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Bullhead Allotment Monitoring Plan

July 1986

Paradise/Denio Resource Area
Winnemucca District Office
Bureau of Land Management

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I. Introduction

The purpose of this plan is to describe the monitoring program that is being implemented in the Bullhead Allotment.

The geographical center of the Bullhead Allotment is approximately 40 air miles northeast of Winnemucca, Nevada (See Map A).

The topography varies greatly throughout the allotment from relatively level greasewood flats in the southwest corner to mountainous terrain (Snowstorm Mountains) on the east side of the allotment.

There are a wide variety of species and types of vegetation. Generally, the vegetation ranges from salt desert shrub to the sagebrush vegetative complexes. Grass species associated with these complexes are squirreltail, Sandberg bluegrass, Thurber needlegrass, and Indian ricegrass. The vegetative types in the higher elevations are predominately big sagebrush-grass, aspen-grass, dry and wet meadows; bluebunch wheatgrass, Idaho fescue, and Thurber needlegrass. Of particular interest is the occurrence of the hybrid bunchgrass (Agrositanion saundersii (Saunder's wheatgrass). This grass is a hybrid of bluebunch wheatgrass and squirreltail, and is quite abundant in the Dry Hills and Kelly Spring areas.

Land ownership within the allotment is:

BLM - Winnemucca District	=	89,775 acres
BLM - Elko District	=	55,259 acres
Private	=	25,440 acres
Total		170,456 acres

The Paradise-Denio Unit Resource Analysis (URA) identified the following resources which should be considered in the management of this allotment: fisheries, watershed, wild horses, livestock grazing, riparian areas, wildlife habitat, recreation, mining, and cultural resources.

II. Background/Public Involvement/Interdisciplinary Approach

Monitoring studies were first established in the Bullhead Allotment in 1981. Utilization studies were the first method established in 1981 by the BLM and the permittee, Nevada Vaca, Inc. Key areas and trend plots were also established in 1984, 1985, and 1986 by the BLM and Resource Concepts, Inc. (RCI), using an interdisciplinary approach.

Public involvement has included the involvement by the permittee, Nevada Vaca in 1981. Resource Concepts, Inc., a private consulting firm from Carson City representing the current permittee, SECO, Inc., and representatives of SECO have been involved since 1983.

CRMP committee #1 approved a plan for the Bullhead Allotment on July 23, 1982, which included objective #17, "Establish a monitoring system for all objectives" for the Bullhead Allotment.

This monitoring plan is written as an interdisciplinary document considering livestock, watershed, wildlife and wild horse resource values.

Participation of public land users and other interested parties will be encouraged during all planning and initiation of monitoring activities.

III. Historical Use

Bullhead Allotment Actual Use for 1980

Date	Number	Days	AUMs	Pasture
03/06 to 03/12	304 C	7	71	No pasture
03/13	405 C	1	13	schedule
03/14 to 03/16	543 C	3	54	available for
03/17	672 C	1	22	this year.
03/18 to 03/31	812 C	14	379	
04/01 to 04/17	1,188 C	17	673	
04/18 to 05/23	1,588 C	36	1,906	
05/24 to 08/15	1,615 C	82	4,414	
08/16 to 09/11	1,248 C	27	1,123	
09/12 to 09/26	829 C	15	415	
09/27 to 11/07	343 C	41	469	
11/08 to 11/13	135 C	6	27	
11/14 to 11/15	42 C	2	3	
11/16 ----	24 C	1	1	
			9,570	

Bullhead Allotment Actual Use for 1981

Date	Number	Days	AUMs		Pasture
03/01 to 03/14	400 C	14	187	-	Seeding
03/15 to 03/17	1,314 C	3	131	-	Dry Hills
03/18 to 05/14	1,478 C	27	2,808	-	Dry Hills
05/15 to 08/24	1,587 C	100	5,290	-	Summer Pastures/Burn
08/25	1,272 C	1	42	-	Summer Pastures/Burn
08/26 to 09/27	1,089 C	32	1,162	-	Summer Pastures/Burn
09/28 to 10/02	1,016 C	5	169	-	Summer Pastures/Burn
10/03 to 10/09	358 C	7	84	-	Summer Pastures/Burn
10/10 to 10/11	148 C	2	10	-	Summer Pastures/Burn
10/12	24 C	1	1	-	Summer Pastures/Burn
			9,884		

Bullhead Allotment Use for 1982

No Livestock Use

Bullhead Allotment Actual Use for 1983

Date	Number	Days	AUMs		Pasture
04/15 to 05/30	890 C	16	475	-	Dry Hills
05/01 to 06/30	780 C	60	1,560	-	Dry Hills
07/01 to 07/25	780 C	25	650	-	First Creek
07/26 to 09/30	778 C	65	1,686	-	Kelly Burn
10/01 to 10/18	778 C	18	467	-	Bullhead Seeding
			4,838		

Bullhead Allotment Actual Use for 1984

Date	Number	Days	AUMs		Pasture
03/24 to 4/14	160 C	26	139	-	Dry Hills
04/15 to 04/21	421 C	7	98	-	Dry Hills
04/22 to 06/17	537 C	56	1,002	-	Dry Hills
03/25 to 04/20	243 C	27	219	-	Bullhead Seeding
04/21 to 04/24	354 C	4	47	-	Bullhead Seeding
04/25 to 06/17	428 C	53	756	-	Bullhead Seeding
10/08 to 10/29	854 C	22	448*	-	Bullhead Seeding
06/18 to 06/30	965 C	13	418	-	Dry Hills
07/01 to 07/31	960 C	31	960	-	Kinney Creek
08/10 to 08/15	810	15	405	-	Kinney Creek
08/16 to 09/30	860	45	1,290	-	Kelly Burn
12/06 to 01/15	424 C	40	565	-	Dry Hills
12/06 to 01/15	260 C	40	347	-	Rabbit
03/01 to 02/28	Wild Horses		3,092	-	Entire Allotment
			9,786		except Kelly Burn/ Seeding

*Trespass cattle, spent approximately 28% of time and animals on private meadows used in conjunction with seeding.

Bullhead Allotment Actual Use for 1985
(Summary - Detailed Info in District Studies File)

Date	Livestock	AUMs	Pasture
04/16 to 07/02		3,306	First Creek
07/02 to 09/05		495	Kinney Creek
07/02 to 09/05		495	Kelly Creek (Upper)
01/17 to 02/28			Rabbit
03/01 to 02/28	Wild Horses	1,553	Entire Allotment except Kelly Burn/ Seeding

Mule deer, pronghorn antelope, and bighorn sheep have made historical use of the Bullhead Allotment. Although bighorn sheep do not presently occur in the allotment provisions have been made through CRMP to provide forage to meet the future AUM demand of a reintroduction. (Refer to Section V.) Forage was also provided to meet the AUM demand of reasonable numbers of mule deer and pronghorn as shown in Section V of this plan. For more information, see the Paradise URA Step III for the Bullhead Allotment.

IV. Allotment Issues

Major issues concerning the Bullhead Allotment that were established by the CRMP #1 are listed below. These issues are limited to resource problems that can be effected by grazing management and that can be evaluated through a monitoring system.

A. List of Major Problems/Issues

1. Heavy use in summer area by livestock and wild horses.
2. Proper long-term stocking rate and season of use.
3. Present condition of riparian habitats.
4. Watershed problems, South Fork Little Humboldt, First Creek, Snowstorm Creek.
5. Lack of range management and water developments.
6. Provisions for wildlife populations.
7. Possible sage grouse areas.
8. Wild horses unmanaged, uncontrolled numbers.

V. Allotment Management Objectives

Objectives developed by the CRMP committee, Bullhead AMP, and draft HMP are listed below. These are objectives which monitoring can be used to evaluate. They are limited to resource problems affected by grazing; are measurable within a reasonable time frame, do not conflict with each other, are feasible and capable of accomplishment.

A. Establish proper initial and long-term stocking rate, season of use, and pasture schedule for livestock.

B. Increase forage availability from 8,350 AUMs to 12,050 AUMs by 1992 through use of the rest-rotation grazing system for livestock.

C. Improve the fisheries habitat from poor to good condition on:

   a. South Fork, Little Humboldt River
   b. Pole Creek
   c. First Creek

D. Maintain and improve wildlife and fisheries habitat to a good condition on:

   a. Kelly Creek
   b. Kinney Creek
   c. Snowstorm Creek
   d. Winters Creek

E. Improve aspen stands to a good ecological condition, and insure that the number of stands are maintained or increased.

F. Manage rangeland habitat and forage condition to sustain sage grouse and reasonable numbers of wildlife demand as follows: (improve upland sites to late seral ecological condition)

a.	Deer	-	1,029 AUMs
b.	Antelope	-	101 AUMs
c.	Bighorn Sheep	-	370 AUMs
*	Potential Bighorn Sheep forage demand		

G. Protect and preserve wild horses as a self-sustaining healthy population. Set an initial level of 600 AUMs.

H. Maintain or improve meadows to mid seral ecological condition.

VI. Intensity, Monitoring Objectives, and Types of Studies

A. Monitoring Objectives

Table I lists key areas, utilization plots, stream survey studies and their location and base data.

Table IIA shows studies to be used on Key Management areas established and the specific monitoring objective for each area. Table IIB lists objectives for stream survey studies. Interim, short-term and long-term objectives are shown for each study. Items listed in this table are explained as follows.

Interim, Short-term and Long-term Objectives

Time period for each study is listed below.

Interim	-	5 years
Short-term	-	10 years
Long-term	-	35 years

1. Ecological Site and Ecological Status

Each key area will be evaluated by qualified personnel to determine the ecological status according to the Ecological Inventory Method (USDI 1983a). Each site will be verified by the BLM soils and ecological site crew in correlation with the SCS during the condition classification survey.

2. Key Plant Species

These are plant species that serve as indicators of use on associated plant species. Key species are cited in this table by Data Element Dictionary Symbols which are identified as follows:

6. Condition

Ecological status will be determined initially in 1985, 1986, and 1987, using the Ecological Inventory Method (USDI 1983a).

7. Wild Horse Numbers

Aerial census of the Little Owyhee/Snowstorm Herd Use Area will be done every third year at a minimum. An animal condition survey will be done concurrently.

8. Wildlife Studies

Wherever possible wildlife habitat studies will be coordinated with range, and wild horse and burro resources during the key area selection process. Ecological condition status, utilization and trend data will be shared as will the workload. In instances where wildlife key areas and studies must be established separate from range these studies will be established in accordance with the Wildlife Habitat Studies Program Procedures for the Winnemucca District and associated BLM Manuals.

VII. Schedule for Conducting Studies

Table III shows when each study will be read during the interim time and short term period.

A. Utilization

1. Interim - read wherever the pasture is used by livestock, wildlife, or wild horses at the end of the scheduled grazing use, or as needed to differentiate between animal users.

2. Short-term - studies will be read until allowable utilization levels have been achieved for a full grazing cycle. Then studies will be read every other year during critical growing periods, or when the pasture is used.

3. Long-term - if allowable utilization levels have not been achieved, continue short-term scheduling. After objectives have been achieved, read studies during critical growing periods, when the pasture is used.

B. Frequency

1. Interim - all studies will be read every year for the first three years, then every third and fifth year starting in 1985.

2. Short-term - read every third and fifth year.

3. Long-term - read every third and fifth year until an upward trend is indicated. After short-term period objectives have been accomplished, monitor every five years.

C. Ecological Status

Read when frequency data indicates a significant change in trend. Ecological status should be sampled only in rested pastures when feasible. When not feasible, production can be adjusted based on utilization.

D. Actual Use Records

Actual use records will be submitted annually by operators.

E. Climatological Data

Data will be computed annually from NOAA documentation and a rain can location at the Bullhead Ranch.

F. Stream Habitat Survey

Aquatic habitat will be monitored in accordance with BLM Manual Supplement 6671.

VIII. Schedule for Conducting Allotment Evaluation

A. Evaluation Schedule

Evaluation schedules of monitoring data will be based on Resource Area priorities. A basic schedule is shown below, specific dates are to be filled in on the approval of this plan.

1. Interim: Evaluate on the third year and at the end of the first five years.

1988 (year 3)

1990 (year 5)

2. Short-term: Evaluate at the eight and tenth year.

1993 (year 8)

1995 (year 10)

3. Long-term: After interim and short-term, evaluate every five years.

2000 (year 15)

2005 (year 20)

2010 (year 25)

2015 (year 30)

2020 (year 35)

B. Evaluation Process

Monitoring data will be summarized in accordance with the Coordinated District Monitoring Plan when completed by person(s) gathering the data and included into the appropriate section of the Bullhead Study file. The summarized data will be analyzed and interpreted by the monitoring specialist or by those persons selected by the Area Supervisor Range Conservationist. Computer program OBJECT will be used to determine significant changes in percent frequency. Analysis and interpretation will be submitted as a short narrative to the Supervisory Range Conservationist and Staff Monitoring Coordinator. The Supervisory Range Conservationist will submit a recommendation of further action (if needed) to the Area Manager.

Analysis will be based on the attainment of key area objectives, in relation to overall allotment objectives, identifying which objectives were not met and identifying why the objectives were not met (if known).

Subsequent analysis and changes to the grazing system or Monitoring Plan will be made on a case by case basis, as directed by the Area Manager and Supervisory Range Conservationist in consultation with the affected permittees.

C. Schedule

As discussed in the previous section, data will be evaluated each year that data is gathered. This will provide guidance for a year to year effort to improve management. In 1990 a formal management decision for the Bullhead Allotment should be issued. Evaluation will continue as long as data is collected as discussed in Section VIII.

D. Management Alternatives Table IV for Variances

Table IV provides possible management actions available to the BLM, when monitoring indicates objectives are met or not met on the allotment.

IX. Coordination of Work Force and Authority to Initiate Plan

The Paradise-Denio Resource Area monitoring specialist or those persons appointed by the Area Manager and Supervisory Range Conservationist shall be responsible for the coordination and carrying out of this plan.

Costs as far as manpower and supplies needed for monitoring, processing of data, and evaluation of monitoring results should be projected at the beginning of each fiscal year. Actual costs of monitoring should then be computed at the end of the fiscal year. The information should be presented on Form NV-0920-6630-8 to aid in planning monitoring activities for the allotments.

Monitoring and evaluation are authorized under various laws, including The Taylor Grazing Act of June 28, 1934, as amended; The Federal Land Policy and Management Act of October 21, 1976, as amended; The Public Rangelands Improvement Act of October 25, 1978; and implementing regulations of The National Environmental Policy Act of 1969. See also BLM Manual Section 1734 and 43 CFR 4100.

Table 1. Monitoring Studies Locations and Baseline Data

Bullhead 1

KEY AREA NO. (PASTURE)	KEY AREA NAME	LOCATION	TYPE OF STUDY(S)	ECOLOGICAL SITE[1]	ECOLOGICAL STATUS[2]
0201 (Dry Hills)	DH1	T. 42 N., R. 42 E., Sec. 29 SESE	Trend Utilization	024X002N (loamy 5-8" p.z.)	60% Late Seral
0202 (Dry Hills)	DH2	T. 40 N., R. 43 E., Sec. 29 NENE	Trend Utilization	025X019N (loamy 8-10" p.z.)	36% Mid-Seral
0203 (Dry Hills)	DH3	T. 39 N., R. 43 E., Sec. 2 SESE	Trend Utilization	024X005N (loamy 8-10" p.z.)	51% Late Seral
0204 (Dry Hills)	DH4	T. 40 N., R. 42 E., Sec. 16 NWSE	Trend Utilization	024X020N (droughty loam 8-10" p.z.)	46% Mid-Seral
0205 (Dry Hills)	DH5	T. 39 N., R. 42 E., Sec. 3 NWNW	Utilization	N/A	N/A
0301 (First Creek)	First Creek Basin	T. 41 N., R. 44 E., Sec. 36 NENE	Trend Utilization	025X019N (loamy 8-10" p.z.)	44% Mid Seral
0302 (First Creek)	County Line	T. 41 N., R. 44 E., Sec. 23 SENE	Trend Utilization	025X019N (loamy 8-10" p.2.)	65% Late Seral
0303 (First Creek)	Kelly Spring	T. 40 N., R. 43 E., Sec. 22 SWNE	Utilization	N/A	N/A
0401 (Kelly Burn)	Winter's Creek	T. 40 N., R. 45 E., Sec. 18 SE SE	Trend Utilization	025x12N (loamy slope 10-16" p.2.)	49% Mid-Seral
0402 (Kelly Burn)	Aspen	T. 40 N., R. 45 E., Sec. 19 SENW	Trend Utilization	023X064N Riparian Aspen	No Data (Ecological site has not yet been developed
0403 (Kelly Burn)	Meadow	T. 40 N., R. 44 E., Sec. 22 NE	Trend	025X06N Dry Meadow 10-16" p.z.	No Data
0404	Kelley Creek		Stream Survey	N/A	N/A

[1] Ecological sites listed here can be referenced to SCS Ecological Site Descriptions (SCS 1983)
[2] Ecological status is referred to here in terms of the percent potential natural plant community (PNC) present on the site

Table 1. Monitoring Studies Locations and Baseline Data — Bullhead 2

KEY AREA NO. (PASTURE)	KEY AREA NAME	LOCATION	TYPE OF STUDY(S)	ECOLOGICAL SITE[1]	ECOLOGICAL STATUS[2]
0501 (Bull Seed)	Kelly Ranch	T. 39 N., R. 43 E., Sec. 15 SWNE	Utilization	N/A	N/A
0502 (Bull Seed)	Private Native	T. 39 N., R. 43 E., SEc. 17 SESW	Utilization	N/A	N/A
0503 (Bull Seed)	Upper	T. 39 N., R. 43 E., Sec. 17 SWNE	Trend Utilization	No Data	No Data
0601 (Kinney)	Crows Nest	T. 40 N., R. 44 E., Sec. 16 NESE	Trend Utilization	025X027N (loamy 12-16" p.2.)	38% Mid-Seral
0602 (Kinney)	Kinney Aspen	T. 40 N., R. 44 E., Sec. 22 NE	Trend Utilization	Aspen Woodland	No Data
0603	Kinney Meadow	T. 40 N., R. 44 E., Sec. 11 SENE	Trend Utilization	026X06N Dry Meadow 10-16" p.z.	
0801 (Rabbit)	Rabbit Creek	T. 38 N., R. 43 E., Sec. 5 NENW	Trend Utilization	024X020N (droughty loam 8-10" p.z.)	26% Early Seral
0802 (Rabbit)	Kelly Creek	T. 38 N., R. 43 E., Sec. 8 NE NW	Trend Utilization	024X006N (dry floodplain 6-10" p.z.)	69% Late Seral
0901 (Snowstorm)	Snowstorm Creek	T. 40 N., R. 45 E., Sec. 4 SWSW	Trend Utilization	025X014N loamy 10-12" p.z.)	49% Mid Seral
0902 (Snowstorm)	Flat Meadow	T. 40 N., R. 45 E., Sec. 26, SWNW	Trend Utilization	025X06N Dry Meadow 10-16" p.z.	No Data
0903	First Creek		Stream Survey	N/A	Fair to Poor
0904	Pole Creek		Stream Survey	N/A	Fair to Poor
0905	South Fork		Stream Survey	N/A	Fair to Poor

[1] Ecological sites listed here can be referenced to SCS Ecological Site Descriptions (SCS 1983)
[2] Ecological status is referred to here in terms of the percent potential natural plant community (PNC) present on the site

Table 2A. Key Management Area Objectives

Bullhead 1

KEY AREA NUMBER	KEY SPECIES[1]	ALLOWABLE USE LEVELS[2]	DESIRED ECOLOGICAL STATUS[3]	INTERIM (5 YEARS) FREQUENCY TREND[4]	SHORT TERM (10 YEARS) FREQUENCY TREND	SHORT TERM (10 YEARS) ECOLOGICAL STATUS OBJECTIVES[4]	LONG TERM (35 Years) FREQUENCY TREND	LONG TERM (35 Years) ECOLOGICAL STATUS OBJECTIVES
0201	SIHY ARSP5	40 30	Late Seral	Static (If ORHY appears in study, reevaluate objectives.	Static	Maintain shrub and grass composition.	Static	Same as short term.
0202	STTH2 SIHY	40 40	Late Seral	Static (If AGSP appears in study, reevaluate objectives.	Upward	Increase AGSP to 5% and STTH2 to 7%.	Upward	Increase AGSP to 10% and STTH2 to 12%. Maintain forb composition.
0203	STTH2 STTH2 SIHY	40 40 40	Late Seral	Static	Upward	Increase AGSP to 5% and STTH2 to 15%.	Upward	Increase AGSP to 10% and STTH2 to 20%. composition.
0204	ORHY SIHY	50 40	Late Seral	Static	Upward	Increase ORHY to 5%.	Upward (Reevaluate if STTH2 appears.)	Increase ORHY to 8%.
0205	SIHY	40	Utilization Study Only					

[1]Plant abbreviation codes are used here. These codes are identified in the Plant List (See Appendix).
[2]Allowable use levels are the objectives established for utilization. They are derived from the Paradise-Denio Grazing Environmental Impact Statement (BLM 1981).
[3]This is the Seral stage that would have the greatest value for all resources (livestock, wild horses, and wildlife).
[4]Frequency identified as static or upward. If an important plant forage species appears on a study that previously was not recorded, then all monitoring objectives for that key area should be reevaluated.

Table 2A. Key Management Area Objectives — Bullhead 2

KEY AREA NUMBER	KEY SPECIES[1]	ALLOWABLE USE LEVELS[2]	DESIRED ECOLOGICAL STATUS[3]	INTERIM (5 YEARS) FREQUENCY TREND[4]	SHORT TERM (10 YEARS) FREQUENCY TREND	SHORT TERM (10 YEARS) ECOLOGICAL STATUS OBJECTIVES[4]	LONG TERM (35 Years) FREQUENCY TREND	LONG TERM (35 Years) ECOLOGICAL STATUS OBJECTIVES
0301	AGSP ELCI CREPIS	50 50 50	Late Seral	Static	Upward	Increase AGSP to 15% and ELCI to 8%. Maintain forb composition.	Static	Maintain grass and forb composition.
0302	AGSP CREPIS	50 50	Late Seral	Static	Static	Maintain species composition and diversity (grasses and forbs).	Static	Maintain species composition and diversity (grasses and forbs).
0303	AGSP ORHY SIHY	50 50 40	Utilization Study Only					
0401	SIHY FEID SYOR	40 40 40	Late Seral	Static (If AGSP appears reevaluate objectives).	Upward	Increase FEID to 7% and ELCI to 8%. Maintain forb composition.	Static	Maintain grass, forb and shrub diversity and composition.
0402	POTR5	40	Late Seral	Static	Upward	Late Seral	Static	Late Seral
0403	TRIFOL	50	Mid Seral	Static	Upward	Mid Seral	Static	Mid Seral

[1]Plant abbreviation codes are used here. These codes are identified in the Plant List (See Appendix).
[2]Allowable use levels are the objectives established for utilization. They are derived from the Paradise-Denio Grazing Environmental Impact Statement (BLM 1981).
[3]This is the Seral stage that would have the greatest value for all resources (livestock, wild horses, and wildlife).
[4]Frequency identified as static or upward. If an important plant forage species appears on a study that previously was not recorded, then all monitoring objectives for that key area should be reevaluated.

Table 2A. Key Management Area Objectives — Bullhead 3

KEY AREA NUMBER	KEY SPECIES[1]	ALLOWABLE USE LEVELS[2]	DESIRED ECOLOGICAL STATUS[3]	INTERIM (5 YEARS) FREQUENCY TREND[4]	SHORT TERM (10 YEARS) FREQUENCY TREND	SHORT TERM (10 YEARS) ECOLOGICAL STATUS OBJECTIVES[4]	LONG TERM (35 Years) FREQUENCY TREND	LONG TERM (35 Years) ECOLOGICAL STATUS OBJECTIVES
0501	AGCR	50	Utilization Study Only					
0502	SIHY	40	Utilization Study Only					
0503	AGCR	50	Seeding	Static (maintain AGCR in good condition class).	Same as interim.	Maintain in good condition.	Same as interim.	Maintain in good condition.
0601	SIHY FEID SENEC	40 40 50	Late Seral	Static	Upward	Maintain ELCI and perennial forbs. Increase FEID to 5%.	Upward	Maintain ELCI and perennial forbs. Increase FEID to 15%.
0602	POTR5	40	Late Seral	Static	Upward	Late Seral	Static	Late Seral
0603	CAREX PONE3	50 50	Mid Seral	Static	Upward	Mid Seral	Static	Mid Seral

[1]Plant abbreviation codes are used here. These codes are identified in the Plant List (See Appendix).
[2]Allowable use levels are the objectives established for utilization. They are derived from the Paradise-Denio Grazing Environmental Impact Statement (BLM 1981).
[3]This is the Seral stage that would have the greatest value for all resources (livestock, wild horses, and wildlife).
[4]Frequency identified as static or upward. If an important plant forage species appears on a study that previously was not recorded, then all monitoring objectives for that key area should be reevaluated.

Table 2A. Key Management Area Objectives — Bullhead 4

KEY AREA NUMBER	KEY SPECIES[1]	ALLOWABLE USE LEVELS[2]	DESIRED ECOLOGICAL STATUS[3]	INTERIM (5 YEARS) FREQUENCY TREND[4]	SHORT TERM (10 YEARS) FREQUENCY TREND	SHORT TERM (10 YEARS) ECOLOGICAL STATUS OBJECTIVES[4]	LONG TERM (35 Years) FREQUENCY TREND	LONG TERM (35 Years) ECOLOGICAL STATUS OBJECTIVES
0801	SIHY	40	Late Seral	Upward (Show increase in ORHY; if STTH2 appears, reevaluate.)	Same as interim.	Increase ORHY to 5% and increase perennial forbs.	Same as interim.	Increase ORHY to 10% and maintain forbs. (Mid Seral)
0802	ELCI	50	PNC	Upward (Show increase in ELCI; if AGSM appears, reevaluate objectives.)	Same as interim.	Increase ELCI to 40%.	Same as interim.	Increase ELCI to 45%.
0901	AGSP ELCI CREPIS	50 50 50	Late Seral	Upward (show increase in AGSP).	Upward	Increase AGSP to 10%.	Upward	Increase AGSP to 15%.
0902	CAREX PONE3	50 50	Mid Seral	Static	Upward	Mid Seral	Static	Mid Seral

[1]Plant abbreviation codes are used here. These codes are identified in the Plant List (See Appendix).
[2]Allowable use levels are the objectives established for utilization. They are derived from the Paradise-Denio Grazing Environmental Impact Statement (BLM 1981).
[3]This is the Seral stage that would have the greatest value for all resources (livestock, wild horses, and wildlife).
[4]Frequency identified as static or upward. If an important plant forage species appears on a study that previously was not recorded, then all monitoring objectives for that key area should be reevaluated.

Table 2B. Stream Survey Objectives

Key Area Number	Study Name	Key Habitat Factors	Desired Habitat Rating	Interim (5 Years)	Short Term (10 Years)	Long Term (25 Years)
0404	Kelley Creek	Bank Stability Bank Cover Habitat Condition	Good/Excellent	Upward trend	Good/Excellent	Good/Excellent
0903	First Creek	Bank Stability Bank Cover Habitat Condition	Good/Excellent	Upward trend	Good/Excellent	Good/Excellent
0904	Pole Creek	Bank Stability Bank Cover Habitat Condition	Good/Excellent	Upward trend	Good/Excellent	Good/Excellent
0905	South Fork	Bank Stability Bank Cover Habitat Condition	Good/Excellent	Upward trend	Good/Excellent	Good/Excellent

Table 3. Schedule for Reading Monitoring Studies — Bullhead 1

KEY AREA NO.	YEAR 1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
FREQUENCY	Based on phenology stages of key and associated species, frequency studies should generally be read from May to July, allowing for seasonal variation and site location.										
0201	X	X	X		X			X		X	
0202	X	X	X		X			X		X	
0203	X	X	X		X			X		X	
0204	X	X	X		X			X		X	
0301		X	X	X		X			X		X
0302		X	X	X		X			X		X
0401	X	X	X		X			X		X	
0402		X	X	X		X			X		X
0403		X	X	X		X			X		X
0404		X			X					X	
0503		X	X	X		X			X		X
0601	X	X	X		X			X		X	
0602		X	X	X		X			X		X
0603		X	X	X		X			X		X
0801	X	X	X		X			X		X	
0802	X	X	X		X			X		X	
0901		X	X	X		X			X		X
0902		X	X	X		X			X		X
0903			X		X					X	
0904			X		X					X	
0905	X	X	X	X	X		X		X		X

UTILIZATION

Utilization will be read whenever the allowment/pasture is scheduled to be grazed. Utilization checks and use pattern mapping should be done when the livestock are removed or the end of the growing season, whichever comes first, or both if time and manpower permit.

TABLE 4. POSSIBLE MANAGEMENT ACTIONS THROUGH MONITORING EVALUATION

Evaluation Period[1]	Livestock Distribution[2]	Climate[3]	Utilization Objectives[4]	Frequency Objectives[1]	Ecological Status Objectives[1]	Management Actions[5]
Interim	Good	Favorable	AUL	N/A	N/A	May indicate understocking. Adjust livestock numbers or periods-of-use.
	Poor	Favorable	AUL	N/A	N/A	Indicates poor distribution. Change distribution patterns through range improvements, saltings, etc.
	Good	Unfavorable	AUL	N/A	N/A	Indicates unfavorable climatic conditions. If conditions exist for more than 2 years adjust livestock numbers or periods-of-use until climatic conditions, range condition, and utilization are favorable.
	Good	Favorable	AUL	N/A	N/A	May indicate overstocking. Adjust livestock numbers or periods-of-use.
Short-term and Long-term	Good	Favorable	AUL	Met	Met	Indicates understocking. Adjust livestock numbers or periods-of-use.
	Poor	Favorable	AUL	Met	Met	Indicates poor distribution. Change distribution patterns through range improvements, salting, etc.
	Poor	Favorable	AUL	Met	Met	Indicates poor distribution. Change distribution patterns.
	Good	Unfavorable	AUL	Not Met	Not Met	Indicates unfavorable climatic conditions. If conditions exist for more than two years, adjust livestock numbers or periods-of-use until monitoring indicates conditions are more favorable.
	Good	Favorable	AUL	Not Met	Not Met	May indicate overstocking. Adjust livestock numbers or periods-of-use.
	Good	Favorable	AUL	Not Met	Not Met	Trend and condition objectives not being met, for unknown reasons. Reevaluate monitoring procedures and/or intensify monitoring.

[1] Specific time frames and objectives are outlined in Section VI of this plan.

[2] Distribution is identified as "good" (livestock well distributed throughout pasture) and as "poor" (livestock concentrated near riparian, watering sites, on flats, etc.).

[3] Climate is identified as "favorable" or "unfavorable." Favorable and unfavorable conditions can be derived from deviations in normal temperature and precipitation patterns.

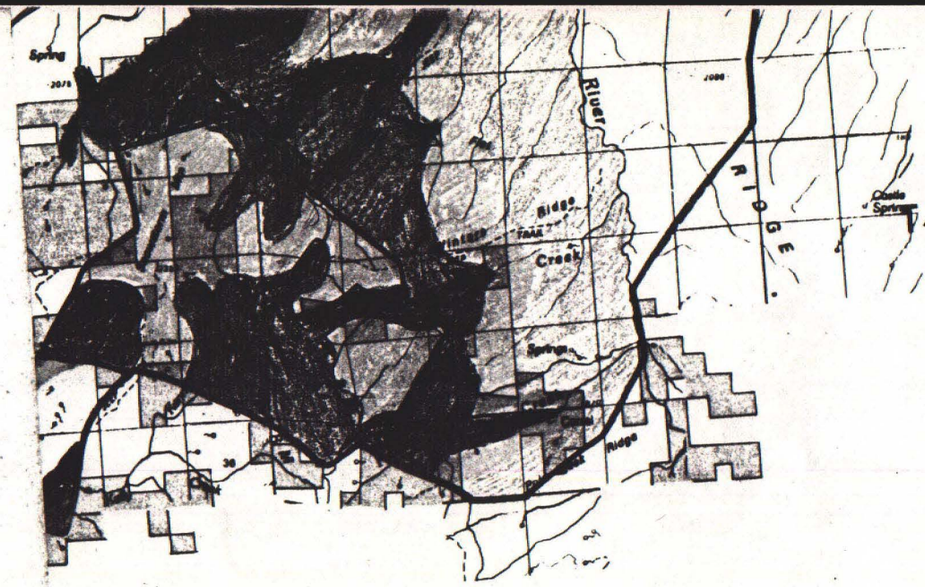
[4] AUL - less than the allowable use levels on any key species as shown in the monitoring plan.
AUL - greater than the allowable use levels on any key species as shown in the monitoring plan.

[5] This column shows the conclusions that can be derived from the combination of monitoring results from the other columns, as well as what management actions could be used to help the range meet monitoring objectives.

Kind of Plan	Allotment/Operator	Selective Management Category	LIVESTOCK Initial Stocking Level 1/ (AUMs)	LIVESTOCK Management Objectives 1/	WILDLIFE Existing Use (AUMs) Deer	Antelope	Bighorn Sheep	WILDLIFE Management Objectives 1/
CRMP	Bullhead/ Nevada First Corp. (Leased to Seco Co.)	I	8,350	Increase available forage for livestock to sustain an active preference of 17,930 AUMs. Adjustments in livestock AUMs, upward or downward, will be based upon monitoring of available forage for livestock in the same proportion as the initial stocking rate for livestock and wild horses. Improve range condition on the two seasonal use areas (spring and summer) by operating a three-pasture rest-rotation grazing system between 4/1 and 12/15. A deferred rest system will be used for the seeding and proposed seedings.	144 (Wnca) 909 (Elko)	41 60	0 0	Manage rangeland habitat and forage condition to sustain reasonable numbers of wildlife demand as follows: Deer 1,029 AUMs Antelope 101 AUMs Bighorn Sheep 370 AUMs Improve condition of riparian areas through fencing and implementation of a rest-rotation grazing system. Protect existing sage grouse strutting areas and breeding complexes, and future grounds identified. Develop potential waterfowl habitat. Provide available, quality water for all wildlife. Increase in available forage for big game will be made in the same proportion as the initial stocking rate for livestock, wild horses, wildlife.

WILD HORSES AND BURROS

Existing Use (AUMs)	Management Objectives 1/	Identified Monitoring Plan Components 2/
600	Initial reduction of wild horse numbers to 600 AUMs. Provide adequate forage for wild horses of 900 AUMs. Adjustments in wild horse AUMs, upward or downward, will be based upon monitoring of available forage for wild horses in the same proportion as the initial stocking rates for livestock and wild horses. Perpetuate a viable herd which is manageable and compatible with other resources. Preserve unique types and markings. Reduce internal barriers to herd migration.	1. Identify key areas 2. Identify ecological range sites for key areas Establish: 3. Utilization plots, studies 4. Photo & measured trend plots 5. Frequency transects 6. Condition transects 7. Monitoring schedules 8. Management actions for the following resources: wildlife habitat, range, wild horses, watershed, riparian, and aquatic wildlife



BULLHEAD ALLOTMENT

PUBLIC LANDS (Administered by Bureau of Land Management)

PATENTED LANDS

1986

Heavy

Moderate

Light

Slight

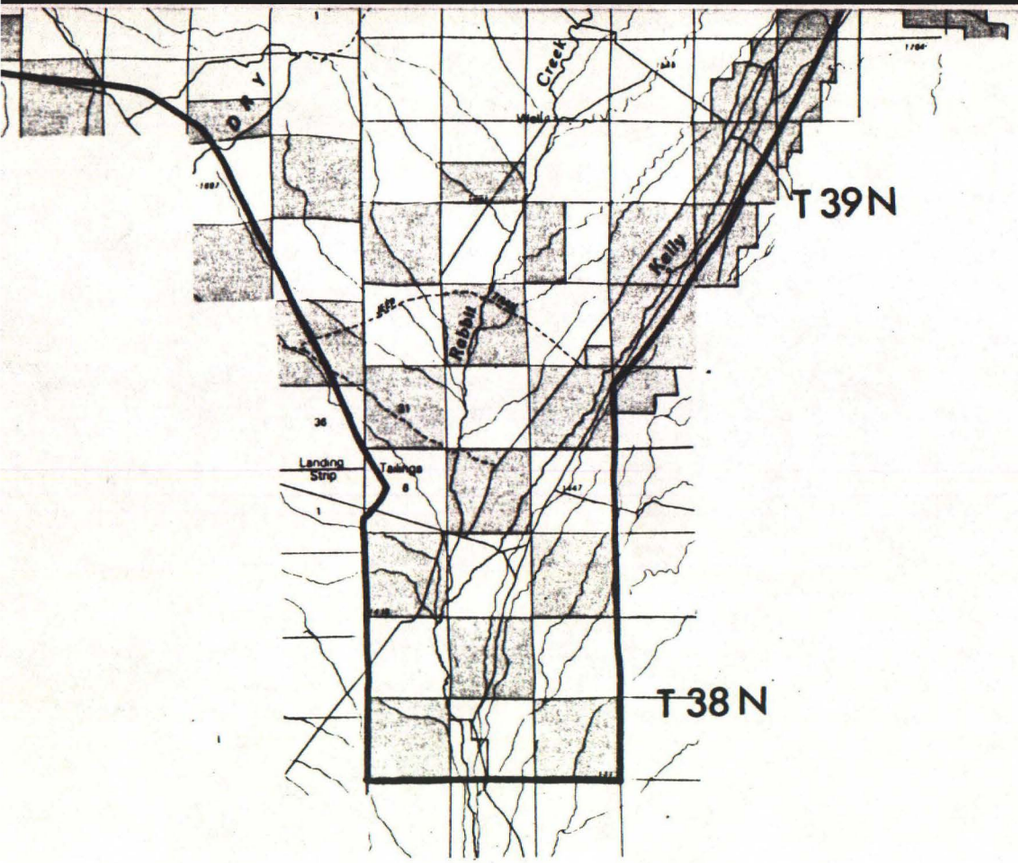
not inspected

SITE MAP

1 0 1 2 3 4 5 6 7 8 9 10
KILOMETERS

1 0 1 2 3 4 5
MILES

N



BULLHEAD ALLOTMENT

PUBLIC LANDS (Administered by Bureau of Land Management)

PATENTED LANDS

SITE MAP

1 0 1 2 3 4 5 6 7 8 9 10
KILOMETERS
1 0 1 2 3 4 5
MILES

N

1986

He

M

H

S

Snowstorm Pasture

Horse use prim

Creeks utiliza

Ro

T42N

R43E

R42E

T41N

T40N

T39N

BULLHEAD ALLOTMENT