8/30/89

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

ELKO DISTRICT OFFICE

3900 E. Idaho Street
P.O. Box 831
Elko, Nevada 89801

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
4400/4120
(NV-015)

AUG 3 0 1989

Ms. Dawn Lappin, Director
WHOA, Inc.
P.O. Box 555
Reno, NV 89504

Dear Ms. Lappin:

Enclosed is the North Butte Valley allotment evaluation for your input. Please provide me with your formal written comments and any additional information you may have by September 30, 1989. Your comments should be clear and concise and refer to specific pages and paragraphs within the evaluation.

Sincerely yours,

Gary Bowman

for JOHN A. PHILLIPS, Manager
Wells Resource Area

Enclosures: As stated above

DRAFT

ELKO DISTRICT, WELLS RESOURCE AREA
NORTH BUTTE VALLEY
ALLOTMENT EVALUATION

I. INTRODUCTION

The permittee in North Butte Valley Allotment is William and Elizabeth Dickinson. North Butte Valley is an "M" (maintain) allotment. Because the allotment has a grazing system, no priority for future planning or range improvements is assigned.

The evaluation period for this allotment is from 1983 to 1988.

II. INITIAL STOCKING LEVEL

A. Livestock Use

Dickinson's ten-year permit is described in Table 1. Since 1983, temporary non-renewable (TNR) has been issued twice (in 1984 and 1986). The average TNR for those two years is 41 AUMs.

TABLE 1. North Butte Valley Preference

Active Pref.	Susp. Pref.	Total Pref.	Fenced Fed. Range	Season of Use	Live-stock	% Public Land
1,645	0	1,645	51	5/1 to 12/22	206 Cattle	100

A grazing system was initiated in North Butte Valley in 1979 and revised in 1983. The 1983 grazing agreement can be found in Appendix 1. Most years, this system was revised at the beginning of each grazing season. Actual grazing use can be found in Sec. IV.B. of this evaluation, and a summary of seasons of use, by pasture is in Appendix 2.

B. Wild Horse Use

There are portions of the Cherry Creek and Maverick-Medicine wild horse herds in North Butte Valley allotment (see map 1 in Appendix 3). The number of wild horses that actually use the allotment is dependent upon the time of year and feed and water availability. Generally, wild horses graze year-long in portions of the allotment. Although horse use is made mostly in the native pastures, they have been spotted in the Juniper and Palomino Seedings.

The Rangeland Program Summary (RPS) wild horse objective is to provide forage to sustain 480 AUMs of wild horse use.

C. Wildlife Use

The Wells Resource Management Plan (RMP) indicates that the allotment

is located in both mule deer summer and winter range (see map 2 in Appendix 3), and that reasonable numbers of mule deer exceed existing numbers. However, discussions with Nevada Department of Wildlife (NDOW) confirm that little use is made by mule deer in North Butte Valley Allotment.

The RPS wildlife objective is to provide 840 AUMs for mule deer.

III. ALLOTMENT PROFILE

A. Description

North Butte Valley is located within the Cherry Creek Resource Conflict Area (RCA), at the north end of the Cherry Creek Range (see Map 3 in Appendix 3). Table 2 lists land ownership by pasture.

In the mid-1970's the allotment was cross-fenced into three native and three seeded pastures (see Map 4 in Appendix 3). The Juniper Field seeding receives very little cattle use because of a lack of stock water.

The native pastures are characterized by saline meadows and saline bottom ecological sites that support rabbitbrush, greasewood and wild rye.

The fences surrounding the Juniper, North, and South pastures end either in the foothills of the Cherry Creek Mountains or in the West Buttes, and so do not totally restrict horse movements. The majority of their grazing use is made in the native pastures. The horses water at the slough areas of the Spring, North and South pastures in the summer months. A spring on the east bench of West Buttes, in the North pasture, is also used heavily by wild horses.

TABLE 2. Allotment Acreage

Pasture	Public Acres	Unfenced Private Acres	Total
Lower	4,332	7	4,339
Palomino	2,545	0	2,545
Juniper	6,931	17	6,948
Spring	4,806	0	4,806
North	7,481	19	7,500
South	4,813	240	5,053
FFR	318	0	318
TOTAL	31,226	283	31,509

B. Objectives

RPS Objectives

This section includes objectives identified in the RMP and the Rangeland Program Summary. General allotment objectives are covered by the following RPS and Key Area objectives.

The wildlife and livestock RPS objectives (numbers two and five below) have been modified slightly.

1. Manage livestock grazing to sustain 1,645 AUMs active grazing preference.

2. Maintain or improve the present ecological status and trend.

3. Improve livestock distribution in Juniper pasture.

4. Manage rangeland habitat to provide forage to sustain 480 AUMs of wild horse use.

5. Improve or maintain mule deer summer and winter range to good or excellent condition to provide forage and habitat capable of supporting reasonable numbers of 819 mule deer with a forage demand of 840 AUMs.

6. Facilitate big game movements by evaluating and modifying existing fences to Bureau standards if necessary.

7. Protect, enhance, or develop one spring, seep, and/or wet meadow for its wildlife values.

8. Improve crucial deer winter habitat by cutting pinyon and juniper.

Key Area Objectives

This section outlines the specific key area objectives identified in the North Butte Valley Allotment Monitoring Plan.

L001 -- Palomino Seeding. 1. Improve Crested wheatgrass production to 3.0 acres/AUM. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

L002 -- Lower Seeding. 1. Improve Crested wheatgrass production to 3.0 acres/AUM. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and

wild horses).

L003 -- South Pasture. 1. Improve from current mid-seral ecological status to late-seral stage by 2004. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

L004 -- North Pasture. 1. Maintain current late-seral stage. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

L005 -- Spring Pasture. 1. Improve from current mid-seral status to late-seral by 2004. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

L006 -- Juniper Seeding. 1. Establish reseeded vegetation and achieve 3.0 acres/AUM production. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

C. Key Species Identification

Listed in Table 3 are the key species for each key area in the allotment.

TABLE 3. Key species by key area

Key Area	Key Species
L001	Crested wheatgrass (AGCR)
L002	Crested wheatgrass (AGCR)
L003	Alkali sacaton (SPAI), Creeping wildrye (ELTR3)
L004	Alkali sacaton (SPAI), Basin wildrye (ELCI2)
L005	Basin wildrye (ELCI2), Mat muhly (MURI)

IV. MANAGEMENT EVALUATION

A. The purpose of this evaluation is to determine whether the multiple-use objectives are being achieved and to support recommendations for any needed management changes.

B. Summary of Studies Data

The following are summaries of data in table and narrative form.

1. Actual Use and Key Area Utilization

Listed below in Table 4 is a summary of actual use and key area utilization data. A summary of periods of use, by pasture can be found in Appendix 2.

TABLE 4. Actual Use and Key Area Utilization

	North Pasture			South Pasture			Spring Pasture		
	Actual Use	KA Util.	Adj. Util.	Actual Use	KA Util.	Adj. Util.	Actual Use	KA Util.	Adj. Util.
1983	223	27*	47	439	70	121	0	0	0
1984	357	26	51	275	80	158	127	46	91
1985	383	54	53	288	57	56	201	33	32
1986	357	36	42	343	62	73	233	45	53
1987	426	53	47	282	59	52	0	0	0
1988	379	50	32	359	63	37	292	39	25

* Utilization at this key area was made by wild horses. All other readings are for cattle.
KA Util. = highest key species utilization (of current years growth) at key area.
Adj. Util. = actual key area util. x crop yield index

	Juniper Pasture			Palomino Pasture			Lower Pasture		
	Actual Use	KA Util.	Adj. Util.	Actual Use	KA Util.	Adj. Util.	Actual Use	KA Util.	Adj. Util.
1983	0	0	0	546	40	69	336	26	45
1984	0	0	0	334	29	57	590	51	100
1985	0	0	0	412	51	50	261	68	67
1986	0	0	0	357	52	61	399	54	63
1987	109	5	4	213	35	31	542	55	48
1988	0	0	0	305	61	38	393	49	31

KA Util. = percent utilization of current years growth of Crested wheatgrass at key area.

Key area utilization is generally representative of the average pasture utilization. (South pasture is the exception, where key area utilization appears to be heavier than average pasture utflization.) However, actual use and utilization are poorly correlated with the exception of Palomino pasture. An overall negative relationship between actual use and utilization existed

in North and Spring pastures (as actual use increased, utilization decreased).

2. Use Pattern Maps

Use pattern maps exist for most pastures for 1986, 1987 and 1988 (see Appendix 4). Utilization of the Palomino Seeding for these years is mostly heavy or moderate. Lower Seeding received mostly moderate use. Because of its lack of water, Juniper pasture received only slight, incidental livestock use (trail or with open gates to adjacent pasture).

All three native pastures received mostly moderate and light use. The sloughs comprise a small percentage of the native fields, but receive consistently heavy use.

3. Trend and Ecological Status

Summarized below in Table 5 is a summary of frequency and ecological status data.

TABLE 5. Trend and ecological status

Key Area	Key Species	Frequency 1983	Frequency 1988	Frequency Chg.*	Lbs./Ac. Production 1983	Lbs./Ac. Production 1987	Lbs./Ac. Production Chg.
L003	SPAI	25	19.5	-5.5	52	489	437
(South)	ELTR3	37.5	42	NSC	132	279	147
			Ecological Status Rating		27	46	
L004	SPAI	62	60.5	NSC	89	223	134
(North)	ELCI2	16.5	12.5	NSC	13	145	132
			Ecological Status Rating		61	55	
L005	ELCI2	35	43.5	8.5	74	1756	1682
(Spring)	MURI	24	26.5	NSC	27	0	- 27
			Ecological Status Rating		37	63	

NSC = No Significant Change

* The significance of change of key species remained the same at both the 5 and 10% confidence level.

Production at all native key areas increased dramatically in 1988 (production and species composition can be found in Appendix 5). This increase may be attributed to a number of things. In 1983 ten production hoops were clipped or estimated, while in 1988, 15 hoops were sampled. The increased sample size may have resulted in the difference in production. In addition, production in 1983 was estimated in August or early September. In 1988, production was read in mid-June. Rubber rabbitbrush, wildrye and basin big sage production is adjusted 10 to 20 times its green weight when clipped early in the year. Lastly, the crop yield index for 1983 nearly halved production. The 1988 index greatly increased production.

Except for the Spring Pasture key area, the 1988 production calculations best fit the ecological site description. Normal year production on ecological sites at the key areas range from 1,000 to 2,500 pounds per acre.

Great basin wildrye production in the Spring pasture was most likely over-estimated in 1988 because of its phenological

adjustment. However, key area L005 would remain in late-seral, even if wildrye production is adjusted down to a more reasonable figure by using a lower phenological adjustment factor.

Frequency data at L003, South pasture, indicate that the frequency of occurrence of key species is slightly down or static, while ecological status improved 19 points. The significant decrease in SPAI in the frequency study versus substantial increase in the production of SPAI remains unexplained. However, aspects of the general improvement in ecological status can be explained. In the 1983 ecological status rating, wildrye species were lumped under ELTR3 and credited 5 points. In 1988 the two wildrye species, ELCI2 and ELTR3, were differentiated, allowing for 10 points for wildrye. In addition, in 1983 10 plots were estimated, while in 1988 15 plots were estimated. Additional plots tend to better estimate shrub production. In this case, shrub production declined in 1988 and grass production increased as a result.

The statistical analysis of frequency data is in Appendix 5.

4. Crested Wheatgrass Production

Listed below in Table 6 is a summary of production data.

TABLE 6. Crested wheatgrass production

Key Area	Lbs./Ac. AGCR Production 1986	1988	Acres/AUM* 1986	1988
L001 (Palomino)	302	560	4.4	2.4
L002 (Lower)	261	398	5.1	3.4

* Acres/AUM calculated at 60% utilization and 800 lbs. production per AUM. Production was adjusted by crop yield index.

5. Precipitation

Listed below is a summary of precipitation data from Ruby Lake Recording Station. The long-term annual mean for that station is 13.14 inches.

TABLE 8. Precipitation

	1983	1984	1985	1986	1987	1988
Annual	23.86	17.78	10.84	10.84	11.2	ND
Yield Index	1.73	1.97	.98	1.17	.88	.63

ND = incomplete data.

Isohomeotropical charts indicate that Ruby Lake best represents weather patterns in the allotment.

6. Big Game Habitat Conditions

Habitat studies have not been established in mule deer summer range.

One habitat study was established in mule deer winter range in 1988. This study was located within the boundaries of a selective cutting project designed to improve habitat conditions in DW-1. The purpose of this study was to monitor vegetative response of understory vegetation and mule deer use of selective cut areas. Analysis of the data collected at this study site indicated winter habitat within the selective cut area is poor at this time. Natural vegetative response should improve habitat conditions through time.

The Wells RMP did not identify antelope use within the North Butte Valley Allotment. However, small satellite populations have made increasing use of the North Butte Valley Allotment in recent years, moving outward from adjacent herd areas. This is partly a result of the 1984 flood event which inundated habitat around the Franklin Lake area in Ruby Valley, and augmentation efforts in adjacent herds in south Ruby Valley and south Steptoe Valley (both in White Pine Co.) in 1988. The NDOW has recently updated their herd use boundary maps, showing the North Butte Valley Allotment as yearlong antelope range.

A Wells RMP amendment will include these new herd area boundary changes along with updated reasonable and existing numbers. Antelope habitat studies, as per BLM Manual 6630, were established in the Spring Pasture in 1988 which indicate yearlong antelope habitat conditions are currently fair. Following a Wells RMP amendment, existing and reasonable numbers will be made allotment specific.

7. Wild Horse Studies

No wild horse studies have been conducted on North Butte Valley Allotment. Key area utilization has not been read prior to cattle turn-out except at one key area in 1983. The Maverick Medicine and Cherry Creek herds were censused in 1985, 1987, and 1989; results are listed in Table 6. Censuses have not been made frequently enough to accurately determine the actual use (in AUMs) made by wild horses in North Butte Valley Allotment.

TABLE 6. Census Results

	Horses	Colts	Total
June, 1985 (Cherry Creek Herd)	22	3	25
September, 1985 (Maverick Medicine Herd)	24	11	35
December, 1985 (Maverick Medicine Herd)	21	3	24
June, 1987 (Maverick Medicine Herd)	0	0	0
March, 1989 (Cherry Creek)	4	1	5

V. CONCLUSIONS

A. RPS Objectives

1. Manage livestock grazing to sustain 1,645 AUMs active grazing preference.

   The following data support the conclusion that livestock have been managed to sustain the active grazing preference.

   Ecological status at all native sites has substantially improved or has been maintained in late-seral status since 1983. Crested wheatgrass production has also substantially increased since 1986, meeting key area objectives.

   Trend on key species is up or has not significantly changed, (with the exception of one key species at one key area which decreased).

   Because key area utilization was, on the average, lower than the key area objectives, the preferred stocking rate (calculated using the ratio method or linear regression) indicates that active preference should be adjusted up 91 to 326 AUMs (see Appendix 7). However, because actual use and utilization are so poorly correlated, they should not be used to support adjustments to preference. Use pattern maps indicate that there are distribution problems that could be improved with use of existing range improvements and salting.

2. Maintain or improve the present ecological status and trend.

The Spring pasture key area improved from mid- to late-seral status. The North pasture remained static in late-seral status. South pasture remained in mid-seral status, but improved from 27 to 46 percent of PNC. (At this rate of improvement, the South pasture will most likely be in late-seral status by the year 2004.) Therefore, all sites have been maintained or have improved, meeting the ecological status part of this objective.

Trend of four of the six key species at the native key areas has not significantly changed. The frequency of occurrence of one key species increased and one decreased. Because trend of one key species decreased, this objective was not met.

3. Improve livestock distribution in Juniper pasture.

Water development is the primary means for improving livestock distribution in Juniper pasture. To date no water has been developed in that field. Pinyon Pipeline Extension is scheduled to be built in 1990.

4. Manage rangeland habitat to provide forage to sustain 480 AUMs of wild horse use.

Actual use (in AUMs) made by wild horses in North Butte Valley Allotment has not been measured. Herd censuses are not frequent enough to accurately determine numbers of wild horses through out the year.

Limited censuses indicate that herds are less than objective levels (480 AUMs, or 40 horses for 12 months). However, use pattern maps and key area utilization indicated that the forage needs of wild horses currently using the allotment are being met. In addition, production and frequency studies indicate that ecological status is improving or maintaining and that trend is generally static (see discussions for objectives one and two above.) Therefore, this objective has been met.

5. Improve or maintain mule deer summer and winter range to good or excellent condition to provide forage and habitat capable of supporting reasonable numbers of 819 mule deer with a forage demand of 840 AUMs.

Big game habitat studies have not been established in deer summer range, therefore, data is not available to monitor this objective. However, the North Butte Valley Allotment contains

only a very small portion of DS-1 (approx. 500 acres). Because there is no water in this portion of DS-1, no conflicts exist between this mule deer summer range and livestock use in the North Butte Valley Allotment. Based on professional judgement, this objective has been met.

Pinyon and juniper invasion has lowered habitat conditions over much of DW-1. The Cherry Creek Habitat Management Plan (HMP) proposes that 10,000 acres of deer winter habitat in DW-1 be improved by selectively cutting 2,500 acres and burning and seeding 500 acres of pinyon-juniper range. Approximately 30 acres of pinyon and juniper in the North Butte Valley Allotment were selectively cut in 1987-88. Following completion of the project in 1988, this cut area was consumed by wildfire. Because habitat improvement objectives were negated by the wildfire, approximately 150 acres were proposed to be reseeded. Approximately 50 acres were seeded in the fall of 1988. The remaining 100 acres were seeded in the spring of 1989. The study location established before the 1988 fire will be used to monitor vegetative response and improvement of habitat conditions.

The Cherry Creek HMP did not identify specific selective cutting areas by allotment. Considering the suitability of North Butte Valley Allotment for cutting/habitat improvement, and the flexibility allowed by the HMP, the deer winter range objective will be met once that portion of the burn area in North Butte Valley Allotment has been successfully rehabilitated and at least one more selective cutting project is completed within the allotment (cutting projects average 20 to 40 acres in size). It should be noted that livestock make little or no grazing use in DW-1 within the North Butte Valley Allotment. Because conflicts between livestock and mule deer winter habitat do not currently exist, livestock use is not a factor in meeting or not meeting this objective.

6. Facilitate big game movements by evaluating and modifying existing fences to Bureau standards if necessary.

The Wells RMP provides for 50 miles of existing fence to be modified within the Cherry Creek RCA. The Cherry Creek HMP has identified 8.6 miles of existing fence within the North Butte Valley Allotment to be modified. No existing fences have been modified to date. Following are fences located in North Butte Valley that have been identified by the Cherry Creek HMP for modification:

Project Number	Miles	Primary Species Benefitted
4688	3.0	Mule deer
4589	2.6	Mule deer
4944	3.0	Mule deer

7. Protect, enhance, or develop one spring, seep, and/or wet meadow for its wildlife values.

   The Wells RMP provides for 25 spring improvement/development projects to be completed within the Cherry Creek RCA. The Cherry Creek HMP identified South Spring (T. 28 N., R. 62 E., Section 9, NE1/4SW1/4) located in North Butte Valley, to be improved or developed. Survey and design work was completed for this project in 1988. Construction is scheduled as early as 1989, pending availability of funds.

8. Improve crucial deer winter habitat by cutting pinyon and juniper.

   See the discussion for objective 5 above.

B. Key Area Objectives

L001 -- Palomino Seeding. 1. Improve Crested wheatgrass production to 3.0 acres/AUM. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

1. Crested wheatgrass production increased from 4.4 acres/AUM to 2.6 acres/AUM, therefore this objective has been met.

2. Utilization at the key area was below 60% except in 1988 when it was 61%. Because sampling precision in utilization studies is not exact and the 1988 utilization level is so close to 60%, this objective has been met.

L002 -- Lower Seeding. 1. Improve Crested wheatgrass production to 3.0 acres/AUM. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

1. Production on Lower seeding increased from 5.1 acres/AUM to 3.4 acres/AUM, therefore this objective has been met.

2. Utilization was below 60% except in 1985, when it was 68%, therefore this objective has not been met.

L003 -- South Pasture. 1. Improve from current mid-seral ecological status to late-seral stage by 2004. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

1. South pasture improved from 27 percent of PNC to 46 percent, but remains in mid-seral status. In the short-term, this objective has not been met. However, adequate progress is being made toward attainment of this long-term objective.

2. Utilization of native key species exceeded 50% every year in the South pasture, therefore this objective was not met.

L004 -- North Pasture. 1. Maintain current late-seral stage. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

1. A change in the ecological site description at this key area resulted in a 1983 ecological status rating of 61, or late-seral. Late-seral status was maintained at this key area.

2. Key area utilization exceeded 50% two out of six years (54% in 1985, and 53% in 1987) in the North pasture. Because sampling precision in utilization studies is not exact and the 1985 and 1988 utilization levels are so close to 50%, this objective has been met.

L005 -- Spring Pasture. 1. Improve from current mid-seral status to late-seral by 2004. 2. Do not exceed a combined, annual utilization of 50% on native key species (combined use includes livestock, wildlife and wild horses).

1. A change in the ecological site description at this key area resulted in a 1983 ecological status rating of 37, or mid-seral status. Ecological status at this site improved from mid- to late-seral status.

2. Key area utilization for native key species in Spring pasture was less than 50% on all years. Therefore this objective has been met.

L006 -- Juniper Seeding. 1. Establish reseeded vegetation and achieve 3.0 acres/AUM production. 2. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

Insufficient data exists to determine if this objective has been met. The Juniper seeding was reseeded in 1984, however, production for the

seeding has not been determined. The current production of the seeding is estimated to be about 5.0 acres/AUM, based on professional judgment. No key area has been established in this field because it receives little or no use.

VI. CONSULTATION

Roy Price and Ray Lister, Wildlife Biologists (BLM)
Bruce Portwood, Wild Horse and Burro Specialist (BLM)
Doug Mary, Supervisory Range Conservationist (BLM)
Steve Kirakofe, Soil Scientist (BLM)
Karl Scheetz, Range Conservationist (BLM)
William and Elizabeth Dickinson, permittee

VII. RECOMMENDATIONS

The following recommendations are made to facilitate attainment of allotment objectives and to update RPS and key area objectives. Management actions and improvements listed in the Rangeland Program Summary are also included in the following recommendations.

A. Revise the existing grazing system as follows:

SEEDINGS

	1990	1991	1992		
Lower Seeding	1	3	2	(1)	5/1 to 6/20
Palomino Seeding	2	1	3	(2)	6/21 to 7/31
Juniper Seeding	3	2	1	(3)	rest

NATIVE

North Pasture	1	3	2	(1)	8/1 to 9/15
Spring Pasture	2	1	3	(2)	9/15 to 10/31
South Pasture	3	2	1	(3)	11/1 to 12/22

Repeat the rotation in 1993.

Although progress is being made toward attaining allotment objectives, problems exist with the current grazing system. The old grazing system generally allowed for 52 days grazing use in each field. Some fields lacked the production necessary for that length of use. This, in addition to annual ranch operation changes, resulted in numerous revisions to the grazing agreement that did not provide systematic rotation of some fields. The revised grazing system listed above will better fit the carrying capacity of all fields and meet the phenological needs of key species.

B. Revise the RPS objectives listed below, as follows:

1. Manage livestock to maintain or improve ecological status on native range to late-seral status.

2. Provide forage to sustain 1,645 AUMs for livestock grazing.

3. Maintain Crested wheatgrass production.

4. Manage rangeland habitat to provide forage to sustain 480 AUMs of wild horse use.

5. Improve or maintain mule deer summer and winter range to good or excellent condition to provide forage and habitat capable of supporting reasonable numbers of 819 mule deer with a forage demand of 840 AUMs.

6. Improve yearlong antelope habitat to at least good condition to provide forage and habitat capable of supporting reasonable numbers of antelope as determined by the Nevada Department of Wildlife.

The primary changes to the RPS objectives are the addition of a Crested wheatgrass objective, and an objective for habitat of expanding antelope herds.

C. Revise key area objectives as follows:

L001 -- Palomino Seeding. Maintain 3 acres/AUM production of Crested wheatgrass. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

L002 -- Lower Seeding. Maintain 3 acres/AUM production of Crested wheatgrass. Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

L003 -- South Pasture. Improve from current mid-seral ecological status to late-seral status by the year 2004. Do not exceed a combined, annual utilization of 55% on native key species (combined use includes livestock, wildlife and wild horses).

L004 -- North Pasture. Maintain the current late-seral status. Do not exceed a combined, annual utilization of 55% on native key species (combined use includes livestock, wildlife and wild horses).

L005 -- Spring Pasture. Maintain the current late-seral status. Do not exceed a combined, annual utilization of 55% on native key

species (combined use includes livestock, wildlife and wild horses).

L006 -- Juniper Pasture. Maintain current crested wheatgrass production. (A key area must be established to monitor this objective). Do not exceed a combined, annual utilization of 60% on Crested wheatgrass (combined use includes livestock, wildlife and wild horses).

The major change to key area objectives is an increase in percent utilization on native key species from 50 to 55 percent. Because native pastures will be deferred every year, increased utilization levels will have little impact on key species. Phenological needs of the plants will be met before grazing use.

In addition, the new objectives reflect the current ecological status of native key areas.

D. All water developments, in particular West Butte Well No. 1 (job number 4716), East Palomino Well (4690) and North Pasture Well (4623) should be maintained and pumped when pasture is in use to improve livestock distribution. Water troughs should be left full of water when cattle are removed until threat of freezing and damage requires draining.

Using all existing water developments will help meet utilization objectives, resulting in improved ecological status and an upward trend of key species. In addition, water will be made available to wild horses and big game, improving their habitat.

E. Monitor wild horse utilization levels and analyze their impact in 1994, at the next evaluation. This entails reading key area utilization and use pattern mapping prior to cattle turn-out. Monitoring responsibilities will be as outlined in the District Monitoring Plan.

F. Evaluate fences to determine if they pose a barrier to wild, free roaming status of horses and modify if necessary.

Modification of fences will allow unrestricted movement of wild horses.

G. Modify 8.6 miles of existing fence that poses a hazard or barrier within deer winter and summer range.

Modification of 8.6 miles of fence will improve big game habitat, helping meet the wildlife objective.

H. Improve crucial deer winter habitat by cutting 20 to 40 acres of pinyon and juniper.

Selectively cutting 20 to 40 acres of pinyon and juniper will result in the attainment of deer winter range habitat objectives.

I. Protect, enhance, or develop South spring for its wildlife values.

J. Re-evaluate the allotment again in 1994.

APPENDIX I - 1983 ROTATION

ROTATION GRAZING AGREEMENT

Use in the North Butte Valley Allotment will be made as follows:

	1983	1984	1985	1986	1987
Palomino Seeding	PA 05/01 - 06/22	PA 10/7 - 11/28	NO 08/15 - 10/06	NO 06/23 - 8/14	
Lower Seeding	LO 06/23 - 08/14	LO 05/01 - 06/22	LO 10/07 - 11/28	SO 08/15 - 10/06	
~~North~~ Pasture	SO 08/15 - 10/06	NO 06/23 - 08/14	PA 05/01 - 06/22	LO 10/07 - 11/28	repeat
~~South~~ Pasture	NO 10/07 - 11/28	SO 08/15 - 10/06	SO 06/23 - 08/14	PA 05/01 - 06/22	

Until stockwater is developed, use in the Juniper Seeding will be with open gates in conjunction with the Palomino or the Lower Seeding as follows:

1983	1984	1985	1986	1987
w/ Palomino	w/ Palomino	w/ Palomino	w/ Lower	repeat

Use in the Spring Pasture will be made after 8/15 each year.
The Spring Pasture will be available for spring use after 5/1 on an alternate year basis with written approval of the authorized officer.
Maximum use in the Spring Pasture will be 166 AUMs.

The Maximum stocking rate for the North Butte Valley Allotment will be 206 cattle.

The use outlined herein represents the maximum base property qualifications assigned to the North Butte Valley Allotment. It will remain in effect and be made a condition of licensing until terminated or changed by the Bureau of Land Management.

William G. and Elizabeth A. Dickinson

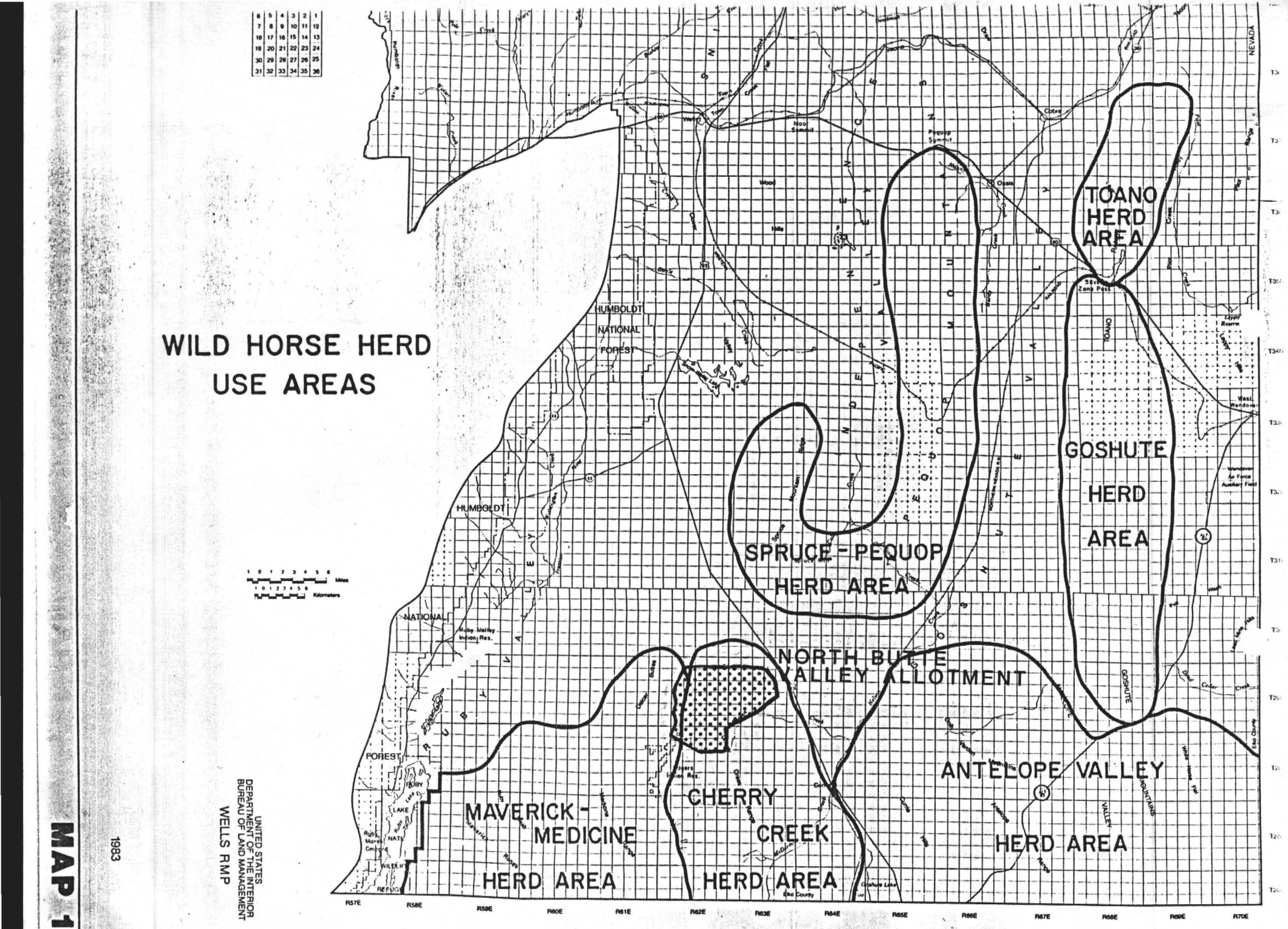
4/20/83

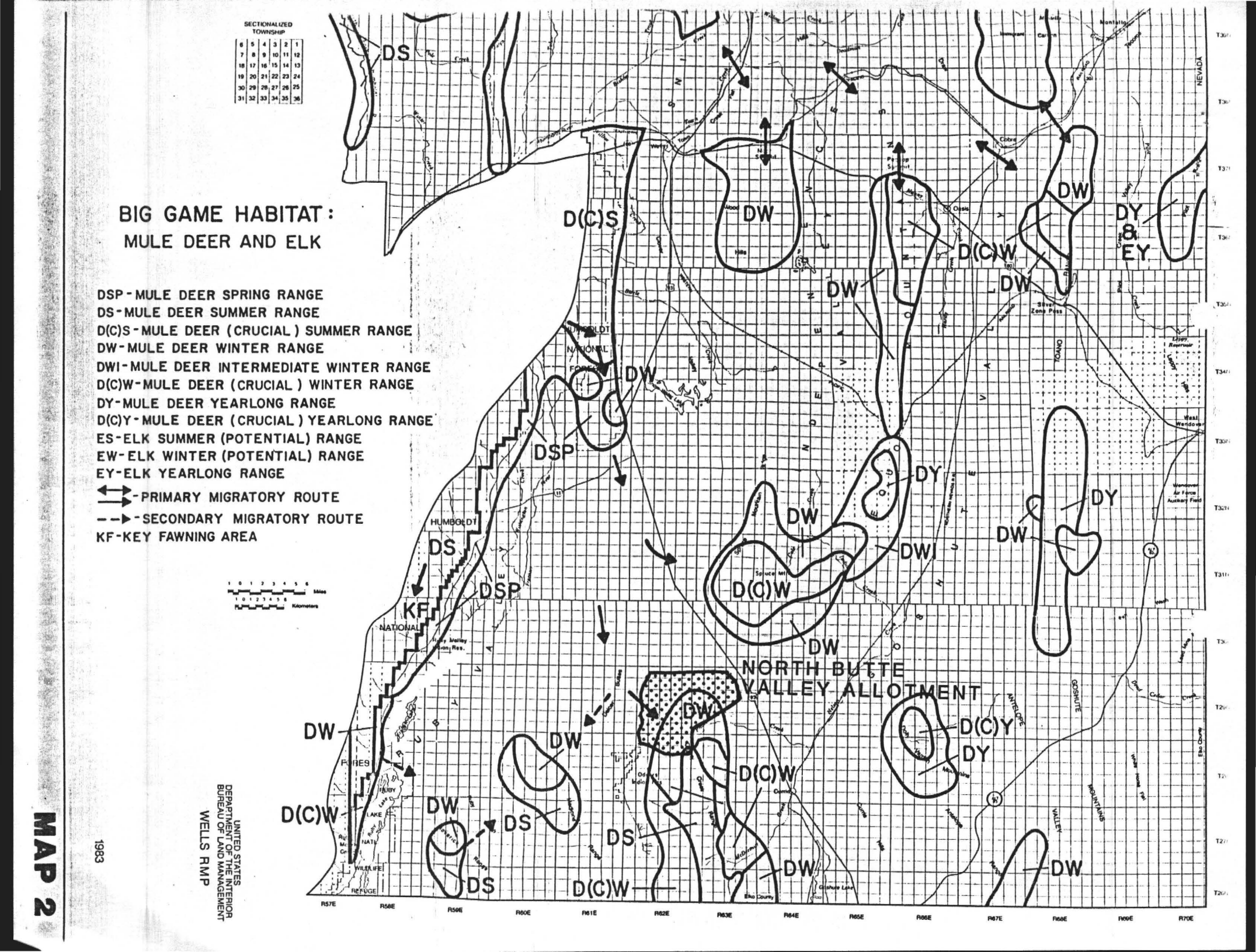
Charles L. Boyer, Manager
Wells Resource Area

4/26/83

SEASONS OF USE
1983 - 1988

	1988	1987	1986	1985	1984	1983
Lower Seeding	10/02-11/28	04/25-05/28 10/16-11/30	04/21-04/30 10/05-10/11 11/16-12/26	04/15-04/22 10/01-10/31	05/01-06/22 09/27-10/31	06/26-08/24
Palomino	05/01-06/14	05/29-06/28	05/01-06/22	04/23-06/22	11/01-12/23	05/05-06/25 11/23-12/22
North	06/15-08/09	06/29-08/31	06/23-08/14	08/05-09/30	06/23-08/14	10/19-11/22
South	08/10-10/01	09/01-10/11	08/15-10/04	06/23-08/04	08/15-09/24	08/15-10/18
Spring	04/12-04/30 11/29-12/22	Rest	10/12-11/15	11/01-11/22 11/29-12/13	12/15-01/22	Rest
Juniper	Rest	12/01-12/16	Rest	Rest	Rest	Rest


WILD HORSE HERD
USE AREAS
TOANO
HERD
AREA
GOSHUTE
HERD
AREA
SPRUCE - PEQUOP
HERD AREA
NORTH BUTTE
VALLEY ALLOTMENT
ANTELOPE VALLEY
HERD AREA
CHERRY
CREEK
HERD AREA
MAVERICK -
MEDICINE
HERD AREA
HUMBOLDT
NATIONAL
FOREST
NEVADA
R57E
R58E
R59E
R60E
R61E
R62E
R63E
R64E
R65E
R66E
R67E
R68E
R69E
R70E
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELLS RMP
1983
MAP 1

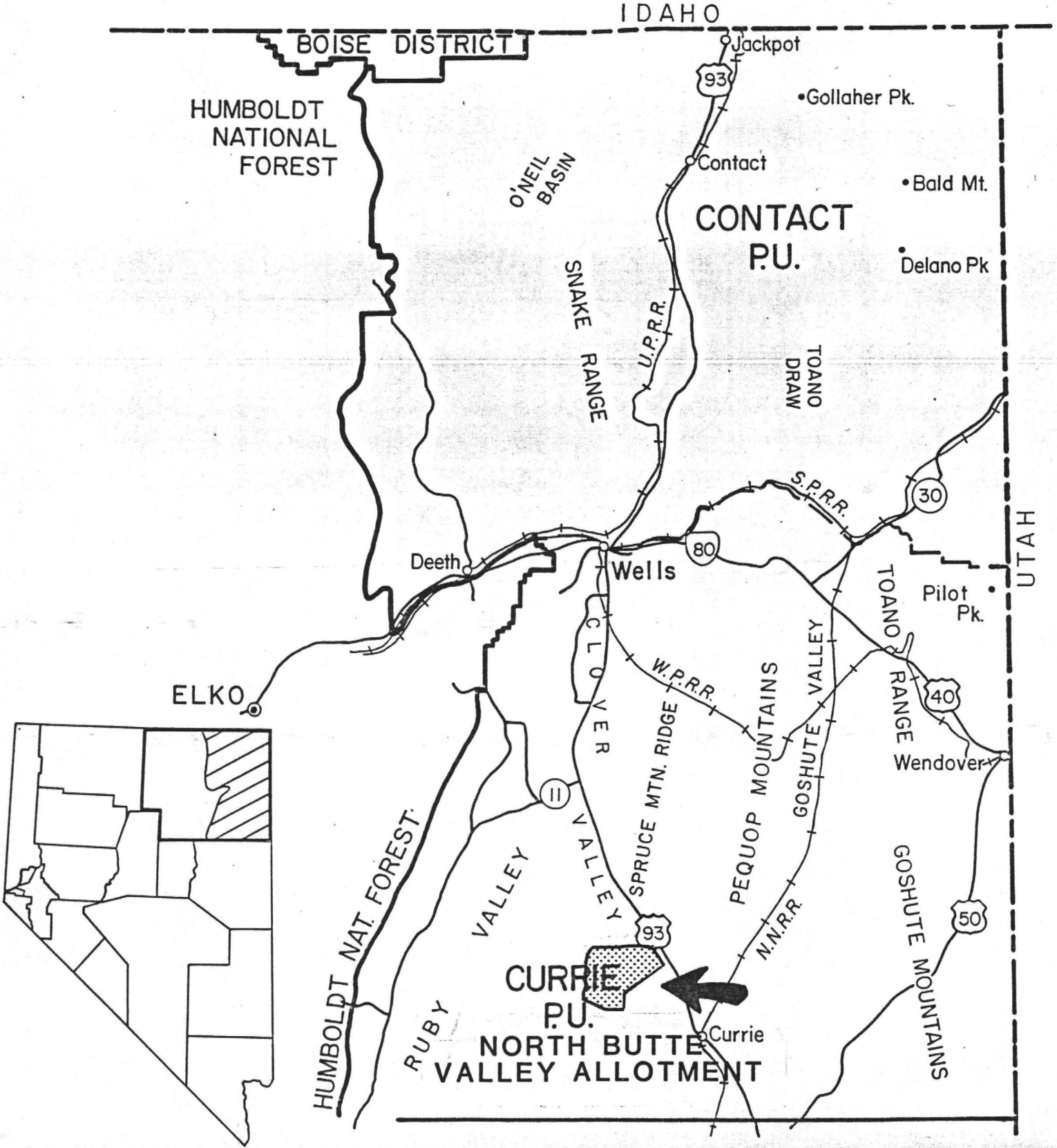


MAP 2

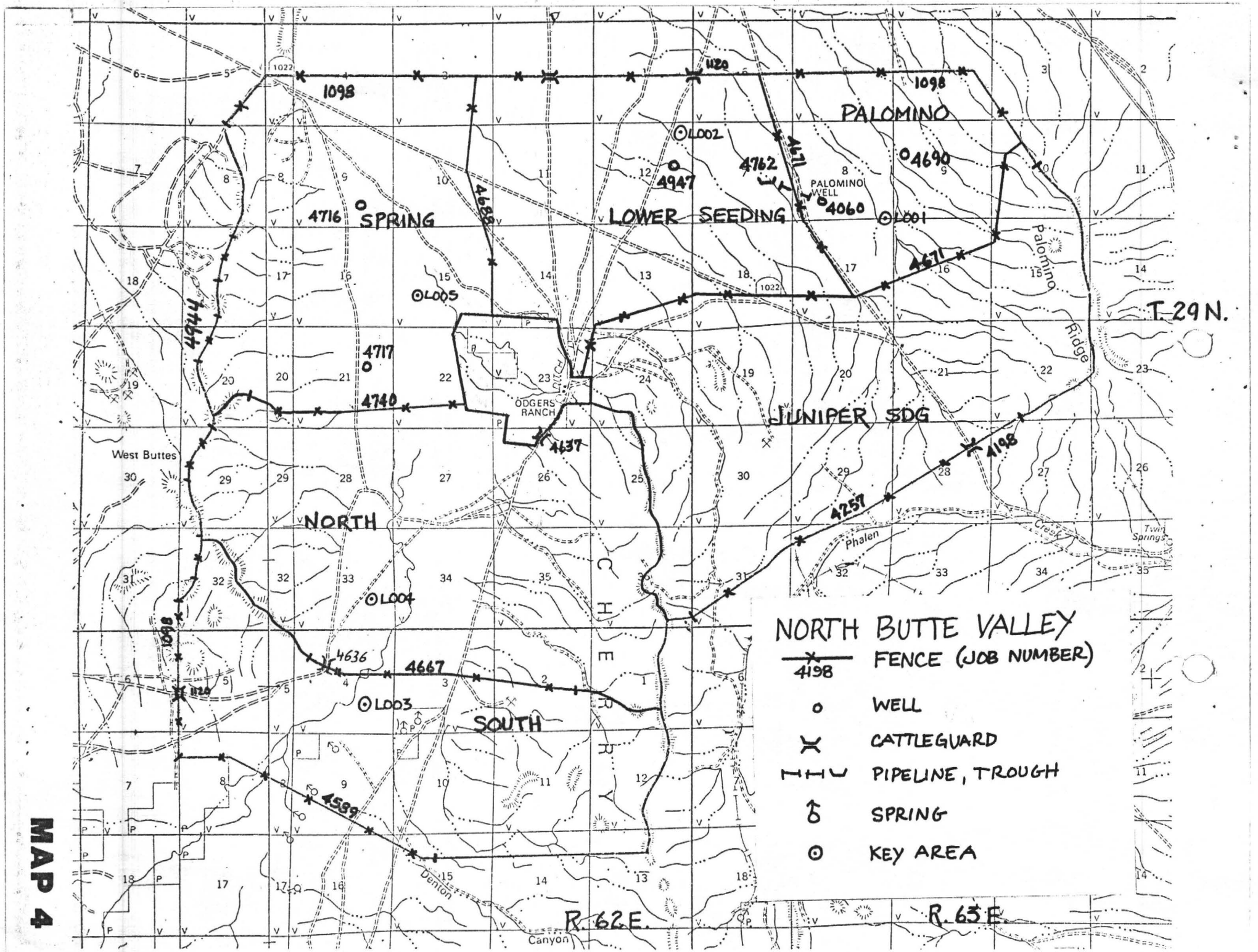
1983

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELLS RMP

WELLS RESOURCE AREA
ELKO DISTRICT NEVADA



MAP 3


1098
1120
PALOMINO
LOWER SEEDING
SPRING
4716
4688
4947
4762
4671
PALOMINO WELL
4060
L002
L001
L005
4690
4717
4740
4637
ODGERS RANCH
JUNIPER SDG
4198
4257
Palomino Ridge
Phalen Creek
Twin Springs
West Buttes
NORTH
SOUTH
L004
L003
4636
4667
4599
Denton Canyon
T. 29 N.
R. 62 E.
R. 63 E.
NORTH BUTTE VALLEY
4198 FENCE (JOB NUMBER)
WELL
CATTLEGUARD
PIPELINE, TROUGH
SPRING
KEY AREA

MAP 4

USE PATTERN MAPS FOR NORTH BUTTE VALLEY ALLOTMENT

ARE ON FILE AT THE ELKO DISTRICT OFFICE,

WELLS RESOURCE AREA

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NEVADA
Range Site Description

A. PHYSICAL CHARACTERISTICS

1. PHYSIOGRAPHIC FACTORS

This site occurs along axial-stream floodplains, stream terraces and on inset fans. Slopes range from 0 to 4 percent, but slope gradients of 0 to 2 percent are most typical. Elevations are 5000 to 6300 feet.

2. CLIMATIC FACTORS

Average annual precipitation is 8 to 12 inches. Mean annual air temperature is 45 to 50 degrees F. The average growing season is 100 to 120 days.

3. SOIL FACTORS

The soils in this site are deep to very deep. Surface soils are mostly 10 inches or more thick and moderately fine to moderately coarse textured. These soils are slightly to strongly salt and sodium affected in the upper profile with soil reaction and salinity decreasing with depth. They are very poorly to somewhat poorly drained. There is a water table near the surface for short periods in the early spring that usually stabilizes at depths below 40 inches during the summer. Capillary rise of this ground water enhances soil moisture during the growing season. Additional moisture is received on this site as run-in from higher landscapes or as overflow from adjacent streams. These soils are poorly aerated and are slowly to moderately-slowly permeable. Runoff is slow to very slow and there may be some brief ponding in depressional areas. These soils are susceptible to gullying which intercepts normal stream overflow patterns and results in site degradation. Where stream channels become entrenched or gullying occurs, the water table is lowered and a more drought tolerant vegetation succeeds on the site.

For a listing of soils correlated to this range site and representative soil taxon see Appendix II.

4. VEGETATION FAC RS

a. Potential Native Vegetation

The plant community is dominated by alkali sacaton. Alkali cordgrass, alkali bluegrass and sedges are important associated plant species.

Potential vegetative composition is about 85% grasses and grass-likes, 10% forbs and 5% shrubs.

b. Major plant species and percentages of the total community by air-dry weight:

PLANT SYMBOL	COMMON NAME	PERCENT BY WEIGHT (AIR-DRY)
Grasses and Grass-Like Plants		
SPAI	alkali sacaton	40-50
SPGR	alkali cordgrass	10-15
CAREX	sedge	5-10
JUBA	Baltic rush	2-8
POJU	alkali bluegrass	2-8
DISPS2	inland saltgrass	2-5
PUCCI	alkaligrass	2-5
PPGG	other perennial grasses	10-15**
AGSM	western wheatgrass	
ELTR3	creeping wildrye	
ELCI2	basin wildrye	
MUAS	alkali muhly	

**Allow no more than 5% of each species of this group and no more than 15% in aggregate.

Forbs		
PPFF	perennial forbs	5-15**
RUMEX	dock	
TRIGL	arrowgrass	
POTEN	cinquefoil	
ALOC2	iodinebush	
SENEC	groundsel	
IRMI	wildiris	
IVAX	povertyweed	
DODEC	shootingstar	

**Allow no more than 2% of each species of this group and no more than 15% in aggregate.

4. VEGETATION FACTORS (continued)

b. Major plant species and percentages of the total community by air-dry weight:

PLANT SYMBOL	COMMON NAME	PERCENT BY WEIGHT (AIR-DRY)
Shrubs		
SSSS	shrubs	2-8**
SAVE4	black greasewood	
CHNA2	rubber rabbitbrush	
CHAL9	alkali rabbitbrush	

**Allow no more than 2% of each species of this group and no more than 8% in aggregate.

c. Approximate ground cover (basal and crown) is 15 to 25 percent.

d. Total annual air-dry production:

	LBS/AC
Favorable years	1500
Normal years	1000
Unfavorable years	700

e. Plant community dynamics

Where management results in abusive livestock use, inland saltgrass and Baltic rush increase, as alkali sacaton and alkali bluegrass decrease. Foxtail barley and thistle are likely to invade this site. Where severe stream entrenchment occurs, the potential for this site is lost due to change in soil moisture balance. Typically, this site is succeeded by the plant community characterized in the Saline Bottom (C028BY004NV) site description following severe stream degredation.

5. ASSOCIATED AND COMPETING SITES

a. Principal sites that commonly occur in association with this potential plant community include:

(028BY001NV) Wet Meadow 10-14" P.Z.
(028BY004NV) Saline Bottom
(028BY044NV) Wetland
(028BY050NV) Wet Sodic Bottom

b. Competing sites (and their differentiae) that are similar to this potential plant community:

(028BY001NV) Wet Meadow 10-14" P.Z.
[PCJU &/or PONE3 and CAREX dominant; more productive]
(028BY050NV) Wet Sodic Bottom
[DISPS2 dominant]
(028BY004NV) Saline Bottom
[ELCI2 dominant and SPAI codominant grasses; more SAVE4; more productive]

B. INTERPRETATIONS FOR MAJOR USES

1. LIVESTOCK GRAZING

a. This site is suitable for use by livestock during the summer and fall when used in association with other range sites. When this site is used as hayland and/or pasture, it is best grazed when the soil surface has dried out or as hayland aftermath. Care should be taken to avoid use too early in the spring when the soils are wet or saturated. Grazing management should be keyed to Nevada or alkali bluegrass phenology and production. Allow for ample seed production during the grazing cycle.

b. Stocking rates vary with such factors as kind and class of grazing animal, season of use and fluctuations in climate. Actual use records for individual sites, a determination of the degree to which the sites have been grazed, and an evaluation of trend in site condition offer the most reliable basis for developing initial stocking rates.

Selection of initial stocking rates for given grazing units is a planning decision. This decision should be made ONLY after careful consideration of the total resources available, evaluation of alternatives for use and treatment, and establishment of objectives by the decisionmaker.

2. WOOD PRODUCTS

No known potential.

3. WILDLIFE VALUES

This site provides limited cover and forage for deer, elk, antelope and other upland game animals. This site is often associated with perennial streams and springs and include ponded marsh-like areas which furnish nesting and brood rearing habitat for waterfowl. The site is also used by various shore birds, songbirds, rodents, reptiles and associated predators natural to the area.

B. INTERPRETATIONS FOR MAJOR USES (continued)

4. WATERSHED VALUES

The hydrologic cover condition of this site is fair for representative stands in good and excellent range condition. Hydrologic cover condition will often vary with range condition class. The average runoff curve is about 79 for group C soils and about 84 for group D soils. (See Section 4, SCS National Engineering Handbook runoff quantities and hydrologic curves.)

5. RECREATION AND NATURAL BEAUTY

This site has limited potential for upland game hunting. Some wildlife species use this site and it offers rewarding opportunities for nature study and photography. Aesthetic value is derived from the lush verdure of native grasses during the late spring and summer.

6. THREATENED OR ENDANGERED SPECIES

None known at present.

APPENDIX I

Reference Data

1. Site Documentation (number and kind of site inventory records).

	SCS-ECS-5	6	NV-ECS-1
	SCS-RANGE-417		NV-4400-13 (BLM)
4	Other NV-RANGE-61		

2. Distribution and extent.

White Pine County.

3. Location of typical example of this site.

Approved by: _____
STATE RANGE CONSERVATIONIST
SCS NEVADA

Date approved: JUN 1988

APPENDIX II

1. Soil taxonomic unit representative of this site:

SSA	Soil Taxon	Taxonomic Classification

2. Type location for soil taxonomic unit representative of this site:

3. Listing of soils correlated to this site:

SSA	Soil Taxon	Taxonomic Classification

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Battle Valley
(2) Examiner(s): LISTER
(3) Write-up no. LOO4 (North)
(4) Map unit no.
(5) Ecological Site: SALINE BOTTOM 28BX004
(6) Date: Sept. 8, 1983
(7) Quad or Phto. no.
(8) Soil series:

REMARKS: plant vigor; animal signs (hedging, terracing, droppings, etc.); severe erosion signs; % surface rock; burned/unburned; seedlings; seeded; PJ invasion; etc.

	Species Name or Symbol	Weight present	Weight *PNC	Weight allowable
% Grass	ELCI2	6	30-60	6
	SPAI	38	30-40	38
	DISPS2	4	2-5	4
	AGSM		2-5	
	PPGG		5-15	
	SPGR		3	
	PONU		3	
	JUBA		3	
% Forbs	PPFF		2-8	
	IVAX		2	
	THELLY		2	
	ASTRA		2	
	DESCU	T		T
	SUEDA	T		T
	AAFF	2		2
% Shrubs & Trees	SAVE4	9	5-15	9
	CHNA2		2-5	
	SSSS		2-8	
	ATCO		2	
	CHAL9		2	
	CHVI8	41		2

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect:
(11) Slope aspect:
(12) % Slope:
(13) % Rock outcrop:
(14) Total lbs./Ac.: 236
(15) Gr-F-S canopy cover:
(16) Tree canopy cover:
(17) % of SWA:
(18) Elevation:
(19) Final SWA no.:
(20) Stratum no.:
(21) Key management area no.:
(22) Ecological Status: Int.

*PNC - Potential Natural Community

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Butte Valley

(2) Examiner(s): Henklein

(3) Write-up no. L004 (North)

(4) Map unit no.

(5) Ecological Site: SALINE BOTTOM 28BX004

(6) Date: June 21, 1988

(7) Quad or Phto. no.

(8) Soil series:

REMARKS: plant vigor; animal signs (hedging, terracing, droppings, etc.); severe erosion signs; % surface rock; burned/unburned; seedlings; seeded; PJ invasion; etc.

	Species Name or Symbol	Weight present	Weight *PNC	Weight allowable
% Grass	ELCI2	13	30-60	13
	SPAI	21	30-40	21
	DISPS2	T	2-5	T
	AGSM		2-5	
	PPGG		5-15	
	SPGR		3	
	PONE		3	
	JUBA		3	
	SIHY	1		1
% Forbs	PPFF		2-8	
	IVAX		2	
	THELLY		2	
	ASTRA		2	
% Shrubs & Trees	SAVE4	32	5-15	15
	CHNA2	33	2-5	5
	SSSS		2-8	
	ATCO		2	
	CHAL9		2	

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect:

(11) Slope aspect:

(12) % Slope:

(13) % Rock outcrop:

(14) Total lbs./Ac.: 1080

(15) Gr-F-S canopy cover:

(16) Tree canopy cover:

(17) % of SWA:

(18) Elevation:

(19) Final SWA no.:

(20) Stratum no.:

(21) Key management area no.:

(22) Ecological Status: late

* P N C - Potential Natural Community

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY LISTER ALLOT NO. 4308 KEY AREA NO. L004 DATE SEPT. 8, 1983

ECOLOGICAL SITE SALINE BOTTOM (28BX004) NORTH PASTURE NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
SPAI	6	210	0.68	1.08	1.73	89.15	10	10	89.15	235.53	37.85%
ELCI2	6	31.7	0.64	1.15	1.73	13.49	10	10	13.49	235.53	5.73%
DIST	6	20	0.71	1.10	1.73	9.03	10	10	9.03	235.53	3.83%
DESCU	7	2	0.95	1.29	1.73	1.42	10	10	1.42	235.53	0.60%
SUEDA	7	1	0.98	1.37	1.73	0.78	10	10	0.78	235.53	0.33%
AAFF	6	3	0.63	1.30	1.73	1.42	10	10	1.42	235.53	0.60%
AAFF	7	2	0.98	1.30	1.73	1.47	10	10	1.47	235.53	0.63%
AAFF	4	5	0.28	1.50	1.73	1.21	10	10	1.21	235.53	0.52%
SAVE4	5	155	0.24	1.00	1.73	21.50	10	10	21.50	235.53	9.13%
CHVI8	2	1	0.32	3.90	1.73	0.72	10	10	0.72	235.53	0.31%
CHVI8	6	145	0.79	1.44	1.73	95.35	10	10	95.35	235.53	40.48%
TOTAL FOR ALL PLOTS		575.7				235.53			235.53		100.00%

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY HENKLEIN ALLOT NO. 4308 KEY AREA NO. L004 DATE JUNE 21, 1988

ECOLOGICAL SITE SALINE BOTTOM (28B X 004) NORTH PAST. NO. OF PLOTS 15 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
SPAI	2	165	0.39	3.27	0.63	334.01	15	10	222.67	1088.56	20.46%
SIHY	1	1	0.34	6.79	0.63	3.66	15	10	2.44	1088.56	0.22%
SIHY	2	2	0.30	4.42	0.63	4.21	15	10	2.81	1088.56	0.26%
SIHY	4	10	0.43	1.79	0.63	12.22	15	10	8.14	1088.56	0.75%
DIST	2	3	0.44	2.33	0.63	4.88	15	10	3.25	1088.56	0.30%
CHNA	2	94.25	0.29	10.21	0.63	442.96	15	10	295.31	1088.56	27.13%
CHNA	3	55	0.37	2.86	0.63	92.38	15	10	61.59	1088.56	5.66%
SAVE	1	4	0.35	9.27	0.63	20.60	15	10	13.73	1088.56	1.26%
SAVE	2	54	0.20	4.46	0.63	76.46	15	10	50.97	1088.56	4.68%
SAVE	4	448	0.20	2.98	0.63	423.82	15	10	282.55	1088.56	25.96%
ELCI2	1	11	0.31	19.19	0.63	103.87	15	10	69.25	1088.56	6.36%
ELCI2	2	80	0.31	2.89	0.63	113.77	15	10	75.84	1088.56	6.97%
TOTAL FOR ALL PLOTS		927.25				1632.84			1088.56		100.00%

Date Established: 10/78
Authors: CP/HA
MLRA: 28B

Saline Bottom
028BY004NV
SAVE4/ELCI2-SPAI

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NEVADA
Range Site Description

A. PHYSICAL CHARACTERISTICS

1. PHYSIOGRAPHIC FACTORS

This site occurs on lake-plain terraces, stream terraces and on the margins of axial-stream floodplains. Slopes range from 0 to 8 percent, but slope gradients of 0 to 2 percent are most typical. Elevations are 5300 to 6200 feet.

2. CLIMATIC FACTORS

Average annual precipitation is 8 to 12 inches. Mean annual air temperature is 45 to 50 degrees F. The average growing season is 100 to 120 days.

3. SOIL FACTORS

The soils in this site are usually deep to very deep and calcareous. Surface soils are less than 10 inches thick and are medium to moderately coarse textured. These soils are normally strongly salt and sodium-affected in their upper profile with soil reaction and salinity usually decreasing with depth. They are mostly somewhat-poorly to poorly drained and have a seasonally high water table at depths of 20 to 60 inches. Additional moisture is received on this site during the winter and spring months as run-in from higher landscapes or by occasional brief overflow from adjacent streams. Wetting of these soils dilutes their salt and sodium concentrations and the degree of salinity and alkalinity may fluctuate throughout the year. Capillary recharge of salt and sodium from the water table is common. These strongly alkaline soils are poorly aerated and are slowly to moderately-slowly permeable. Seed viability, germination and available water holding capacity is reduced due to the saline condition of these soils. The surface layer of these soils will crust and bake upon drying, inhibiting water infiltration and seedling emergence. Runoff is slow to very slow and ponding occurs in some areas. Potential for sheet and rill erosion is slight.

For a listing of soils correlated to this range site and representative soil taxon see Appendix II.

4. VEGETATION FACTORS

a. Potential Native Vegetation

The plant community is dominated by basin wildrye. Alkali sacaton and inland saltgrass are other important species associated with this site. Although black greasewood is prevalent, grasses dominate the aspect.

Potential vegetative composition is about 80% grasses and grass-likes, 5% forbs and 15% shrubs.

b. Major plant species and percentages of the total community by air-dry weight:

PLANT SYMBOL	COMMON NAME	PERCENT BY WEIGHT (AIR-DRY)
Grasses and Grass-Like Plants		
ELCI2	basin wildrye	30-60
SPAI	alkali sacaton	30-40
DISPS2	inland saltgrass	2-5
AGSM	western wheatgrass	2-5
PPGG	other perennial grasses	5-15**
SPGR	alkali cordgrass	
POJU	alkali bluegrass	
JUBA	Baltic rush	
Forbs		
PPFF	perennial forbs	2-8**
IVAX	povertyweed	
THELY	thelypody	
ASTRA	milkvetch	
Shrubs		
SAVE4	black greasewood	5-15
CHNA2	rubber rabbitbrush	2-5
SSSS	other shrubs	2-8**
ATCO	shadscale	
CHAL9	alkali rabbitbrush	

**Allow no more than 3% of each species of this group and no more than 15% in aggregate.

**Allow no more than 2% of each species of this group and no more than 8% in aggregate.

**Allow no more than 2% of each species of this group and no more than 8% in aggregate.

4. VEGETATION FACTORS (continued)

c. Approximate ground cover (basal and crown) is 15 to 30 percent.

d. Total annual air-dry production:

	LBS/AC
Favorable years	2200
Normal years	1500
Unfavorable years	800

e. Plant community dynamics

Where management results in abusive livestock use, black greasewood and rubber rabbitbrush increase, while basin wildrye and alkali sacaton decrease. With further site degradation, rubber rabbitbrush typically becomes the dominant species.

5. ASSOCIATED AND COMPETING SITES

a. Principal sites that commonly occur in association with this potential plant community include:

(028BY081NV) Moist Floodplain
(028EY041NV) Dry Floodplain
(028BY069NV) Sodic Flat 8-10" P.Z.
(028EY002NV) Dry Saline Meadow
(028EY050NV) Wet Sodic Bottom
(028BY012NV) Wet Saline Meadow

b. Competing sites (and their differentiae) that are similar to this potential plant community:

(028BY003NV) Loamy Bottom 10-14" P.Z.
[Less ELCI2 and PONE3 codominant grass; ARTRT dominant shrub; more productive]
(028EY041NV) Dry Floodplain
[AGSM codominant grass; ARTRT dominant shrub]
(028BY081NV) Moist Floodplain
[ELCI2 or ELTR3 dominant and PONE3 and CAREX codominant grass or grass-like; SALIX dominant shrub; more productive]
(028BY028NV) Sodic Terrace 8-10" P.Z.
[Less ELCI2 and ORHY codominant grass; more SAVE4 and ARTRT or ARTRW codominant shrubs]

B. INTERPRETATIONS FOR MAJOR USES

1. LIVESTOCK GRAZING

a. This site is suitable for use by livestock during the late spring, summer, fall and winter. Grazing management should be keyed to alkali sacaton and basin wildrye phenology and production. To obtain the maximum use of alkali sacaton, it should be grazed during the growing season, because the foliage becomes coarse, tough, and unpalatable as it matures. Basin wildrye can be grazed early in the spring until coarse and tough. However, basin wildrye can not tolerate yearly continuous early grazing. If left standing, basin wildrye provides considerable winter feed to livestock and horses. Allow for ample seed production during the grazing cycle.

b. Stocking rates vary with such factors as kind and class of grazing animal, season of use and fluctuations in climate. Actual use records for individual sites, a determination of the degree to which the sites have been grazed, and an evaluation of trend in site condition offer the most reliable basis for developing initial stocking rates.

Selection of initial stocking rates for given grazing units is a planning decision. This decision should be made ONLY after careful consideration of the total resources available, evaluation of alternatives for use and treatment, and establishment of objectives by the decisionmaker.

2. WOOD PRODUCTS

No known potential.

3. WILDLIFE VALUES

This site is frequented by rabbits, coyotes, songbirds, hawks, eagles and various rodents. Waterfowl may nest on the site when it is adjacent to reservoirs, springs or ponded marsh-like areas.

4. WATERSHED VALUES

The hydrologic cover condition of this site is fair for representative stands in good and excellent range condition. Hydrologic cover condition will often vary with range condition class. The average runoff curve is about 79 for group C soils and about 84 for group D soils. (See Section 4, SCS National Engineering Handbook runoff quantities and hydrologic curves.)

B. INTERPRETATIONS FOR MAJOR USES (continued)

5. RECREATION AND NATURAL BEAUTY

Aesthetic value is derived from the lush verdure of native grasses in the spring and early summer on this site. Nature study and photography have recreational potential.

6. THREATENED OR ENDANGERED SPECIES

None known at present.

APPENDIX I

Reference Data

1. Site Documentation (number and kind of site inventory records).

SCS-ECS-5	2	NV-ECS-1
SCS-RANGE-417		NV-4400-13 (BLM)
Other		

2. Distribution and extent.

Elko and White Pine Counties.

3. Location of typical example of this site.

Approved by: _____
STATE RANGE CONSERVATIONIST
SCS NEVADA

Date approved: JUN 1988

APPENDIX II

1. Soil taxonomic unit representative of this site:

SSA	Soil Taxon	Taxonomic Classification

2. Type location for soil taxonomic unit representative of this site:

3. Listing of soils correlated to this site:

SSA	Soil Taxon	Taxonomic Classification

BUREAU OF LAND MANAGEMENT

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Butte Valley

(2) Examiner(s): Lister

(3) Write-up no. LOOS (SPRING)

(4) Map unit no.

(5) Ecological Site: LOAMY BOTTOM 10-14

(6) Date: Sept. 19, 1983

(7) Quad or Phto. no.

(8) Soil series:

REMARKS: plant vigor; animal signs (hedging, terracing, droppings, etc.); severe erosion signs; % surface rock; burned/unburned; seedlings; seeded; PJ invasion; etc.

	Species Name or Symbol	Weight present	Weight *PNC	Weight allowable
	ELCI2	28	70-80	28
	PONE3		5-10	
	PPLG		2-8	
	AGSM		2	
	CAREX		2	
	JUBA		2	
	MURI	10	2	2
% Grass	SIHY	T		T
	PPFF		2-8	
	AAFF	T	2	T
% Forbs	ORTHO	1		1
	SHAEDA	1		1
	ARTRT		5-10	
% Shrubs & Trees	SSSS		5-10	
	CHNA		3	
	CHVI8	5%		3
	ATRIP SP	4		3

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect:

(11) Slope aspect:

(12) % Slope:

(13) % Rock outcrop:

(14) Total lbs./Ac.: 262

(15) Gr-F-S canopy cover:

(16) Tree canopy cover:

(17) % of SWA:

(18) Elevation:

(19) Final SWA no.:

(20) Stratum no.:

(21) Key management area no.:

(22) Ecological Status:

*PNC - Potential Natural Community

BUREAU OF LAND MANAGEMENT

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Butte Valley
(2) Examiner(s): Heuklein
(3) Write-up no. LOO5 (Spring)
(4) Map unit no.
(5) Ecological Site: LOAMY BOTTOM 10-14
(6) Date: June 16, 1988
(7) Quad or Phto. no.
(8) Soil series:

REMARKS: plant vigor; animal signs (hedging, terracing, droppings, etc.); severe erosion signs; % surface rock; burned/unburned; seedlings; seeded; PJ invasion; etc.

	Species Name or Symbol	Weight present	Weight *PNC	Weight allowable
% Grass	ELCI2	47	70-80	47
	PONE3		5-10	
	PPLG		2-8	
	AGSM		2	
	CAREX		2	
	JUBA		2	
	MURI		2	
	PPFF		2-8	
% Forbs	PENST	T	2	T
% Shrubs & Trees	ARTRT	25	5-10	10
	SSSS		5-10	
	CHNA	22	3	3
	SAVE	6		3

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect:
(11) Slope aspect:
(12) % Slope:
(13) % Rock outcrop:
(14) Total lbs./Ac.: 3715
(15) Gr-F-S canopy cover:
(16) Tree canopy cover:
(17) % of SWA:
(18) Elevation:
(19) Final SWA no.:
(20) Stratum no.:
(21) Key management area no.:
(22) Ecological Status: late

* P N C - Potential Natural Community

NV 4400-13 (July 1984)

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY LISTER ALLOT NO. 4308 KEY AREA NO. L005 DATE SEPT. 19, 1983

ECOLOGICAL SITE LOAMY BOTTOM 10-14 (28B X 003) SPRING PAST. NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
ELCI2	6	174	0.64	1.15	1.73	74.03	10	10	74.03	261.69	28.29
MURI	6	46.3	0.71	1.41	1.73	26.79	10	10	26.79	261.69	10.24
SIHY	6	1	0.79	1.51	1.73	0.69	10	10	0.69	261.69	0.26
AAFF	6	1	0.63	1.30	1.73	0.47	10	10	0.47	261.69	0.18
ORTHO	6	7	0.42	1.45	1.73	2.46	10	10	2.46	261.69	0.94
SUAEDA	5	1	0.26	1.00	1.73	0.15	10	10	0.15	261.69	0.06
SUAEDA	6	2	0.55	1.07	1.73	0.68	10	10	0.68	261.69	0.26
CHVI8	6	224	0.79	1.44	1.73	147.30	10	10	147.30	261.69	56.29
ATRIP	6	22	0.64	1.12	1.73	9.12	10	10	9.12	261.69	3.48
TOTAL FOR ALL PLOTS		478.3				261.69			261.69		100.00

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY HENKLEIN ALLOT NO. 4308 KEY AREA NO. L005 DATE JUNE 16, 1988

ECOLOGICAL SITE LOAMY BOTTOM (28B X 003) SPRING PASTURE NO. OF PLOTS 15 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
ELCI2	1	279	0.31	19.19	0.63	2634.51	15	10	1756.34	3715.21	47.27
PENST	1	1	0.18	4.44	0.63	1.27	15	10	0.85	3715.21	0.02
CHNA	2	258	0.29	10.21	0.63	1212.56	15	10	808.37	3715.21	21.76
SAVE	2	247	0.20	4.46	0.63	349.72	15	10	233.15	3715.21	6.28
ARTRT	2	197	0.29	15.16	0.63	1374.75	15	10	916.50	3715.21	24.67
TOTAL FOR ALL PLOTS		982				5572.81			3715.21		100.00

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NEVADA
Range Site Description

A. PHYSICAL CHARACTERISTICS

1. PHYSIOGRAPHIC FACTORS

This site occurs on axial-stream floodplains and inset fans. Slopes range from 0 to 8 percent, but slope gradients of 0 to 4 percent are most typical. Elevations are 6000 to 7000 feet.

2. CLIMATIC FACTORS

Average annual precipitation is 9 to 14 inches. Mean annual air temperature is 45 to 50 degrees F. The average growing season is 100 to 120 days.

3. SOIL FACTORS

The soils in this site are deep, well drained and derived from mixed alluvium. Permeability is moderate to moderately rapid with moderate available water holding capacity. Some soils have a seasonally high water table at depths of 30 to 60 inches which allows for significant fluctuations in herbage production. Moisture is also added from stream overflow and overland flow from higher landscapes. In some areas, this site occurs where a stream channel has entrenched and a Wet Meadow 14"+ P.Z. (028BY022NV) has deteriorated as a result of a lowered water table. These soils are susceptible to gullying which intercepts normal overflow patterns causing site degradation.

For a listing of soils correlated to this range site and representative soil taxon see Appendix II.

4. VEGETATION FACTORS

a. Potential Native Vegetation

The plant community is dominated by basin wildrye. Although big sagebrush is prevalent, grasses dominate the aspect.

Potential vegetative composition is about 85% grasses and grass-likes, 5% forbs and 10% shrubs.

4. VEGETATION FACTORS (continued)

b. Major plant species and percentages of the total community by air-dry weight:

PLANT SYMBOL	COMMON NAME	PERCENT BY WEIGHT (AIR-DRY)
Grasses and Grass-Like Plants		
ELCI2	basin wildrye	70-80
PONE3	Nevada bluegrass	5-10
PPGG	other perennial grasses	2-8**
AGSM	western wheatgrass	
CAREX	sedge	
JUBA	Baltic rush	
MURI	mat muhly	

**Allow no more than 2% of each species of this group and no more than 8% in aggregate.

Forbs		
PPFF	perennial forbs	2-8**

**Allow no more than 2% of each species of this group and no more than 8% in aggregate.

Shrubs		
ARTRT	basin big sagebrush	5-10
SSSS	other shrubs	5-10**
CHNA2	rubber rabbitbrush	

**Allow no more than 3% of each species of this group and no more than 10% in aggregate.

c. Approximate ground cover (basal and crown) is 30 to 50 percent.

d. Total annual air-dry production:

	LBS/AC
Favorable years	5000
Normal years	2500
Unfavorable years	1500

4. VEGETATION FACTORS (continued)

e. Plant community dynamics

Where management results in abusive livestock use, basin big sagebrush and rabbitbrush become dominant, and basin wildrye and Nevada bluegrass decrease. With further site degradation, rubber rabbitbrush becomes the dominant plant. Species most likely to invade this site are cheatgrass, annual mustards and thistle.

5. ASSOCIATED AND COMPETING SITES

a. Principal sites that commonly occur in association with this potential plant community include:

(028BY001NV) Wet Meadow 10-14" P.Z.
(028BY010NV) Loamy 8-10" P.Z.
(028BY045NV) Loamy Fan 8-12" P.Z.
(028BY041NV) Dry Floodplain
(028BY081NV) Moist Floodplain
(028BY007NV) Loamy 10-12" P.Z.

b. Competing sites (and their differentiae) that are similar to this potential plant community:

(028BY045NV) Loamy Fan 8-12" P.Z.
[ELCI2 dominant and CRHY and AGDA codominant grasses; ARTRW; less productive
(028BY041NV) Dry Floodplain
[Less ELCI2; CHNA2 and SAVE4 codominant shrubs; less productive]
(028BY004NV) Saline Bottom
[Less ELCI2 and SPAI codominant grass; SAVE4 dominant shrub; less productive]

B. INTERPRETATIONS FOR MAJOR USES

1. LIVESTOCK GRAZING

a. This site is suitable for livestock use during the late spring, summer and fall. Care should be taken to avoid use too early in the spring when the soils are wet or saturated. Grazing management should be keyed to basin wildrye phenology and production. Basin wildrye can not tolerate continuous early grazing year after year. Allow for ample seed production during the grazing cycle.

b. Stocking rates vary with such factors as kind and class of grazing animal, season of use and fluctuations in climate. Actual use records for individual sites, a determination of the degree to which the sites have been grazed, and an evaluation of trend in site condition offer the most reliable basis for developing initial stocking rates.

B. INTERPRETATIONS FOR MAJOR USES (continued)

1. LIVESTOCK GRAZING (continued)

Selection of initial stocking rates for given grazing units is a planning decision. This decision should be made ONLY after careful consideration of the total resources available, evaluation of alternatives for use and treatment, and establishment of objectives by the decisionmaker.

2. WOOD PRODUCTS

No known potential.

3. WILDLIFE VALUES

This site provides good cover and forage to wildlife. Deer use this site during the spring and summer. Other upland game animals such as rabbits, dove, quail, chukar and Hungarian partridge use this site. The site is used by various song birds, rodents, reptiles and associated predators natural to the area. Feral horses also make use of this site.

4. WATERSHED VALUES

The hydrologic cover condition of this site is poor for representative stands in good and excellent range condition. Hydrologic cover condition will often vary with range condition class. The average runoff curve is about 79 for group B soils and about 86 for group C soils. (See Section 4, SCS National Engineering Handbook runoff quantities and hydrologic curves.)

5. RECREATION AND NATURAL BEAUTY

Aesthetic value is derived from the lush verdure of native grasses in the spring and early summer on this site. This site has the potential for deer, antelope and upland game hunting. Nature study and photography also have recreational potential.

6. THREATENED OR ENDANGERED SPECIES

None known at present.

APPENDIX I

Reference Data

1. Site Documentation (number and kind of site inventory records).

SCS-ECS-5	1	NV-ECS-1
SCS-RANGE-417		NV-4400-13 (BLM)
Other		

2. Distribution and extent.

White Pine County.

3. Location of typical example of this site.

Approved by: _____
STATE RANGE CONSERVATIONIST
SCS NEVADA

Date approved: JUN 1988

APPENDIX II

1. Soil taxonomic unit representative of this site:

SSA	Soil Taxon	Taxonomic Classification

2. Type location for soil taxonomic unit representative of this site:

3. Listing of soils correlated to this site:

SSA	Soil Taxon	Taxonomic Classification

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INDICATE THE TYPE OF DATA TO BE ENTERED
BY TYPING:
          1 - FOR FREQUENCY AND/OR COVER DATA
          2 - FOR DENSITY DATA
=1
DO YOU WANT TO UPDATE THE DATA BASE?(YES,NO OR NEW)
=NO
ENTER NAME OF DATA BASE FILE
=A214/DB430888
DO YOU WANT TO PRINT THE DATA BASE(YES OR NO)?
=NO
ENTER PERCENT LEVEL OF SIGNIFICANCE(5 OR 10)
=5
ENTER KEY AREA NUMBER;
IF ALL KEY AREAS IN ALLOTMENT, ENTER 'ALL'
=ALL
ENTER 'F' FOR FREQUENCY ANALYSIS; 'C' FOR COVER.
=F
DO YOU WANT THE DETAILED STATISTICAL PRINTOUT?(YES OR NO)
=NO
IF YOU WANT THE OUTPUT TO GO TO A PERM FILE, ENTER FILE NAME;
ELSE ENTER 'NO'
=NO


BLM ADMIN UNIT NV015804 ;WILDLIFE      ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SPAI

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR    MEANS   NON-SIGNIFICANT GROUPINGS
  83    25.00
  88    19.50


BLM ADMIN UNIT NV015804 ;WILDLIFE      ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES ELTR3

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR    MEANS   NON-SIGNIFICANT GROUPINGS
  88    42.00   *
  83    37.50   *

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR    MEANS   NON-SIGNIFICANT GROUPINGS
  88    42.00   *
  83    37.50   *


BLM ADMIN UNIT NV015804 ;WILDLIFE      ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES JUBA

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR    MEANS   NON-SIGNIFICANT GROUPINGS
  83    32.00   *
  88    27.00   *
```

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES DIST

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	38.00	*
83	38.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SIHY

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	9.50	*
83	6.50	*

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	9.50	*
83	6.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES AAFF

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003

PLANT SPECIES DESO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SUED

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	44.50	
83	21.00	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SAVE4

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	30.50	*
83	24.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SPAI

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES AGDA

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES IVAX

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES CHIE

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SPAI

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	62.00	*
88	60.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES DIST

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	20.00	
83	13.50	

ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ELCI2

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	16.50	*
88	12.50	*

4/8 L

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SIHY

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

Sedum
Bryoh

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	30.00	
83	13.50	

28 By 004

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ORHY

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	1.50	*
88	1.00	*

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	1.50	*
88	1.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ORTHO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES DESO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	44.50	
83	18.00	

ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SAVB4

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	32.50	*
88	31.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ARTRT

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	3.50	*
83	3.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SPAI

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES CHTE

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ELCI2

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	43.50	
83	35.00	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ELCI2

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES MURI

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	26.50	*
83	24.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ORTHO

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	22.50	
88	4.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES SUED

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ATFA

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	43.50	
83	26.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ARTRI

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	8.50	
83	1.50	

ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES SAVE4

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.05 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	1.00	A
83	1.00	A

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES AGDA

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES CHAL7

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES IPC05

DATA ONLY FOR YEAR 88

DO YOU WANT TO MAKE ANOTHER RUN(YES OR NO)?
=

=NO
ENTER NAME OF DATA BASE FILE
=DB430888
DO YOU WANT TO PRINT THE DATA BASE(YES OR NO)?
=NO
ENTER PERCENT LEVEL OF SIGNIFICANCE(5 OR 10)
=10
ENTER KEY AREA NUMBER;
IF ALL KEY AREAS IN ALLOTMENT, ENTER 'ALL'
=ALL
ENTER 'F' FOR FREQUENCY ANALYSIS; 'C' FOR COVER.
=F
DO YOU WANT THE DETAILED STATISTICAL PRINTOUT?(YES OR NO)
=NO
IF YOU WANT THE OUTPUT TO GO TO A PERM FILE, ENTER FILE NAME;
ELSE ENTER 'NO'
=NO

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SPAI

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	25.00	
88	19.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES ELTR3

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	42.00	*
83	37.50	*

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	42.00	*
83	37.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES JUBA

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	32.00	*
88	27.00	*

ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES DIST

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	38.00	*
83	38.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SIHY

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	9.50	*
83	6.50	*

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	9.50	*
83	6.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES AAFF

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003

PLANT SPECIES DESO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SUED

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	44.50	
83	21.00	

ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SAVE4

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	30.50	
83	24.00	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES SPAI

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES AGDA

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES IVAX

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE S. ;KEY L003
PLANT SPECIES CHIE

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SPAI

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	62.00	*
88	60.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES DISI

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	20.00	
83	13.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ELCI2

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	16.50	*
88	12.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SIHY

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	30.00	
83	13.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ORHY

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	1.50	*
88	1.00	*

ONE-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	1.50	*
88	1.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ORTHO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES DESO

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	44.50	
83	18.00	

ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SAVE4

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	32.50	*
88	31.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES ARIRI

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	3.50	*
83	3.50	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES SPAI

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE N. ;KEY L004
PLANT SPECIES CHIE

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ELCI2

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	43.50	
83	35.00	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ELCI2

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES MURI

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	26.50	*
83	24.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ORTHO

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
83	22.50	
88	4.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES SUED

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ATFA

DATA ONLY FOR YEAR 83

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES CHNA

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	43.50	
83	26.50	

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES ARTRT

TWO-WAY ANOVA RESULTS

THERE IS A SIGNIFICANT DIFFERENCE BETWEEEN YEARS AT THE 0.10 LEVEL

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY LISTER ALLOT NO. 4308 KEY AREA NO. L001 DATE JUL. 11, 1986

ECOLOGICAL SITE PALOMINO SEEDING NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
AGCR	5	552	0.64	1.00	1.17	301.95	10	10	301.95	309.88	97.4
ORHY	6	2	0.68	1.08	1.17	1.26	10	10	1.26	309.88	0.4
CHVI8	3	10	0.42	1.86	1.17	6.68	10	10	6.68	309.88	2.1
TOTAL FOR ALL PLOTS		564				309.88			309.88		100.0

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY Henklein ALLOT NO. 4308 KEY AREA NO. L001 DATE JUNE 2, 1988

ECOLOGICAL SITE PALOMINO SEEDING NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
AGCR	4	473.5	0.51	1.46	0.63	559.63	10	10	559.63	641.88	87.1
ASTRA	7	1	0.94	1.36	0.63	2.03	10	10	2.03	641.88	0.3
AAFF	5	5	0.38	1.00	0.63	3.02	10	10	3.02	641.88	0.4
ARARN	3	53	0.48	1.28	0.63	51.69	10	10	51.69	641.88	8.0
ARPY2	3	2	0.48	1.28	0.63	1.95	10	10	1.95	641.88	0.3
CHVI8	3	19	0.42	1.86	0.63	23.56	10	10	23.56	641.88	3.6
TOTAL FOR ALL PLOTS		553.5				641.88			641.88		100.0

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY LISTER ALLOT NO. 4308 KEY AREA NO. L002 DATE JUL. 11, 1986

ECOLOGICAL SITE LOWER SEEDING NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
AGCR	5	478	0.64	1.00	1.17	261.47	10	10	261.47	303.62	86.12%
EULA5	5	7	0.67	1.00	1.17	4.01	10	10	4.01	303.62	1.32%
CHVI8	3	7	0.42	1.86	1.17	4.67	10	10	4.67	303.62	1.54%
ORHY	6	2	0.68	1.08	1.17	1.26	10	10	1.26	303.62	0.41%
ARTR2	3	17	0.44	4.48	1.17	28.64	10	10	28.64	303.62	9.43%
PHLOX	7	2	1.00	2.09	1.17	3.57	10	10	3.57	303.62	1.18%
TOTAL FOR ALL PLOTS		513				303.62			303.62		100.00%

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY HENKLEIN ALLOT NO. 4308 KEY AREA NO. L002 DATE JUNE 2, 1988

ECOLOGICAL SITE LOWER SEEDING NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
AGCR	4	199	0.51	1.46	0.63	235.20	10	10	235.20	584.68	40.23%
AGCR	5	160	0.64	1.00	0.63	162.54	10	10	162.54	584.68	27.80%
EULA5	3	17	0.36	2.44	0.63	23.70	10	10	23.70	584.68	4.05%
CHVI8	3	8	0.42	1.86	0.63	9.92	10	10	9.92	584.68	1.70%
ARTR2	3	49	0.44	4.48	0.63	153.32	10	10	153.32	584.68	26.22%
TOTAL FOR ALL PLOTS		433				584.68			584.68		100.00%

BUREAU OF LAND MANAGEMENT

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Butte Valley
(2) Examiner(s): LISTER
(3) Write-up no. L003 (South)
(4) Map unit no.
(5) Ecological Site: Dry Saline Meadow (28X2)
(6) Date: 8-11-83
(7) Quad or Phto. no.
(8) Soil series:

REMARKS: plant vigor; animal signs (hedging, terracing, droppings, etc.); severe erosion signs; % surface rock; burned/unburned; seedlings; seeded; PJ invasion; etc.

	Species Name or Symbol	Weight: present	* PNC	allowable
40 % Grass	SPAI	11	40-50	11
	SPGR		10-15	
	CAREX		5-10	
	JUBA	T	2-8	
	POJU		2-8	
	DISPS2	6	2-5	5
	PUCC1		2-5	
	PPGG		10-15	
	AGSM		5	
	ELTR3	28	5	5
	ELCI2		5	
	MUAS		5	
	SIHY	1		
	PPGG		5-15	
	RUMEX		2	
	TRIGL		2	
% Forbs	POTEN		2	
	ALOC2		2	
	SENEC		2	
	IRMI		2	
	IVAX		2	
	DODEC		2	
	DESCU	4	1	2
	SUEDA	T		
	SSSS		2-8	
	SAVE4	47	2	2
% Shrubs & Trees	CHNA2		2	
	CHAL9		2	
	CHVI8	3		2

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect:
(11) Slope aspect:
(12) % Slope:
(13) % Rock outcrop:
(14) Total lbs./Ac.: 468
(15) Gr-F-S canopy cover:
(16) Tree cancpy cover:
(17) % of SWA:
(18) Elevation:
(19) Final SWA no.:
(20) Stratum no.:
(21) Key management area no.:
(22) Ecological Status:

* P N C - Potential Natural Community

NV 4400-13 (July 1984)

BUREAU OF LAND MANAGEMENT

ECOLOGICAL STATUS WRITE-UP

(1) Allotment: North Butte Valley
(2) Examiner(s): HENKLEIN
(3) Write-up no. L003 (South)
(4) Map unit no.
(5) Ecological Site: Dry Saline Meadow (28X2)
(6) Date: 6-21-88
(7) Quad or Phto. no.
(8) Soil series :

REMARKS : plant vigor ; animal signs (hedging, terracing, droppings, etc.) ; severe erosion signs ; % surface rock ; burned / unburned ; seedlings ; seeded ; PJ invasion ; etc.

	Species Name or Symbol	Weight: present	Weight: * PNC	Weight: allowable
% Grass	SPAI	29	40-50	29
	SPGR		10-15	
	CAREX		5-10	
	JUBA	T	2-8	
	POJU		2-8	
	DISPS2	1	2-5	1
	PUCC1		2-5	
	PPGG		10-15	
	AGSM		5	
	ELTR3	16	5	5
	ELCI2	9	5	5
	MUAS		5	
	SIHY	1		
	BRHY	T		
	PPGG		5-15	
	RUMEX		2	
	TRIGL		2	
% Forbs	POTEN		2	
	ALOC2		2	
	SENEC		2	
	IRMI		2	
	IVAX	7	2	2
	DODEC		2	
	SSSS		2-8	
	SAVE4	8	2	2
% Shrubs & Trees	CHNA2	29	2	2
	CHAL9		2	

(9) SSF

SM	(14)
SL	(14)
SR	(14)
P	(14)
FP	(15)
R	(14)
G	(15)
TOTAL	

(10) Veg. aspect :
(11) Slope aspect :
(12) % Slope :
(13) % Rock outcrop :
(14) Total lbs./Ac. : *1695
(15) Gr-F-S canopy cover :
(16) Tree cancpy cover :
(17) % of SWA :
(18) Elevation :
(19) Final SWA no. :
(20) Stratum no. :
(21) Key management area no. :
(22) Ecological Status :

* P N C - Potential Natural Community

NV 4400-13 (July 1984)

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY LISTER ALLOT NO. 4308 KEY AREA NO. L003 DATE AUG. 11, 1983

ECOLOGICAL SITE DRY SALINE MEADOW (28BX002) SOUTH PASTURE NO. OF PLOTS 10 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
SPAI	5	164	0.48	1.00	1.73	45.50	10	10	45.50	467.81	9.73%
SPAI	1	5	0.39	5.75	1.73	6.48	10	10	6.48	467.81	1.39%
ELTR3	5	42	0.49	1.00	1.73	11.90	10	10	11.90	467.81	2.54%
ELTR3	1	35	0.31	19.19	1.73	120.35	10	10	120.35	467.81	25.73%
JUBA	5	5.6	0.49	1.00	1.73	1.59	10	10	1.59	467.81	0.34%
DIST	1	26	0.41	3.50	1.73	21.57	10	10	21.57	467.81	4.61%
DIST	3	15	0.45	1.50	1.73	5.85	10	10	5.85	467.81	1.25%
SIHY	6	5	0.79	1.51	1.73	3.45	10	10	3.45	467.81	0.74%
DESCU	7	26	0.95	1.29	1.73	18.42	10	10	18.42	467.81	3.94%
SUEDA	5	2	0.26	1.00	1.73	0.30	10	10	0.30	467.81	0.06%
SAVE4	2	72	0.20	4.46	1.73	37.12	10	10	37.12	467.81	7.94%
SAVE4	3	233	0.21	4.38	1.73	123.88	10	10	123.88	467.81	26.48%
SAVE4	4	165	0.20	2.98	1.73	56.84	10	10	56.84	467.81	12.15%
CHVI8	2	1	0.32	3.00	1.73	0.55	10	10	0.55	467.81	0.12%
CHVI8	3	31	0.42	1.86	1.73	14.00	10	10	14.00	467.81	2.99%
TOTAL FOR ALL PLOTS		827.6				467.81			467.81		100.00%

WEIGHT-ESTIMATE TRANSECT DATA SHEET

CALCULATED BY HENKLEIN ALLOT NO. 4308 KEY AREA NO. L003 DATE JUNE 21, 1988

ECOLOGICAL SITE DRY SALINE MEADOW (28BX002) SOUTH PASTURE NO. OF PLOTS 15 PAGE 1 OF 1

PLANT SPP SYM/TYPE G,F,S,T	PHENO STAGE	GREEN WT ALL PLTS	(X) DRY WT ADJUST	(X) PHENO ADJUST	(-:-) PRECIP ADJUST	(=) TOTAL DRY WT	(-:-) TOTAL NO. OF PLOTS	(X) 10	(=) LBS/ ACRE	(-:-) TOTAL WT ALL PLOTS	(=) % COMP
ELTR3	1	88	0.31	9.05	0.63	391.88	15	10	261.25	1695.31	15.41%
ELTR3	3	6	0.34	2.00	0.63	6.48	15	10	4.32	1695.31	0.25%
SIHY	4	21	0.43	1.79	0.63	25.66	15	10	17.10	1695.31	1.01%
DIST	1	6	0.41	3.50	0.63	13.67	15	10	9.11	1695.31	0.54%
JUBA	4	4	0.44	1.27	0.63	3.55	15	10	2.37	1695.31	0.14%
SPAI	1	206	0.39	5.75	0.63	733.26	15	10	488.84	1695.31	28.83%
ORHY	2	2	0.39	3.27	0.63	4.05	15	10	2.70	1695.31	0.16%
IVAX	1	15	0.21	27.33	0.63	136.65	15	10	91.10	1695.31	5.37%
IVAX	2	18	0.19	6.83	0.63	37.08	15	10	24.72	1695.31	1.46%
CHNA	2	160	0.29	10.21	0.63	751.97	15	10	501.32	1695.31	29.57%
SAVE	1	16	0.35	9.27	0.63	82.40	15	10	54.93	1695.31	3.24%
SAVE	2	78	0.20	4.46	0.63	110.44	15	10	73.63	1695.31	4.34%
ELCI2	4	270	0.40	1.32	0.63	226.29	15	10	150.86	1695.31	8.90%
ELTR3	2	21	0.40	1.47	0.63	19.60	15	10	13.07	1695.31	0.77%
TOTAL FOR ALL PLOTS		911				2542.96			1695.31		100.00%

ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES SAVE4

TWO-WAY ANOVA RESULTS

THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN YEARS AT THE 0.10 LEVEL

YEAR	MEANS	NON-SIGNIFICANT GROUPINGS
88	1.00	*
83	1.00	*

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES AGDA

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES CHAL7

DATA ONLY FOR YEAR 88

BLM ADMIN UNIT NV015804 ;WILDLIFE ;BIG GAME
ALLOTMENT 4308 ;PASTURE Sp ;KEY L005
PLANT SPECIES IPCO5

DATA ONLY FOR YEAR 88

DO YOU WANT TO MAKE ANOTHER RUN(YES OR NO)?
=NO

BYE
LINE TERMINATED = C
DISCONNECTED

LIVESTOCK CARRYING CAPACITY CALCULATIONS
USING ACTUAL USE/AVERAGE UTILIZATION RATIO

$$\text{Livestock Carrying Capacity} = \text{Desired Key Area Utilization} * \frac{\text{Actual Use}}{\text{Key Area Utilization}}$$

	Average Livestock Carrying Cap. (AUMs)	Low and High Range (AUMs)	Linear Regression Livestock Carrying Capacity (AUMs)
Spring	380	43 - 569	214
North	439	349 - 602	353
South	248	87 - 452	327
Palomino	427	351 - 495	420
Lower	477	235 - 763	422
Juniper	0	0 - 0	0
	1971	1065 - 2881	1736

All estimates are adjusted for precipitation using Ruby Lake crop yield index.

KEY AREA UTILIZATION = the highest key species utilization (of current years growth) at key area

AVERAGE LIVESTOCK CARRYING CAPACITY = Average of stocking rates from 1983 to 1988, as calculated with the above formula.

LOW & HIGH RANGE = The highest and lowest stocking rates estimation from 1983 to 1988.

LINEAR REGRESSION LIVESTOCK CARRYING CAPACITY = This carrying capacity was estimated using simple linear regression. X was key area utilization, as defined above (adjusted for precipitation). Y was actual use.