



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

ELY DISTRICT OFFICE

Star Route 5, Box 1

Ely, Nevada, 89301



IN REPLY REFER TO:

1784.3
(NV-046)

JUN 29 1989

Dear Participant:

We appreciate your interest in being involved in the consultation process and enclosed for your information and review is the Dry Farm Allotment Monitoring Evaluation. 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 July 31, 1989, to allow adequate time to review all input and to adhere to our deadlines. All of the information received will be evaluated and considered in the final portion of the evaluation which is the selection of a management action.

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

Sincerely,

Gerald M. Smith, Manager
Schell Resource Area

1 Enclosure

1. Dry Farm Evaluation (25 pp)

JUN 26 1989

ALLOTMENT EVALUATION SUMMARY

I. INTRODUCTION

- A. Allotment Name and Number. Wilson Creek/01201
- B. There are 12 permittees in the allotment (Table 1)
- C. Evaluation Period was 1982 to 1988
- D. Selective Management Category and Priority. Improve, High

II. INITIAL STOCKING LEVEL

A. Livestock Use

1. Land Use Plan Objective (AUM's)

- a. Total Preference - 65,433
- b. Suspended - 11,506
- c. Active - 53,927
- d. Temporary Non Renewable - 0

- 2. Season of Use - Yearlong
- 3. Kind/Class - Sheep, Cow/calf
- 4. Percent Federal Range - 100%
- 5. Other information - for specific grazing preference by permittee refer to Table 1

B. Wild Horse and Burro Use

- 1. Appropriate Management Level - 1,586 AUM's.
- 2. Herd Management Area

The allotment encompasses portions of three wild horse herd management areas (HMA's):

	<u>Acres within Allotment</u>
Wilson Creek HMA	586,306 acres
Dry Lake HMA	466,397 acres
Seaman HMA	12,112 acres

Refer to Map 1 for wild horse HMA boundaries (attached)

Map - 6276
6275
Breed - 2

1982
12/1586
12/38
36
26

if used document - will work for

state at process
reduce to
① what do you want to do
② what broke - where's problem
③ when broke in - how, why, how to fix it
④ technical team to fix it
not to specific -

only BLM's view of
problem
look at options
look at situation on the ground
are they appropriate
will options fly what's wrong
will work
will work
might work

TABLE 1: Permittees and Grazing Preference from 1982 to 1988

TABLE 1

Present Situation - Livestock

Permittee	Grazing	Preference	Season of Use		Kind of Livestock
	Active	Suspended Non Use	From	To	
1. El Tejon Land and Livestock	10,642	2,258	11/1	- 4/30	Sheep
2. Carlisle and Pauline Hulet	2,076	440	11/1	- 4/30	Sheep
3. Frank and Rose Delmue	8,523	1,878	3/1	- 2/28	Cattle
4. Federal Land Bank (Geyser Ranch)	17,534	3,803	3/1	- 2/28	Cattle
5. Gordon Lytle	2,963	666	3/1	- 2/28	Cattle
6. Pearson Brothers	663	140	5/10	- 10/31	Cattle
7. Jimmie Rosa (Donald Woodworth)	454	176	5/10	- 2/28	Cattle
8. Bob Steward	519	68	4/1	- 12/31	Cattle
9. Kenneth and Donna Lytle	3,402	759	3/1	- 2/28	Cattle
10. Matt H. Bulloch	3,688	467	10/15	- 5/31	Cattle
11. S & H Ranches	3,190	677	4/1	- 4/10	Sheep/Cattle
12. Paul Lewis	70	15	Spring/Fall White River Trail		Cattle

C. Wildlife Use

1. Mule Deer

- a. Reasonable numbers - 17,470 AUMs
- b. Key/Crucial Areas: (see Map 14)
 - KDS-17 (Mt. Wilson) 42,950 acres
 - KDS-17 (Table Mtn.) 21,624 acres
 - KDS-18 (White Rocks) 27,342 acres
 - KDW (Horse thief Chaining) 750 acres
 - KDW-16 (Ursine) 14,095 acres
 - KDW-22B (Grassy) 1,442 acres
 - KDW-22C (Bailey) 20,720 acres
 - KDW-22D (West Range) 7,628 acres
 - KDW-22E (Lone Cone) 6,240 acres

2. Pronghorn Antelope

- a. Reasonable numbers - 230 AUMs
- b. Key/Crucial Areas:
 - AKG (Hamblin Valley) 18,222 acres

3. Elk

- a. Reasonable numbers - No Estimate
- b. Key/Crucial Areas: None Identified

4. Sage Grouse - There are four active strutting grounds and eleven identified brooding areas on the allotment.

5. Threatened and Endangered Species

- a. Bald eagles and peregrine falcons, both federally listed endangered species, may be found on the allotment any time of the year, but no special use areas have been identified.
- b. Ferruginous hawks - a category 2 candidate species. There are three occupied nests and ten unoccupied nests on the allotment.

III ALLOTMENT PROFILE

A. Description

The Wilson Creek Allotment is located primarily in Lincoln County, Nevada and lies in the southeast corner of the Ely District. The allotment encompasses parts of five major mountain ranges and five valleys. Elevations range from a high point of 9,296 feet at Mt. Wilson to a low point of 4,600 feet in Dry Lake Valley. Vegetation types are varied and represent most intermountain types from Bristlecone pine/Ponderosa pine/fir-aspen types to extensive pinyon-juniper/sagebrush and shadscale flats. Pinyon-juniper is the most common vegetation type comprising 35% of the total acreage in the allotment.

B. Acreage

1. Allotment Totals

<u>Allotment Acreage</u>	<u>Land Status</u>	<u>District/Resource Area</u>
1,077,994	Public land	Ely/Schell (N 4)
16,038	Public land	Cedar City/Beaver River (U 4)
18,358	Private land	
1,445	State, City, and/or County land	

The allotment is classified as 100% public land with no exchange of use agreements even though there are many isolated small parcels of private land in the allotment.

2. Vegetation Manipulation Pastures

Mt. Wilson Burn	10,000 acres
Horse thief Chaining	870 acres
Burnt Canyon Chaining	9,700 acres
Burnt Canyon Burn	1,000 acres
Patterson Seeding	53,000 acres
Meadow Valley Seeding	16,650 acres

C. Grazing Systems

1. Patterson

A rest rotation grazing system established on April 13, 1971 consisting of the Pony, Crow Creek, 21-mile and 15-mile pastures. The grazing schedule is 1 pasture grazed from 5/1-6/30, a second pasture is grazed from 7/1-10/3, and a third pasture is rested yearlong. Crow Creek and 21-mile have been generally used as one pasture, since they are lower in carrying capacity than Pony and 15-mile.

2. Meadow Valley

A 3 pasture rest rotation grazing system was also established on April 13, 1971, and it was seeded in the 1960's, grazing treatment is the same as Patterson seeding. In addition, there is a winter bull pasture grazed from 11/1 to 4/30.

The two units consist of 26,471 seeded acres and 70,543 acres total. The stocking rate has been about 4 seeded acres per AUM.

3. Common Use Areas

The 1945 adjudication established common use areas east of U.S. 93 by fall, winter and summer use periods. In other areas use was generally determined by old billings or written agreements, some of these areas are poorly defined and overlap. Refer to Map 2 Table II for use areas by permittee.

TABLE II Areas of Use

<u>PRIMARY USE AREAS</u>	<u>PERMITTEES</u>
1. White River/Deadman	El Tejon Land & Livestock, S&H Ranches, Paul Lewis
2. Thorley	Matt Bulloch
3. Dry Lake Valley	Frank and Rose Delmue, Matt Bulloch, Federal Land Bank, El Tejon Land & Livestock, Kenneth Lytle, Gordon Lytle
4. Muleshoe/Maloy	Robert Steward, Federal Land Bank
5. Fairview Range	All Users
6. Patterson Seeding	Frank and Rose Delmue, Matt Bulloch, Kenneth Lytle, Gordon Lytle, Jimmie Rosa, Robert Steward, Federal Land Bank
7. Pioche Bench/ South Lake Valley	All users
8. Atlanta	El Tejon Land & Livestock, Federal Land Bank

9. Mt. Wilson Burn Matt Bulloch, Frank and Rose Delmue, Kenneth and Donna Lytle, Gordon Lytle, Pearson Brothers, Jimmie Rosa, Robert Steward, Federal Land Bank
10. Meadow Valley Seeding Frank and Rose Delmue, Kenneth Lytle, Gordon Lytle, Pearson Brothers, Matt Bulloch, Federal Land Bank
11. Hamblin Valley Frank and Rose Delmue, Carlisle and Pauline Hulet, Federal Land Bank
12. Summer Native Range * Frank and Rose Delmue, Matt Bulloch, Kenneth and Donna Lytle, Pearson Brothers, Federal Land Bank, Gordon Lytle
13. U-4 Kenneth and Donna Lytle, Gordon Lytle, Frank and Rose Delmue, Federal Land Bank.

* Includes Table Mountain, White Rock Range, Mt. Wilson, Upper Burnt Canyon.

E. Allotment Specific Objectives

1. Land Use Plan/Rangeland Program Summary Objectives

a. Livestock

- (1) The Short Term objective will be accomplished through managing the allowable use level by season of use to improve or maintain the desired vegetative community (see Appendix 1).
- (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 I)

b. Wild Horse

- (1) The Short Term objective will be accomplished through managing the allowable use level by season of use to improve or maintain the desired forage community. (see Appendix 1)
- (2) The Long Term objective is to manage for the most appropriate seral stage to provide desired quantity, quality, variety, and density of forage in order to meet the requirements of the wild horse. (See Appendix 1)

c. Mule Deer

- (1) The Short Term objectives are:

To limit use on key browse species listed for KDW (Bailey and West Range) to 20 percent by livestock and wild horses prior to November 1, and to limit use to 35 percent by all animals yearlong (see Appendix 2).

To limit use on key browse species listed for KDW (Ursine and Horse Thief Chaining) to 30 percent by livestock and wild horses prior to November 1, and to limit use to 45 percent by all animals yearlong (see Appendix 2).

To limit use on key species listed for KDS (Table Mtn.) to 40 percent for perennial grasses, grass-like plants, and forbs; and to 35 percent for shrubs by all animals yearlong (see Appendix 2).

To limit use on key species listed for KDS (Mt. Wilson and White Rock) to 55 percent for perennial grasses, grass-like plants, and forbs; and to 45 percent for shrubs by all animals yearlong (see Appendix 2).

To limit use on grass and grass-like species on wet meadows and stream riparian areas within KDS areas to 30-50 percent yearlong depending on the present condition of these areas (see Appendix 6).

- (2) The Long Term objective is to improve habitat condition on Mt. Wilson, Table Mtn., Bailey, and West Range key/crucial areas to good or excellent condition; and to maintain habitat condition on White Rock, Ursine, and Horse Thief Chaining key/crucial areas (see Appendix 2).

d. Pronghorn Antelope

- (1) The Short Term objective is to limit use on key species listed for kidding ground to 30 percent for perennial grasses, grass-like plants, and forbs, until June 30 and to 40 percent yearlong; and to limit use to 35 percent for shrubs yearlong (see Appendix 2).
- (2) The Long Term objective is to improve habitat condition on antelope kidding ground (AKG) to good condition.

e. Sage Grouse

- (1) The Short Term objective is to limit use on big sagebrush sites within 2 miles of active strutting grounds to 55 percent for perennial grasses and 45 percent for shrubs; and to limit use on all wet meadows to 50 percent on grass and grass-like species.
- (2) The Long Term objectives are to manage big sagebrush sites within 2 miles of active strutting grounds for late mid to Potential Natural Community (PNC) seral stage with at least 30 percent shrubs, and to manage all wet meadows for late seral stage (80-85 percent grass and grass-like plants, 10-15 percent forbs, and 5 percent shrubs).

f. Stream Habitat

- (1) The Short Term objective is to limit use on streamside riparian vegetation to 30 percent for grasses and grass-like plants, and to 45 percent for rose and willow (see Appendix 2).

- (2) The Long Term objective is to maintain bank cover and bank stability at over 60 percent of optimum on 2.0 miles of Meadow Valley Wash below Eagle Valley Reservoir (see Appendix 2).

g. Riparian Areas

- (1) The Short Term objective is to limit use on wet meadows and stream riparian areas in less than good condition to 30 percent for grass and grass-like species by all animals yearlong, and to limit use on all other wet meadows and stream riparian areas to 50 percent for grass and grass-like species by all animals yearlong (see Appendix 5 & 6).
- (2) The Long Term objectives are to manage all wet meadows for late seral stage (80-85 percent grass and grass-like plants, 10-15 percent forbs, and 5 percent shrubs) and to manage all stream riparian areas for good to excellent condition (based on greater than 50 percent cover of riparian plant species and rock).

a. Ferruginous Hawks

- (1) The Short Term objective is to limit use on winterfat near occupied ferruginous hawk nests to 45 percent yearlong.
- (2) The Long Term objectives are to manage winterfat stands (silty range sites) near occupied ferruginous hawk nests in mid to late seral stage, and to maintain integrity of existing pinyon-juniper "stringers" near winterfat stands.

IV. MANAGEMENT EVALUATION

A. Purpose

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

B. Summary of Studies Data

1. Appendix 7 (see Form No. 4400-17).

2. Actual Use

a. Livestock

Use was taken from livestock licenses and actual use reports. Use is presented by use area and for the years 1982 to 1988, refer to Appendix 3.

b. Wild Horses

Use was estimated from census conducted during the past several years. Only animals counted on the allotment were considered to be using the allotment.

Use is prepared by use area for the years 1982 to 1988, refer to Appendix 3.

c. Wildlife

Use was extrapolated from Nevada Department of Wildlife's estimates of mule deer herd numbers and surveys of pronghorn antelope numbers. The estimated use is based on the amount of deer and pronghorn antelope range that is on the allotment and the season the animals are on that range (see Appendix 3).

Elk have been observed on the allotment, but no formal survey has been conducted to determine the extent of use.

3. Precipitation

Data will be used to adjust the utilization levels for the allotment evaluation years. The first step was to calculate the crop yield, the effective precipitation for plant growth occurring between September and June of each year. The crop yield was then divided by the average to determine the precipitation index for each year. The yield index was then determined from the precipitation index by using these linear regression equation $Y = -23 + 1.23 X$ (Sneva et al 1983). Yield indices were determined from five reporting stations to be used for the appropriate use areas within the allotment.

4. Utilization

a. Key Area

The yield index discussed in the previous section was then multiplied by the actual recorded utilization level. The result of this is a utilization level normalized by precipitation (refer to Appendix 3).

b. Use Pattern Mapping

Use pattern mapping was conducted in Dry Lake Valley and Hamblin Valley for the years 82-84. For the remainder of the evaluation period data was collected for the majority of the allotment. This use pattern data is displayed on an overlay registered to a base map at a scale of one inch to the mile and is available at the Ely District office.

5. Trend

Photo trend plots were established on seedings and quadrat frequency plots were established on native ranges. The results for photo trend studies are 3 with upward trend, 3 with downward trend, and 2 are static. Trend has not been determined on native ranges. Refer to Appendix 7, Trend and Monitoring Interpretation Summary and form NV 4400-17 for specific data by key area.

6. Range Survey Data

The 1979 ocular reconnaissance forage survey indicated that there were 38,275 AUMs available for livestock grazing on the allotment.

7. Ecological Status

Specific ecological status data was collected on key areas in 1984 from which long term objectives are established. Refer to Appendix I.

8. Wildlife Habitat

The habitat ratings for key mule deer summer and winter areas (see Map 14 & 16) were determined between 1981 and 1983. The Table Mtn. KDS is in fair condition, the Mt. Wilson KDS is in good condition, and the White Rock KDS is in excellent condition. Two of the KDW areas are in good condition one is in fair condition, one is in poor condition, and two are unknown (see Appendix 2).

No habitat rating has been completed to date for the antelope kidding ground (see Map 15 & 16); however, it appears to be in fair condition.

9. Riparian/Fisheries Habitat

The water resources inventory completed in 1983 identified approximately 300 springs on the Wilson Creek Allotment. Thirty-four springs were selected

as key springs to monitor and evaluate (see Appendix 6, Map 17). In addition, eight stream riparian areas were identified on the allotment (see Appendix 5, Map 17). Based on subjective evaluations nine springs are in less than good condition, and are being grazed and trampled. Thirteen springs have no information. Two of the eight stream riparian areas are in less than good condition based on subjective evaluations in 1982 and 1988. Bank cover (i.e., vegetation) was less than 60 percent of optimum on two of the streams. Three of the streams are being grazed heavy to severe by livestock. (see Appendix 5) No ecological status survey has been completed on any of these areas.

In 1988, the stream habitat survey showed that bank cover and bank stability of the Meadow Valley Wash was 84 percent and 75 percent of optimum, respectively.

10. Wild Horse and Burro Habitat

Wild horse and burro habitat ratings have not been determined and will not be available during the evaluation period, as the Nevada State Habitat rating system is pending approval. Apparent habitat condition is good with sufficient forage, water and cover available for wild horse use.

11. Special Study

A habitat evaluation study was completed on the Wilson Creek Allotment and adjacent allotments in conjunction with an NDOW study of mule deer herd management area 23 in Lincoln County (Suminski, 1984). The purpose of the study was to determine if there had been a significant increase in pinyon/juniper trees in the area, and if this increase had reduced the carrying capacity of the range for mule deer and livestock. Results of the study indicate pinyon/juniper trees have increased in size and density on sites where they occurred in 1940, and they have invaded other sites where they did not occur in 1940. Some areas are heading toward climax vegetation which is a closed tree stand. In addition, preferred forage species are being crowded out which is reducing the carrying capacity for mule deer and livestock. The change in AUMs on study plots that were examined ranged from +9 percent to -96 percent. The mean was -65 percent, and the median was -81 percent. Two study plots were not included because the plots were partially burned by wildfires in the 1970's, and subsequently seeded with a grass-forb-shrub mix. This helped retain AUMs which would have been lost to succession.

V. CONCLUSIONS

Refer to Section III.C. for specific objectives.

A Livestock

1. Objective Attainment Determination

Not met

2. Rationale

Allowable use levels at key areas were exceeded 45 of 133 measurements, primarily on the winter use areas and on seedings (see Appendix 1). Livestock contributed approximately to 98% of this use.

B. Wild Horses

1. Objective Attainment Determination

Not met

2. Rationale

Allowable use levels at key areas within Herd Management areas were exceeded approximately 50% of the time, primarily in Dry Lake Valley, wild horses contributed approximately 2% of this use (see Appendix 1).

C. Mule Deer

1. Objective Attainment Determination

Not met

2. Rationale

One out of three key deer summer areas and two out of four key deer winter areas are in less than good habitat condition (see Appendix 2). The habitat condition of two deer winter areas is unknown. Part of the reason mule deer habitat is in less than good condition is the increase in pinyon/juniper trees and subsequent decrease in preferred forage species.

In addition, the AUL for the key species listed for the key areas were exceeded on all sites. Overuse of browse species is being attributed mostly to deer. This overuse is occurring because preferred browse is limited. These species are being crowded out by pinyon/juniper trees which are increasing.

D. Pronghorn Antelope

1. Objective Attainment Determination

Not met

2. Rationale

No habitat condition rating has been completed on the antelope kidding ground; however, it appears to be in fair condition. In addition, utilization studies indicate the AUL for the key species were exceeded (see Appendix 2).

E. Sage Grouse

1. Objective Attainment Determination

Not met

2. Rationale

Based on use pattern mapping, allowable use levels were exceeded on wet meadows.

F. Ferruginous Hawks

1. Objective Attainment Determination

Not met

2. Rationale

Based on use pattern mapping, allowable use levels were exceeded in Hamblin Valley and Dry Lake Valley two out of three years.

G. Stream Habitat

1. Objective Attainment Determination

Met

2. Rationale

Bank cover and bank stability of Meadow Valley Wash are over 60 percent of optimum (see Appendix 2).

H. Riparian Areas

1. Objective Attainment Determination

Not met

2. Rationale

Based on subjective evaluations 9 out of 21 springs and two stream riparian areas are in less than good condition (see Appendix 5 & 6).

VI. PROBLEMS/SOLUTIONS/RECOMMENDATIONS

To address problems, solutions, recommendations the allotment will be divided by general season-of-use. Long term solutions/projects are specific for each use area with identified problems, projects will be prioritized and implemented when the Allotment Management Plan is developed. Refer to Table III, refer to Map 2.

Table III

- A. Winter Use Areas; 11/1 - 4/30
 - 1. Dry Lake Valley, Hamblin Valley, Bristol and White River/Deadman.
 - B. Yearlong; 3/1 - 2/28
 - 1. Muleshoe, Maloy, and Bailey Maloy.
 - 2. Fairview
 - 3. Atlanta ✓
 - 4. Pioche Bench, South Lake Valley.
 - C. Summer; 5/1 - 10/31
 - 1. Patterson
 - 2. Meadow Valley Seeding
 - 3. White Rock Mountain
 - 4. Table Mountain
 - 5. Mt. Wilson Native
 - 6. Mt. Wilson Burn
 - 7. Burnt Canyon Chaining
 - 8. Burnt Canyon Burn
 - D. Summary
- A. Winter Use Areas
- 1. Dry Lake Valley, Hamblin Valley, Bristol, White River/Deadman Use Areas.
 - a. Identified Issues
 - Utilization levels recommended by the Schell Land Use Plan (LUP) were exceeded 44 of 84 times measured at key areas by livestock (98%) and wild horses (2%).
 - Use pattern mapping indicates that there is uneven distribution of grazing resulting in heavy to severe use in approximately 20-80% of these use areas.
 - Periodic census inventories of wild horses show that existing populations are above AMLs in Dry Lake Valley, and is contributing to overuse.

- Actual use data for Dry Lake Valley indicates unauthorized use in most years and suggests that a large common use allotment offers little administrative control, resulting in overuse.
- A habitat evaluation in 1984 has determined the expansion of pinyon-juniper and the increase in tree density has resulted in a decrease in preferred forage species and a downward trend in mule deer habitat.
- Sheep use is poorly distributed on upland areas resulting in heavy to severe grazing use.
- Antelope kidding ground in Hamblin Valley is in only fair habitat condition.

b. Short Term Solutions

- Adjust season of use.
- Adjust livestock numbers.
- Additional waters to improve distribution.
- Adjust numbers of wild horses.
- Increase herding and water hauling on sheep and cattle ranges to rotate grazing use.

(1) Option 1 - Adjust Season of Use

To accomplish the AUL objective and to reduce grazing use during the critical growing period, in all winter use areas, adjust the season of use from 11/1 - 4/30 to 11/1 - 3/31. Authorize livestock use to estimated stocking level. Refer to Map 3, Appendix 8.

*Nov, Dec
JAN FEB
MAR Ap. +
Nov - MAR.*

The season of use proposed would substantially reduce detrimental spring grazing by approximately 66%, based on the typical start of growth date of March 15th. The majority of the grazing would then occur during plant dormancy having relatively little impact on the vegetation, particularly for grasses. In Hamblin Valley this would also reduce livestock/wildlife conflicts on antelope kidding ground since the critical time for kidding is 5/1 - 6/30. The change in the season-of-use would also provide available forbs for antelope kids produced from the spring growth period.

(2) Option 2 - Adjust Livestock Preference for Dry Lake Valley

To accomplish the AUL objective and to maintain the desired seral stage as determined in Appendix 1, authorize livestock use to 11,990 AUMs for all users. This adjusted preference was determined by the desired stocking rate formula, adjusted by the crop yield index as described in Section IV. B. 3. This option would result in an overall downward adjustment of 35% or 6,425 AUMs. Refer to Table IV.

$$\frac{\text{Actual Use (AUMs)}}{\text{KMA \% Utilization}} = \frac{\text{Desired Use (AUMs)}}{\text{Desired \% Utilization}}$$

(3) Option 3 - Adjust Livestock Use for Hamblin Valley

To accomplish the AUL objective and to maintain the desired seral stages as listed in Appendix I for the Hamblin Valley are reduce cattle use by 1,457 AUMs or 24%. Authorize livestock use to 4,654 AUMs.

(4) Option 4 - Additional Waters

To improve livestock distribution in winter use areas install troughs on Bristol Pipeline at T. 3 N., R. 65 E., Section 15, SEL/4. Perform maintenance on Simpson pipeline and provide water at T. 2 N., R. 65 E., Section 35, SEL/4,

(5) Option 4 - Adjust Numbers of Wild Horses

Initiate a horse gather to reduce 25 wild horses in Dry Lake Valley as identified in Option 2, Table IV.

Recommendations: A horse removal is proposed in FY90 for the Dry Lake HMA. Every effort will be made to remove horses from those areas and where AUL objectives are not being met.

Option 2 Table IV. Dry Lake Valley Downward Adjustment for Livestock and Wild Horses (AUMs)

<u>Permittee/ User</u>	<u>Active Preference</u>	<u>Actual Use 82-87</u>		<u>Adjusted Preference AUL</u>	<u>Suspended Nonuse/ Demand 35%</u>	<u>Effective Downward Adjustment from year of Highest Use (24%)</u>
		<u>Range %</u>	<u>Average %</u>			
Frank & Rose Delmue	2927	<u>1800-2456</u> 61-84%	<u>2120</u> 72%	1902	1025	547
Matt Bulloch*	2685	<u>1394-2428</u> 42-90%	<u>2026</u> 75%	1744	941	257
Federal Land Bank	1814	<u>0-3294</u> 0-3294%	<u>2866</u> 158%	1178	636	2115**
Kenneth & Gordon Lytle	2981	<u>2125-2760</u> 71-93%	<u>2458</u> 82%	1937	1044	822
El Tejon Land and Livestock	7879	<u>2309-4442</u> 29-56%	<u>3276</u> 41%	5120	2759	679
Wild Horses	114	114-222	<u>144</u> 120%	74	148	222
Total	18400	<u>7628-15950</u> 41-87%	<u>12696</u> 69%	11990	6435	4420

* includes Pete Delmue use for the evaluation period

** includes unauthorized use

Table V. Adjusted stocking at 45% allowable use levels

	<u>Active Preference</u>	<u>Adjusted Preference</u>	<u>Suspended Nonuse</u>	<u>Livestock Numbers</u>
Federal Land Bank	3,222	2,453	769	409 Cattle
Frank & Rose Delmue	<u>2,889*</u>	<u>2,201</u>	<u>688</u>	367 Cattle
Total	<u>6,111</u>	<u>4,654</u>	<u>1,457</u>	

*includes 261 AUMs in Utah (U-4)

- (6) Option 6 - Adjust livestock use in the White River use area.

To accomplish the AUL objective and to maintain the desired stages as listed in Appendix 1.

Adjust livestock use to levels identified in Appendix 4, Average Calculated Stocking rates by pasture; for cattle 666 AUMs and for sheep 2,157 AUMs. Refer to Table VI.

Table VI.

	Active Preference	Adjusted Preference	Suspended Nonuse
S & H Ranches	2,523 Sheep 459 Cattle	1,778 S 459 C	744 S
El Tejon Land and Livestock	539 S	379 S	159 S
Total	6,111	4,654	1,457

- (7) Option 7 - Improve Sheep Distribution.

Use pattern maps from all winter sheep use areas indicates poor distribution. To improve distribution herder will move sheep at a minimum distance of a 1/2 mile at 5 day interval.

c. Dry Lake Valley - Long Term Solutions*

- Construct fences to develop administrative control.
- Develop water to improve livestock distribution.
- Develop a Grazing System
- Designate new allotments.

*Long Term projects are shown on Map 3.

- (1) Option 1 - Muleshoe Drift Fence

To control livestock drift and unauthorized use from the Muleshoe/Maloy use areas to Dry Lake, construct 8.5 miles of fence from T. 4 N., R. 65 E., Section 30; to T 4 N., R. 64 E., Sections 25, 23, 22, 21, 20, 18, 13, and 12. This fence would be "open-ended" to allow for the natural migration of wildlife and wild horses.

(2) Option 2 - Thorley Drift Fence

To control livestock drift and distribution in Dry Lake Valley, construct 5.0 miles of fence from the corner of the District Boundary Fence (T. 1 N., R. 64 E., Section 14, NW1/4) west to the base of Red Top Mountain, through T. 1 N., R. 64 E., Sections 5, 6, 8, 9, 10, to the NW corner of T. 1 N., R. 63 E., Section 1. This fence could be used as a boundary for a new allotment or for the Thorley use area. The fence would be open ended on the west side to maintain natural movement of wild horses.

(3) Option 3 - Black Rock Pipeline Addition

To improve livestock distribution in the Thorley area of Dry Lake Valley, construct a pipeline extension from T. 1 N., R. 63 E., Section 36 through T. 1 N., R. 64 E., Sections 31, 29, 21, 32; and T. 1 S., R. 64 E., Sections 32, 4, 9, and 10. The existing pipeline is known as the Black Rock pipeline.

(4) Option 4 - Bailey Springs Pipeline

To improve user distribution and to provide additional water in area 22 critical deer winter range, provide water in the following areas: T. 4 N., R. 64 E., Sections 36, 35, 34, 33; and T. 3 N., R. 64 E., Section 3, 10.

(5) Option 5 - Bristol Pipeline Addition

To improve user distribution in Dry Lake Valley construct a pipeline extension from the existing Bristol pipeline T. 3 N., R. 65 E., Section. 21 to Sections. 28, 27, and 34 ending at T. 2 N., R. 65 E., Section. 3. This pipeline would also provide reliable water in the critical area 22 deer winter range.

(6) Option 6 - Deferred Grazing System

Implement a two pasture deferred rotation grazing system to improve livestock distribution, plant vigor and reproduction. The implementation of the deferred rotation grazing system will increase the available AUMs by 5 percent in the long term (Van Poolen et al 1979).

The allowable use level will be increased to 60 percent on key areas and would allow for 15987 AUMs to be available for livestock and wild horses on an annual basis. This option would result in a downward adjustment of 13% or 2413 AUMs in preference/demand. A grazing system would require a fence being built at T. 1 N. R. 65 E., in Sections 4 and 9; Ely-Las Vegas District line northwest through T. 2 N. R. 65 E., in Sections 33, 32, and 29; T. 2 N. R. 64 E., in Sections 4, 6, 10, 13, 14, 19, 24 and 30; and in T. 3 N., R. 63 E., in Sections 34 to 36, approximately 16 miles in length. The west end of the fence would be open ended to allow for wild horse drift within the H.M.A. Refer to Table VII Map 3.

Table VII. Dry Lake Deferred Grazing System

Year	North	South	Livestock Numbers
1	11/1-1/31	2/1-3/31	1361 Cattle
2	11/1-1/31	2/1-3/31	5157 Sheep
3	2/1-3/31	11/1-1/31	
4	2/1-3/31	11/1-1/31	

7. Option 7 - Rest Rotation Grazing System

To meet allotment objectives implement a three pasture rest rotation grazing system. Refer to Table VIII.

Table VIII. Dry Lake Rest Rotation Grazing System

Year	Bristol	Middle	Thorley	Livestock Numbers
1	Rest	11/1-1/31	2/1-4/30	1361 Cattle
2	1/1-4/30	Rest	11/1-12/31	5157 Sheep
3	11/1-1/31	2/1-4/30	Rest	
4	----	Repeat System	-----	

d. Hamblin Valley - Long Term Solutions*

- Grazing System
- Water Improvements
- Fence Construction

*Long term solutions are shown on Map 4.

(1) Option 1 - Deferred Grazing System

Implement a two pasture deferred rotation grazing system to improve user distribution, plant vigor and reproduction. A grazing system would require a 5 mile fence being built at SW corner of T. 6 N., R. 70 E., Section 16; heading East along the bottom of Sections 15, 14, 13, and ending at the SE corner of T. 6 N., R. 18 E., Section 18. Refer for Table IV for the grazing schedule.

Table IX. Hamblin Deferred Grazing System 776 cattle

Year	North Pasture	South Pasture
1	11/1-1/31	2/1-3/31
2	11/1-1/31	2/1-3/31
3	2/1-3/31	11/1-1/31
4	2/1-3/31	11/1-1/31

The implementation of the deferred rotation grazing system would increase the available AUM's by 5 percent in the long term (Van Poolen et al. 1979). The allowable use level will be increased to 60 percent on key areas, and the stocking rate would increase by 94 AUM's.

(2) Option 2 - Vegetative Conversions

To reduce livestock use on winter ranges and to provide spring grazing for livestock, treat 2,020 acres of pinyon-juniper and seed with a mixture of grasses, forbs, and shrubs. The project is located in T. 6 N., R. 69 E., Sections 2, 3, 9, 10, 11, 15, and 16.

(3) Option 4 -Develop Pipelines

To improve livestock distribution and to provide water for all users construct water developments in the following areas: T. 6 N., R. 69 N., Sections 10, 11; T. 7 N., R. 70 N., Sections 9, 16, 20, 30 and 31.

e. White River/Deadman-Long Term Solutions*

- Grazing Systems

* Long term projects are shown on Map 5.

(1) Option 1 - Implement a grazing system

In cattle use areas install a fence at approximately T. 1 N., R. 62 E., Section 1; T. 1 N., R. 63 E., Sections 6, and implement a 2 pasture deferred rotation grazing system. The grazing system would control use on key species, improve plant vigor and reproduction. Season of use is 11/1-3/31. Refer to Table X.

Table X. White River/Deadman Grazing Schedule For One Cycle

Year	North Pasture	South Pasture	Livestock
1	11/1-1/31	2/1-3/31	459 Cattle
2	2/1-3/31	11/1-1/31	459 Cattle
3	Repeat Cycle		

B. Yearlong Use Areas

1. Maloy, Bailey Maloy, Muleshoe Use Area

a. Identified Issues

- Poor livestock distribution
- Expansion of pinyon-juniper and increase in tree density which has resulted in a loss of forage for all users.
- 4 or 5 years of use pattern mapping indicates over use in approximately 10% of the use area, and the remainder was in slight or light.
- Two springs/wet meadows are in less than good condition, and are being trampled.
- Key deer winter range is in only fair habitat condition due to unsatisfactory age class of browse species.

b. Short Term Solutions

- Adjust livestock numbers
- Improve livestock distribution.
- Change kind of livestock

(1) Option 1 - Improve livestock distribution or Adjust livestock numbers in the Maloy area.

Five years of use pattern mapping indicates that grazing use is concentrated near Maloy Ranch and west to a reservoir in T. 6 N., R. 64 E., Section 35. To improve livestock distribution haul water and place salt in the south western bench area, approximately at T. 5 N., R. 67 E., Sections 34-36.

If utilization problems can't be corrected then adjustment livestock use as follows:

Desired stocking rate formula allows for 260 AUMs of livestock use as determined by use pattern mapping data and actual use. This option will suspend 2,168 AUMs or 89% of the active preference in this use area. Refer to Table XI.

Table XI. Adjusted Active Preference (AUMs)

<u>Permittee</u>	<u>Active Preference</u>	<u>Adjusted Preference</u>	<u>Suspended AUMs</u>
Federal Land Bank	2,028	223	1,805
Bob Steward	404	44	360
Totals	2,432	267	2,165

(2) Option 2 - Change class of livestock

Change a portion of the cattle AUMs to sheep AUMs this would potentially increase the efficient use of the total vegetation community, since cattle and sheep generally utilize different plant species.

In addition, these use areas are primarily browse ranges; better adapted to the forage preferences of sheep. This action should result in an increase in grasses over time, which will improve the potential native vegetative community.

c. Maloy/Muleshoe Long Term Solutions*

- Develop waters to improve livestock distribution
- Vegetation treatments to improve winter range habitat conditions.

*Long term projects are shown on Map 6.

(1) Option 1 - Water Development

Develop the following waters to improve animal distribution.

- (a) Construct a pipeline starting at North Mud Spring in T. 5 N., R. 65 E., Section 15, NW1/4; through Sections 16, 17, 19, and T. 5 N., R. 64 E., Sections 24, 25, 26, and 34; and T. 4 N., R. 64 E., Sections 4 and 8.

- (b) Construct a pipeline starting at Mud Springs T. 5 N., R. 64 E., Section 18, NE to T. 5 N., R. 64 E., Sections 17, 20, 29, and 32.

(2) Option 2 Vegetative Treatment

Treat cliffrose stand to reduce decadent plants and encourage new growth in the form of sprouting and seedlings.

2. Fairview Use Areas

a. Identified Issues.

Historically, the Fairview area was a part of the Eagle Valley Summer and Fall use areas. Currently livestock use has been limited to trail use and drift from Dry Lake Valley and Maloy use areas.

The 1979 range survey identified the northern portion of this use area as pinyon-juniper dominated and of low annual production of important under-story plants. This is causing inadequate forage production to meet the needs of all range users. The southern portion of this use area generally has suitable forage, but lacks adequate water.

Two springs/wet meadows are in less than good condition, and are being trampled.

b. Short Term Solutions

- Provide water in the southern portion of the allotment.
- Increase livestock use.

(1) Option 1 - Provide water

Improve livestock suitability of the area by water hauling .

(2) Option 2 - Increase livestock use

Authorize 400 cows use at a season of use of 7/1 to 10/31. Livestock normally grazed on summer areas in other portions of the allotment could be grazed here.

c. Fairview Long Term Solutions*

- Implement vegetational conversions to improve user forage condition.

- Develop water in/near vegetative conversion areas.

*Long term projects are shown on Map 1.

(1) Option 1 - Vegetative Treatments

Implement a vegetation conversion of about 970 acres in T. 5 N., R. 67 E., Sections 13, and 24; and T. 6 N., R. 67 E., Sections 7, 8, 13, 17-20, 24, 29, 30.

The 1979 Range Survey indicates a carrying capacity of 74 acres per AUM and according to the ecological site description the expected increased would be 930 AUMs or approximately 1/3 AUM per acre.

(2) Option 2 - Water Improvements

(a) Develop Wild Horse Bill Spring T. 4 N., R. 66 E., Section 20, NW1/4.

(b) Develop Mark Spring T. 5 N., R. 66 E., Section 30, NW1/4, NW1/4.

3. Atlanta Use Area

a. Identified Issues

The area received relatively light livestock, wild horse, deer, and antelope use during the evaluation period. The desired stocking rate was determined as 3,544 AUMs and the 1960's Range Survey indicated 3,736 AUMs were available. Four years of use pattern mapping indicates slight use throughout.

Historically, the Geyser Ranch operation (Federal Land Bank) has yearlong cattle use and El Tejon Land and Livestock has 2,000 AUMs of winter sheep use.

The majority of the area is not suitable due to a lack of water, and the 1979 range survey indicated other areas that were low producing and lacked plant diversity.

b. Short Term Solutions

- Provide water for livestock
- Increase livestock use.

(1) Option 1 - Haul Water

Haul water to improve range suitability;
general haul points are T. 7 N., R. 67 E.,
Sections 22-29,

(2) Option 2 - Increase livestock use

Authorize grazing in the Atlanta use area
for a season of use at 7/1 to 10/31 for
1736 cattle AUMs and 11/1 to 2/28 for 2000
sheep AUMs. Grazing use authorized would
result from livestock displaced from other
use areas with identified problems.

c. Atlanta Long Term Solutions*

- Water developments

*Long term solutions are shown on Map 8.

(1) Option 1 - Water Improvement

(a) To improve animal distribution and to
meet allotment objectives overall,
construct a pipeline starting at an
unnamed spring in T. 5 N., R. 67 E.,
Section 1 through Sections 28-30, 34,
36, and to T. 6 N., R. 66 E.. Sections
25-26,

(b) To provide water for all animals
construct a reservoir in T. 6 N., R.
67 E., Section 9, SW1/4 NW1/4.

4. Pioche Bench and South Lake Valley Use Area

a. Identified Issues

During the evaluation period, there has been no
livestock use in this area, wild horse use
varies seasonally from approximately 40-60
animals yearlong, and the area is winter and
spring range for mule deer and antelope. Four
years of use pattern mapping data indicates
slight use throughout. The 1960 Range Survey
estimated a stocking rate of 5,430 AUMs in South
Lake Valley. Historically, these AUMs were part
of the Eagle Valley Cattle use area for fall
grazing up to 11/30 then cattle were trailed to
Dry Lake Valley, and sheep wintered in South
Lake Valley as well. Since nearly all the
cattle operators have a share of this use area,
it's appropriate to allow grazing here to
relieve grazing pressure in other use areas with

identified problems. To use Pioche Bench and South Lake Valley would require water hauling and/or maintenance of wells in the area.

b. Short Term Solutions

Pioche Bench and South Lake Valley could be used to reduce grazing pressure in other areas where problems have been identified. Use would require water hauling and/or maintenance on existing wells.

c. Long Term Solutions

- Fall pasture

(1) Option 1 - Fall Pasture

To reduce livestock grazing pressure on winter ranges create a fall pasture with a season of use of 11/1 - 12/30. The pasture would require 13 miles of fence construction. Refer to Maps 9.

C. Summer Use Area

1. Patterson Use Area

a. Identified Issues

- Utilization levels recommended in the Schell Management Framework Plan III (MFP III) were exceeded approximately 50% of the time.
- Distribution of grazing animals is poor in all pastures.
- Livestock forage condition is less than good in 1 of 4 pastures.

b. Short Term Solutions

- Adjust livestock numbers.
- Haul water to improve distribution.
- Change season of use.
- Change class of livestock

(1) Option 1 - Adjust Livestock Numbers

To meet the AUL objective authorize livestock use to the AUM levels identified in Appendix 4 (average calculated stocking rates by pasture by year compared to average actual livestock use). The calculated stocking rates were determined by using the desired stocking rate formula for the combined use of all users multiplied

by the crop yield index and the utilization level measured on key areas or obtained from use pattern maps. Refer to Appendix 1 & 2 for desired utilization levels by use areas and Appendix 3 for calculated stocking rates by use areas. Authorize livestock use to levels identified in Table XII.

Desired Stocking Level Formula

$$\frac{\text{Desired Utilization Levels}}{\text{Measured Utilization Levels}} = \frac{\text{Desired Actual Use}}{\text{Estimated Actual Use}}$$

Table XII - Adjusted Stocking Rates for Patterson Use Areas

Pasture	Adjusted Livestock Stocking Rates AUMs
Pony	1577
Craw Creek	1244
21 - Mile	1261
15 - Mile	1452

*Horses outside HMA
552 aums = 46 horses*

(2) Option 2 - Adjust Season of Use

To accommodate cattle coming off winter ranges adjust season of use on Patterson Seeding from the current 5/1-10/31 to 4/1-10/31. Seeded ranges were widely established for the purpose of providing early spring grazing. These ranges can complement native ranges such as Dry Lake Valley and Hamblin Valley by reducing detrimental spring grazing.

*How? See table
App. I shows
they're exceeding
allowable use*

(3) Option 3 - Improve Livestock Distribution

Four years of use pattern mapping indicates that heavy to severe use often occurs within 1 1/2 miles of water on the seeded range, and upland native and seeded areas received slight use. To improve livestock distribution haul water and place salt along existing roads in the benchland areas, primarily in T. 4 N., R. 66 E. Section 18, SE1/4, and T. 3 N., R. 67 E., Section 5, NW1/4 and as identified on Maps 10.

*Need to do this
regardless of
season & use
numbers -
adjustments*

*↑
range improvement*

(4) Option 4 - Change Class of Livestock

To accomplish the AUL objective identified in Appendix 1 and to improve livestock distribution encourage permittees to change a portion of their cow/calf herd to steers. Steers tend to graze a greater distance from water which would, therefore, improve distribution.

c. Long Term Solutions*

- Water developments
- Vegetative conversion

*Long term solutions are shown on Map 10.

(1) Option 1 - Water Developments

To meet the AUL objective by improving livestock distribution develop the following waters:

(a) 21-Mile Pasture

Construct a pipeline extension from the existing Page Creek Pipeline at T. 4 N., R. 67 E., Section 35, NENE through Sections 34, 33, 32 to Section 31.

(b) Pony Pasture

To improve distribution construct a pipeline extension from the Brown Springs Pipeline at T. 5 N., R. 67 E., Section 17, to Sections 17, 7, 6, and 1.

(2) Option 2 - Vegetative conversions.

- (a) There are large areas in 15-Mile pasture dominated by ARTRT type plant community. These areas according to the 1979 Range Survey lack plant diversity and produced only one AUM per 45 acres. The ecological site description (028BY003NV) indicates that production in favorable years should be about 1/2 AUM per acre. The following areas has a high potential for conversion, 975 acres of ARTRT in T. 3 N., R. 66 E., Sections 11, 12, 14, and 23.

- (c) To improve livestock forage condition from fair to good in 15-Mile Seeding perform seeding maintenance on 4,490 acres in 7-9, 16-18, T. 3 N. R. 68 E., Sections 4-6.

2. Meadow Valley Seeding

a. Identified Issues

- Use pattern mapping indicates poor distribution in all pastures for all years.
- Utilization levels recommended by MFP III were exceeded approximately 50% of the time.
- Willow Wash pasture is in less than good livestock forage condition.

b. Short Term Solutions

- Adjust livestock numbers
- Haul water to improve distribution

(1) Option 1 - Adjust Livestock Numbers

To meet the AUL objective authorize livestock use to 1,414 AUMs as an initial stocking rate. The rate was determined from the average stocking rate during the evaluation period. Refer to Table XIII.

Table XIII

<u>Pasture</u>	<u>Stocking Rate</u> AUMs
Willow Wash	394
White Rock	580
Meadow Wash	440

Table XIII (cont.) Meadow Valley Seedings Use Area

Treatment _____

A		Graze 5/1-10/31
B		Graze after seed ripe
C	_____	Complete Rest

(2) Option 2 - Haul Water to Improve Distribution

Use pattern mapping indicates poor distribution in all pastures. Improve distribution herding, water hauling, and proper salt placement at a minimum of 1/2 miles from existing water sources.

(3) Option 3 - Adjust Livestock use in the Bull Pasture and change the season of use to 4/1-10/31 or to 4/1-6/30 and 10/1-10/31 from 11/1-4/30. To meet the AUL objective limit livestock use to 121 AUMs.

(4) Option 4 - Adjust Season of Use

To accommodate cattle coming off winter ranges adjust season of use on Meadow Valley seeding from the current 5/1-10/31 to 4/1-10/31, or to 4/1-6/30 and 10/1-10/31. complement native ranges such as Dry Lake Valley and Hamblin Valley by reducing detrimental spring grazing.

c. Long Term Solutions*

- Improve livestock forage condition in Willow Wash Pasture from fair to good.
- Water Developments

*Long term projects are shown on Map 11.

(1) Option 1 - Seeding Maintenance

Improve forage condition from fair to good by initiating maintenance, which could consist of removal of shrubs and reseeding or interseeding with desirable grasses.

(2) Option 2 - Well Developments.

To improve grazing distribution in the Bull Pasture.

3. White Rock Mountain

a. Identified Issues

- Use pattern mapping indicates that use is light to moderate; however, bitterbrush is receiving heavy use from mule deer.
- Two springs/wet meadows are in less than good condition, and are being grazed and trampled.

b. Short Term Solutions

- Adjust season of use
- Increase herding and proper placement of salt

(1) Option 1 -

To meet the riparian objectives place salt at least 3/4 mile from water sources. Increase the intensity of herding allowing only 50% utilization on wet meadows.

(2) Option 2 - Adjust season of use

To meet the riparian objectives reduce the current season of use from 7/1-10/31 to 8/1-10/31 and authorize 743 cattle AUMs. The reduced season of use would allow grasses time to mature and set seed, and riparian area soils to dry more to reduce grazing impacts.

4. Table Mountain

a. Identified Issues

- Use pattern mapping indicates poor distribution and heavy use on some springs.
- One spring/wet meadow is in poor condition.

b. Short Term Solutions

- Adjust season of use
- Increase herding salting use
- Adjust livestock numbers

(1) Option 1 - Adjust Season of Use

To meet the AUL objective reduce the season of use from 7/1-10/31 to 8/1-9/30 and authorize the evaluation period average stocking rate of 400 AUMs.

(2) Option 2 - Adjust Livestock Use

Remove livestock when the AUL objective of 50% utilization is reached on key riparian areas and move to fall pasture (South Lake Valley).

(3) Option 3 - Herding and Salt Placement

To improve livestock distribution increase intensity of herding and place salt at a minimum of 3/4 of a mile from water to improve cattle distribution.

c. Long Term Solutions*

- Develop springs in less than good conditions.

*Long term projects are shown on Map 12.

(1) Option 1 -

Develop the following springs by fencing the source and piping water out to a trough.

(a) Willow Tub Spring: T. 6 N., R. 68 E., Section 14.

(b) Horse Canyon: T. 6 N., R. 68 E., Section 25.

(c) Unnamed spring: T. 6 N., R. 69 E., Section 20.

5. Mt. Wilson Native

a. Identified Issues

Two years of use pattern mapping indicates slight use primarily due to a lack of water.

Bitterbrush has received heavy use from mule deer.

Key deer summer range is in only fair habitat condition.

b. Long Term Solutions*

Water Improvements

(1) Option 1 - Construct Reservoirs

To improve annual distribution construct 2 reservoirs at T. 5 N., R. 68 E., in Section 33, Refer to Map 12.

*Long term projects are shown on Map 12.

6. Mt. Wilson Burn

a. Identified Issues

- 3 years of use pattern mapping indicates areas of heavy use to severe use and other areas of slight use.
- Two springs/wet meadows are in less than good condition.

b. Short Term Solutions

- Adjust livestock numbers
- Increase herding and salting

(1) Option 1 - Adjust Livestock Numbers

To meet the AUL objective authorized livestock use to 1,390 AUMs based on the desired stocking rate formula (Appendix 1 & 3) increase herding, and place salt at least one mile from water.

c. Long Term Solutions*

- Implement a grazing system
- Water developments

*Long term projects are shown on Map 13.

(1) Option 1 - Grazing System

Implement a two pasture deferred rotation grazing system to improve livestock distribution, plant vigor and reproduction. A system would require a fence being built at T. 4 N., R. 68 E., Section 10 southeast to Sections 11, 13, 14, approximately 2 miles in length. Refer to Table XIV for a grazing schedule.

Table XIV. Mt. Wilson Burn Grazing Schedule

<u>Year</u>	<u>North</u>	<u>South</u>	<u>Cattle</u>
1	7/1-8/30	9/1-10/31	695
2	7/1-8/30	9/1-10/31	695
3	9/1-10/31	7/1-8/30	695
4	9/1-10/31	7/1-8/30	695

(2) Option 2 - Water Improvements

Develop the following waters to protect riparian areas and to improve livestock distribution:

- (a) Sage Hen Spring: T. 4 N., R. 68 E., Section 15. Develop and build a 1 mile pipeline southeast to Section 23.
- (b) Lower Frenchman: T. 4 N., R. 68 E., Section 11. Develop and build a one mile pipeline southeast to Section 12.
- (c) Little White Rock: T. 4 N., R. 68 E., Section 1. Develop and build a 1 mile pipeline southeast to Section 6.

(3) Option 3 - Reservoir Construction

To provide water for all animals construct a reservoir in the Little White Rock Spring drainage at T. 5 N., R. 69 E., Section 3.

7. Burnt Canyon Chaining

a. Identified Issues

Burnt Canyon chaining is approximately 2,300 acres seeded in 1975 with a mixture of shrubs, forbs, and grasses. Seeding success was good having excellent plant diversity and production. The treatment was fenced, but because there is not adequate water, permittees have elected to graze here only one year (1983).

Use pattern mapping from the years 85-88 indicated slight use on all plants, except in 1988 there was heavy use on bitterbrush from mule deer. The chaining is within area 23 critical summer range.

b. Short Term Solutions

- Haul Water

To improve animal distribution haul water into Burnt Canyon chaining at T. 4 N., R. 70 E., Sections 18, 9, and 4.

3. Long Term Solutions*

- Develop water sources

To provide water for all users construct a pipeline from Lion Springs at T. 5 N., R. 70 E., Section 27, through Section 34, and T. 4 N., R. 70 E., Section 4, 9, 17.

*Long term solutions are on Map 11.

8. Burnt Canyon Burn

a. Identified Issues

In 1974 this 1,000 acre burn was seeded with a variety of grasses, forbs, shrubs, and fenced to protect the seeding from grazing for two growing seasons. Currently plant production and composition are excellent. The treatment receives moderate to heavy use from drifting livestock; however, distribution is poor as there is no permanent water in the seeding.

b. Short Term Solutions

- Haul water to improve user distribution
- Grazing systems

(1) Option 1 - Provide Water

To improve livestock distribution by hauling water into T. 5 N., R. 70 E., Section 16.

(2) Option 2 - Grazing System

Perform the necessary maintenance on fences, haul water, manage as a separate pasture with a season of use of 7/1 to 10/31, and graze with 195 cows. Rotate this use area with adjacent native ranges.

c. Long Term Solutions*

- Water improvements

*Long term solutions are shown on Map 11.

(1) Option 1 - Develop a Well

To improve animal distribution in the Burnt Canyon Seeding develop a well to provide permanent water.

D. Livestock - Summary, Cattle (C) - Sheep (S)

<u>Use Area</u>	<u>White River</u>	<u>Dry Lake</u>	<u>Hamblin Valley</u>	<u>Patterson</u>	<u>Meadow Valley</u>	<u>Bull Pasture</u>	<u>Mt. Wilson Native Table Mtn. White Rock</u>	<u>Mt. Wilson Burn</u>
Season of Use	11/1-5/10	11/1-4/30	11/1-4/30	5/1-10/31	5/1-10/31	11/1-4/30	7/1-10/31	7/1-10/31
Actual	2523-S	10407-C	4654-C	3648-C	1474-C	82-C	1552-C	1672-C
AUMs	459-C	7879-S	2076-S					
<u>Option -1</u>								
Season of Use	11/1-3/31	11/1-3/31	11/1-3/31	4/1-9/30	4/1-9/30	4/1-6/30	7/1-10/31	7/1-10/31
Adjusted	2159-S	6761-C	4654-C					
AUMs	459-C	5120-S	2076-S	3960-C	2446-C	121-C	5572-C	1390-C
<u>Option 2</u>								
Season of Use				<u>4/1-6/30</u>	<u>4/1-6/30</u>	<u>4/1-6/30</u>		
AUMs				10/1-11/30	10/1-11/30	10/1-11/30		

<u>Use Area</u>	<u>Burnt Canyon Chain</u>	<u>South Lake Valley 1/</u>	<u>Atlanta 1/</u>	<u>Fairview</u>	<u>Maloy</u>	<u>Muleshoe</u>	<u>Pioche Bench</u>
Season of Use	7/1-10/31	10/1-3/31	Yearlong	7/1-11/30	5/1-10/31	11/1-4/30	11/1-4/30
Actual	800-C	5430-C	1736-C	400-C	260-C	112-C	309-S
AUMs			2000-S				
<u>Option -1</u>							
Season of Use	7/1-10/31	<u>10/1-11/30-C</u>	7/1-10/31-C	7/1-10/31	6/1-10/31-C	11/1-3/31	11/1-4/30
Adjusted		11/1-3/31-S	1736 AUMs				
AUMs	1158-C	5430-C&S	11/1-2/28-S		400-C	260-C	987-C&S
			2000-S				
<u>Option 2</u>							
Season of Use					7/1-10/31		

1/ Stocking rate from 1965 Range Survey.

E. Additional Monitoring Data Required

1. Collect use pattern data at the end of each use period per pasture with emphasis on those pastures with significant wildlife and wild horse use and include those years where no livestock use occurs.
2. Collect use data each spring on winter ranges.
3. Determine ecological status of key springs/wet meadows. Collect utilization data at key springs/wet meadows.
4. Determine amount of elk use being made on the allotment, and if there are any key/crucial areas.

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JUN 29 1989

I. INTRODUCTION

- A. Allotment Name and Number: Dry Farm 11024
- B. Permittee: Charles Wadsworth
- C. Evaluation Period: 1984 thru 1988
- D. Selective Management Category and Priority:
I Category, moderate priority

II. Initial Stocking Level

A. LIVESTOCK USE

1. Land Use Plan Objective

- a. Total Preference: - 733 AUMs
- b. Suspended Preference: - 0 AUMs
- c. Active: - 733 AUMs
- d. T N R : - 0 AUMs

2. Season of Use

- a. EIS: 6/01 to 8/31

3. Kind and Class of Livestock:

- a. Cattle (Cow/Calf)

4. Percent Federal Range/Exchange of Use:

100% Federal Range/No Exchange of Use.

B. WILD HORSE AND BURRO USE

1. Appropriate Management Levels:

The allotment receives only infrequent if any use, and 1 AUM was identified in the RPS.

2. Herd Management Areas within the allotment:

A portion of the Seaman Herd Management Area falls within the eastern boundaries of Dry Farm Allotment.

C. WILDLIFE USE (see Map 1)

1. Mule Deer:

a. Reasonable Numbers: 201 AUMs

(Note: The Nevada Department of Wildlife has identified additional winter range on other allotments within Management Area 13. Based on this new information the reasonable numbers figure of 201 AUMs is believed to be too high. The existing numbers figure more accurately reflects the management level for mule deer on the allotment.)

b. Key/Crucial Management Areas:

None Identified

2. Pronghorn Antelope

a. Reasonable Numbers: None specified.

(Note: Currently there is no antelope use on the Dry Farm Allotment; however, the Nevada Department of Wildlife is scheduled to augment the antelope herd in Garden Valley in 1989-90. This may result in antelope using the allotment in the future.)

b. Key/crucial areas: None identified.

3. Ferruginous Hawks:

a. 1 occupied nest, 4 unoccupied nests

III. ALLOTMENT PROFILE

A. DESCRIPTION

The Dry Farm Allotment is located in Nye County, Nevada approximately 120 miles southwest of Ely, Nevada. The elevation is approximately 5300'. The majority of the allotment is located in the northern portion of Garden Valley from the Grant Mountain Range on the west to the Golden Gate Range on the east.

Facilities in the allotment consist of 2 active water wells located in the northeastern portion of the allotment.

The allotment is located along the White River Trail. Use includes sheep along the trail and cattle throughout the allotment. Mule deer currently use the allotment. Pronghorn Antelope are to be introduced into Garden Valley in December or January of FY89 or FY90.

There are no anticipated or pending land and mineral actions which will affect the allotment in the foreseeable future.

B. Acreage

1. Allotment Total: 17,532 acres
2. Pastures: N/A

C. Allotment Specific Objectives:

1. Land Use Plan and Rangeland Program Summary

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.

The short term objective is to manage the Basin Wildrye (ELCI) at key area DFRL, at a AUL of 40%.

- (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.

*The long-term objective is to improve the seral stage of range site 029X003NV from an early seral stage at 19% of Potential Natural Community (PNC) by air dry weight to 70-85% of PNC.

<u>General Composition</u>	<u>Current % Composition by Dry Weight</u>	<u>Objective % Composition by Weight</u>
Grass & grasslike	8	70-85%
Forbs	2	5-15%
Shrubs	90	10-20%
 <u>Species Specific Composition</u>		
ELCI	8	15-30
ARTR	48	1-5
CHUI	25	2-5
SAVE	17	2-5

* See Appendix 1

b. Wild horses

- (1) The short term objective is to be accomplished by managing the allowable use levels (AUL) by wild horses by season to improve or maintain the desired vegetation community. (see Appendix 1)
- (2) The long term objective is to manage for the most appropriate seral stages to provide the desired quantity, quality, variety, and density of forage in order to meet the requirements of the wild horses. (see Appendix 1)

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 prior to November 1, and to 45 percent by all animals yearlong.
- (2) The long term objective is to maintain mule deer winter range in at least fair habitat condition by providing diversity of forage species.

d. Pronghorn Antelope

- (1) The Short term objective is to limit use on key species listed for pronghorn antelope range to 55 percent for perennial grasses, grass-like plants and forbs; an to 45 percent for shrubs yearlong.
- (2) The long term objective is to maintain antelope range in at least fair habitat condition by providing appropriate vegetation quantity and quality.

e. Ferruginous Hawk

- (1) The short term objective is to limit use on winterfat near the occupied ferruginous hawk nest to 45 percent yearlong.
- (2) The long term objective is to manage winterfat stands (silty range sites) near occupied Ferruginous hawk nests in mid to late seral stage.

Maintain integrity of existing pinyon-juniper "stringers" near winterfat stands (silty range sites) (See Appendix 1).

2. Activity Plan: None implemented.
3. T&E: None identified.

D. Key Species Identification

1. Uplands

KAl: Basin wildrye Elymus Cinereus ELCI2
Winterfat Eurotia Lanata EULA 5
(see Appendix 1)

Mule deer winter range:

Cliffrose Cowania mexicana COME5
Black sagebrush Artemisia arbuscula nova ARARN

Pronghorn antelope range:

Black sagebrush Artemisia arbuscula nova ARARN
Douglas rabbitbrush Chrysothamnus viscidiflorus CHN18
Shadescale Atriplex confertifolia ATCO
All forbs

2. Riparian: None identified.
3. Crucial Habitat: None identified.

IV. MANAGEMENT EVALUATION

A. Purpose:

The purpose of this document is to evaluate the nature of grazing that has occurred on the Dry Farm 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 II
(See Form No. 4400-17)
2. Actual Use (see Table 1)
 - a. Livestock:

Actual use was estimated from licensed use and noted unauthorized use which has occurred since 1980. The livestock use has ranged from 0 AUMs to 697 AUMs.

b. Wildlife:

Mule deer use was extrapolated from Nevada Department of Wildlife's estimates of herd numbers. 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.

c. Wild horses:

Use was estimated from censuses conducted during 1983 and 1987. Only animals counted on the allotment were considered to be using the allotment. Horses have not been censused within the allotment boundaries. Even horse sign (ie. feces) seen on the allotment indicates only intermittent use by wild horses.

3. Precipitation

The average precipitation for the last 11 reporting years was 11.87 inches with a range from 7.39 inches to 17.11 inches. The greatest precipitation occurs during the spring, late summer and fall months.

Precipitation data has been used to adjust the utilization levels for the allotment evaluation years. The first step is to calculate the crop yield, the effective precipitation for plant growth occurring between September and June of each year. The crop yield for the past eleven years ranged from 6.42 inches to 12.33 inches. The crop yield was then arrayed and the middle five years were averaged in order to determine the average median. The average median was 9.61 inches. The crop yield was then divided by the average median to determine the precipitation index for each year. The precipitation index ranged from 67 to 128. The yield index is then determined from the precipitation index by using the linear regression equation $Y = -23 + 1.23 x$ (Sneva et al. 1983). (see Tables 2,3)

4. Utilization

a. Key Area

The yield index discussed in the previous section is then multiplied by the utilization level. The result of this is a utilization level normalized by precipitation.

The normalized utilization level is used as a guide. Monitoring and evaluation will continue in the future.

<u>Year</u>	<u>1981*</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988**</u>
Utilization	86%	68%	7%	64%	50%	26%
Yield Index	112	59	59	91	105	134
Normalized Utilization	96	40	4	58	52	35

* A fenceline installed between Batterman Wash and Pine Creek decreased unauthorized use drifting north into this allotment after the summer of 1983.

** Use was read following the removal of livestock .

b. Use Pattern Mapping
(see Maps 2,3,4,)

5. Trend

The Apparent trend was recorded as not apparent in 1988. The trend frequency for key species ELCI from 1984 to 1986 indicated no significant change at either the .05 or .10 ANOVA.

6. Range Survey Data:

The 1979 Occular Reconnaissance Forage Survey indicated that there are 236 AUMs available for livestock.

7. Ecological Status:

Ecological status using ocular estimation was completed on the key area in 1984. Site number 029X003NV had an estimated condition rating of 25% of the Potential Natural Community by air dry weight, placing it in an early seral stage.

Ecological status was completed on the key area in June 1988. The key area is located T. 4 N., R. 58 E., Sec. 25. The ecological site 029X003NV had a condition rating of 19% of the Potential Natural Community (PNC) by air dry weight, placing it in an early seral stage.

The early seral stage is due to the excessive production of ARTR, CHVI and SAVE relative to the site description. Grass production is 1/9 of the site description; forb production 1/5; and shrub production is six times PNC.

8. Wildlife Habitat

Because there are no key/crucial areas identified on the Dry Farm Allotment, there are no wildlife habitat studies established on the allotment.

9. Riparian/Fisheries Habitat:

None identified.

10. Wild Horse and Burro Habitat:

A portion of the Seaman Herd Management Area falls within the boundaries of the Dry Farm Allotment, but it receives only occasional and minimal use. No wild horses were censused last count, but one AUM was identified in the RPS.

V. CONCLUSIONS

A. Refer to by number from III.C., Specific Objectives

1. Land Use Plan and Rangeland Program Summary

a. Livestock

(1) Objective Attainment Determination:

Not met.

(2) Rationale:

Allowable use level has been exceeded four of six years (see Appendix 1).

Use pattern mapping indicates areas of heavy to severe use in 1986 and 1987 (see Map 3 & 4).

b. Wild horse and Burro:

(1) Objective Attainment Determination:

Not met.

(2) Rationale:

The allowable use level at the key area was exceeded in four of six years. No wild horses have been censused on the allotment. Utilization at the key area appears to be made by livestock.

Use pattern mapping indicates areas of heavy to severe use in 1986 and 1987 (see Map 3 & 4).

c. Mule Deer:

(1) Objective Attainment Determination:

Not met.

(2) Rationale:

Use pattern mapping indicates areas of heavy use on cliffrose in 1986 (see Map 3).

d. Pronghorn Antelope

(1) Objective attainment Determination:

Met.

(2) Rationale:

Use pattern mapping indicates only slight use on key species listed for pronghorn antelope. This use was made by livestock and not wildlife since there are not antelope currently on the allotment.

e. Ferruginous Hawks:

(1) Objective Attainment Determination:

Met.

(2) Rationale:

Allowable use level on winterfat were not exceeded.

VI. TECHNICAL RECOMMENDATIONS

A. Short Term Solutions

Adjust the livestock numbers.

Increase the available waters.

1. Option 1

If no action other than an adjustment in numbers is initiated, 228 AUMs should be placed into suspended nonuse.

Utilization levels for the years 1984, 1986, 1987 and 1988 were normalized using the crop year yield based on precipitation data from the Sunnyside Station.

<u>Year</u>	<u>1984</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>
% Utilization	68%	64%	50%	26%
Yield Index	61	94	107	134
Adjusted Utilization	41	60	54	35

The available AUMs were determined by using the formula.

$$\frac{\text{Actual Use}}{\text{KMA Utilization}} = \frac{\text{Desired Actual Use}}{\text{Desired KMA Utilization}}$$

These values were then averaged. Livestock, wildlife, and wild horse AUMs were then separated.

1984 -	680	AUMs	
1986 -	376	AUMs	
1987 -	304	AUMs	
1988 -	658	AUMs	
=	2018	AUMs / 4 =	505 AUMs
505	AUMs	(livestock)	
0	AUM	(wild horses)	
<u>505</u>	AUMs	(Total AUMs Available)	

68
41
27

68
45
23

	733	Active Preference
-	505	Available AUMs for livestock
	<u>228</u>	Suspended nonuse

The 1979 Ocular Reconnaissance Forage Survey indicates that there are 236 AUMs available for livestock.

A portion of the Seaman Herd Management Area falls within the boundaries of the Dry Farm allotment, but it receives only occasional and minimal use. No wild horses were censused last count, but one AUM was identified in the RPS.

Reducing AUMs with no other management changes may produce a slight increase in the ecological condition of certain range sites within the allotment over time. Due to the present condition of the key area, it is not reasonable to expect a change in seral stage on the key area. Areas of heavy and severe use would likely be substantially reduced, but probably not eliminated without some other management changes.

2. Option 2

Haul water and redevelop water and salt in order to use the western benches. Presently the livestock primarily use the bottomland on the allotment, drift into Batterman Wash, Needles and other allotments, and concentrate near waters.

The use pattern mapping indicates that there is a distribution problem. In 1986 2% of the allotment had severe use and 17% had heavy use, and in 1985 use was slight throughout the allotment (no livestock were licensed on the allotment). In 1987 2% of the allotment had severe use and 3% had heavy use. Preference would become 591 AUMs with 142 AUMs placed into suspended nonuse.

Water would be hauled to at least 2 sites located near T. 4 N., R. 58 E., sec. 2 and T. 4 N., R. 58 E., sec. 10. In combination with water developments salting grounds at least one quarter of a mile from the established waters would facilitate the desired distribution. Redistributing 86 AUMs from the bottom lands to the northwestern bench will decrease the areas of heavy and severe use. Preference would become 591 AUMs with 142 AUMs placed into suspended nonuse. A key area should be established near T. 4 N., R. 58 E., sec. 11 (See map 5).

This option could have a greater impact on improving ecological condition, and could possibly (but not likely) improve the key area to the next seral stage. Areas of heavy and severe utilization could probably be eliminated, by the redistribution of the livestock from the bottomlands to the northwestern benches.

B. Long Term Solutions

Fence the allotment.

Implement a grazing system.

1. Option 1

This includes the identified water improvements and salting practices. (See short-term option b2.) In addition, the southern and eastern perimeter of the allotment will be fenced by 1993, the well at the Dry Farm pumping station (T. 4 N., R. 58 E., Sec. 26) will be reconstructed, and a water haul site will be included at T. 4 N., R. 58 E., Sec. 33. This will decrease the utilization outside the authorized use areas and additional AUMs would become available along the southwestern bench, and the preference would be 733 AUMs with 0 AUMs being placed in suspended nonuse (see Map 6).

By increasing available waters, salting, and fencing, allowable use levels on the key area would be attained and heavy and severe use (improper distribution) problems will be alleviated.

There could conceivably be a change in seral stage of the key area from early to early mid seral. Improvement beyond that would have to be achieved through vegetation manipulation.

A small portion of the southeast corner of the allotment would be fenced out (T. 4 N., R. 58 E., sec. 36, E $\frac{1}{2}$). This will be done in order to fence out South Well, which is base water for an adjacent allotment. This is to correct a survey error which was previously made.

2. Option 2

This is a long term option which includes hauling water and/or drilling water wells, salting as identified in short-term option b2, and fencing of the entire allotment. In addition to this, a three pasture deferred rotation grazing system would be implemented as shown on the following pages. (See Map 7)

The grazing system, fencing and water developments will be implemented by 1995.

The implementation of the deferred rotation grazing system will increase the available AUMs by 5% in the long term. The herbage response to livestock adjustments that reduce use from heavy to moderate will increase forage production by up to 21% (Van Poolen and Lacey 1979). The implementation of this grazing system would allow an increase in the allowable use level to 50%.

By increasing available waters, salting, fencing, and implementing a grazing system, allowable use levels on the key area, would be attained. Heavy and severe use and improper distribution problems would be alleviated.

There could conceivably be a change in seral stage of the key area from early to early mid seral. Improvement beyond that would have to be achieved through vegetation manipulation.

A small portion of the southeast corner of the allotment will be fenced out (T. 4 N., R. 58 E., sec. 36, E $\frac{1}{2}$). This will be done in order to fence out South Well, which is base water for an adjacent allotment. This is to correct a survey error which was previously made.

C. Additional Monitoring Required

Continued monitoring: see Studies Reading Schedule (see Table 4).

Establish another key area in the western portion of Dry Farm Allotment near T. 4 N., R. 58 E., sec. 11.

Use pattern map and/or determine key area utilization in the spring and fall in order to determine the level of use by user.

Document the seral stage on the EULA site (T. 4 N., R. 58 E., sec. 13) using an ocular estimation of composition by weight.

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.

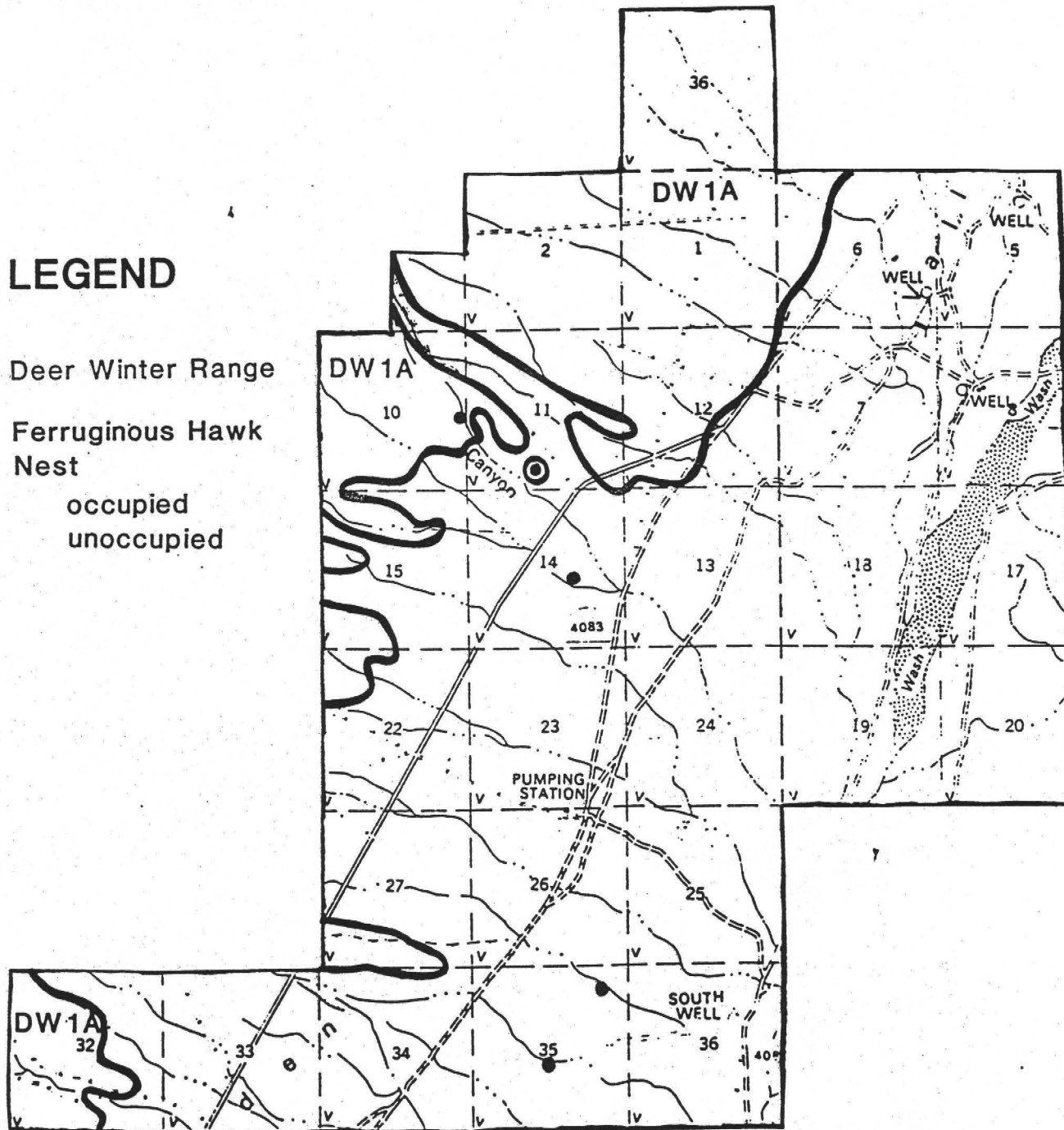
Van Poolen, H. Walt and John R. Lacey, 1979, Herbage Response to Grazing Systems and Stocking Intensities. Journal of Range Management 32(4):250-253.

DRY FARM ALLOTMENT

WILDLIFE USE AREAS MAP 1

LEGEND

-  Deer Winter Range
-  Ferruginous Hawk Nest
-  occupied
-  unoccupied



T. 5 N.

T. 4 N.

R. 58 E. | R. 59 E.

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

District

ELY

Planning Area

WHITE RIVER

Date

1988

Allotment

DRY FARM

Key Management Area

DFRI

Trend Index (Frequency)

Date

Code

Key Species-Color

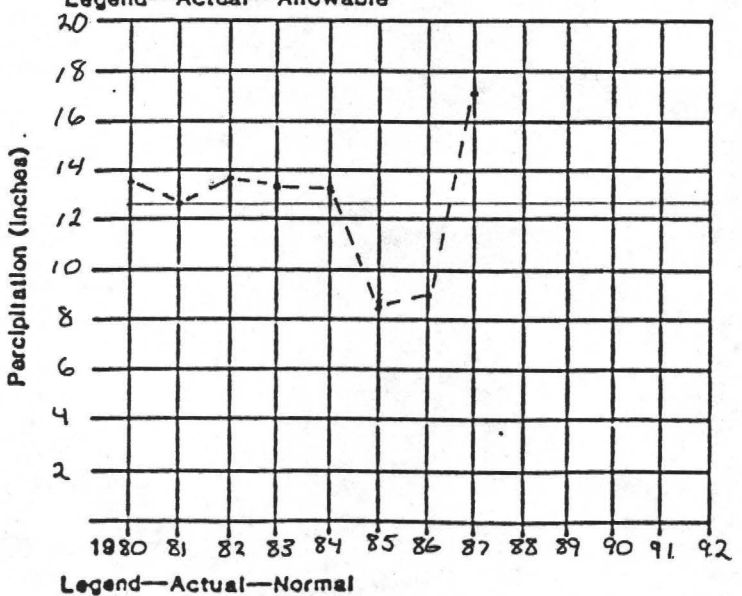
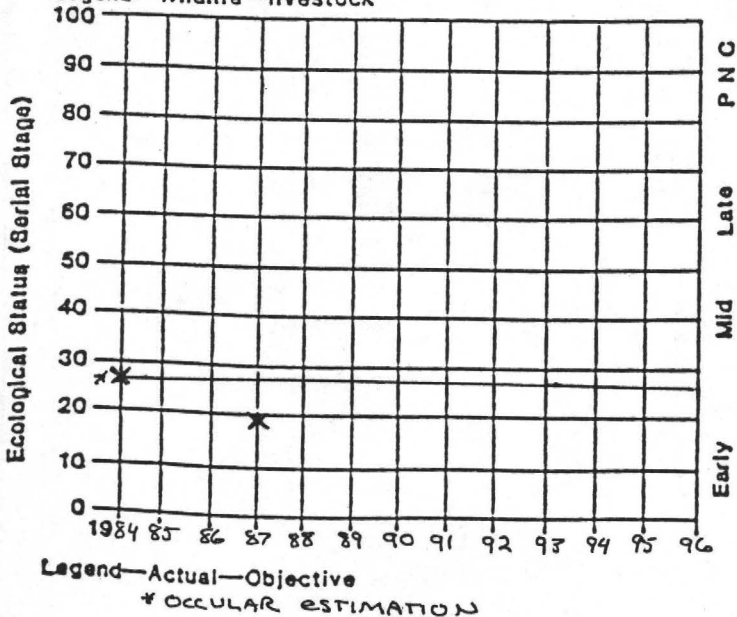
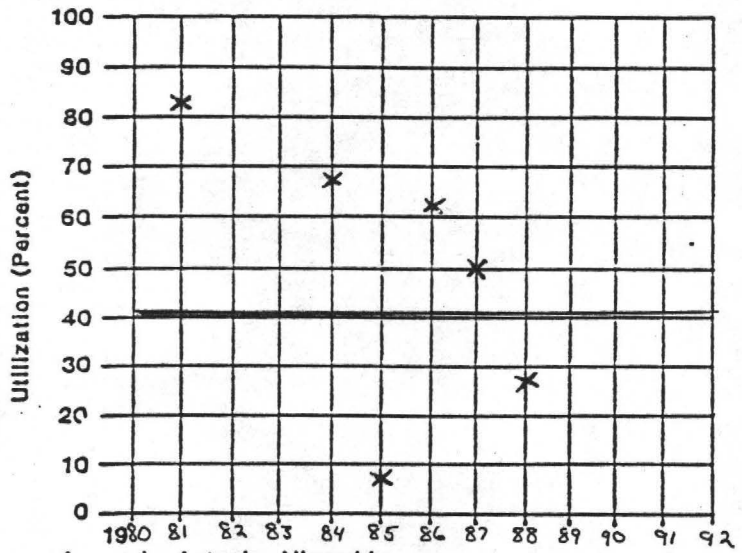
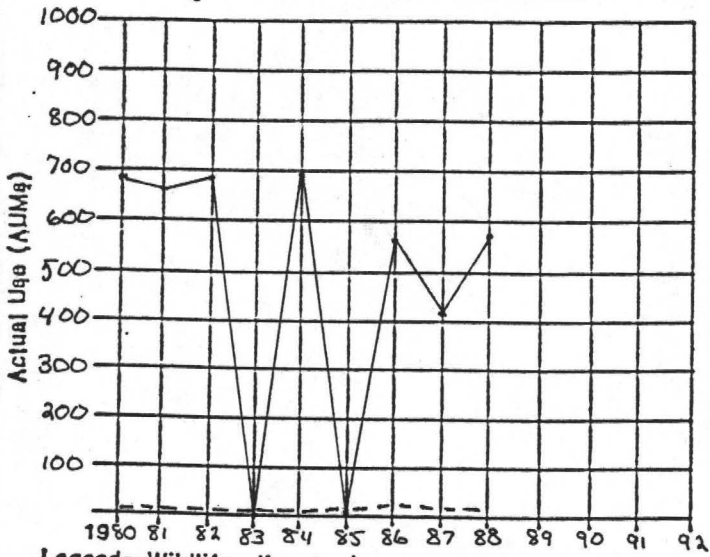
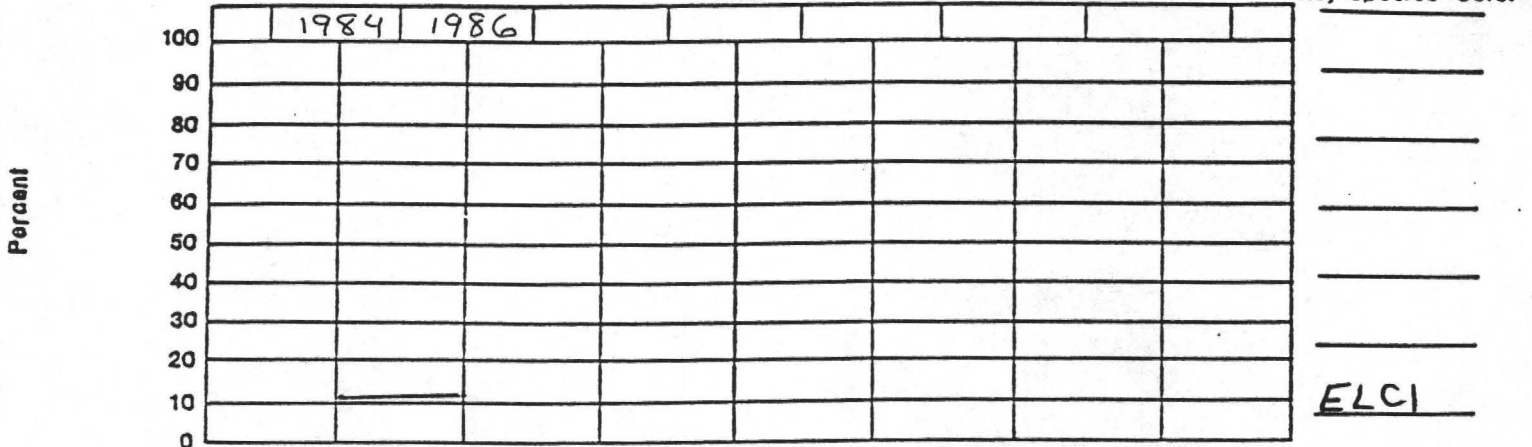


TABLE 1:

Estimated Use by User by Year for Allotment;
11024 Dry Farm Allotment

Year	Licensed	Estimated	Estimated Wildlife AUMs			Estimated	Total	Actual
	Livestock Use	Livestock AUMs 1/	Deer	Elk	Antelope	Wild horse AUMs 2/	Estimated Use	Utilization 3/
1980	690	690	6	-0-	-0-	-0-	696	---
1981	732	661	5	-0-	-0-	-0-	666	86%
1982	690	690	7	-0-	-0-	-0-	697	---
1983	-0-	-0-	7	-0-	-0-	-0-	7	---
1984	740	697	11	-0-	-0-	-0-	708	68%
1985	-0-	-0-	16	-0-	-0-	-0-	16	7%
1986	575	564	19	-0-	-0-	-0-	583	64%
1987	664	411	16	-0-	-0-	-0-	427	50%
1988	605	576	12	-0-	-0-	-0-	588	26%

*Proper
use*

- 1/ Estimated livestock use is the difference between licensed livestock use and known livestock numbers taken from certificate of livestock counts showing animals outside the allotment.
- 2/ No horses have been censused in this allotment.
- 3/ The highest utilization level was in 1981 at which time it was 86%; however, a fence between Batterman Wash and Pine Creek allotments was completed in the summer of 1983. This decreased the unauthorized drift from the Pine Creek Allotment. Areas of heavy utilization mapped along the northern and western boundaries of the allotment are at least partially attributed to wildlife use based on 80% on cliffrose.

TABLE 3

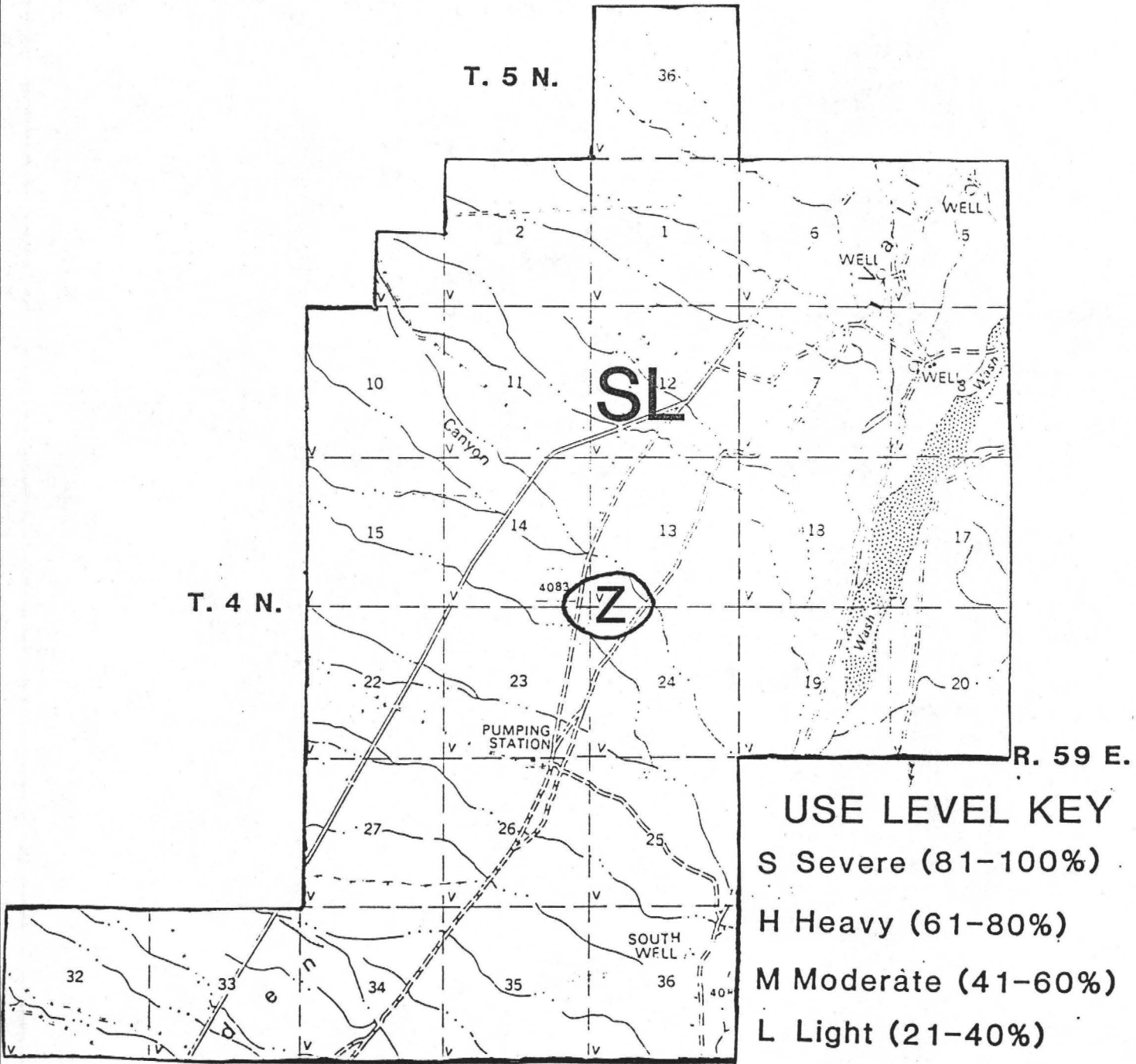
REPORTING STATION: SUNNYSIDE

Year	Crop Yield	Average Median	PPT Index	Yield Index
1978	10.39	9.61	108	110
1979	9.46	9.61	98	98
1980	9.25	9.61	96	95
1981	10.58	9.61	110	112
1982	8.52	9.61	89	86
1983	12.02	9.61	125	131
1984	6.42	9.61	67	59
1985	6.43	9.61	67	59
1986	8.92	9.61	93	91
1987	10.01	9.61	104	105
1988	12.33	9.61	128	134

DRY FARM ALLOTMENT

1985 UTILIZATION PATTERN MAP

MAP 2



- USE LEVEL KEY**
- S Severe (81-100%)
 - H Heavy (61-80%)
 - M Moderate (41-60%)
 - L Light (21-40%)
 - SL Slight (1-20%)
 - NF Zero (No Forage Available)
 - Z Zero (Forage Available But No Use)

R. 58 E.

R. 59 E.

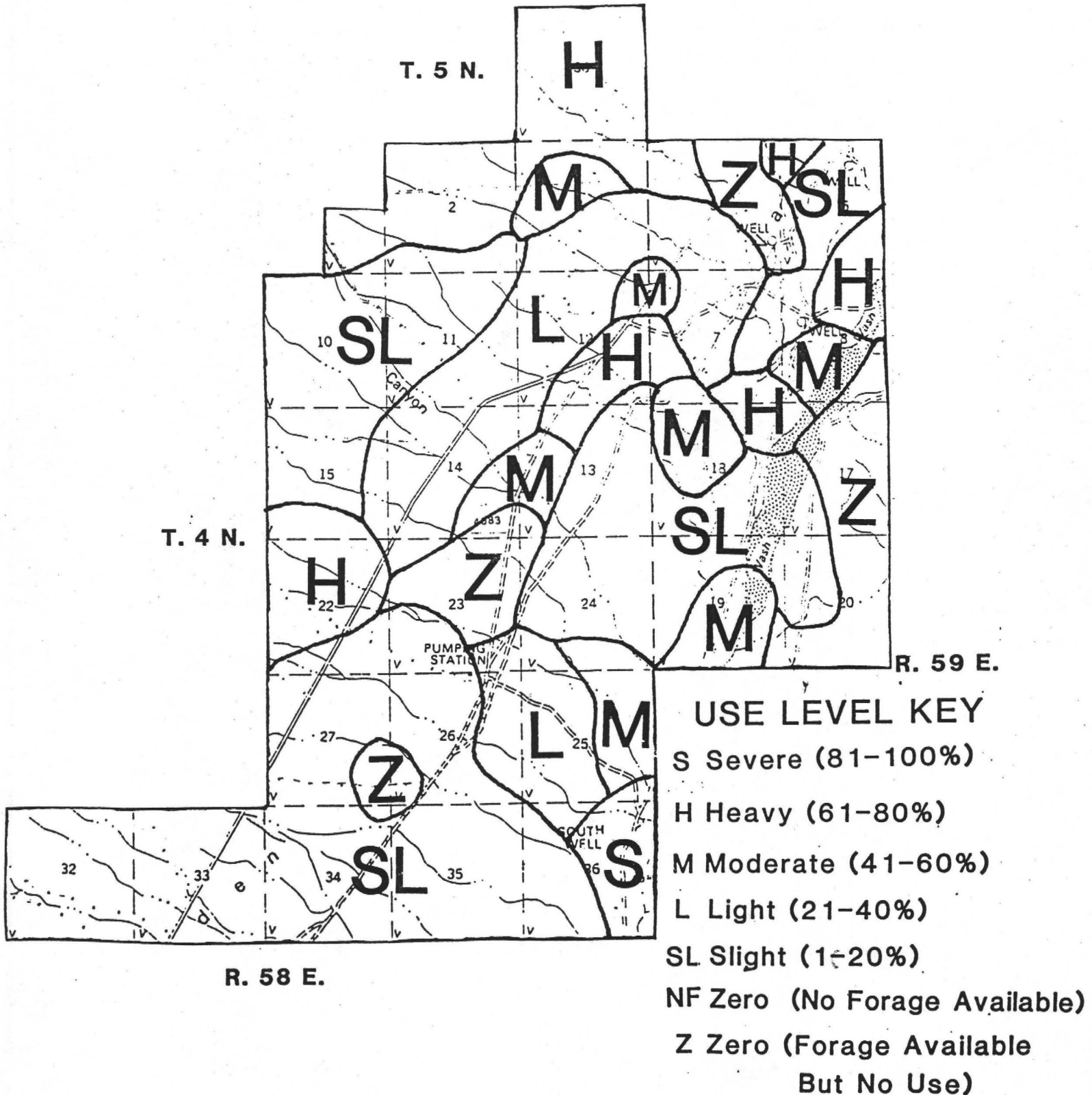
T. 4 N.

T. 5 N.

DRY FARM ALLOTMENT

1986 UTILIZATION PATTERN MAP

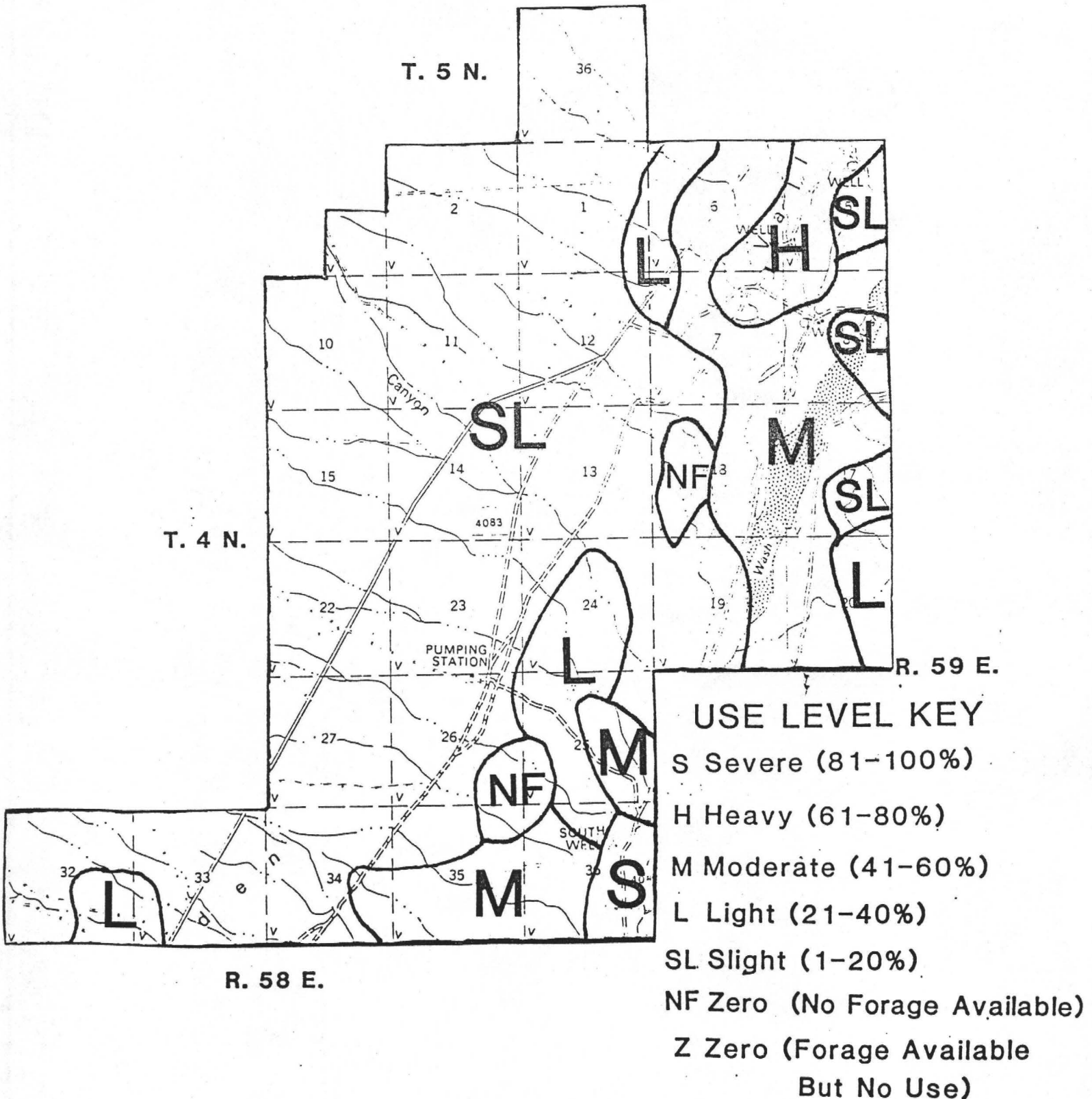
MAP 3



DRY FARM ALLOTMENT

1987 UTILIZATION PATTERN MAP

MAP 4







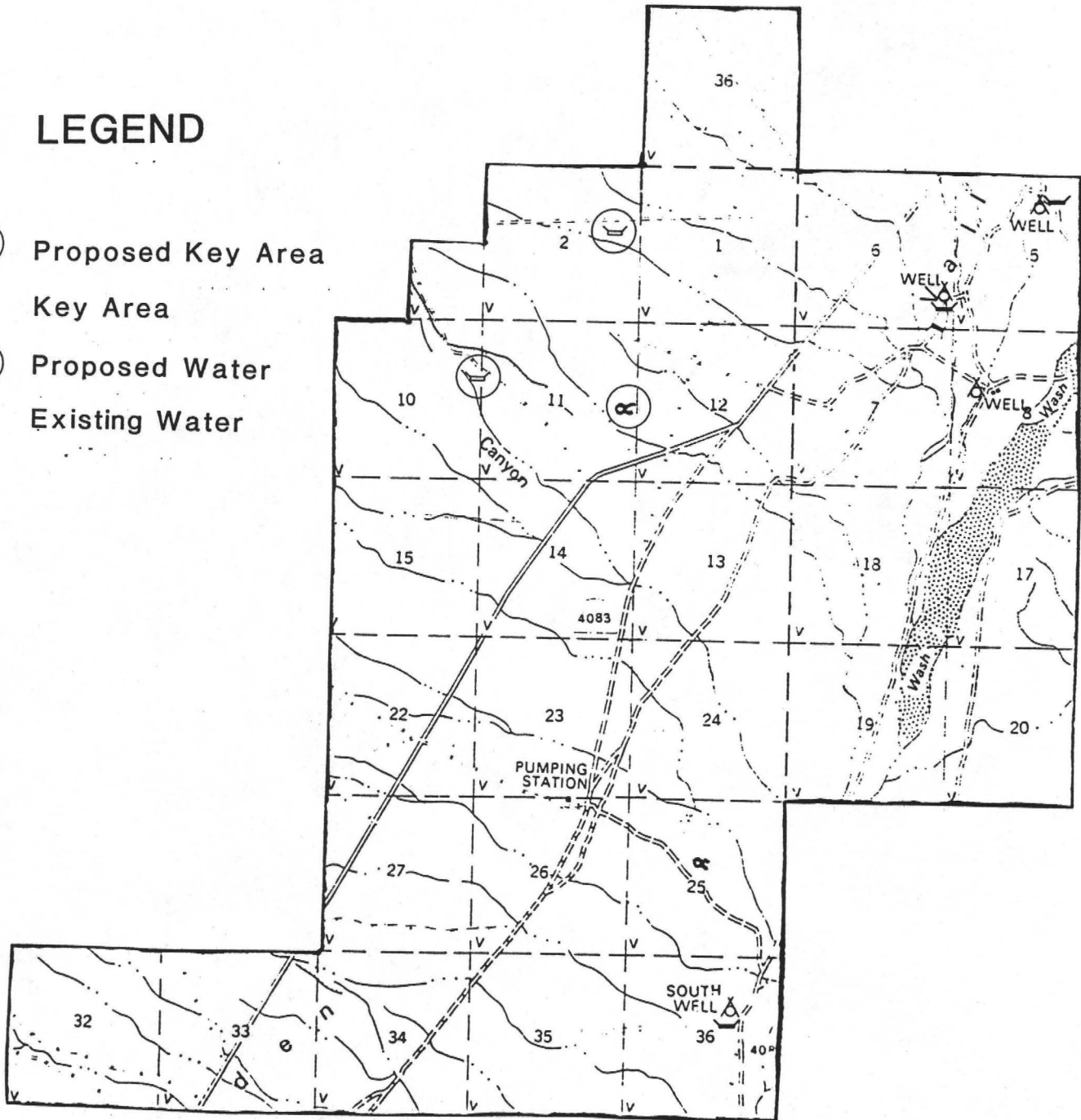
DRY FARM ALLOTMENT

SHORT TERM OPTION 2

MAP 5

LEGEND

-  Proposed Key Area
-  Key Area
-  Proposed Water
-  Existing Water



T. 5 N.

T. 4 N.







R. 58 E. R. 59 E.

DRY FARM ALLOTMENT

LONG TERM OPTION 1

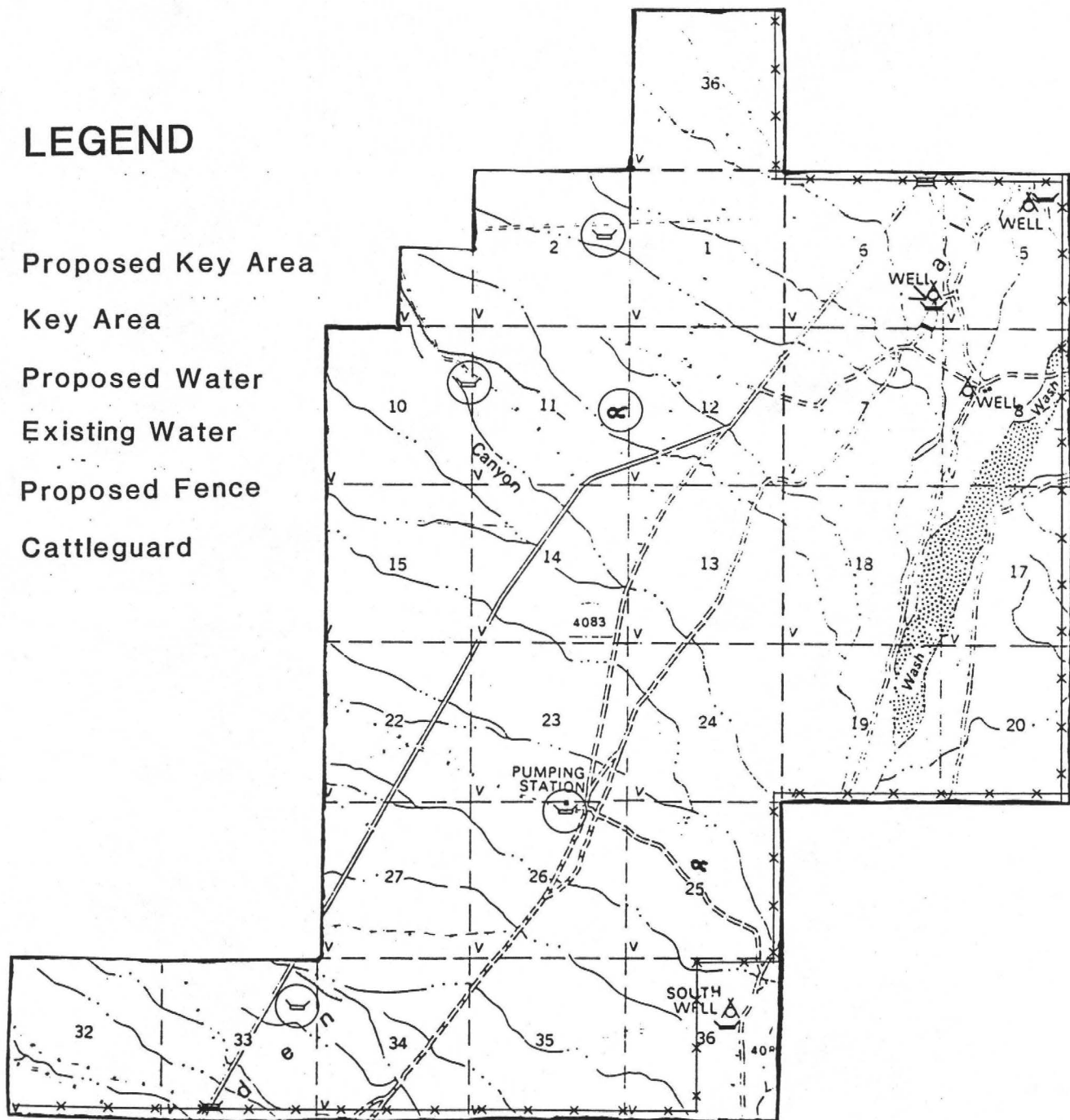
MAP 6

LEGEND

-  Proposed Key Area
-  Key Area
-  Proposed Water
-  Existing Water
-  Proposed Fence
-  Cattleguard

T. 5 N.

T. 4 N.









R. 58 E. R. 59 E.

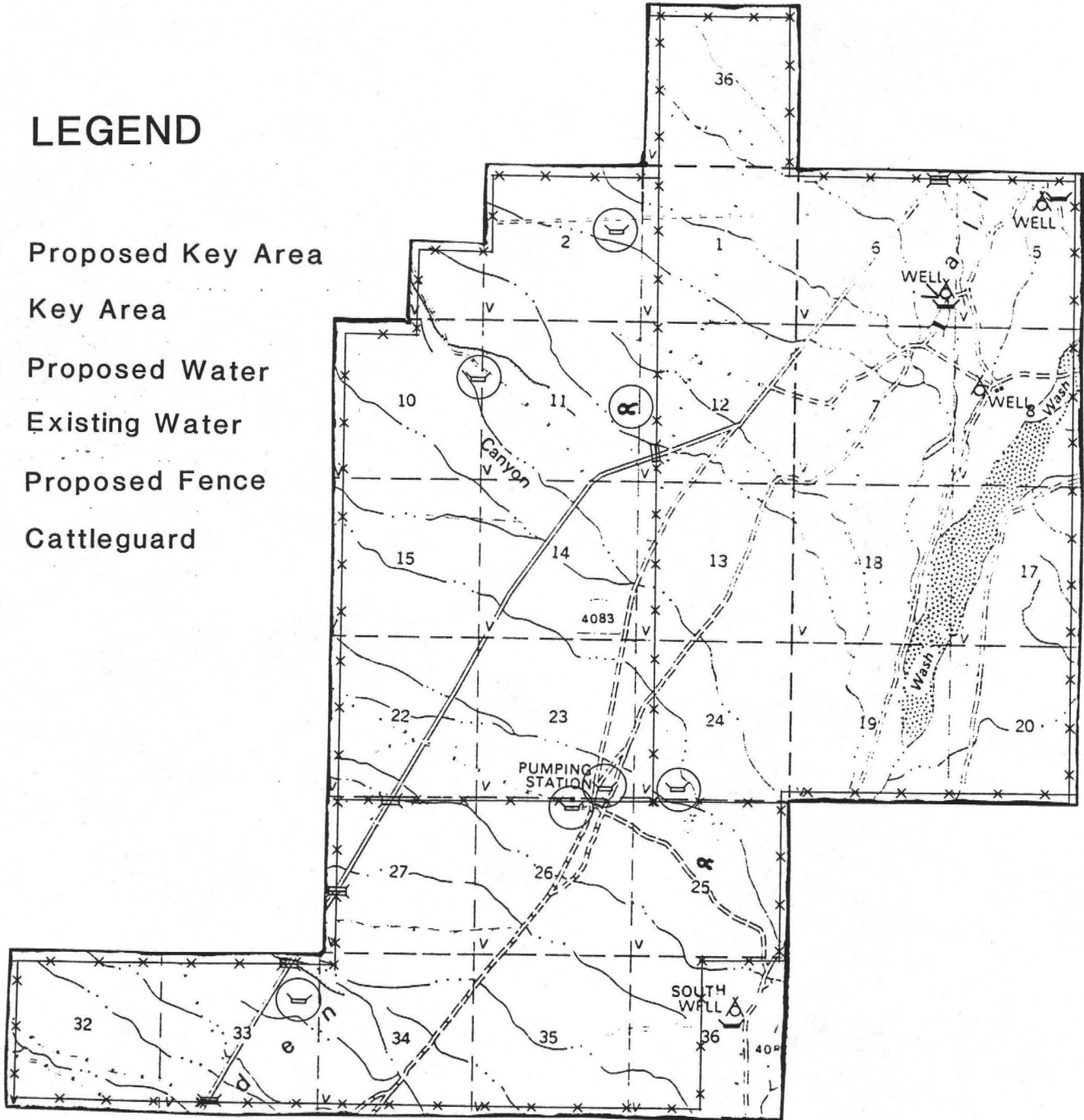
DRY FARM ALLOTMENT

LONG TERM OPTION 2

MAP 7

LEGEND

-  Proposed Key Area
-  Key Area
-  Proposed Water
-  Existing Water
-  Proposed Fence
-  Cattleguard



T. 5 N.
T. 4 N.

R. 58 E. R. 59 E.

W H O A

WILD HORSE ORGANIZED ASSISTANCE
P.O. BOX 555
RENO, NEVADA 89504



a note from

Dawn Y. Lappin

July 28, 1989

Mr. Gerald M. Smith, Manager
Schell Resource Area
Ely District Office
Bureau of Land Management
Star Route 5, Box 1
Ely, Nevada 89301

Dear Mr. Smith:

Thank you very much for the opportunity to provide comments relating to the Dry Farm Allotment Evaluation.

C (1) a. What are the AUMs for existing numbers? (pg. 2)

C (1) b. Do you know the seasonal use for mule deer?

C (1) c. If the long term objective is to maintain deer winter range (pg 4), how can C(1) b be true? Doesn't Garden Valley qualify as a seasonal use area?

2 (b) Doesn't NDOW identify critical areas before release?

C (1) b. I don't understand how the BLM will manage for wild horse use by season.

3. Precipitation

I have provided extensive comments (Wilson Creek) pertaining to the use of the "yield indexing" or the "normalization factor;" so I will only briefly comment here, that you are not following BLMs rangeland monitoring procedures, according to Nevada Rangeland Monitoring Handbook. It states clearly how very important the collection of climate and precipitation are to the monitoring data, but nowhere does it use any formulas for interjecting that criteria into a stocking rate formula. As indicated previously (Wilson Creek) WHOA intends to fight this formula should you persist. As per telephone conversation, the District does not have State Director approval of this procedure.

However, on the same subject, IF the District uses these terms of yield index and normalization than it should at least be consistent between the documents.

Was the unauthorized use above the licensed use considered in the analysis?

It is very difficult to understand how the objective of providing 1 AUM and habitat for wild horses could not be met. Yet your factoring will allow the continued over use of the vegetation by livestock. There appears to be very good reason why the use is intermittent by wild horses. This allotment must be somewhat of an embarrassment for BLM, there are few conflicts, one permittee, almost no wild horse use, no critical winter range for wildlife, and yet it is still overgrazed and mismanaged.

WHOA disagrees with the statement made in paragraph one, page 11. You could use measured utilization and actual use, forget the yield index and adjust numbers to obtain the proper use. If it took a long time of the range to get into the mess, it will certainly take it a longer time to recover. If the permittee, on his own initiative to better distribute his cattle, why do you believe that paragraph 3 under Option 2 will be any better. It is not like the BLM and permittee did not know the day of reckoning would come. WHOA will not abide the fencing of an allotment in a wild horse herd area.

Recommendations:

Require actual use reporting.

Reduce livestock based on actual use and measured utilization consistent with proper use and land use plans.

Drop the use of the yield index or normalizing.

Identify key areas for mule deer and antelope.

Introduce the Draft Habitat Users Guide for wild horses (if Cason City can use it to promote a capture, Ely can use it to assist in identifying key habitat requirements for horses.

Most sincerely,

Dawn Y. Lappin (Mrs.)
Director

cc: Board of Trustees
David A. Hornbeck, Esq.

BOB MILLER
Acting Governor

STATE OF NEVADA

7-27-89
TERRI JAY
Executive Director



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P.O. Box 5896
Reno, Nevada 89513

COMMISSION FOR THE
PRESERVATION OF WILD HORSES

Stewart Facility
Capitol Complex
Carson City, Nevada 89710
(702) 885-5589

July 27, 1989

Gerald Smith, Area Manager
Schell Resource Area
Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

Dear Mr. Smith,

Thank you for the opportunity to comment on the Wilson Creek, Geyser Ranch, Batterman Wash, and Dry Farm Allotment Evaluations.

The concerns that I have for how wild horses were evaluated in the documents, are similar for all of the documents, so I have taken the liberty of combining my comments for your review.

The first concern that I have with all of the documents, is the use of the "Yeild Index" to produce an adjusted utilization. To the best of my knowledge, if you eat 90% of a plant, you have eaten 90% of the plant. No amount of rain and sunshine is going to save it. It appears as though you have tried to come up with some kind of a scheme to prevent having to force the livestock cuts that have been too long in coming.

I hereby request that you use only measured utilization and actual use to make adjustments in grazing on the public lands. OR, you must use the same "Yeild Index" in looking at forage consumption by wild horses.

In some of the documents, an estimated actual use was also used. If there is a question of trespass or unauthorized use, this should be assessed so ONLY the true ACTUAL use will be used in making decisions.

My next concern is in regard to the use of AML's or Appropriate Management Levels for herd numbers. In light of the recent IBLA ruling, the AML no longer exists. It is important now to manage horses in a thriving ecological balance as per IBLA. Please modify your documents to remove all notations of an AML and replace with "a thriving ecological balance."

I feel that at this time, in looking at allotments that contain wild horses as an integral part of the ecosystem, it is important to intigrate the Draft Wild Horse And Burro Habitat Evaluation Procedures Users Guide. This guide has already been used by the Carson City District.

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

ELY DISTRICT OFFICE

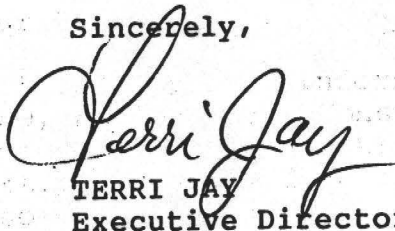
Gerald Smith
July 27, 1989
Page 2

In order to best determine how to manage a multiple-use allotment, the needs of the horses must be taken into consideration just as the needs of critical wildlife habitat are considered. This may help to better define key horse use areas.

In conclusion, I appreciate the opportunity to comment on the aforementioned documents and look forward to working with you further on the allotment evaluations.

Thank you for your time.

Sincerely,



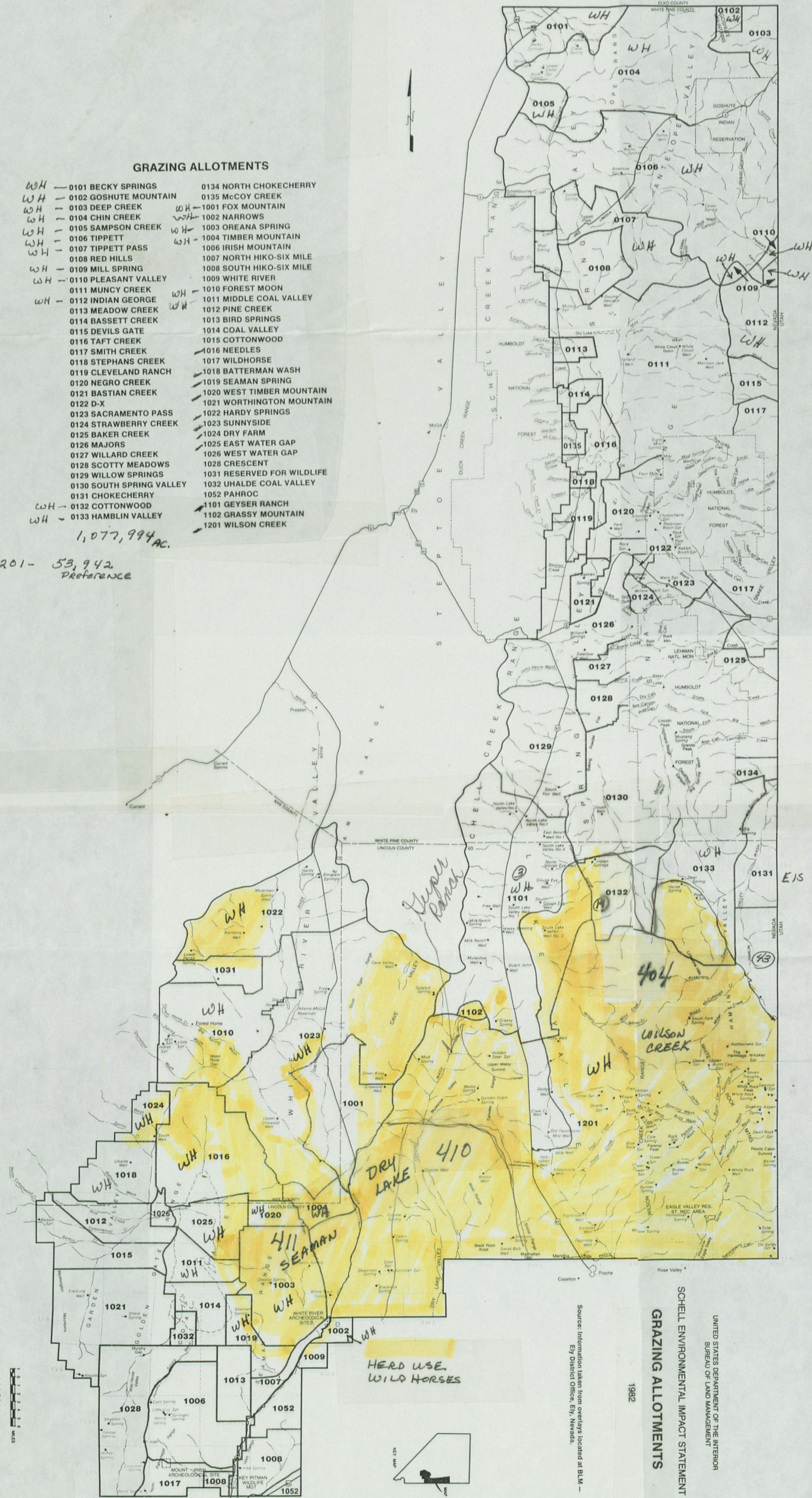
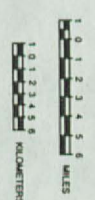
TERRI JAY
Executive Director

GRAZING ALLOTMENTS

- | | |
|----------------------------|------------------------------|
| WH - 0101 BECKY SPRINGS | 0134 NORTH CHOKECHERRY |
| WH - 0102 GOSHUTE MOUNTAIN | 0135 McCOY CREEK |
| WH - 0103 DEEP CREEK | WH - 1001 FOX MOUNTAIN |
| WH - 0104 CHIN CREEK | WH - 1002 NARROWS |
| WH - 0105 SAMPSON CREEK | WH - 1003 OREANA SPRING |
| WH - 0106 TIPPETT | WH - 1004 TIMBER MOUNTAIN |
| WH - 0107 TIPPETT PASS | WH - 1006 IRISH MOUNTAIN |
| WH - 0108 RED HILLS | 1007 NORTH HIKO-SIX MILE |
| WH - 0109 MILL SPRING | 1008 SOUTH HIKO-SIX MILE |
| WH - 0110 PLEASANT VALLEY | 1009 WHITE RIVER |
| WH - 0111 MUNCY CREEK | WH - 1010 FOREST MOON |
| WH - 0112 INDIAN GEORGE | WH - 1011 MIDDLE COAL VALLEY |
| WH - 0113 MEADOW CREEK | WH - 1012 PINE CREEK |
| 0114 BASSETT CREEK | 1013 BIRD SPRINGS |
| 0115 DEVILS GATE | 1014 COAL VALLEY |
| 0116 TAFT CREEK | 1015 COTTONWOOD |
| 0117 SMITH CREEK | 1016 NEEDLES |
| 0118 STEPHANS CREEK | 1017 WILDHORSE |
| 0119 CLEVELAND RANCH | 1018 BATTERMAN WASH |
| 0120 NEGRO CREEK | 1019 SEAMAN SPRING |
| 0121 BASTIAN CREEK | 1020 WEST TIMBER MOUNTAIN |
| 0122 D-X | 1021 WORTHINGTON MOUNTAIN |
| 0123 SACRAMENTO PASS | 1022 HARDY SPRINGS |
| 0124 STRAWBERRY CREEK | 1023 SUNNYSIDE |
| 0125 BAKER CREEK | 1024 DRY FARM |
| 0126 MAJORS | 1025 EAST WATER GAP |
| 0127 WILLARD CREEK | 1026 WEST WATER GAP |
| 0128 SCOTTY MEADOWS | 1028 CRESCENT |
| 0129 WILLOW SPRINGS | 1031 RESERVED FOR WILDLIFE |
| 0130 SOUTH SPRING VALLEY | 1032 UHALDE COAL VALLEY |
| 0131 CHOKECHERRY | 1052 PAHROC |
| WH - 0132 COTTONWOOD | 1101 GEYSER RANCH |
| WH - 0133 HAMBLIN VALLEY | 1102 GRASSY MOUNTAIN |
| | 1201 WILSON CREEK |

1,077,994 AC.

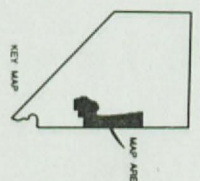
1201- 53,942
Preference



HEAD USE
WILD HORSES

1982
SHELL ENVIRONMENTAL IMPACT STATEMENT
GRAZING ALLOTMENTS
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Source: Information taken from overlays located at BLM - Ely District Office, Ely, Nevada.



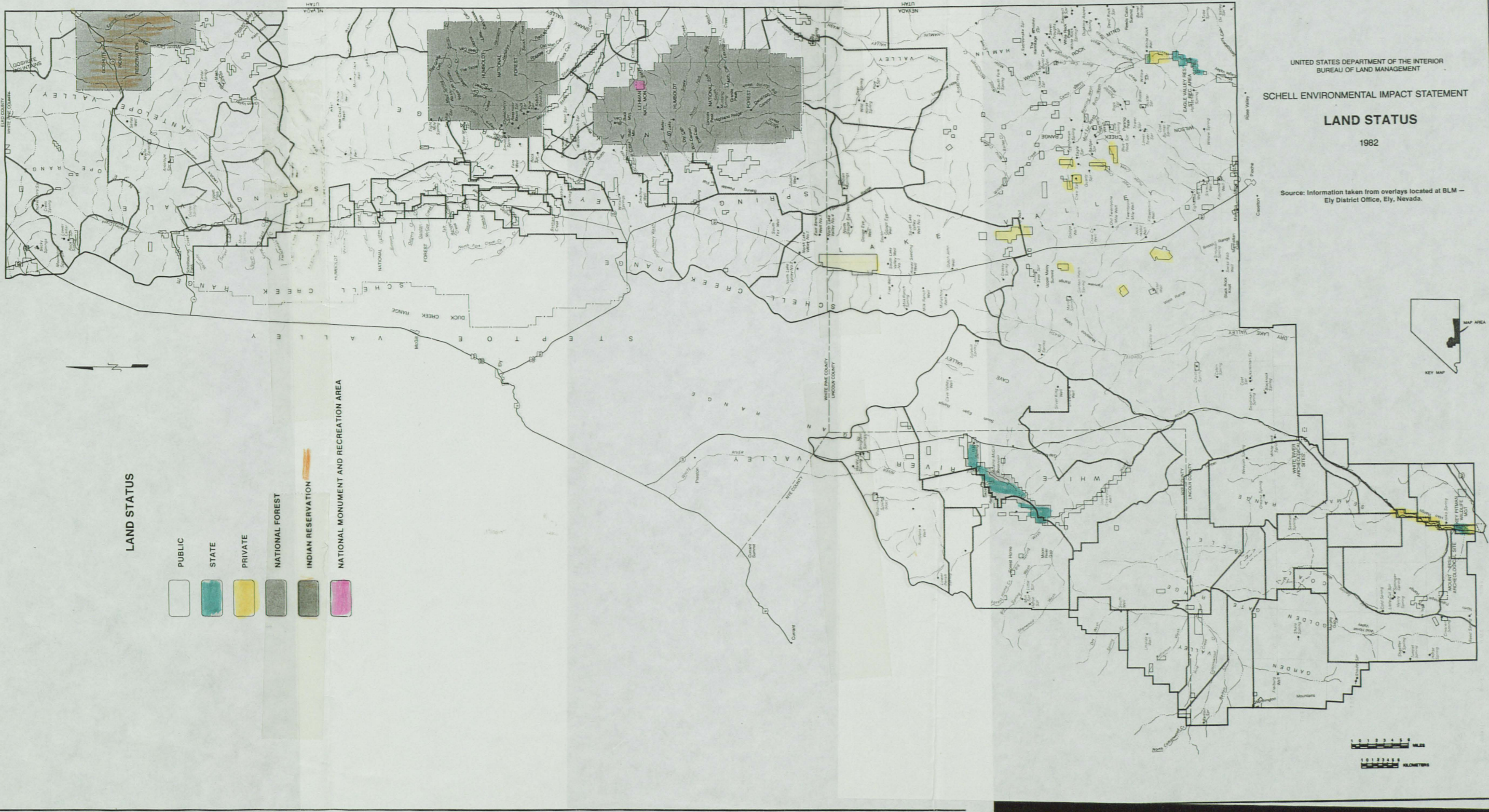
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SHELL ENVIRONMENTAL IMPACT STATEMENT

LAND STATUS

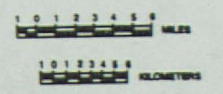
1982

Source: Information taken from overlays located at BLM -
Ely District Office, Ely, Nevada.



LAND STATUS

- PUBLIC
- STATE
- PRIVATE
- NATIONAL FOREST
- INDIAN RESERVATION
- NATIONAL MONUMENT AND RECREATION AREA



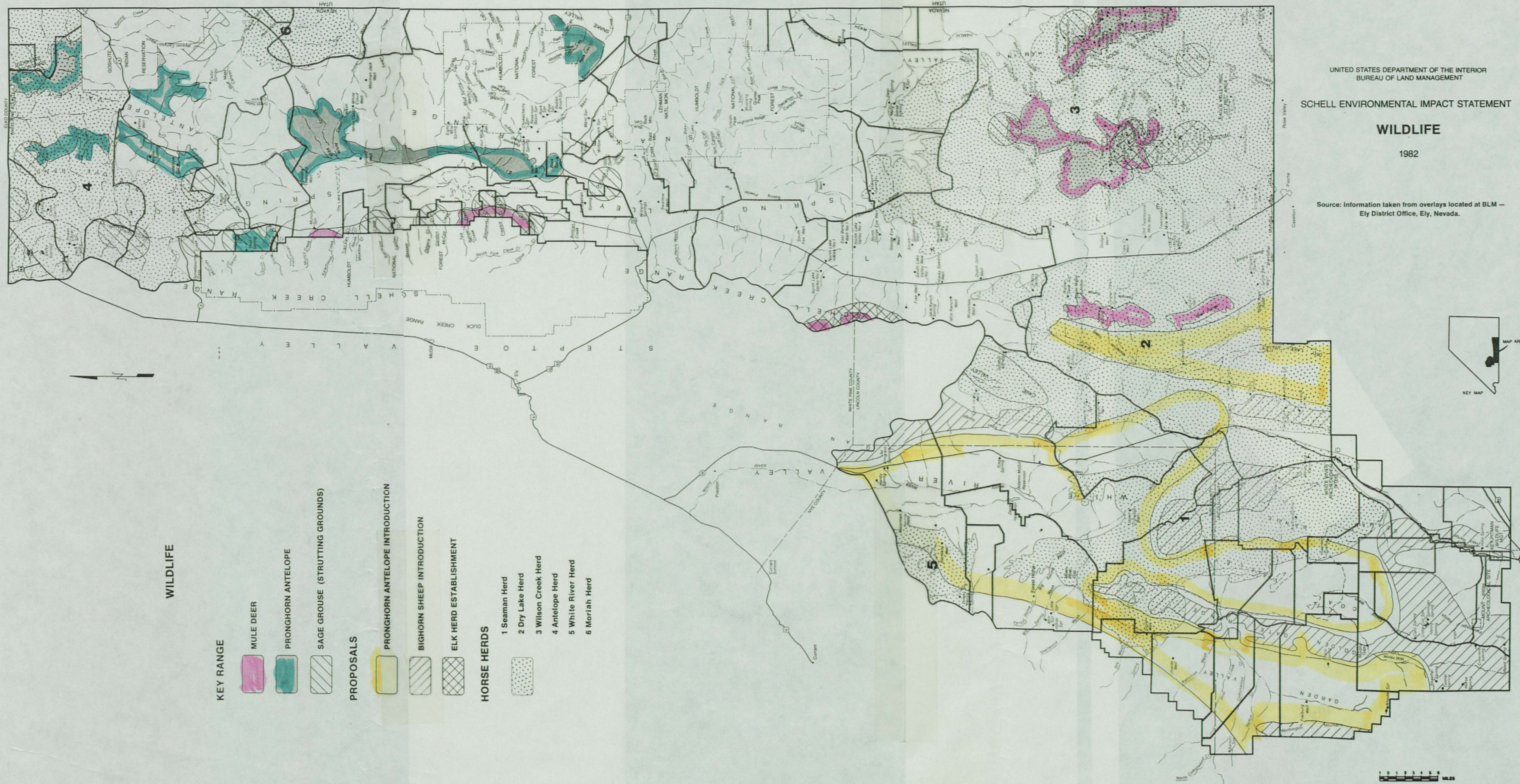
UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

SCHELL ENVIRONMENTAL IMPACT STATEMENT

WILDLIFE




1982

Source: Information taken from overlays located at BLM —
 Ely District Office, Ely, Nevada.






WILDLIFE







KEY RANGE

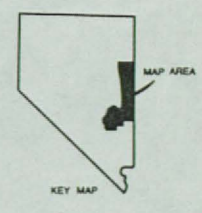
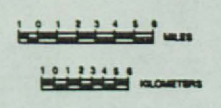
-  MULE DEER
-  PRONGHORN ANTELOPE
-  SAGE GROUSE (STRUTTING GROUNDS)

PROPOSALS

-  PRONGHORN ANTELOPE INTRODUCTION
-  BIGHORN SHEEP INTRODUCTION
-  ELK HERD ESTABLISHMENT

HORSE HERDS

-  1 Seaman Herd
-  2 Dry Lake Herd
-  3 Wilson Creek Herd
-  4 Antelope Herd
-  5 White River Herd
-  6 Moriah Herd



7-2849



SIERRA CLUB

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

July 28, 1989

Gerald M. Smith, Manager
BLM/Schell Resource Area
SR 5, Box 1
Ely, NV 89301

Dear Manager Smith,

Thank you for sending us a copy of the Wilson Creek allotment evaluation for our review. It's certainly a complex document full of a large amount of information. This probably reflects the level of management difficulty! Unfortunately, the format of the document does not facilitate a public review. In fact, it is next to impossible to follow one use area through the document in terms of the existing situation, the problems, and whether the solutions proposed are appropriate for the problems identified. In any event, I am submitting these comments on behalf of the Sierra Club and NRDC.

First, I'd like to make a few general comments. I was very disappointed to encounter the use of a precipitation index for setting stocking rates. No one can be as eager as the Sierra Club and other conservation groups to support BLM's use of monitoring to adjust livestock numbers to the carrying capacity of the public lands. We have been waiting for at least a decade and a half for BLM to balance livestock use with existing resources. When BLM rejected all past data and the SVIM one-time study, we waited patiently for five more years for "monitoring" data to be collected, on which adjustments would then be based.

Then in my review of the Wilson Creek AE, I find that the "monitoring" data we have anticipated for so long - utilization and use pattern mapping - has been watered down (no pun intended). Instead of using the decade of collected data on which to base grazing decisions, the BLM has chosen to apply a highly questionable indexing method which purports to "adjust" utilization for precipitation. Amazingly enough, this method on the whole discounts severe use, reducing the necessary adjustment in stocking rates and only rarely augmenting light or slight use. Thus we are left with a situation in which 90% use in Hamblin Valley in 1984 is indexed to 34.2% use. Instead of immediately reducing grazing pressure to protect the vegetation resource, the BLM apparently did nothing but measure this abusive grazing use and later discounted it to light use. This is not an isolated instance, as Appendix 7 shows 80%-92% use in multiple years on the Patterson Seeding, the Meadow Valley Seeding, the Mt. Wilson Seeding, White River, Hamblin Valley Wash, the E. Hamblin Bench and in Dry Lake. Rather than discounting the severity of the livestock use, BLM should have taken immediate action to protect public resources from these abuses.

We object to the use of this type of indexing for setting stocking rates. It violates the Nevada Rangeland Monitoring Handbook. To our knowledge, no other BLM district is using this highly questionable method, which is based on only 5 weather stations covering over 1,000,000 acres and assumes a "normal" year (which has never existed in Nevada). We doubt if such a method would stand up in court if challenged by livestock permittees, nor would we be able to support the Bureau in an appeal.

It also does not appear to have been applied to wildlife or wild horse use of vegetation, putting into question the consistency of the BLM evaluation as well as the options to reduce deer or wild horses to correct "overuse." We suggest that the Schell Resource Area recalculate needed stocking rate adjustments using standard procedures in use by BLM on the rest of the public lands. Since the agency is likely to be challenged by any reductions, it makes sense to build the strongest case possible, not the weakest case.

We have many specific comments on the documents, dealing more with the confusing format and some inaccuracies as well as other substantive issues, as follow:

1. p.6. The Short Term livestock objective should be written more clearly. It states how it will be accomplished, but not what it is. The reference to Appendix 1 is, of course, the detailed "what," but I suggest that the objective statement should be clearer. Suggested language: The Short Term objective is to manage selected key species to appropriate levels of utilization.

We certainly object to limiting management of AULs to "season of use." Can't allowable use levels be managed through adjusting livestock numbers or developing grazing systems or fencing riparian areas, or changing kind of use, etc.?

2. p.7. The last short term deer objective is too vague - limit use on KDS riparian areas to 30-50% yearlong depending on the present condition of these areas (See Appendix 6). Appendix 6 lists 34 "key springs." Which are limited to 30% and which are limited to 50%? What is the BLM objective for the remaining 276 springs?

3. p.9. The short and long term objectives for riparian areas are good, but again vague. Which streams/riparian areas are limited to 30% and which to 50% use? What is the BLM objective for the remaining 276 springs?

4. p.11. It is disappointing that the use pattern mapping data was not displayed in the AE, but is only on a large scale map in the Ely office. It is even more disappointing that the BLM is not using this monitoring data in adjusting stocking rates or apparently in developing solutions to overuse problems.

5. p.11. The 1979 ocular reconnaissance forage survey figure of 38,275 AUMs is still probably the best estimate of actual carrying capacity of the Wilson Creek allotment. It was no surprise to see the utilization monitoring data document excessive use on this allotment. It is only unfortunate that BLM has waited another five years before proposing to take any action to correct decades long livestock overuse. Was this data used in adjusting stocking rates?

6. p.11-12. Why were "subjective" evaluations done of stream and riparian area conditions? Isn't there an objective method available for evaluating stream/riparian conditions? Why is there so little data available on riparian areas?

7. p.12. If there is no habitat data on wild horses, then how can the Bureau propose to reduce wild horse numbers?

8. p.12. Why are pinyon-juniper "invading?" Isn't the expansion of this vegetative community due to the severe overgrazing occurring in this allotment? We strongly object to treating the "symptom" and not addressing the real problem-livestock mismanagement. Bandaid solutions are a waste of public funds.

9. pp.13-15. We concur with the overwhelming conclusion - both short and long term objectives are not being met for this allotment.

10. p.15. The next section on problems/solutions/recommendations is very hard to follow. There are serious livestock management problems in all three areas: winter use, yearlong use, and summer use. It is difficult to evaluate whether the "options" proposed are appropriate for the problems identified. The documents do not clearly identify existing livestock use, so a reader cannot tell if "adjusted" use is actually an increase or a decrease. After reading the section on indexing, I am not at all confident that "actual" use is real or whether it has been "adjusted" or "normalized." This should be quite simple information to put into a table. Table 1 is interesting, but less than useful, since the 12 permittees run livestock in more than one of the use areas within the allotment and "adjustments" are proposed for use areas, not always for permittees.

In addition, there are no "options" proposed for protecting or restoring riparian areas degraded by overuse. This is contrary to the land use plan objectives and to BLM policy. The final document should include specific actions to correct specific identified riparian problems as well as a schedule for obtaining adequate information of other riparian areas on which to base future management decisions and actions.

Until actions are taken to balance livestock use with resources available, we object to the use of public funds for the extensive range "improvements" proposed in the AE. Again, it is a waste of

public funds to build fences and pipelines, develop springs and wells in order to avoid reducing excessive numbers of livestock. Many of these "improvements" may not be necessary if livestock pressure were lessened by reducing numbers, changing seasons of use, implementing grazing systems, or changing the kinds of use. "Improvements" should come as part of an overall management plan, not as bandaids to hold excessive numbers of livestock in areas that will soon be overgrazed. In addition, we strongly object to the use of water developments to put livestock in areas currently in good condition and used lightly by wildlife and wild horses, such as Fairview and Atlanta. Without a grazing management plan, this amounts to spreading overgrazing around and will result in the destruction of even more habitat than is currently occurring.

Our specific comments follow:

Dry Lake Valley. A stocking reduction certainly seems called for in this area of heavy and severe use. If the data in Appendix 7 hasn't been "adjusted," then the four areas monitored, WCRI-4, have had 1 to 3 years of severe use (over 80%) and up to 6 years of heavy use (over 60%). The amount of reduction should be calculated on actual utilization, not "adjusted" utilization. We have no objection to changing the season-of-use, but don't feel it will be beneficial unless excess numbers are also eliminated. We object to removing wild horses without proper habitat and monitoring information. It's ridiculous to blame the severe overgrazing problems in this area on the few wild horses or to expect a substantial improvement from the removal of 25 horses.

In terms of long term solutions, we support the development of a grazing system, but oppose the increase of AULs to 60%, except in crested wheat grass seedings. The choice of a deferred v. rest rotation system should be based on which produces the greatest benefits in the shortest time. We assume an environmental assessment would aid the BLM and the permittee to evaluate the benefits of the two options. We would like to see more of a rationale for constructing fences for administrative control as well as some consideration given to using ear tags to identify trespassing livestock. We oppose the construction of pipelines which will, in effect, spread overgrazing around, until excessive livestock are removed and a grazing management plan is successfully implemented.

Although mentioned as a possible long term option, no discussion was included of dividing this area into separate allotments. Is this being considered? It should be considered for the entire 1,000,000 acres, as we cannot conceive of one AMP which could successfully manage livestock use over such a large area.

Hamblin Valley. From the information in Appendix 7, it appears that Hamblin Valley suffers from the same type of excessive use as in Dry Lake Valley. Each area monitored shows up to two years of severe use, 84-90%, and five years of heavy use. We support a stocking reduction based on unadjusted utilization, so the 24%

proposed is probably far too little to control this excessive use. Please explain the discrepancy on p.38, livestock summary, which shows Hamblin Valley livestock use of 4654-C and 2076-S to remain the same even with a reduction of one month's use? We support the development of a grazing system, but object to any increases in AULs except in crested wheat grass seedings. Other actions should be taken, including changing the season-of-use and rehabilitating excessively abused areas, especially riparian areas.

Bristol. If this area is WCW2, it appears not to have a utilization problem. Adjustments may not be necessary, but then neither are the additional waters in Option 4.

White River/Deadman. This area appear to be severely overutilized, with the three study areas suffering severe use in 3 years and heavy use in 6 years. There don't appear to be any short term solutions proposed by BLM. We certainly support a long term solution of developing a grazing system. But this area definitely needs a livestock reduction as soon as possible. We support a stocking reduction based on unadjusted utilization.

Maloy. From Appendix 7, it is unclear which of the study areas is associated with Maloy. If there is an unresolvable distribution problem (p.23), reducing livestock numbers by 89% should solve the problem. But, conflicting with this information, p. 38, livestock summary, indicates that Maloy will receive a large increase in cattle use, from 260-C to 400-C. Please explain this discrepancy. We'd need more information to comment on Maloy options, including changing to sheep.

Bailey Maloy. No information or option is described for this area. No study area is identifiable in Appendix 7.

Muleshoe. No study area is identifiable in Appendix 7. Without more information, we can't understand why BLM is proposing the 2 options. In any event, we oppose both options, water development and destruction of cliff rose for this area. On p.38, the livestock summary shows an over 200% increase in cattle use from 112-C to 260-C. Is this accurate? On what data does BLM base this large increase?

Fairview. There are no identifiable study areas for this use area. On p. 25, it is stated that use is light. Appendix 4 shows light to moderate use except in 1984 when monitoring showed 70% or heavy use. We object to increasing livestock use in this area without a grazing system in place. We strongly object to any vegetative conversions or water developments as premature.

Atlanta. There are no identifiable study areas for this use area in Appendix 7. On p. 26, it is stated that use is light. Appendix 4 shows slight or no livestock use. However, in 1984, a large amount of use, 7,894, is shown, apparently in error. Which is correct? We strongly object to increasing livestock use

in this wildlife/wild horse area without a working grazing management plan. It is not appropriate to dump livestock from other excessively used areas to overgraze in this area. Likewise we oppose the construction of water developments until livestock are under a professional grazing management plan.

Pioche Bench and So. Lake Valley. Please incorporate our comments on Atlanta here, as the situation appears identical for the two areas. On p. 38, the livestock summary indicates an over 300% increase in livestock from 309-S to 987-C&S. Is this accurate? On what data is BLM basing this large increase in livestock use?

Patterson. This area shows heavy to severe use except in the Craw Creek study area. None of the four study areas met their short term objectives except Craw Creek which was mostly rested.

The Pony area illustrates the inconsistency among the various statements and appendices. Appendix 7 shows utilization in Pony for only four years, 1983-46%, 1986-56%, 1987-88%, 1988-10%. Appendix 4, however, shows utilization in 2 more years, 1984-70% and 1985-70%, and shows a different utilization in 1988-48%. Such inconsistencies throw into doubt Appendix 1 which states that Pony exceeded AULs in only 1 of 4 years measured. If Appendix 4 is correct, would this have made a difference in the options proposed or the proposed livestock reductions? It is certainly confusing to a reader trying to put evaluate whether the proposed solutions fit the identified problems. Pony is not an exception. There are inconsistencies in the information on most use areas among the various appendices and the AE.

In any event, reductions in livestock use are certainly needed. The proposed reductions are probably too small. Please explain the discrepancy on p. 38, livestock summary, which shows an increase in Patterson, from 3648-C to 3960-C? We also support adjusting the seasons-of-use, however, the proposed dates are an actual increase which will not benefit the vegetation resource. We do not have enough information to evaluate the other options, but again oppose water development until livestock numbers are properly adjusted to meet utilization objectives.

Meadow Valley Seeding. We strongly object to setting the stocking rate at "the average stocking rate during the evaluation period, or 1,414 AUMs." Appendix 1 shows short term objectives not met on the 3 study areas. Appendix 7 shows severe use to 90% in 3 years and heavy use in 4 years. There is absolutely no reason to continue livestock uses at these abusive levels. A reduction is needed, urgently. Please explain the discrepancy on p. 38, livestock summary, which shows an increase of livestock use in Meadow Valley, from 1474-C to 2446-C? In addition, changes in seasons-of-use may benefit the overused seedings, but without reduced livestock numbers, any benefit will be minimal. We oppose any water developments or vegetation treatments until livestock numbers are more in balance with the carrying capacity.

White Rock Mountain. Only one year of monitoring data was provided in Appendix 7 on this use area, yet Appendix 1 says that short term objectives are met. We doubt whether there is enough information to evaluate this area's condition. We have no objection to changes in the season-of-use or in increasing herding. We do not have enough information to comment on whether stocking rates should be adjusted.

Table Mountain. Appendix 7 shows only 1 year of monitoring data and objectives not met. Appendix shows objectives met. Appendix 4 shows two years of monitoring data. What is the correct information? We certainly support the removal of livestock from key riparian areas when AULs are reached. However, option 2 may conflict with the short term riparian objective of an AUL of 30% on riparian areas in less than good condition. We support adjusting season-of-use, if this will help improve vegetative conditions and herding, which is needed in every use area. We oppose water developments until livestock are managed according to an approved grazing management plan.

Mt. Wilson Native. The information on this area again illustrates the inconsistencies among the various appendices. The names of this area are slightly different among the various appendices and AE, so may represent different areas. Appendix 7 shows slight to light use in 5 years. Appendix 4 shows livestock use in all years, but utilization in only 1 year. Appendix 2 shows a key deer summer study receiving heavy use in 1988 and not meeting its short term objective. And Appendix 1 shows no data for Wilson Creek. To remedy whatever condition this area is in, BLM proposes to construct reservoirs. We object. Reservoirs will not solve the heavy deer bitterbrush use or fair KDS range habitat condition. Other options should be developed.

On p. 38, the livestock summary shows an increase in Mt. Wilson Native, Table Mtn. and White Rock of 1552-C to 5572-C. Is this accurate? On what information does BLM propose an over 300% increase in livestock use?

Mt. Wilson Burn. No information is available in Appendix 7 or 4 on utilization. The AE states that use pattern mapping indicates areas of heavy to severe use and two riparians in less than good condition. The proposed adjustment in livestock numbers may be appropriate, as well as the implementation of a grazing system. Is the adjustment from 1672-C to 1390-C (per p. 38) correct? We object to the water developments until livestock are properly managed.

Burnt Canyon Chaining. The AE states that use pattern mapping generally shows slight use, mostly by wildlife. Before any funds are spent on water developments for livestock, livestock use should be permitted in accordance with a grazing management plan. On p. 38, the livestock summary indicates that BLM proposes to increase cattle use from 900-C to 1158-C. This is not mentioned

in the AE as an option and should not be permitted.

Burnt Canyon Burn. Current heavy livestock use should be corrected by adjusting numbers or developing and implementing a grazing system.

In addition to these area specific comments, we have comments on the various appendices, as follow:

Appendix 1. This appendix was not inclusive in that the AE discussed use areas not listed in this document. In addition, it was not always clear which key area belongs to the main use areas discussed in the AE. A better correlation should be worked out. In addition, riparian species should be added to Appendix 1. The information in the last part of Appendix 1 on whether short term objectives were met is not always consistent with that in Appendix 7 and should be made the same.

Appendix 2. All appendices should be labeled as to purpose. I had to guess at this one. Study areas should be correlated back to the main use areas discussed in the AE.

Appendix 3 and 4. These are basically the same, as #4 is a summary. I use the numbers interchangeably. Pp. 56 and 57 are identical in my document. There are many inaccuracies in these tables. For example, in 1982 for 15-Mile and Patterson, 66% utilization was adjusted by .94 yield index to 62%. But with desired use for both areas 60%, stock AUMs decreased for 15-Mile from 470 to 455 and increased for Patterson from 2758 to 2955. Another example - in 1984, Hamblin Valley and Hamblin Wash desired use is 1522 and 13129, respectively. Yet in the summary on p. 56, the 1984 desired use is listed as 7894 and 1522, respectively, and both are averaged incorrectly.

If this is the type of system which BLM is trying to base its stocking rates on, we're all in very serious trouble!!

Appendix 5. Why were only 8 riparian areas chosen for study? Why these 8 areas? In which use areas are these riparian studies?

Appendix 6. Why were these 34 springs chosen for study out of the 300 on the Schell Resource Area? Why is there no information for most of these 34? What rating system is being used (good, fair, poor) and what are the criteria for the evaluations?

Appendix 7. I was appalled at the amount and extent of severe use indicated in this table. Has BLM taken any emergency actions to curtail the 90% livestock use in many of these areas? Why has monitoring only been started in the last year on 5 study areas and not yet begun on 2 other areas? Why are there more years of monitoring information in Appendix 3-4 than there are in this appendix?

The review of this AE has been an exhaustive task. It would have

been easier with more time. By the time the mail reaches me, I have far less than 30 days to review all the data BLM has been accumulating over the last 10 years. In addition, I have several other AEs evaluations due the same day to the same resource area. Discussing some of these questions over the phone may have cleared up some of the confusing parts of these documents, but the short time frame does not permit this sort of clearing of issues. In any event, the document should be written clearly enough without extensive inconsistencies to be understood without telephone consultations.

This is certainly an important AE and deserves the type of evaluation from the public that BLM has put into its preparation. It will certainly be a gargantuan task to bring effective resource management to these 1,077,994 acres in Nevada. We wish you the best of luck. We believe that our input into this process will make your work more successful in the long run, if not more difficult, initially. We look forward to receiving a response from you to the many issues and questions we have raised in our comments. We will try to attend the next meeting on Wilson Creek, if another one is scheduled. Let us know. I can be reached at 329-6118.

Sincerely,

Rose Strickland, Chair
Public Lands Committee



Wilson Creek

July 26, 1989

Mr. Gerald Smith, Manager
Schell Resource Area
Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

Dear Mr. Smith:

Thank you very much for the opportunity to provide comments relating to the Wilson Creek Allotment Evaluation. The packets of information certainly outweigh those of the Land Use Planning process by sheer weight and data. WHOA wants very much to be able support the Bureau of Land Management's monitoring program. From our perspective this was more difficult because much data on wild horses is not available, and we had to assume that much that applied to livestock also applied to wild horses by the proportion stated in your data, since census maps, ^{use} pattern maps, or critical habitats were not given. One overwhelming task was locating pastures with wild horses in measurable numbers. Appendix 3 eased that task somewhat; but it also opened up a myriad of concerns that apply to every section of this document.

One particularly annoying point was brought forth in the Issues, Problems, and Conflicts, appropriately with an asterik that stated "...current monitoring data does not indicate that these problems exist." Yet page 27 of the background data repeats this statement without clarification. To counter this unsubstantiated claim we took to research, and based on fecal analysis from numerous areas, similar areas; we extrapolated data from Cedarville, California. The analysis for horses and livestock are as follows:

Proportion of Grass (only) in Total Diet

Cattle		Horses	
Agropyron	9.41	Agropyron	1.92
Bromus sp.	0.85	Bromus sp.	---
Carex sp.	4.44	Carex sp.	0.48
Festuca sp.	60.17	Festuca sp.	40.94
Juncus sp.	---	Juncus sp.	0.95
Muhlenbergia sp.	---	Muhlenbergia sp.	8.23
Poa sp.	4.17	Poa sp.	---
Scirpus sp.	5.39	Scirpus sp.	4.98
Sitanion sp.	0.43	Sitanion sp.	18.21
Stipa sp.	9.41	Stipa sp.	13.00
TOTAL	94.27	TOTAL	88.71

Show that the proportion of grass in the total diet of both ~~horses~~ and cattle is higher than that same proportion in horses.

the information was collected

In this case ~~both were taken at the same time of year, but it is understood that each user may use a particular specie of plant at a different time of the year.~~ The point being, that cattle could just as easily be forcing horses off grasses can be made. ~~Without data the statement is better generalized until proven by monitoring data.~~

based upon the fact that grass is a greater portion of total diet in cattle than it is in horses, that it is more likely that

Secondly we noted throughout the document that BLM intends to utilize the crested wheatgrass seedings to take the pressure off the native ranges and to lessen any reductions. What we don't understand is, if the seedings have been available, why it has not worked up to this date? In Appendix 1, seven of ten seedings show use above the allowable use level, and even if you removed the 2% attributable to wild horses (in the seedings?) you still would be over the proper use. Which brings us to the offering of a change in season of use and livestock adjustments. Our questions relevant to this issue will surface in the next issue, that of Appendix 3.

Wilson Creek Calculated Stocking Rates

The tables were hard to understand, so I called and spoke with you; the following is based on my interpretation of your explanation.

ACTUAL USE = MEASURED UTILIZATION (%)

CLIMATE & PRECIP. = YIELD INDEX

ACTUAL USE & YIELD INDEX = ADJUSTED UTILIZATION (%)

So, in some cases the actual use was far above the desired use, but the "yield index adjustment" adjusted the actual use anywhere from .59% to 1.81%. As an example, Dry Lake (1982) the total AUMs were 11961, with a measured utilization* of 56%, with the desired use** at 45%; yet the "yield index" adjusted the measured utilization of 56% to 48.2%. That index factor lessens the actual use of 56% by 11% to 48.2%, and since the proper use is 45%, the adjusted utilization is now ONLY 3.2% over proper use, rather than the 11% over use it ACTUALLY WAS. This results in only a 785 AUM reduction, instead of a reduction based on actual utilization which would have meant a 1316 AUM reduction. Since the evaluation document attributes 98% of the grazing problems to livestock, and the 2% to wild horses (wildlife is not explained); it would mean that livestock would take a lesser adjustment in their numbers based on this calculation. In some areas this may not be critical, however the use of that factor in Hamblin Valley, critical winter range for all uses, it becomes blatant robbery. For example: Appendix 3 Hamblin Valley (1984): Total AUMs = 1157, measured use (actual use) was 90%.

Desired utilization = 45%;

* my assumption, desired use = proper use

** my assumption, measured utilization = actual utilization

DESIRED STOCKING RATE FORMULA

Desired Utilization Levels=Desired Actual Use
Measured Utilization=Estimated Actual Use

Calculations used:

$\frac{45}{34.2} \times 1157 = 45 \cdot 1157 = 520.6$ divided by $34.2X = 1522$ AUMs

Calculations using actual utilization and proper use:

$\frac{45}{90} \times 1157 = 45 \cdot 1157 = 520.6$ divided by $90X = 578$ AUMs

To visualize this concept 90% is SEVERE USE, 90% of the plant according to BLM-AA-PT-04-4400 it appears that only the roots of the plant is left. (see attachment #1) Yet some inspired range person would have you believe that even though 90% of the plant is gone, it MAY not have been that severe IF it had rained at the right time and the sun shone at the right time.! The plant isn't the only loser in this "Schell Game" the "other" animals dependant upon that resource can't eat an invisible resource; all of this so that it will lessen the impact to of the livestock community. It isn't like this problem was unknown, the draft EIS, the final EIS, the Record of Decision, the Rangeland Program Summary and the Monitoring Program have predicting large reductions in grazing uses were necessary and coming for the past ten years. But, the difference is in this case wild horses cannot be used as scapegoats and their numbers reduced without recognizing what the primary grazer is..livestock.

Since I could hardly believe my eyes, I referred to the Nevada Rangeland Monitoring Handbook. Page five refers to weather data and how this data is essential to monitoring, however, nowhere, that I could find, is this yield index associated with stocking rates. You might use this data to indicate trends. It should go without stating, but should you continue to use this adjustment factor, then WHOA expects and demands the same factoring, equally to wild horses and wildlife.

The Bureau of Land Management wonders, despite the examples listed above, why the public does not trust it to manage their resources. Nevertheless my recommendations, although seemingly general in nature are site specific:

- 1. Re-calculate your allotment evaluation based on the TRUTH, actual use/proper use.

The point is, that you are not following your own rangeland monitoring procedures (as established in the Nev Rangeland Monitoring Handbook)

calculations have been made.
if you continue, statewide every where in the state of Nev.

2. Use Average Calculated Stocking rates only as trend indicators.

supporting info. for mgt ~~consideration~~ consideration.

3. Reduce the offending grazer in addition to the changes in seasons of use and improvements. *(as demonstrated by your own data)*

4. Include Draft Wild Horse and Burro Habitat Evaluation procedures and users guides (if Carson City can use it in arguing herd reductions, you can use it to help identify key habitat).

5. Insist, that permittees, in addition to the Christmas list of improvements, help physically move their livestock to better distribute them. (Several Districts require this now)

In conclusion, the BLM has promised, in writing, that changes would be made to protect the publics resource values; it is now the time to do it.

Most sincerely,

Dawn Y. Lappin (Mrs.)
Director

Enclosures:

BLM-AA-PT-04-4400

Appendix 3, Wilson Creek Allotment Evaluation

cc: Board of Trustees
David A. Hornbeck, Esq.
Senator Harry Reid
Governor Robert Miller
David Moreno
Edward F. Spang
NRDC
Sierra Club
API
AHPA
Commission for the Preservation of Wild Horses

APPENDIX 3: WILSON CREEK CALCULATED STOCKING RATES
1982

actual use
↓

*moisture (precip)
PU 99.5
Climate
PU*

PASTURE	AUMS STOCK	AUMS HORSES	AUMS DEER	AUMS ANTL	AUMS TOTAL	MEASURED UTIL. (%)	YIELD INDEX	ADJUSTED UTIL. (%)	DESIRED UTIL. (%)	DESIRED USE (AUMS)	KEY AREA #	MGMT STATION	WEATHER
PONY					REST	0%	0.94	0.0%	60%		PS 1	LV/STEWARD	
CRAW CREEK	790				790	37%	0.94	34.8%	60%	1363	PS 4	LV/STEWARD	
21-MILE	1498				1498	0%	0.94	0.0%	60%		PS 3	LV/STEWARD	
15-MILE	470	0			470	66%	0.94	62.0%	60%	455	PS 2	LV/STEWARD	
PATTERSON	2758	0	246	51	3055	66%	0.94	62.0%	60%	2955		LV/STEWARD	
WILLOW WASH					REST	0%	0.59	0.0%	60%		MVS 3	SPV ST PARK	
WHITE ROCK	530				530	50%	0.59	29.5%	60%	1078	MVS 2	SPV ST PARK	
MEADOW WASH	460				460	53%	0.59	31.3%	60%	883	MVS 1	SPV ST PARK	
BULL PASTURE	60				60		0.59	0.0%	60%		MVS 4	SPV ST PARK	
MEADOW VALLEY	1050	0	132		1182	50%	0.59	29.5%	60%	2404		SPV ST PARK	
MT WILSON BURN	1162		81		1243	30%	0.94	28.2%	50%	2204	MWS 1	LV/STEWARD	
TABLE MTN.	200				200		0.94	0.0%	50%		WCR 13	LV/STEWARD	
BURNT CYN. CH.			50		50		0.94	0.0%	50%		USE MAP	LV/STEWARD	
W.R. MTN/LION	615				615	49%	0.94	46.1%	50%	668	WCW 4	LV/STEWARD	
WILSON NATIVE	282		67		349		0.94	0.0%	50%		W-1/U.M.	LV/STEWARD	
SUMMER U.A.	2259	600	2832	17	5708	49%	0.94	46.1%	50%	6196	CALCULA.	LV/STEWARD	
S. LAKE VALLEY		691	218	53	962		0.88	0.0%	55%		USE MAP	PIOCHE	
MALLOY	127	0	0		127	0%	0.94	0.0%	55%		ERR USE MAP	LV/STEWARD	
BAILEY-MALLOY			433		433	35%	0.94	32.9%	45%		USE MAP	LV/STEWARD	
BRISTOL	227	114	150		491	71%	0.86	61.1%	45%	362	W-2/U.M.	SUNNYSIDE	
PIOCHE BENCH			124		124		0.88	0.0%	55%		FBS1/U.M.	PIOCHE	
FAIRVIEW	10	144	568		722		0.94	0.0%	55%		USE MAP	LV/STEWARD	
ATLANTA		132	215	55	402		0.94	0.0%	55%		USE MAP	LV/STEWARD	
HAMBLIN VAL.	0	0	122	72	194	30%	1.23	36.9%	45%	237	USE MAP	GARRISON	
HAMBLIN WASH	2356				2356	48%	1.23	59.0%	45%	1796	WCR 8	GARRISON	
DRY LAKE	11847	114	0		11961	56%	0.86	48.2%	45%	11176	WCR 1	SUNNYSIDE	
MULESHOE	95		193		288		0.86	0.0%	45%		USE MAP	SUNNYSIDE	
WR/DEADMAN	1002		46		1048	19%	0.71	13.5%	45%	3496	WCR 7	SUNNYSIDE	
RYE PATCH	637				637	25%	0.71	17.8%	50%	1794	WCR 6	SUNNYSIDE	
TOTAL	19148	1681	4696	248	ERR							ERR	

35955 ↓

11961 act use
56%
45% proper use

56
+ 86

142
+ 48

190

56.0
45.2

11.8% above PU
Factor 48.2
45

3.2

1984

	AUMS STOCK	AUMS HORSES	AUMS DEER	AUMS ANTL	AUMS TOTAL	MEASURED UTIL. (%)	YIELD INDEX	ADJUSTED UTIL. (%)	DESIRED UTIL. (%)	DESIRED USE (AUMS)	KEY AREA #	MGMT STATION	WEATHER
PASTURE PONY	1642				1642	70%	0.68	47.6%	60%	2070	PS 1	LV/STEWARD	
CRAW CREEK	0			REST			0.68	0.0%	60%		PS 4	LV/STEWARD	
21-MILE	1769				1769	70%	0.68	47.6%	60%	2230	PS 3	LV/STEWARD	
15-MILE				REST			0.68	0.0%	60%		PS 2	LV/STEWARD	
PATTERSON	3411	0	335	69	404	70%	0.68	47.6%	60%	509		LV/STEWARD	
WILLOW WASH				REST			0.72	0.0%	60%		MVS 3	SPV ST PARK	
WHITE ROCK				REST			0.72	0.0%	60%		MVS 2	SPV ST PARK	
MEADOW WASH	250				250		0.72	0.0%	60%		MVS 1	SPV ST PARK	
BULL PASTURE	102				102		0.72	0.0%	60%		MVS 4	SPV ST PARK	
MEADOW VALLEY	352	0	190		542		0.72	0.0%	60%			SPV ST PARK	
MTWILSON BURN	2736		115		2851		0.68	0.0%	50%		MWS 1	LV/STEWARD	
TABLE MTN.					0		0.68	0.0%	50%		WCR 13	LV/STEWARD	
BURNT CYN.CH.			72		72		0.68	0.0%	50%		USE MAP	LV/STEWARD	
W.R.MTN/LION					0	31%	0.68	21.1%	50%		WCW 4	LV/STEWARD	
WILSON NATIVE	240		96		336		0.68	0.0%	50%		W-1/U.M.	LV/STEWARD	
SUMMER U.A.	2976	600	4058	22	7656	31%	0.68	21.1%	50%	18159		LV/STEWARD	
S.LAKE VALLEY		696	297	71	1064		0.75	0.0%	55%		USE MAP	PIOCHE	
MALOY	276		0		276	0%	0.68	0.0%	55%		ERR USE MAP	LV/STEWARD	
BAILEY-MALOY			567		567	44%	0.68	29.9%	45%	853	W-3/U.M.	LV/STEWARD	
BRISTOL	308	114	1508		1930		0.59		45%		W-2/U.M.	LV/STEWARD	
PIOCHE BENCH			163		163	0%	0.75	0.0%	55%		PBS1/U.M.	PIOCHE	
FAIRVIEW		144	745		889	70%	0.68	47.6%	55%	1027	USE MAP	LV/STEWARD	
ATLANTA	463	132	308	73	976	10%	0.68	6.8%	55%	7894	USE MAP	LV/STEWARD	
HAMBLIN VAL.	886		175	96	1157	90%	0.38	34.2%	45%	1522	USE MAP	GARRISON	X
HAMBLIN WASH	4102				4102	37%	0.38	14.1%	45%	13129	WCR 8	GARRISON	
DRY LAKE	12815	114	0		12929	46%	0.59	27.1%	45%	21437	WCR 1	SUNNYSIDE	
MULESHOE			253		253	50%	0.59	29.5%	45%	386	USE MAP	SUNNYSIDE	
WR/DEADMAN-S	1233		60		1293	0%	0.71	0.0%	45%	0	USE MAP	SUNNYSIDE	
RYE PATCH-C	367				367	61%	0.71	43.3%	45%	381	WCR 5		
TOTAL	22412	1686	6584	331	27602							ERR	

34.2



Monitoring Rangeland Grazing

U S DEPARTMENT OF THE INTERIOR • BUREAU OF LAND MANAGEMENT

WHAT IS MONITORING?

For range management, monitoring means observing and recording grazing use and natural events that occur on the range, and what happens to range vegetation as a result of these actions. Changes in vegetation are compared to range management objectives to see if management practices are working as expected.

WHY MONITOR?

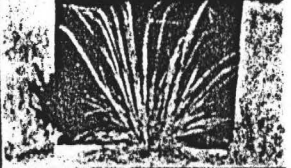
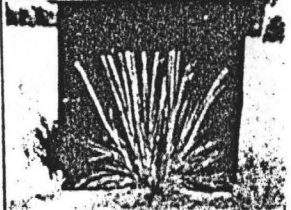
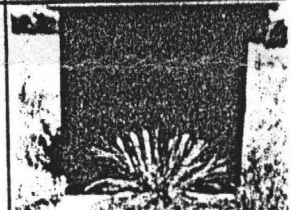
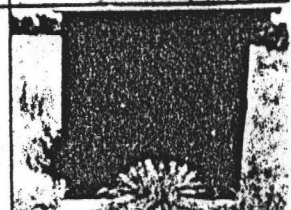
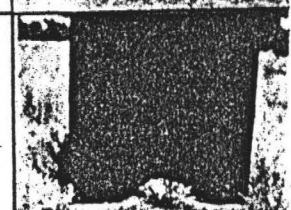
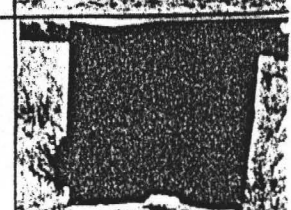
Good grazing management uses recorded observations to improve the following year's grazing practices. Where public land is involved, good records can be used to show that public rangeland management objectives are being achieved.

WHO SHOULD MONITOR?

Anyone who owns, manages, or is interested in grazing land and livestock can benefit from monitoring. Public rangeland monitoring should be a joint venture between the public and the Bureau of Land Management.

GETTING STARTED

Where public land is involved, BLM managers and the livestock operator should cooperatively develop objectives and monitoring methods. The first and most important step is to set realistic objectives. Is the objective to maintain the vegetation that is there now, to increase total vegetation production, or to increase the production of one particular plant species within the total vegetation community? The objectives should be based upon BLM land use and allotment management plans (AMP), and livestock production goals. Once the objectives are developed, monitoring observations will tell if progress is being made or if the objectives were unrealistic.

NEEDLE -AND- THREAD ————— PER CENT UTIL- IZATION	0	
	10	
	30	
	50	
	70	
	90	

Grass utilization can be judged by estimating how much of the current year's plant growth has been consumed. Proper utilization levels should be based upon management objectives.

(1)

Dear Sirs;

Thank you for the opportunity to provide comments relating to the Wilson Creek Allotment Evaluation. The packets of information certainly out weigh those of the land use planning process by sheer weigh and data. From WHOA's perspective, more difficult because much data on wild horses was missing, or we had to assume that much that applied to livestock in use areas, applied to wild horses, since there were no census maps, pattern maps specifically for horses.

One overwhelming task was locating pastures with wild horses in any measurable numbers. The Appendix 3 pages eased that task some; but it also opened up some very important questions that apply to every section of this document.

One particularly annoying point was brought up, without substantiation, that horse use of the grasses forced cows onto shrubs, an important wildlife forage. To counter this unsubstantiated claim we took to research. Based on fecal analysis from numerous, similar areas in the western states, we extrapolated data from Cedarville

(2)

California. The analysis for horses and cows are as follows:

Cattle		Horses
Agropyron	9.41	1.92
Bromus sp.	0.85	1.92
Carex sp	4.44	0.48
Heterichis stricata		Muhlenbergia sp 8.23
Festuca sp	60.17	40.94
Poa sp	4.17	Juncus sp. 0.95
Scirpus sp	5.39	Muhlenbergia Muhlenbergia 4.98
Sitanion sp	0.43	18.21
Stipa sp	9.41	13.00
	<u>94.27</u>	<u>88.71</u>

So you might say that just the opposite might occur, that livestock are forcing horses off grasses and onto forbs or shrubs. Unless your data can substantiate the claim one way or another, it should be more generic.

Secondly, we noted throughout that it is Bism's intention to utilize the seedings of crested wheatgrass to take the pressure off native range. We agree, what we don't understand is why it hasn't worked up to this date.

On In appendix 1, seven out of ten seedings ~~have been~~ exceeded. What show use above the allowable use level.

Which brings us to the offering of a change in season of use and adjustments of the grazing animal numbers. Our question therefore will have to refer to our next significant issue, that of Appendix 3

Skilson Creek Calculated Stocking Rates

The tables were hard to understand, so I called & talked to Gerald Smith; the following is based upon his explanation.

Actual use = measured utilization (%)

Climate & precip = Adjusted yield index

Actual use * yield index = adjusted utilization (%)

So, in some cases the actual use was far above the desired use, but the yield index adjusted the actual use anywhere from 59% to 1.81%. As an example, Dry Lake (1982) the total AUMs were 11961, with a measured utilization of 56%. The ~~desired use~~ (my words are proper use) of 45% was adjusted by the yield index with desired use * at 45%; yet the yield index adjusted the measured utilization ** of 56% to 48.2%.

This adjustment calculated the AUMs of actual use from 11961 to 11,176 (desired AUMs).

~~This formula too~~ The use of this formula

* I believe desired use means proper use.
* * " " measured utilization means actual utilization

(4)

resulted in only a 785 AUM reduction instead of a reduction based on ^{measured} ~~actual~~ utilization, without the yield index, which would have meant a 13% AUM reduction. Since the ~~evaluation~~ monitoring attributes 98% of the grazing problems to the livestock, the other 2%, I assume wild horses (although ~~some~~ ~~where~~ ~~in~~ ~~there~~, ^{and} wildlife is not explained); the permittee(s) would take us of a reduction in livestock numbers using this adjustment factor. In some areas that may not be a problem, however using the same factoring in a critical winter range such as Hamblin Valley, it results in blatant robbery.

For example: Appendix 3

Hamblin Valley

Total AUMs 1157 measured utilization was 90%. To me that means 90% of the plant was gone. Referring to graphic pictures of what 90% means, I'm referring to BLM-AA-PT-04-4400, it appears that only the roots of the plant remain (see attachment #1) Yet some inspired range person calculated that with climate & precip factored in (yield index) one could assume that IF it had rained at the right time and IF the sun shone at the right time it may not have been ~~utilized~~ utilized as badly.

(5)

As a layman I can only see one problem with those assumptions, the plant is still gone & depending on what time of the year it was eaten, may never return.

Example

Desired Stock level formula

$$\frac{\text{Desired}}{\text{Measured utility level}} = \frac{\text{Desired act use}}{\text{act use}}$$

desired = proper use (45%)

Measured utility level = act use

utilization = what you actual use 90%

Adjust using yield index

1457 AUMs

90%

Should use

$$\frac{45}{90} \times 1457$$

$$\frac{1285}{90 \times 1157} \times 90 \times \sqrt{520.6} = 578 \text{ AUMs}$$

$$\frac{45}{34.2} \times 1157$$

$$34.2 \times \sqrt{520.6} = 1522 \text{ AUMs}$$

Result the desired actual use because of the high utilization of the plant should be reduced to a total number of AUMs of 578 AUMs but instead with

As a result Hamblin Valley should only have 578 AUMs of grazing animals; but the yield index modifies adjusts the supposedly available AUMs to 1522. Hence the graz animals ~~impossible~~ for that use

(6)

Please be advised should you ~~continue~~ I really could not believe my eyes nor my senses since I could not believe my eyes, I referred to the Nevada Rangeland Monitoring Handbook. Page 5 refers to weather data and how this data is essential in monitoring. Nowhere in the book does it refer to the adjustment from what can discern from the book, it tells managers not to base large reductions based on one year. My understanding of that book's contents is to use climate and precip to explain why one year was either better or worse for growing conditions. I can find nothing no based on for example you would not make wholesale reductions in a permittees use based on one year drought, ~~or~~ nor would you increase permits, except thru TNR, based on an exceptionally wet or good growth year.

Based on all of the above there are good reasons for the public's mistrust of the agency actions and particularly my own. I can bet my life & win that had the offending grazer been horses and not cattle the BLM would not have used this creative scheme to preserve horses.

(1)

Please be advised should you continue to use this adjustment factor then WNSA expects the same factoring be used in all wild horse herd areas and statewide in all livestock use areas. statewide and apply equally to wild horses and ~~to~~ wildlife.

~~My conclusions and disgust are as follows~~

~~My conclusions are as follows:
Despite the BLMs admonition to me on many occasions, that I don't care about the vegetative resource, or I wouldn't argue over wild horse reductions, seems trite. This allotment evaluation is a good example of why horse advocates as well as wildlife advocates have to distrust~~

~~My recommendations are site specific in that if we can't believe your evaluation of monitoring data, and this document speaks for itself average~~

~~Appendix 4 Calculated~~

My "site specific" recommendations are:

1. Re do the calculations based on actual ~~ult~~ utilization and proper use.
2. Use Average Calculated Stocking Rate only

(8)

as trend data

3. Reduce the offending grazers as use indicates so that the public can support monitoring data
4. Visualize the plant & the animals dependent upon its' resources.
5. ~~Base improvements~~

Include Draft W4 + B Habitat Evaluation procedures & users guide (If Carson City can use & refer to it in a capture plan, so can Ely.)

~~At the very least it may give you something more to base~~ in addition to #
6. Insist that permittees, rather than requiring a Christmas list of improvements, ~~move their livestock~~ physically distribute livestock better (other lists require pushing driving or pushing animals into areas less utilized.

~~Last, so long as the BEM persists in~~
The draft EIS, final EIS, ROD, RPS, and now monitoring has indicated that reductions and/or changes of season of use are necessary — now all you have to do is do it. If your monitoring is sufficient, it will back up your decisions.

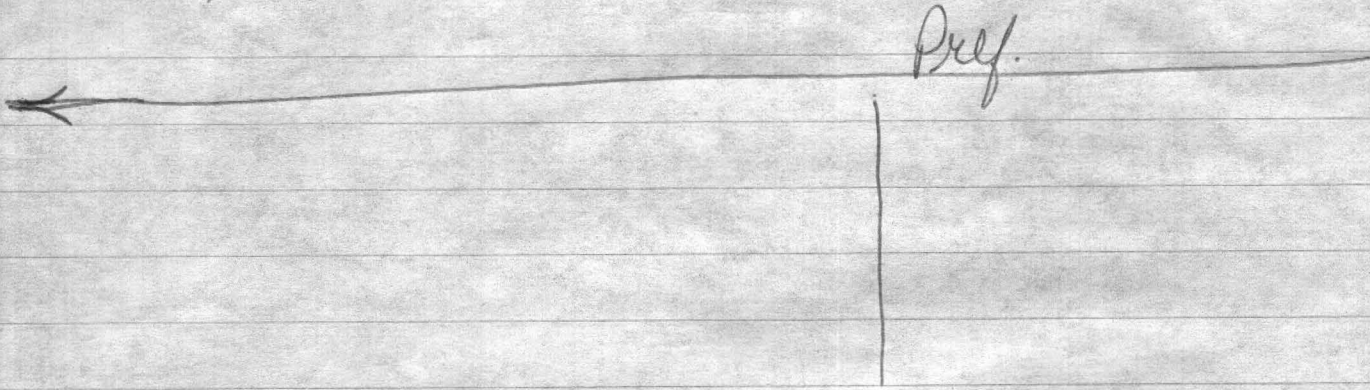
Climate variables - SNEVA Prod forecast yield

don't want use for carrying
plant perspective -
harm plant

option - heat rotation
projections

desired vs objectives
then what ratios

1.
2.
3.
4.
5.
6.)
what prod.
manure
how tech value
the prod.
lists



Summary of actual use

reverse in drought year

Lao

	Allotment	A.M.L.	(1983?) Consumed
404 Wilson Creek HMA	586,306 a -	181	165,246 ⁸⁸
410 Drey Lake	466,397 a	82	96,96 ⁸⁷
411 Seaman	12,112 a	84	190 ⁸⁷
	HMA	691,000 a	*
White River	HMA 20 A.M.L. 68	496,500 a	
Allotment issues		340,100 a	

Horses use grasses before cattle begin grazing. When cattle begin graze they are forced onto browse before seed ripe, & remaining browse could be limited for (p27) wintering deer. (Allotment Resource Bkg. Notes)

Shortage of winter forage exists for all users. (p27)

Humboldt Valley - horses vs antelope spring green up.

55% grasses + forbs + 45% on shrubs.

55 winter fat - 75 on indian king grass (dormant season)

Humboldt mid seral stage 50% ground cover with 15-24 max ht.

Humboldt 776 Cattle Nov 1 to Mar 31

Key Lake Valley 1122 c 4326 S Nov 1 - April 30

1346 c 5191 Sh Nov 1 - Mar 31

Appendix 1 - Key Species Humboldt Eula - 75% dormant or by

70% at Key area use pattern map.

(4)

Since no wild horse use ^{map} pattern was attached it is impossible for us to comment on the statements that horses are using grasses before cattle begin grazing thereby forcing cattle onto browse. (pg. 27) Allotment Resource Background Data

* There is no way to tie ~~any~~ pastures into the allotments. We can find no reference to "Sun Summer U.A. pasture to determine" which allotment this pasture occurs.

↓ Now is there any seasonal map for wild horses to counter the claims.

The only monitoring regarding wild horses appears to be sight upon monitoring for livestock and census data. I do not see any suitability for either livestock or wild horses being use. We note you have methods for determining habitat conditions for mule deer and pronghorn antelope, please tell me how you evaluate habitat conditions for WH. Research on diets

~~There was a roundup of WH in 1986, yet we can find no reference to this fact nor can we det^r whether it was analyzed in the data. Ben.~~

If you meas^{ure} util^{ity} year after year + get 80%, then you analyze + contⁱⁿue cond.

Sufficient actions to halt the overgrazing and ~~obtain~~ attain the objectives. We fail to see that your options of 1) change season of use, 2) change classification of animals, 3)

Summary

pg. 7. Short term - mule deer \approx 20% WH?

#3 pg 10 precip object to adjust of util levels.

#4 pg 10 Key area " " " " " "

pg 12 WH + B habitat

if habitat ratings have not been determined in advance of decisions or agreements; how will you know? How can you say there is sufficient forage when you propose a reduction?

If the ratio is similar between x demand demand % degree thru data
them the cattle could be forcing horses. ~~Research~~ (C) the diff. the proportion livestock or
sachas Patterson feeding WH diets is does horses eat 65% B
and cattle in late winter & early spring. so it
wouldn't matter if grasses were available if
they preferred the forage. *

Spring

We note the only areas where WH are mentioned in aquatic is "Unnamed Spring" & "Simpson Spring stating" used by WH. Are these a Guike notation?

Not picky
wants document

Obs. lacking - Support to get into
We see no areas delineated as critical summer or winter WH range. Just as pronghorn antelope need water availability of water during lactating, wild horses mares need the early green up before and foaling, and during lactating. Collecting info —

Conclusion:

The question is what is the problem?

How do you reconcile the uses?

How will your techniques solve the problem?

~~It is obvious by the~~

The draft EIS, final EIS, R.O.D., and RFS determine there are serious problems of overgrazing, and uneven distribution of livestock over the allotment. It is also also obvious that the proposed decision and the last 82-88 changes were not

Grazing seasons

degree of allowable use

88.71
94.27

grasses

Cedarville Co.
H 88.71%
C 94.27

Forks.

Shrubs

H - 0
C - 5.73

4
1522
1157
365

	T AUMS	meas. %	PU	ADJ. USE	
Wet Lake					
Dry Lake	11961	56	45	48.2	56% - 45 = 11%
					48.2 - 45 = 3.2

$11961 \times 11\% = 1315$ / $11961 \times 3.2\% = 382$ should be
 $11961 - 11176 = 785$ 530 Aum diff.

11847 + 114 = 11961 = .9% horse use

Summer U.A					
	5708				
	2259	49%	50%	46.1%	meas. pu 50 - 49 = 1%
	$5708 \times 1\% = 57$				49. - 46.1 = 3%
	5708 -				

Horse areas with Cows

UA 82 T. AUMS ~~58~~ 5708 meas util% 49 ^{adj} yield 46.1 Pu 50 desired 6196 without yield

56
45
11

56%
1315

6698 48.2

11961
382
11579

56.0
48.2
7.8

5765

11961 x .11% = 1315

11961 x 3.2% = 382

11961 x 7.8% = 932

11961 AUMs 56%

Dry Lake 91% cattle

5651

5708
171
5879

Schell -

Jerry Smith allocation rather
than monitoring

Range Con - Loren Robinson related to

Contrary to

Reed Robinson (permitted in Ely)

rec procedures

monitor process

Seasons of use? for White Sage

API

Done July 31

File Name Wilson Disk 7-17-89
nut Type/spell check Code grazing
 ___ Approval
 ___ Correct!(format), Proof & Print
 ___ Sign & Mail
 Corrections: z

July 17, 1989

Gerald M. Smith
 Schell Resource Area
 BLM
 Star Rt 5, Box 1
 Ely, NV 89301

Dear Mr. Smith:

This letter is in response to the WILSON CREEK MONITORING EVALUATION. The Animal Protection Institute is primarily interested with the protection of wild horses and their habitat areas. However, our 150,000 members express an increasing concern for the protection of wildlife habitat as well. The Wilson Creek Allotment is difficult for us to address since it contains three Herd Management Areas and is fragmented into so many grazing areas.

We note that none of the objectives for resource values were met during the 1982-88 monitoring period and none of the areas achieved the objectives for livestock. ~~the~~ The trend data are not clear to us. Certain areas are listed at mid and late seral or already at PCN but the same areas contain large segments of land that are badly damaged. We regret that use patterns by species were not included, even in a schematic form, that would indicate to us where actual usage by wild horses occurs in relation to the available forage and the overgrazed areas. Also lacking is an indication of the percent of an area that is suitable livestock forage (in terms of slope degree, elevation, distance from water, type of vegetation).

We question the mathematics of the wild horse usage in the Dry Lake Valley area as being at 120 percent. The utilization charts list the seven year usage as at 114 AUMs for five years and only two years at 222 AUMs. By depicting it in terms of a range rather than the actual, the picture drawn is quite different than ~~the~~ what really occurred. The actual utilization for these two years when horses were at 222, livestock usage was very low at 9,331 AUMs in 1987 and zero in 1988. The utilization for 1987 was 45 percent and no impact at all in 1988. However, livestock usage in 1986--when utilization exceeded the recommended usage level--was 14,141 AUMs. In actuality isn't wild horse usage when

compared with livestock more like .002 percent not 2 percent. In looking at your data, we would conclude that livestock usage should not exceed 9,331 in this area. The data do not, in our opinion, justify a reduction of wild horse numbers in this area of the allotment. ✓

The inventory of water availability for the entire Wilson Creek Allotment shows some 300 springs and 8 streams. Of these only 34 were monitored with wild horse usage affecting Dry Lake (1 spring); Bristol (1 spring); Fairview (7 springs); and Summer UA (9 springs). Of these 18 monitored springs only the lower Fairview Spring is noted as being trampled (however, the text indicates that two springs in the Fairview area show trampling--one presumably not monitored).

The Fairview area shows 144 AUMs for horses from 1982 through 1986 and no livestock. The utilization for deer and wild horses is 50 percent in 1983, 79 percent in 1984; 10 percent in 1985; 10 percent in 1986. There is no explanation for that 70 percent in 1984. The AUMs for wild horses dropped to 36 in 1987 and to zero in 1988 without explanation. We're not able to comment on this without a further explanation of these numbers. However, we do oppose a vegetation conversion project that would introduce livestock into this area.

In the Atlanta area there is livestock usage shown only for 1984 and 1985 with utilization never exceeding the 55 percent recommended level. We question the decision for vegetation treatment and water development without an indication of the percent of the area that is suitable for livestock grazing.

In the Summer UA, the utilization data show that the recommended usage was not exceeded during the seven year study period. But it shows a decreased of AUMs for horses: to 36 AUMs in 1987 and to zero in 1988 without explanation. ✓

We question the hauling of waters as a solution to the problem of uneven distribution of livestock and believe it is incumbent on BLM to impose season of usage, limit of numbers restrictions and to assess the suitability of the area for livestock grazing. With over 300 springs and eight major streams in the allotment, we suspect both wild horses and wildlife have adequate water. We fail to see how hauling water would solve uneven distribution of livestock.

There is no explanation in the AMP of how habitat needs are to be met for other species. For instance, the ferruginous hawk requires limiting the use of winterfat. But we find no reference to where winter fat exists nor any adjustments related to it in any of the areas.

The Baily and West Range, Ursine and Horse Thief Chaining area, Table Mt., Mt. Wilson and White Rock area are all listed as key mule deer areas that are badly trampled and overgrazed by livestock. Riparian areas are listed as being in poor condition in these areas. How will the placement of salt licks to redistribute cattle bring these areas into compliance with the 40 percent grass, 35 percent grassy shrubs and forbs that is required for wet meadows and riparian habitat?

If no short term object has been met, how can the long term objective to optimize livestock forage remain a goal? Proposed solutions show little if any likelihood of meeting objectives. By not evaluating the percentage of the area that is suitable for livestock grazing and estimating the carrying capacity for these areas, we think proposed solutions miss the mark.

For instance, the 77 percent PCN for Dry Lake that shows uneven distribution and trampling of riparian areas as heavy to severe, leads one to believe that livestock suitability is 23 percent and the carrying capacity of that 23 percent is far, far less than ~~the~~ number of AUMs assigned to livestock.

We suspect this may be the case throughout the entire allotment. We also suspect wildlife and wild horses use undeveloped waters ~~and~~ unmonitored areas. If multiple use and sustained yield are to be applied then it calls for a more realistic estimate of available livestock forage. We are not in favor of developing water for livestock in HMAs if wild horses successfully utilize undeveloped waters. We oppose interior fencing within HMAs to create rest/rotation pasture systems for cows. ✓

While we sympathize with the handful of small ranchers, we oppose any drastic changes to the natural system to accommodate these highly privileged private business operations. The proposed option of converting cow/calf operations to steer or sheep may be a viable solution--we don't know and have no comment on that at this time.

Again, we appreciate the opportunity to voice the concerns of our national membership for the protection of habitat and wild horses and to express their ongoing demand for ~~the~~ full implementation of the 1971 Wild, Free-Roaming Horse and Burro Protection Act. ✓

Sincerely,

Nancy Whitaker
Program Assistant