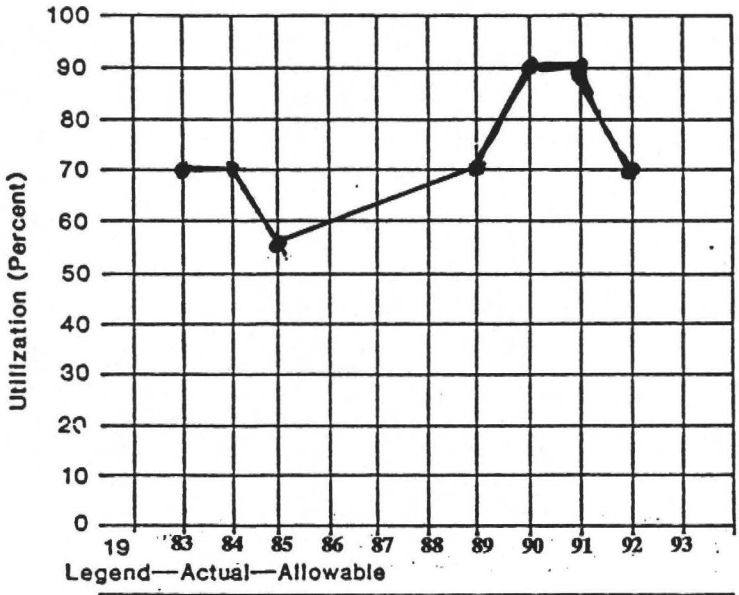
Date: **1994**

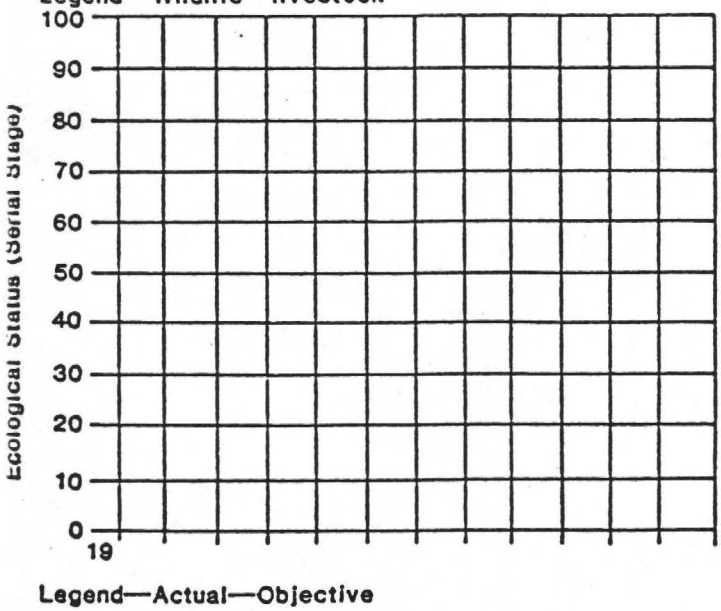
Allotment: **HARDY SPRINGS**

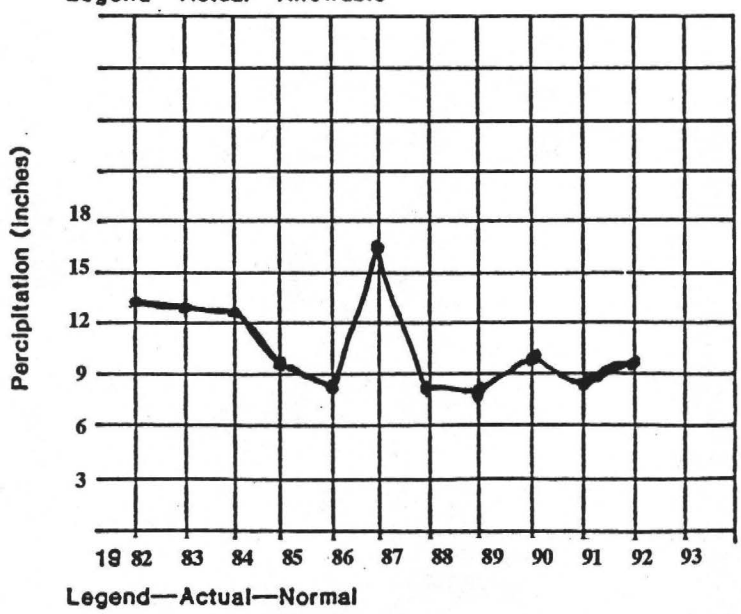
Key Management Area: **HSR 01 & HSR 02**











APPENDIX V

STOCKING LEVEL CALCULATION PROCEDURE
HARDY SPRINGS ALLOTMENT

The desired stocking level for the Hardy Springs Allotment was determined using the following formula (BLM Technical Reference 4400-7):

$$\frac{\text{Active Use (AUMs)}}{\text{Adjusted Utilization}} = \frac{\text{Desired Actual Use (AUMs)}}{\text{Desired Utilization}}$$

Actual livestock use and utilization data were collected for the allotment between 1984 and 1992. Precipitation data was used in the formulation of a yield index (BLM Technical Reference 4400-7, Appendix IV). Wild horse use was estimated from aerial census data and field observations. A stocking rate was calculated for each year that also had utilization data. The stocking rates were then averaged to come up with the desired stocking level for the allotment(3,893 AUMs). The 3,893 AUMs were allocated to the livestock and wild horses based on the amount of actual use made by each user in the stocking rate formula.

TABLE V-1

GRAZING YEAR	CATTLE AUMS	HORSE AUMS	TOTAL AUMS	MEASURED UTILI.%	YIELD INDEX	ADJUSTED UTILI. %	DESIRED UTILI.%	DESIRED AUMS
92/93	3,185	180	3,365	.64	1.14	.73	.50	2,305
91/92	3,388	840	4,228	.74	.82	.61	.50	3,466
90/91	3,373	612*	3,985	.70	.68	.48	.50	4,151
89/90	5,153	384	5,537	.74	.66	.49	.50	5,650

* Estimated number by averaging 1989 and 1991 census numbers.

AVERAGE AUMS FOR ALLOTMENT
3,893

Cattle damand-15,099 AUMs + Horse demand-2,016 AUMs = 17,115 AUMs total demand

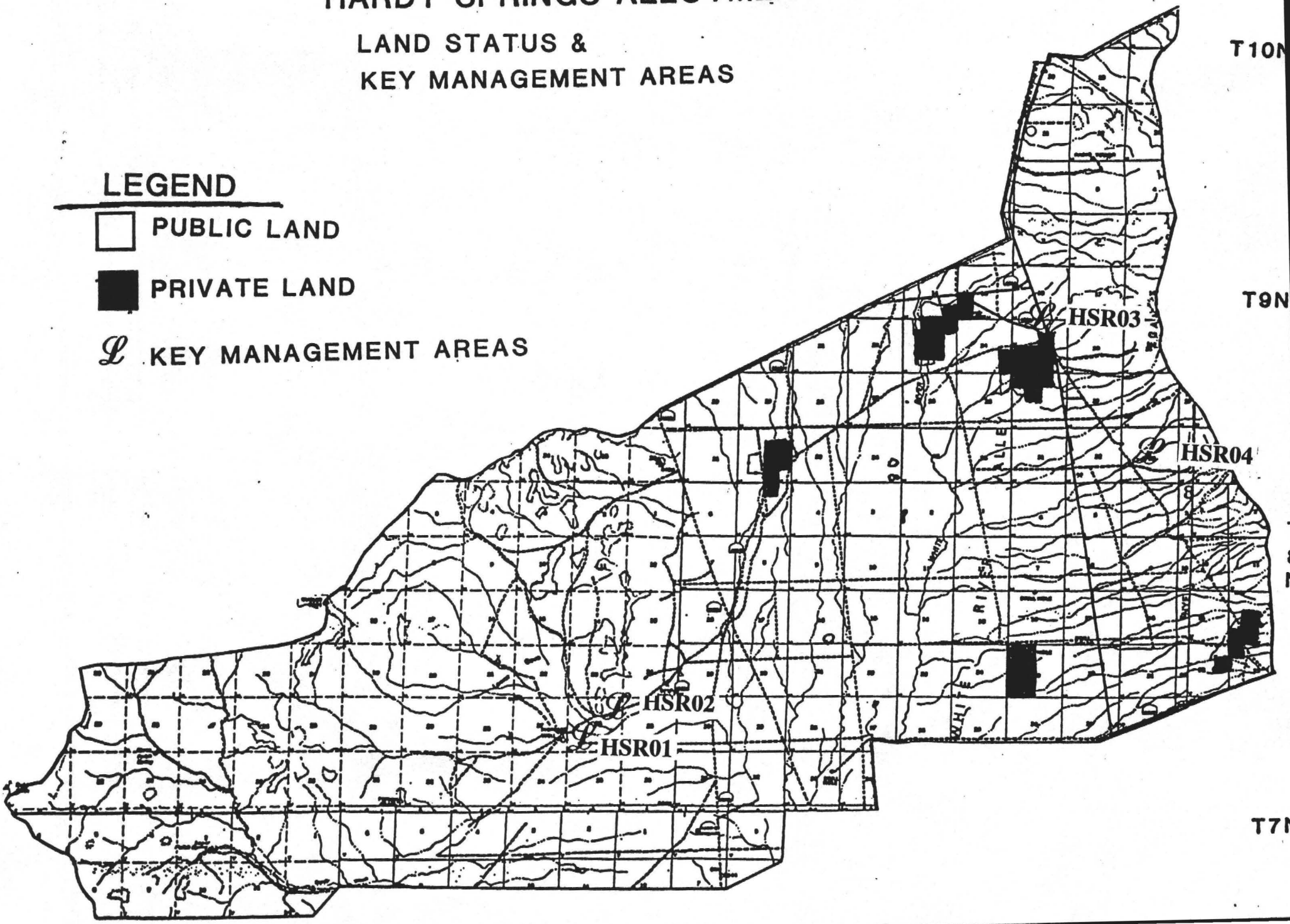
15,099/17,115=88%
2,016/17,115=12%

Cattle=3,893x.88=3,426AUMs
Horse=3,893x.12= 467AUMs

MAP 1

HARDY SPRINGS ALLOTMENT

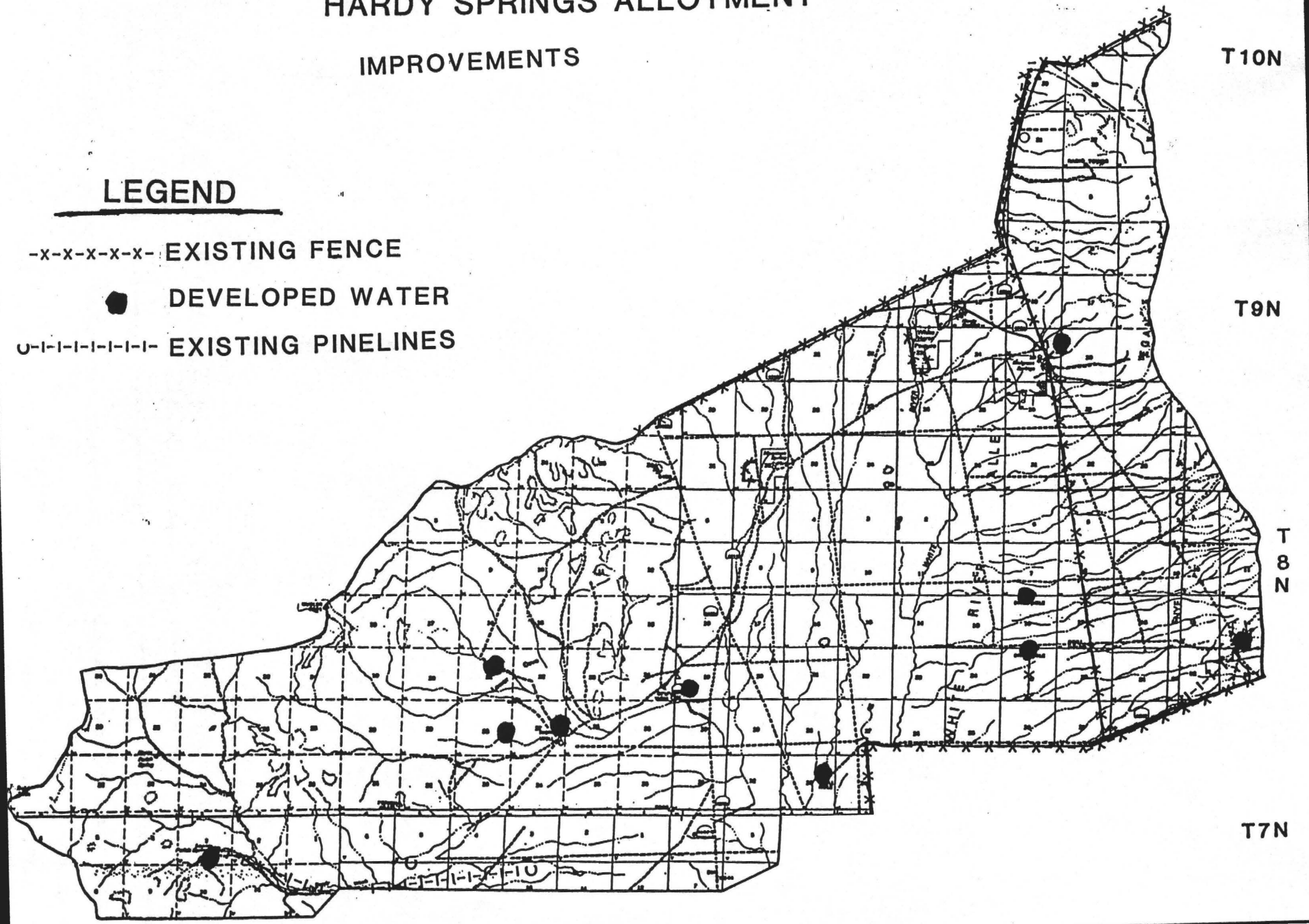
LAND STATUS & KEY MANAGEMENT AREAS



MAP 2

HARDY SPRINGS ALLOTMENT

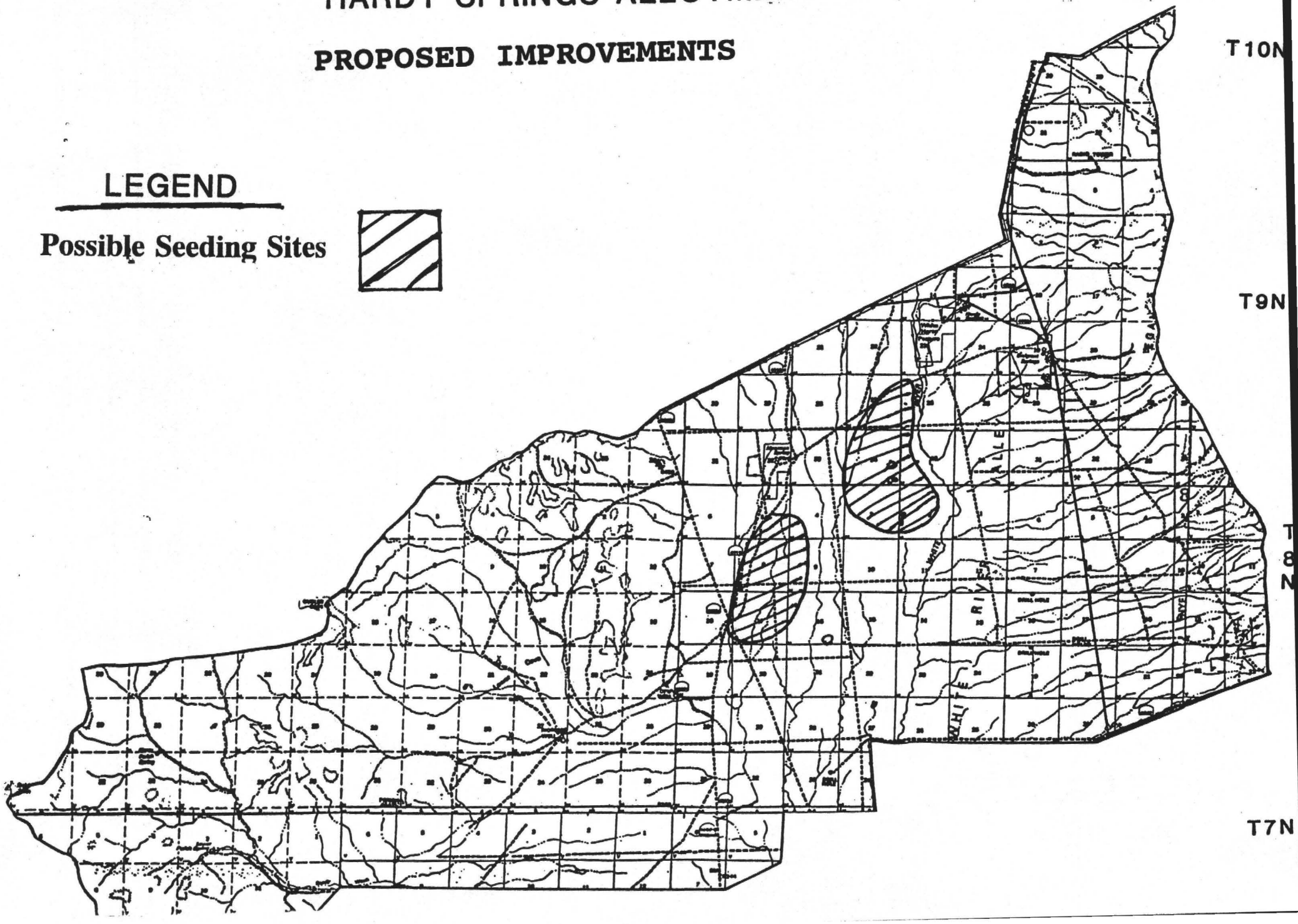
IMPROVEMENTS



MAP 3

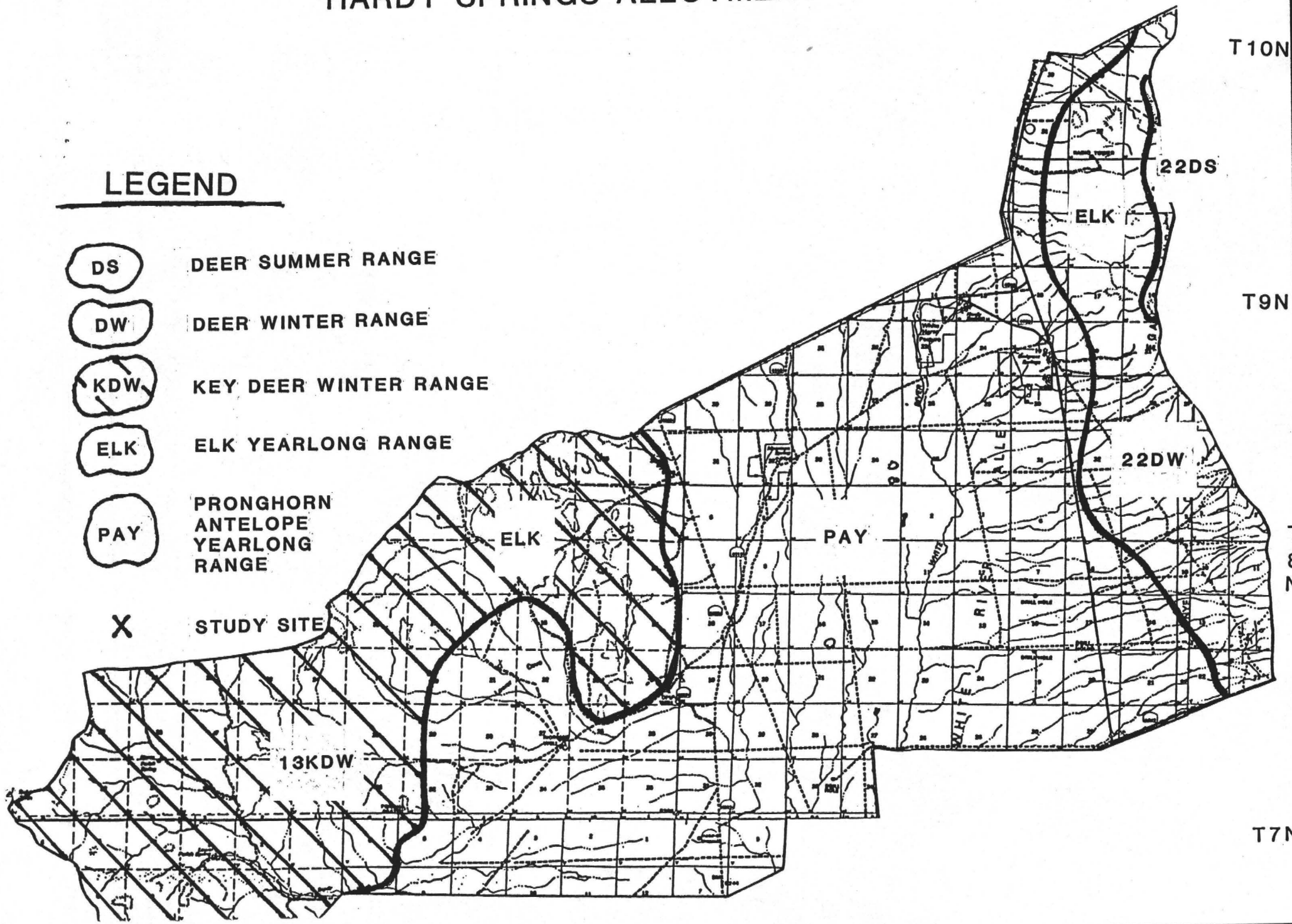
HARDY SPRINGS ALLOTMENT

PROPOSED IMPROVEMENTS



MAP 4

HARDY SPRINGS ALLOTMENT



HARDY SPRINGS ALLOTMENT

MAP 5

UTILIZATION PATTERN MAP 1989

T10N

T9N

T7N

R62E

USE LEVEL

S SEVERE (81-100%)

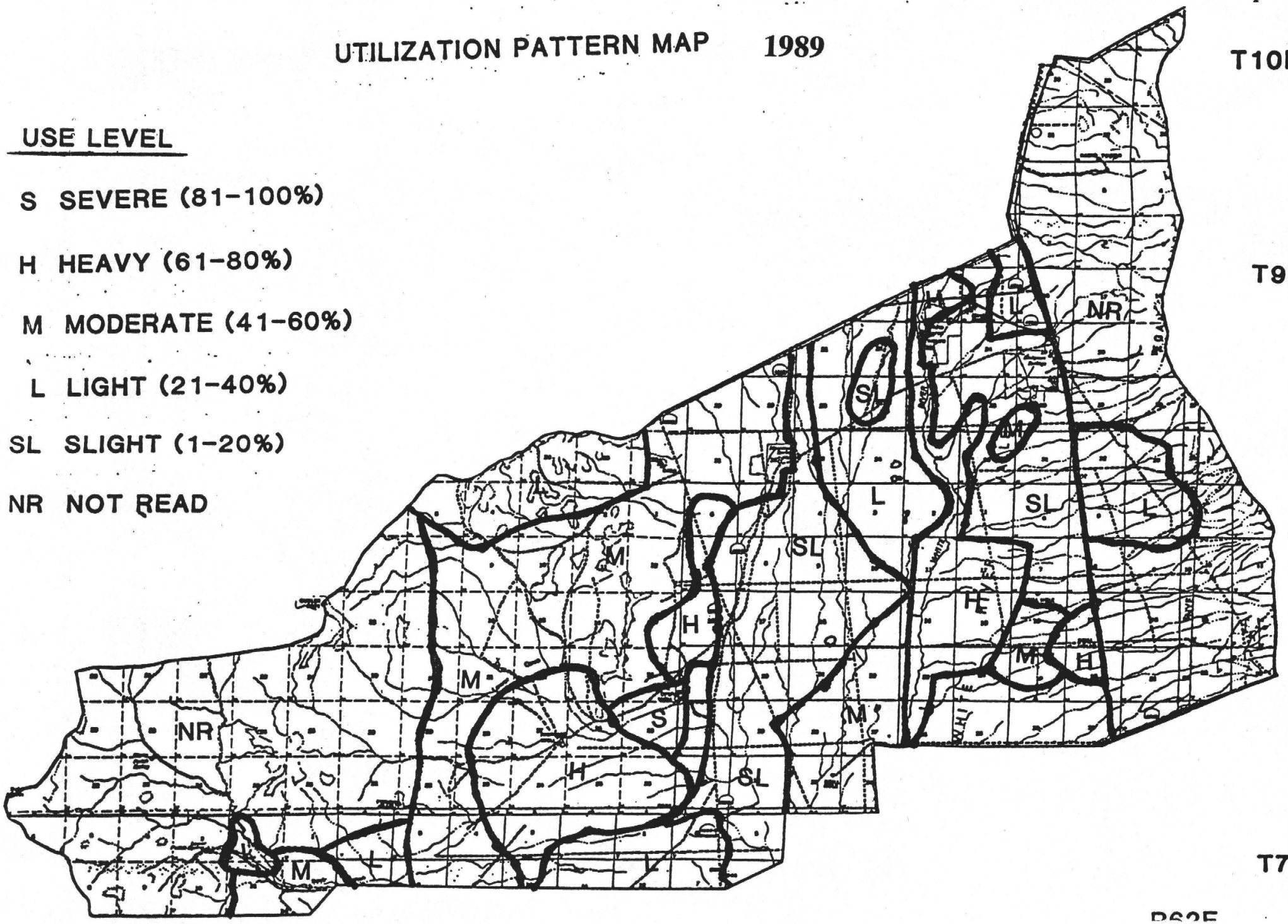
H HEAVY (61-80%)

M MODERATE (41-60%)

L LIGHT (21-40%)

SL SLIGHT (1-20%)

NR NOT READ



HARDY SPRINGS ALLOTMENT

MAP 6

UTILIZATION PATTERN MAP 1991

USE LEVEL

S SEVERE (81-100%)

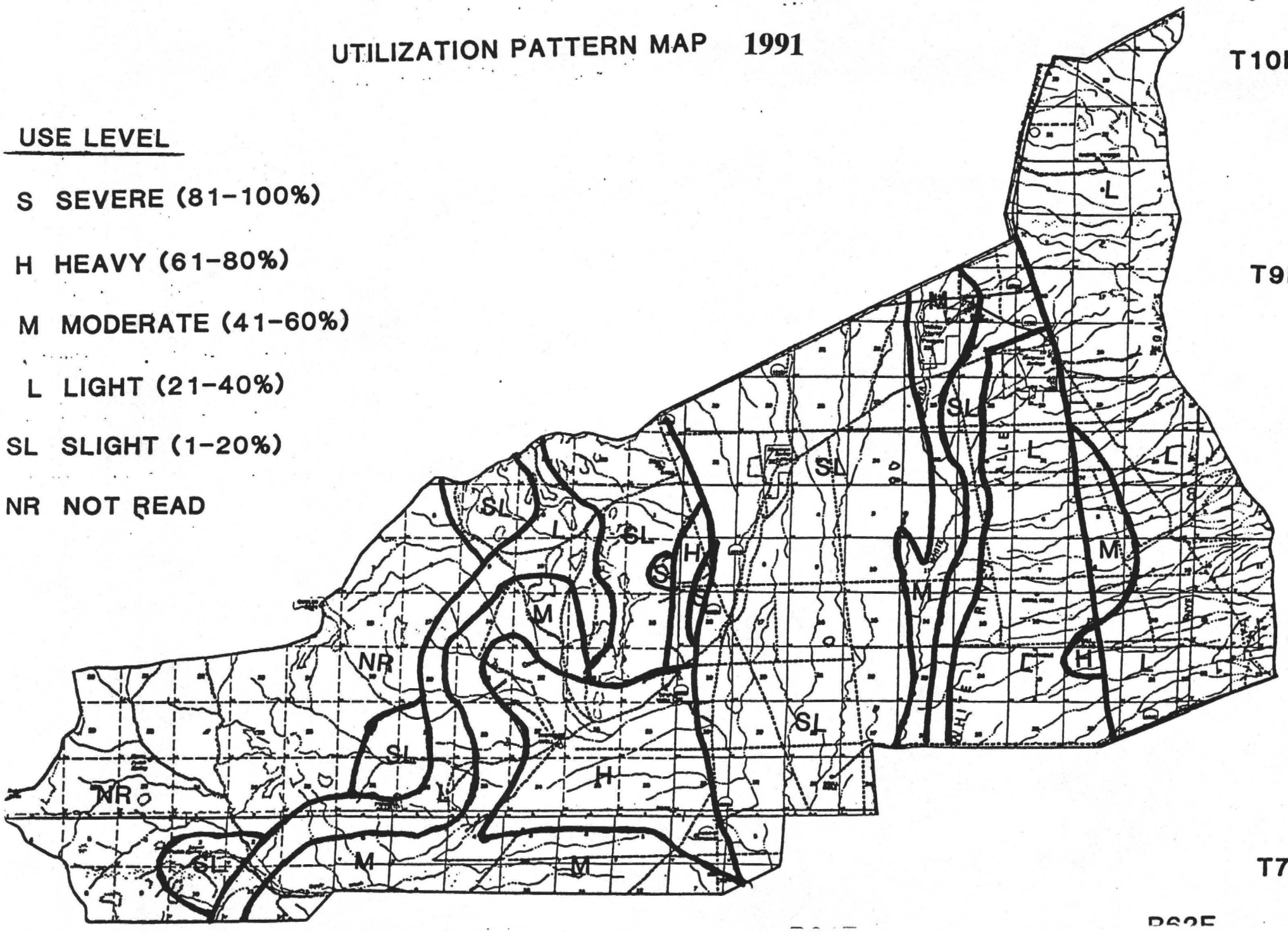
H HEAVY (61-80%)

M MODERATE (41-60%)

L LIGHT (21-40%)

SL SLIGHT (1-20%)

NR NOT READ



HARDY SPRINGS ALLOTMENT

MAP 7

UTILIZATION PATTERN MAP 1992

USE LEVEL

S SEVERE (81-100%)

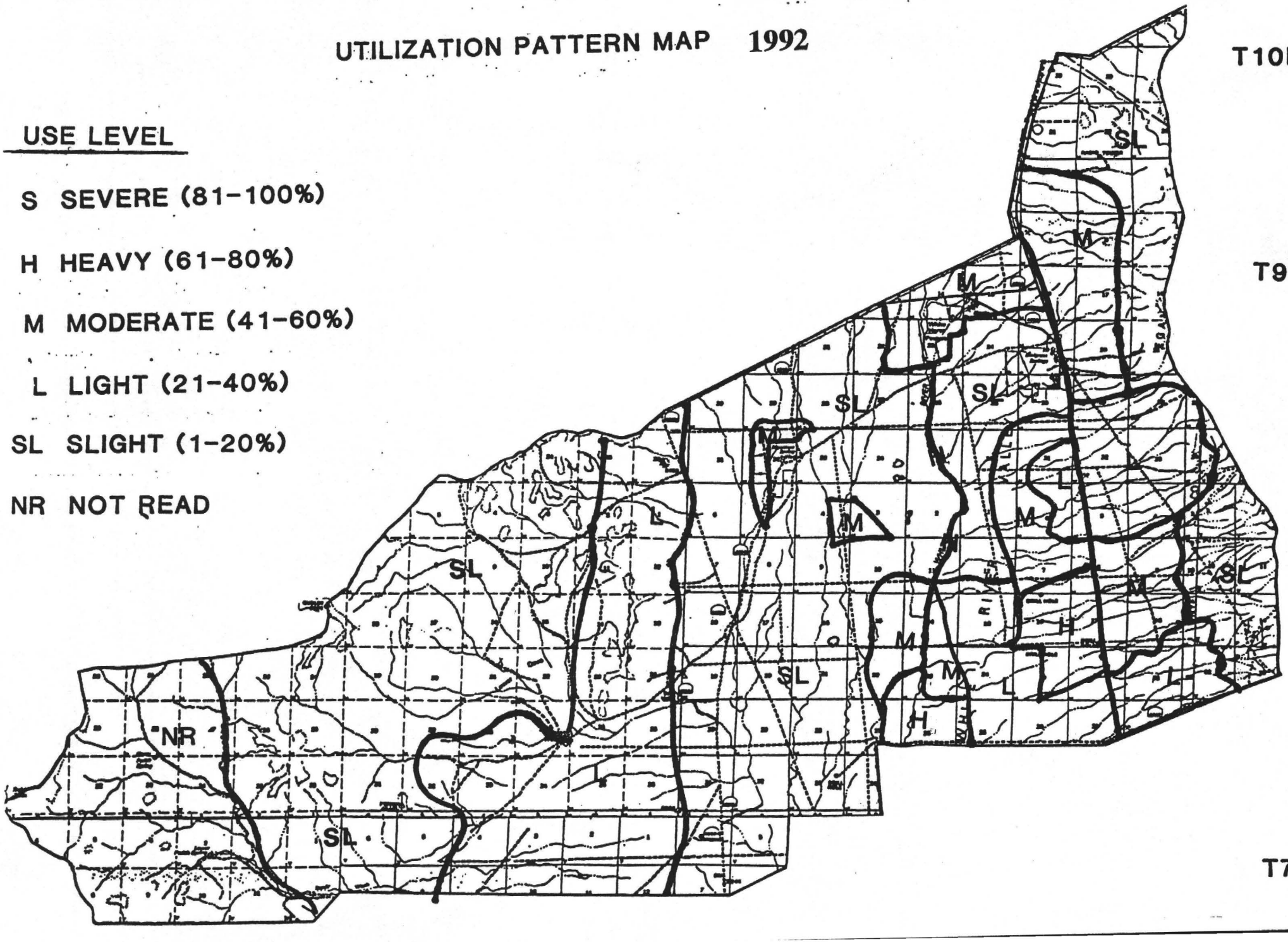
H HEAVY (61-80%)

M MODERATE (41-60%)

L LIGHT (21-40%)

SL SLIGHT (1-20%)

NR NOT READ



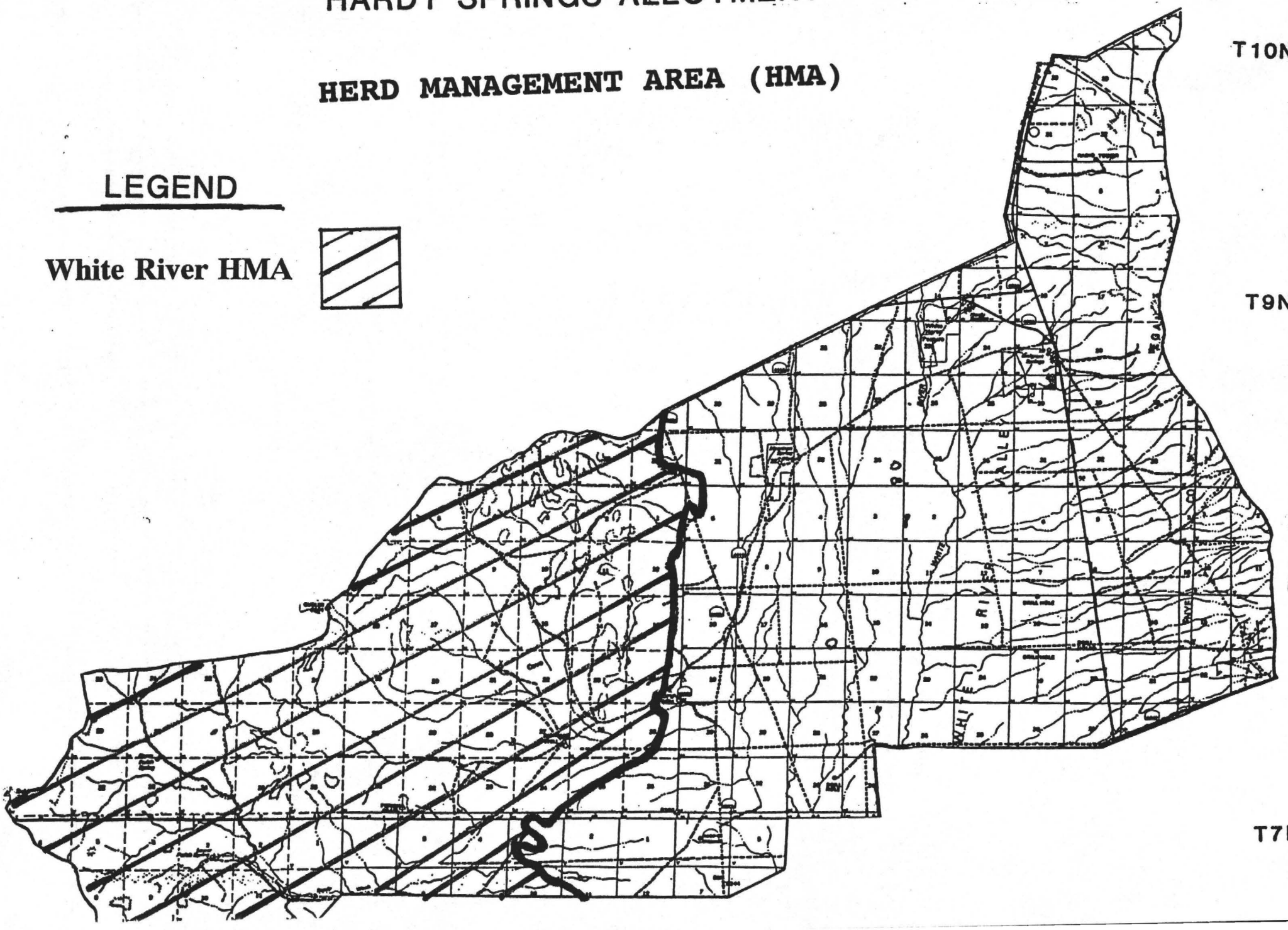
MAP 8

HARDY SPRINGS ALLOTMENT

HERD MANAGEMENT AREA (HMA)

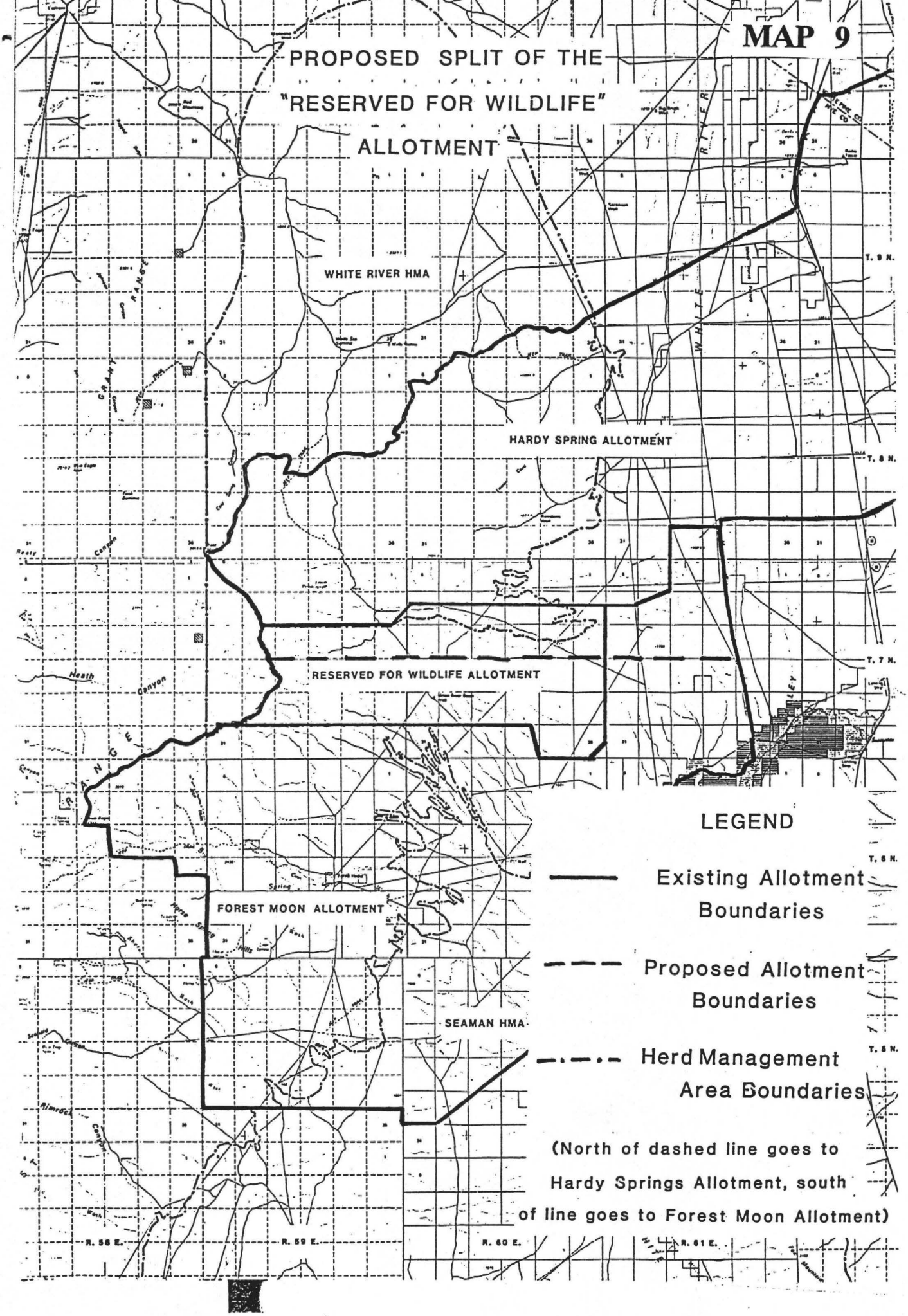
LEGEND

White River HMA



MAP 9

PROPOSED SPLIT OF THE "RESERVED FOR WILDLIFE" ALLOTMENT



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

October 26, 1995

Mr. Gerald M. Smith
Schell Resource Area
Bureau of Land Management
HC 33 Box 33500
Ely, Nevada 89301-9408

Subject: Hardy Springs Allotment Evaluation

Dear Mr. Smith:

Thank you for consulting the Nevada Commission for the Preservation of Wild Horses concerning the establishment of an appropriate management level for the White River Wild Horse Herd. We encourage the District to issue evaluations for all allotments within the herd management area in a timely manner.

Please accept the following comments and concerns:

Page 2, Herd Management Area

It would be appropriate to quantify the amount of the herd management area within the allotment. Please list other allotments affecting this herd.

Page 4, Allotment Specific Objectives

Allotment specific objectives and allowable use levels for key forage are consistent with the land use plan and Nevada Rangeland Handbook.

Page 5, Key Species

We appreciate the detail and use of key areas and species for monitoring and evaluation.

Page 7, Actual Use

An animal unit month should equal one adult horse and foal.

Page 9, Yield Index

The use of yield index in carrying capacity computations compromises overgrazing on the allotment. Averaging use and carrying capacity estimates over time will compensate for the variation in climatic conditions.

Page 12, Conclusions

Use pattern mapping data confirms all conclusions.

Page 14, Recommendations

We agree that an adjustment in numbers of wild horses is necessary to meet allotment specific objectives. An adjustment in the season of livestock use to April 10 is necessary to meet the phenology of key winter forage species.

Carrying capacity computations in Appendix V used yield index procedures to adjust measured utilization data. This procedure is contrary to the findings and conclusions of the evaluation. In all years utilization exceeded the allowable use levels for key areas. As stated in the evaluation, objectives were not met. The adjusted utilization levels in Appendix V finds the objectives were met in two out of four years.

We request your consideration of an alternative for the Management Action Selection Report:

TABLE V-1

YEAR	CATTLE	HORSE	TOTAL	MEA.	DES.	DESIRED
92/93	3,185	180	3,365	.64	.50	2,629
91/92	3,388	840	4,279	.74	.50	2,857
90/91	3,373	612	3,985	.70	.50	2,846
89/90	5,153	384	5,537	.74	.50	3,741
ave.	3,775	504	4,279			3,018

necessary reduction 4,279 - 3,018 = 1,261

allocation of forage

504 - (1,261 X .12) = 353 AUMs or 30 horses
3,775 - (1,261 X .88) = 2,665 AUMs cattle

Jerry, [redacted] were impressed with the presentation of rangeland monitoring data, allotment objectives, evaluation procedures and recommendations for this allotment. The application of actual use data for carrying capacity computations and forage allocations are essential in achieving a thriving natural ecological balance. We encourage the District to accept our alternative for an appropriate management level for the White River Wild Horse Herd. It appears that the proposed season of livestock use adjustment might provide for additional livestock AUMs than the computation indicates.

We would like to mention that the elk immigating into the White River Valley are native to United States and should be considered important to the ecosystem. Management actions for livestock and wild horses must provide habitat for these native wildlife species.

Sincerely,

Catherine Barcomb

Catherine Barcomb
Executive Director