United States Department of the Interior

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3/3/03

In Reply Refer To:
4120.2
(NV-022.15)

MAR 0 3 2003

Dear Interested Public:

Please find enclosed the Final Allotment Re-Evaluation Summary for Soldier and Paiute Meadows Allotments, and the Determination/Management Action Selection Report.

An Environmental Assessment (E.A.) analyzing the impacts of the proposed actions on these allotments will be forth coming followed by the Proposed Multiple Use Decisions and Final Multiple Use Decisions.

If you have any questions, please contact Ron Pearson at (775) 623-1500.

Sincerely,

Roger T. Bryan

for Les W. Boni
Assistant Field Manager
Renewable Resources

Enclosures
- Final Allotment Re-Evaluation
- Determination/Management Action Selection Report

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The Paiute Meadows and Soldier Meadows Allotments are being re-evaluated together in the same document in accordance with the stipulated agreement between affected interests and the Bureau of Land Management (BLM). The two allotments share some of the same resource values since they border each other in the Black Rock Range.

The Allotments are located in the northwest portion of Humboldt County. Soldier Meadows Allotment is approximately forty miles northwest of Gerlach, Nevada and ranges from the valley floor of the Black Rock Desert to the higher terrain of the Calico and Black Rock Mountain Ranges. The Paiute Meadows Allotment is approximately 40 air miles southwest of Denio, Nevada and encompasses the east side of the Black Rock Range. The allotment boundary extends from the higher elevations in the Black Rock Range to the east arm of the Black Rock Desert.

Vegetative types in the allotments range from greasewood and saltgrass sites on the flats at elevations of 4,000' to sagebrush, bitterbrush, mountainmahogany and aspen sites in the higher elevations at 8,600'.

I. PURPOSE

This Re-Evaluation is necessary to determine if Allotment Objectives and Standards for Rangeland Health are being met under present management identified in the Multiple Use Decisions (MUD) issued in January 1994 for Soldier Meadows and July 1995 for Paiute Meadows. The Soldier Meadows MUD was issued to R.C. Roberts who was the livestock permit holder at that time. The ranch was leased and then sold to Estill Ranches LLC in December of 1997 and they own and operate the ranch today. The original Paiute Meadows MUD was issued on April of 1993 to Bill and Gail Phillips who controlled the livestock permit through a lease of the ranch base properties. The ranch was eventually sold to Irv and Sandy Brown in April of 1994 and a subsequent MUD was issued to the Browns' in July of 1995, the Browns' still own and operate the ranch today.

This Re-evaluation will assess actual use, climatological, utilization, ecological site inventory, stream survey, wild horse/burro distribution and census, and wildlife habitat data to determine the effectiveness of the present management on the rangeland resources.

II. SUMMARY OF DATA

A. CURRENT STOCK PLAN

The current stocking rate by treatment is as follows:

PAIUTE MEADOWS ALLOTMENT

1995 and 1996

NORTH PAIUTE PASTURE - Low Elevation

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	03/15 TO 05/31	100	1343

NORTH PAIUTE PASTURE - High Elevation

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	06/01 TO 08/17	100	1343

1997 until amended

NORTH PAIUTE PASTURE - Low Elevation

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	03/15 TO 05/15	100	1068

NORTH PAIUTE PASTURE - High Elevation

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	05/16 TO 07/17	100	1085

SOUTH PAIUTE PASTURE

The South Paiute Pasture was closed to livestock grazing in accordance with the 1993 MUD until site specific vegetative objectives were achieved. Livestock grazing resumed in the south use area in 1996 after range conditions had improved and monitoring indicated that these objectives were accomplished.

1999

N. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS

524 c	03/15 TO 07/17	100	2153

S. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 C	07/18 TO 10/06	100	1395
50 c	01/15 TO 02/28	100	74*

* TEMPORARY NON-RENEWABLE AUMS **TOTAL = 3622**

1998

N. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	03/15 TO 07/17	100	2153

S. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 C	07/18 TO 10/06	100	1395
200 c	10/17 TO 01/17	100	612*

* TEMPORARY NON-RENEWABLE AUMS

TOTAL = 4160

1997

N. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
250 c	03/15 TO 04/08	100	205
375 c	04/09 TO 04/30	100	271

S. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
524 c	07/18 TO 10/06	100	1395

200 C	10/17 TO 01/17	100	612

TOTAL = 2483

1996

N. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
300 c	04/01 TO 08/17	100	1371

S. PAIUTE PASTURE

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
300 c	08/18 TO 10/06	100	493

TOTAL = 1864

1995

PAIUTE MEADOWS

LIVESTOCK #	DATES	% PUB. LAND	# AUMS
50 C	04/01 TO 04/07	100	12
110 C	04/08 TO 04/14	100	25
160 C	04/15 TO 04/21	100	37
213 C	04/22 TO 04/30	100	63
229 C	05/01 TO 05/02	100	15
274 C	05/03 TO 05/18	100	144
311 C	05/19 TO 05/22	100	41
354 C	05/23 TO 08/17	100	1013
356 C	08/18 TO 08/24	100	94

TOTAL = 1444

SOLDIER MEADOWS ALLOTMENT

The Soldier Meadows allotment grazing permit was controlled by R.C. Roberts from 1994 - 1996 and by the Estill Ranches LLC from 1997 to present (2001). The Soldier Meadows Allotment livestock grazing currently utilizes six pastures or use areas in a four year rest/rotation system during four seasons as listed below:

Winter Pasture (1)	500 c 01/01 to 03/30
Spring Pastures (3)	1117 c 04/01 to 04/30
Summer Pastures (2)	1117 c 07/15 to 10/14
Fall Pasture (1)	1117 c 11/14 to 12/01

2000

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/30	100	1480
1117	04/01 to 04/30	100	1102
1117	07/15 to 10/14	100	3379
1117	11/16 to 12/31	100	1689

TOTAL 7650

1999

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/31	100	1480
1117	04/01 to 04/30	100	1102
1117	07/15 to 10/14	100	3379
1117	11/16 to 12/31	100	1689

TOTAL 7650

1998

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/30	100	1480
1117	04/01 to 04/30	100	1102
1117	07/15 to 10/14	100	3379
1117	11/16 to 12/31	100	1689

TOTAL 7650

1997

#Livestock	Dates	% public land	# AUMs
800	04/01 to 04/30	100	789
1000	07/15 to 10/14	100	3025

750	11/16 to 12/31	100	1134

TOTAL 4948

1996

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/30	100	1480
1117	04/01 to 04/30	100	1102
1117	07/15 to 10/14	100	3379
1117	11/16 to 12/31	100	1689

TOTAL 7650

1995

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/30	100	1480
1117	04/01 to 04/30	100	1102
1117	07/15 to 10/14	100	3379
1117	11/16 to 12/31	100	1689

TOTAL 7650

1994

#Livestock	Dates	% public land	# AUMs
500	01/01 to 03/30	100	1480
500	04/01 to 04/30	100	493
1117	07/15 to 10/14	100	3379
500	11/16 to 12/31	100	756

TOTAL 6108

B. WILD HORSE AND BURRO ACTUAL USE

The following tables outline the estimated wild horse and burro population, period of use and AUM demand for the Black Rock Range-East, Black Rock Range-West, Calico Mountains and Warm Springs Canyon Herd Management Areas (HMA). Population estimates and actual use are based on aerial census. Population estimates and AUM

demand shown for the Calico Mountains are for that part of the HMA contained within the Soldier Meadows Allotment.

PAIUTE MEADOWS ALLOTMENT

Black Rock Range - East HMA

North of Paiute Creek

YEAR	NUMBER	AUMS
1994	68 H	816
1995	78 H	936
1996	89 H	805
	56 H	166
1997	73 H	876
1998	84 H	1008
1999	97 H	1164
2000	72 H	864

South of Paiute Creek

YEAR	NUMBER	AUMS
1994	261 H	3132
1995	298 H	3576
1996	340 H	3074
	112 H	331
1997	144 H	1728
1998	166 H	1992
1999	191 H	2292
2000	288 H	3456

SOLDIER MEADOWS ALLOTMENT

Black Rock Range - West HMA

North of Slumgullion Creek

YEAR	NUMBER	AUMS
1994	261 H	3132
1995	290 H	3480
1996	322 H	2911
	209 H	618
1997	267 H	3204
1998	307 H	3684
1999	353 H	4236
2000	443 H	5316

South of Slumgullion Creek

YEAR	NUMBER	AUMS
1994	82 H	984
1995	91 H	1092
1996	101 H	913
	42 H	124
1997	49 H	588
1998	56 H	672
1999	64 H	768
2000	51 H	612

Calico Mountains HMA

YEAR	NUMBER	AUMS
1994	167 H	2004
	3 B	36
1995	185 H	2220
	3 B	36
1996	205 H	2460
	158 H	307
	3 B	30

Warm Springs Canyon HMA

1997	207 H	2484
1998	238 H	2856
1999	274 H	3288
2000	320 H	3840

YEAR	NUMBER	AUMS
1994	476 H	5712
	27 B	324
1995	528 H	6336
	30 B	360
1996	586 H	5587
	362 H	893
	40 B	360
	22 B	54
1997	453 H	5436
	24 B	54
1998	521 H	6252
	28 B	336
1999	599 H	7188
	32 B	384
2000	749 H	8988
	22 B	264

C. WILDLIFE ESTIMATED USE

Both the Paiute Meadows and Soldier Meadows Allotments provide habitat for mule deer, pronghorn, bighorn sheep, sage grouse and chukars. In addition these allotments provide habitat for numerous species of small mammals, passerine birds, raptors, shorebirds and waterfowl.

Population Monitoring

All of Paiute Meadows Allotment is within the Nevada Division of Wildlife (NDOW) Hunt Unit (HU) 34. Approximately 50% of the Soldier Meadows Allotment is within HU 34 and the remainder of the allotment is in HU 12.

When NDOW computes its estimates for mule deer and pronghorn populations it combines Hunt Units for reporting purposes. It is difficult to determine exactly the population numbers for big game animals using these allotments but the trend in population and fawn mortality should be a good basis for habitat condition in the allotments in the hunt units. Population data collected by NDOW for mule deer, pronghorn and big horn sheep are as follows.

Mule Deer

Year	Unit(s)	Fall Estimated Population	Spring Fawns/100 Adults	Overwinter Fawn Loss (%)

1993-94	11-15,33	2730	7.2*	55*
	31,32,34, 35	3601	5.3**	57**
1994-95	11-15,33	2609	19.8*	47.9*
	31,32,34, 35	5111	27**	20**
1995-96	11-15,33	3197	34*	21*
	31,32,34, 35	4612	24**	32**
1996-97	11-15,33	4403	36*	17*
	31,32,34, 35	4087	29**	25**
1997-98	11-15,33	5516	39*	0*
	31,32,34, 35	4068	35**	31**
1998-99	11-14,33	4482	45*	13*
	31,32,34, 35	4344	51**	0**
1999-2000	11-13	142***	67	36
	34	177***	60	31

* Only HU 14
** Only HU 34
*** Actual count numbers, not a population estimate.

Pronghorn

Year	Unit(s)	Estimated Population	Summer Kids/100 Adults
1993-94	12,13,14	4454*	12
	32,34,35	1780	19***
1994-95	12,13,14	4182*	20
	32,34,35	1866	11***
1995-96	12,13,14	3640*	13
	32,34,35	1778	20***
1996-97	12,13,14	3367*	18
	32,34,35	1921	31***

1997-98	12,13,14	3013*	21
	32,34,35	1999	23***
1998-99	12,13,14	2573*	23
	31,32,34, 35	2825	32
1999-2000	12,13,14	654****	42
	32,34,35	645****	31

*Includes HU11 & HU15 data
**HU 32 data only
*** HU 34 data only
****Actual count numbers, not a population estimate

California Bighorn

Year	Unit(s)	Estimated Population	Fall Lambs/100 Adults
1993-94	14	80	27
	34	na	71
1994-95	14	83	23
	34	30	32
1995-96	14	90	26
	34	39	25
1996-97	14	103	35
	34	na	na
1997-98	14	88	34
	34	92	29
1998-99	14	60	51
	34	102	33
1999-2000	14	na	na
	34	32***	53

***Actual count numbers, not a population estimate

Big game populations on both allotments were in decline during the early 1990's due to the drought northwestern Nevada was experiencing at that time. The winter of 1992-93 was particularly severe on populations from the lack of quantity and quality of forage. There were extensive winter kills following that winter. Populations have rebounded through the middle and late 1990's due to adequate to above average water years. Populations have almost reached predrought levels.

PASSERINE BIRD INVESTIGATIONS

Point Counts

Under a cost-share contract with the U.S. Bureau of Land Management (BLM), three stations in the Black Rock Range within the Soldier Meadows and Paiute Meadows Allotments, were established between June 24 and July 9, 1999.

METHODS

Stations were located in cooperation with personnel from BLM's Winnemucca District Office, based on data needs associated with the land use planning document review schedule. After selection, NDOW personnel conducted the point counts following protocol basically similar to Ralph (1993).

Point Location - Points were established at intervals spaced by 150 two-step paces (approximately 250 meters apart) along the desired transect line. Points were identified on topographical maps as close to the actual spot as possible using microtopographical features. Notes were taken to describe the point location as closely as possible using distinctive terrain, vegetative, and manmade features as references. Site locations were also fixed using a handheld Geographical Positioning Systems (GPS) unit.

Point Counts - Counts were conducted at each point over a nine-minute period. Bird observations or bird songs were recorded in three-minute intervals for each nine-minute count. Time was kept using a battery-powered digital kitchen timer small enough to fit in a pocket. Data recorded for each point included date, time of day, and point number. For each bird observation, data recorded included species, number of individuals, distance estimated from point (<50m, >50-100m, >100m). Flyovers were recorded. Point counts were conducted between 0600 (± 10 minutes) and 1000 hours. No point counts occurred after 1000 hours. In addition to standardized counts, birds observed incidental to the surveys, either between points, or on site before or after the count were also recorded.

Vegetation Characteristics - On the return trip down the transect after point counts were conducted, vegetation characteristics were recorded using ocular estimate techniques. Data collected included general cover type, number and diameter class of trees within 11.3m, canopy height and coverage, canopy coverage by diameter class, canopy coverage of shrubs, "bushes", and grass/forbs, snag abundance, down log abundance, the occurrence of edge, riparian vegetation, or wet meadow within 100m, and occurrence of rock outcrops.

Station 21 - Mahogany Creek - Summer Camp Creek

Station 21 begins at the intersection of the Mahogany Creek and Summer Camp Creek roads at the section line between Sections 26 (public) and 27 (private) in Township 42N, Range 26E. It continues for 10 points up the road that parallels Summer Camp Creek, crosses the creek just past Point 4, and continues on the road as it climbs into Mahogany Creek basin. The station ends approximately 33 meters (20 paces) east of the first mountainmahogany stand intersecting the road (Latitude: 41.31.661; Longitude: 118.58.524).

Summer Camp Creek supports continuous mature aspen overstory from its confluence with Mahogany Creek well past the road crossing. When the road leaves Summer Camp Creek, it traverses alternating sites of big and low sage until it reaches a liberal scattering of aspen and mountainmahogany *(Cercocarpus ledifolius)* groves above and south of Mahogany Creek (Wood Canyon). Range conditions are excellent, with liberal coverage of perennial grasses among and between sagebrush plants.

Station 22 - Bartlett Creek

Station 22 begins on public land in Township 41 N, Range 27E, Section 2 where a jeep trail crosses Bartlett Creek en route to the Rough Canyon road. It extends upstream for 10 points, staying on public land following the road up the north fork of Bartlett Creek. Point 9 is situated at the intersection with a very short spur road which leads north from the main road, and point 10 is 250 meters (150 paces) west of that intersection (Latitude: 41.30.791; Longitude: 118.52.348).

The lower stretch of Station 22 supports a broad band of mature closed canopy riparian willow (stiff-branched *Salix scouleri* or comparable type, not coyote willow S. *exigua)* through Point 3. As the canyon constricts upstream, riparian vegetation quality diminishes steadily. A dilapidated home site with Lombardy poplars exists near Point 7, and riparian vegetation is next to nonexistent on the small north fork which the road follows above the home site. It should be noted that this north fork cannot be considered the main flow of Bartlett Creek, but confusion over the actual situation of private land in this area made following the north fork necessary.

Station 23 - North Fork of Battle Creek

Station 23 begins on top of the higher of two rocky knolls traversed by a jeep trail west and south of the creek channel in Township 41 N, Range 26E, Section 13 (Latitude: 41.27.203; Longitude: 118.56.907). It extends downstream for 10 points, leaves the Rough Canyon road between Points 7 and 8 and follows a jeep trail down the main stream, ending approximately 108 meters downslope of the jeep trail at the foot of a large granite stack (Latitude: 41.26.360; Longitude 118.56.200).

The North Fork of Battle Creek through Station 23 supports two long mature groves of aspen. Willow and alder exist as mid-story under the aspen overstory, and there is also a fairly continuous mature riparian band from Point 6 on down. Above Point 3, mature riparian shrubs are intermittent and the basin is mostly open.

Mahogany Creek

The Mahogany Creek transect was surveyed June 24, 1999. Ten points were established. Thirty-two species were recorded during the survey, and two species were identified incidental to the survey. The most numerous species were American Robin (10 individuals), Yellow Warbler, (9), and House

Wren (8). The species most frequently encountered included American Robin (7 points), Yellow Warbler and House Wren (6 apiece). Nevada PIF Priority Species encountered included Calliope Hummingbird, Gray Flycatcher, MacGillivray's Warbler, Orange-crowned Warbler, Sage Thrasher and Vesper Sparrow. Yellow Warbler was another species encountered of potential management interest.

Mahogany Creek and Summer Camp Creek through the station exhibit excellent riparian habitat condition. The aspen overstory is vigorous and is strongly supported by a regenerative layer of aspen in the midstory. Willow and alder in the midstory are vigorous and self-sustaining. The upland big and low sage (Points 7 through 10) habitats are in excellent condition with vigorous undergrowth of perennial grasses.

Bartlett Creek

The Bartlett Creek transect was surveyed July 2, 1999. Ten points were established. Seventeen species were recorded during the survey, and two additional species were observed incidental to the survey. The most numerous species were Brewer's Blackbird (16 individuals), Western Meadowlark (13), Spotted Towhee (11), and Lark Sparrow (10)

Species most frequently encountered included Western Meadowlark (8 points), Spotted Towhee and Rock Wren (7 each). Nevada PIF Priority Species observed included Gray Flycatcher, MacGillivray's Warbler, and Yellow-breasted Chat. Other species of potential management interest included Chukar and Yellow Warbler.

The first three points of the Bartlett Creek station survey an extensive stand of broad-leaved willow (S. *scouleri* or similar) that covers most of the width of its primary floodplain below the canyon mouth. This willow stand provides excellent riparian songbird habitat and its quality is confirmed by the presence of Yellow-breasted Chat and Western Screech Owl in its diverse bird community. From the canyon mouth upstream, riparian habitat thins out quickly until it practically disappears above the old home site. Upland big sage condition varies from poor to good depending on the slope. Some steeper slopes exhibited heavy annual production, while flatter sites adjacent to the creek exhibited almost no understory and powdered soils.

Battle Creek North Fork

The Battle Creek North Fork transect was surveyed July 9, 1999. Ten points were established. Twenty-four species were identified during the survey, and three additional species were observed incidental to the survey. The most numerous species were American Robin (13 individuals), Lazuli Bunting and Yellow Warbler (10 each). Species most frequently encountered included American Robin and Lazuli Bunting (8 points each) and Yellow Warbler (7 points). Nevada PIF Priority Species observed included Gray Flycatcher, MacGillivray's Warbler, Sage Thrasher, and Vesper Sparrow. Other species of potential management interest included Chukar, Fox Sparrow, and Yellow Warbler.

The North Fork of Battle Creek exhibits good riparian habitat condition through the station. Three mature stands of aspen occur through the stretch, connected by mature, structurally diverse willow habitat through most of the remainder of the station. Upland big and low sage sites are in good

condition, exhibiting moderate undergrowth of perennial grasses.

DISCUSSION

Black Rock Range

Riparian habitat conditions were highest in the Mahogany-Summer Camp Creek watershed. The Mahogany/Summer Camp Creek survey yielded the highest species count of any 1999 survey, and presently rates as the highest species count of any survey conducted since the initiation of monitoring in 1997 (not counting incidental sightings). The North Fork of Battle Creek exhibited good riparian habitat conditions throughout its survey station. Bartlett exhibited a short stretch of excellent broad-leaved willow habitat with high bird species diversity, but the majority of the stretch through the station was in poor riparian habitat condition.

CONCLUSIONS

Major conclusions beyond the simplest distributional analyses cannot be drawn after only one performance of these surveys. Subsequent replications of the surveys would shed light on the relationships between bird abundance and distribution and habitat condition trends. Replications of the surveys were not planned until the next planned Allotment Review, but given recent findings suggesting that annual variability in riparian bird populations cannot be captured with less than five years' data, the BLM might wish to consider replicating the surveys as many years as possible between now and the next Allotment Review.

RECOMMENDATIONS

The excellent habitat quality of the Mahogany/Summer Camp watershed should be maintained at least at its historical (pre-burn) level to maximize this watershed's contribution to Nevada's songbird species diversity. Care should be exercised in the Bartlett Creek watershed to maintain the present healthy stands of broad-leaved willow. Opportunities to expand segments of high-quality riparian habitats up and downstream should be explored and initiated where feasible.

D. CLIMATOLOGICAL DATA

1994 - 2000

Three NOAA (National Oceanic and Atmospheric Administration) stations data was selected and presented due to the sites relatively close proximity to the allotments.

Leonard Creek Ranch Station
Precipitation (inches)

YEAR	GROWING SEASON	ANNUAL TOTAL
2000	2.59	Z 8.11

1999	2.97	6.65
1998	6.18	15.13
1997	4.18	8.96
1996	5.84	M 13.71
1995	6.70	11.49
1994	2.15	8.31

Denio Station
Precipitation (inches)

YEAR	GROWING SEASON	ANNUAL TOTAL
2000	2.62	Z 5.62
1999	2.53	5.78
1998	7.61	14.12
1997	5.38	7.95
1996	4.68	M 10.91
1995	5.78	M 11.11
1994	2.70	7.21

Gerlach Station
Precipitation (inches)

YEAR	GROWING SEASON	ANNUAL TOTAL
2000	3.42	Z 6.65
1999	1.96	4.52
1998	7.63	14.93
1997	3.34	7.70
1996	4.54	M 11.98
1995	7.46	12.79

1994	2.66	M 6.70

Growing Season = March - August
M = Insufficient or partial data.
Z = Twenty-six (26) or more days missing

E. UTILIZATION DATA

The portions of the allotments or use areas monitored vary annually depending upon manpower, range conditions and accessibility.

The primary plant species monitored were:

AGCR	crested wheatgrass
AGSP	bluebunch wheatgrass
ARSP5	bud sagebrush
ATCO	shadscale
BRCA5	mountain brome
CAREX	sedge
EULA5	winterfat
FEID	Idaho fescue
JUNCU	rush
ORHY	Indian ricegrass
POSE	Sandberg bluegrass
SIHY	bottlebrush squirreltail
STCO4	needleandthread
STTH2	Thurber needlegrass
SALIX	Willow
PURSH	bitterbrush
POTRT	Quaking aspen

The utilization classes are defined as follows:

Slight Use	0 to 20%
Light Use	21 to 40%
Moderate Use	41 to 60%
Heavy Use	61 to 80%
Severe	81 to 100%

1. The following is a brief summary of the Use Pattern Maps.

PAIUTE MEADOWS ALLOTMENT

1995

NORTH PAIUTE USE AREA

Data Collected: July 6, 7 Low Elevation area

Light utilization with one small area of moderate use on Bartlett Creek.

Data Collected: August 31 High Elevation area

Utilization ranged primarily form slight to moderate use with some heavy use recorded in the vicinity of Burnt Spring and Butte Creek.

1996

Data Collected: May 8 High Elevation area

Slight utilization was recorded in the area north of Rough Canyon.

1997

Data Collected: Aug. 27, Sept. 25 & 30 High Elevation area

Utilization ranged primarily form slight to light use with some moderate to heavy use recorded in the vicinity of Paiute and Butte Creek.

SOUTH PAIUTE USE AREA

1996

Data Collected: Oct. 8 High Elevation area

Utilization ranged primarily form slight to light use with some moderate use recorded in the vicinity of the Paiute Seeding.

Data Collected: May 7 & 30 High Elevation area

Slight utilization was recorded in the vicinity of the Paiute Seeding and northwest of Cane Spring.

1997

Data Collected: Oct. 29 & 30 Low Elevation area

Slight to light utilization was recorded throughout the area.

Data Collected: April 2 & 3 High Elevation area

No use to light utilization was recorded throughout the area.

1998

Data Collected: September 5 Low Elevation area

Slight to light utilization was recorded throughout the area.

1999

Data Collected: October 20 Low Elevation area

Slight utilization was recorded throughout the area.

SOLDIER MEADOWS ALLOTMENT

1994

CALICO SPRING PASTURE

Data Collected: May 15,16 Fly Cyn./Chukar Gulch

Light utilization with small areas of moderate use associated with spring sources.

1994

WARM SPRINGS SUMMER PASTURE

Data Collected: October 26 Black Butte to Five Mile Flat

Utilization monitoring was conducted primarily on antelope bitterbrush in the northern portion of the pasture. Two transects were conducted in the vicinity of the Bear Buttes, less than five percent (5%) utilization was observed at both sites.

Data Collected: October 26 Black Butte to Five Mile Flat

Slight use was observed in the southern portion of the pasture with predominately light use in the northern area. There were three areas of moderate use observed at Rock and Trough Springs as well as Five Mile Flat. No use was observed on either bitterbrush site transects 1 and 5.

1995

WARM SPRINGS SUMMER PASTURE

Data Collected: October 5 Chukar Gulch/Five Mile

There was no use to heavy utilization observed throughout the pasture. Most of the use area received slight to light use except for moderate use in the Five Mile Flat area in the north portion of the pasture and heavy use at Clear and Rock Springs.

SUMMIT LAKE PASTURE

Data Collected: August 17 Summer Camp Creek-Riparian

The monitoring consists of nine photo sites and an occular utilization assessment. These sites were established in 1990 and have been monitored since then. There was no utilization, cattle or horse sign observed at any of the sites monitored. Based upon this data we are achieving riparian objectives.

1996

BLACK ROCK WINTER PASTURE

Data Collected: May 15 Clapper Cyn./Mud Reservoir

Light utilization within most of the pasture with slight use on the southern portion and some moderate use south of Mud Reservoir.

SOLDIER MEADOWS SPRING PASTURE

Data Collected: May 14 Clapper Cyn./Mud Reservoir

Slight utilization was mapped throughout the pasture

CALICO SPRING PASTURE

Data Collected: May 14 Fly Cyn./Chukar Gulch

Slight utilization was mapped throughout most of the pasture
with one area of light use near Antelope Spring and moderate use near Buck Spring.

1997

WARM SPRINGS SUMMER PASTURE

Data Collected: November 4 Chukar Gulch/Five Mile

Most of the use area received slight to light use except for moderate use in the Five Mile Flat area in the north portion of the pasture and heavy use at Clear and Rock Springs.

SUMMIT LAKE PASTURE

Data Collected: July 31 Summer Camp Creek-Riparian

The riparian monitoring consists of photo sites and an ocular utilization assessment. These sites were established in 1990 and have been monitored since then. There was no utilization, cattle or horse sign observed at any of the sites monitored on Summer Camp Creek. There was however horse sign and heavy use observed at the sites monitored on Snow Creek spring sources. Based upon this data we are achieving riparian objectives on Summer Camp and NOT attaining the objectives on Snow Creek spring sources.

1999

WARM SPRINGS SUMMER PASTURE

Data Collected: October 7 Chukar Gulch/Five Mile

There was no use to heavy utilization observed throughout the pasture. Most of the use area received slight to light use except for moderate use in the Five Mile Flat area in the north portion of the pasture and heavy use at Clear and Rock Springs.

SOLDIER MEADOWS SPRING PASTURE

Data Collected: May 12 Slumgullion Creek

There was no use to slight utilization observed throughout the pasture. Most of the use area had received no use except for slight use along the Slumgullion Creek drainage. John Estill, the permittee, said since they only use the pasture for one month, they scattered the cattle out then have to start moving them off to the Wall Canyon Allotment.

SUMMIT LAKE PASTURE

Data Collected: October Snow and Colman Creek-Riparian

There was heavy use observed at the sites monitored on Snow and Colman Creeks spring sources. Based upon this data we are NOT attaining riparian utilization or stubble height objectives on these spring sources.

2000

Data Collected: January 12 Hot Springs Pasture-Riparian

There was heavy use observed at the spring sources and outlets north of Mud Springs Reservoir. Based upon this data we are NOT attaining riparian utilization or stubble height

objectives on these spring sources.

SOLDIER MEADOWS ALLOTMENT

Key areas related to the development of Desired Plant Community Objectives were never established in this allotment after the 1994 MUD. For this reason no additional formal studies were initiated. The following observations are the professional judgement of shrub form class and vegetation diversity within the allotment, by the range management specialist, wild horse specialist and wildlife biologist assigned to this allotment. Utilization studies were conducted and photo points were established at meadow sites.

Warm Springs Pasture

This pasture provides summer habitat for both pronghorn and mule deer. In 1994 and 1995 utilization on shrubs and in riparian areas was in the light to moderate category with some heavier use in the riparian areas in Warm Springs Canyon, Chukar Gulch and around Rock Spring.

When this pasture was monitored in September of 1996, the third year in a row it had been used for late season grazing without any rest, the pasture was showing decline in upland shrub and riparian habitat quality. There was heavy use on bitterbrush from Sand Basin to Rock Spring. There was moderate/heavy use on mountainmahogany from Sand Basin to the lower slopes of Bear Buttes. At T. 42 N., R. 24 E., sec. 24 SW NW there was heavy/severe use around the water catchment and moderate/heavy use on grasses on the adjacent uplands. Use at Rock Spring was heavy/severe on grass and grass likes, the one willow present had heavy use on the available leader growth, and livestock had used the bull thistle. Along the mid to upper part of the Warm Springs Canyon drainage there was heavy use on the narrow riparian zone. Moving south along the Warm Springs Canyon drainage, use on Use on the narrow riparian area between Clear Spring and the Chukar Gulch road was moderate/heavy. Use north of Bear Buttes, from Five Mile Flat to Rock Spring appeared to be primarily by cattle, but horses were using the area as well. Use on Bear Buttes and the upper part of Warm Springs Canyon drainage was primarily by horses. Use at Clear Spring appeared to be primarily by cattle. Use from Clear Spring to the reservoir near the head of Chukar Gulch was a combination of cattle and horses. Use on the benches west of Chukar Gulch was by horses.

In 1997 a wildfire burned approximately 2500 acres within the Summit Lake Pasture. The fire started on the Summit Lake Paiute Tribe Reservation along Mahogany Creek and burned northeast into Idaho Canyon and onto the Sheldon NWR. Most of the habitat that burned was in late seral stage or at Potential Natural Community (PNC) within grass dominated sites. There was very little loss of bitterbrush, snowberry and serviceberry within the shrub dominated vegetative types. Today this area has revegetated and it is difficult to determine the burned areas from the unburned sites.

In September of 2000 the Mahogany Fire burned approximately 12,255 acres in the Mahogany Creek, Summer Camp Creek, Pole Creek in the Soldier Meadows Allotment and

Bartlett Creek in the Paiute Meadows Allotment. Loss of riparian and upland habitat ranged from light to severe depending upon fire behavior and fuel types (Idaho fescue vs. Aspen & Willow). The Wood Canyon section of Mahogany Creek and lower Pole Creek burned very hot eliminating most of the aspen and willow components of the site. Before the smoke had settled from the Mahogany Fire an Emergency Fire Rehabilitation (EFR) Team began assessing options to protect and assist in the rapid recovery of the fragile resources within the watershed. There were numerous tours and meetings that were attended by specialists from BLM, Nevada Division of Wildlife, Summit Lake Paiute Tribe and U.S. Fish and Wildlife Service. Collectively this team compiled a rehabilitation plan and secured funding to insure on the ground efforts were accomplished in a timely manner. Once the fire suppression activities were completed Decisions were issued to all livestock permit holders within the allotments affected by the fire stating that the area was closed to livestock grazing. The areas that burned will remain closed to livestock grazing until such time as the rehabilitation objectives are attained. During the fall/winter of 2000/2001 a scheduled wild horse gather was conducted which removed several hundred horses from the Black Rock Range resulting in reduced grazing impacts to the vegetative resources within the area that was burned.
The cage in the upland meadow at Dry Lake has shown slight to light use throughout the reevaluation period. The cage in the upland meadow at the headwaters of the North Fork of Colman Creek has shown light to moderate utilization during the same time period. The cage in the upper reaches of Snow Creek has shown light to moderate utilization by the first of July and by September utilization ranged form moderate to heavy. Except for some minimal livestock trespass most of this utilization has been by horses.

Aspen stands in the upper reaches of Colman Creek, Summer Camp Creek and Mahogany Creek seem to be stable without any substantial losses within the clone. Aspen stands in the upper reaches of Snow Creek have shown a large die off within the last decade.

F. TREND

During the re-evaluation period no trend data has been collected on the Soldier Meadows or Paiute Meadows allotments.

G. ESI

An Ecological Status Inventory (ESI) was completed on the Soldier Meadows Allotment in 1991. This ESI data indicates existing seral stages of each vegetative community (ecological site) and that sites' vegetative potential. The ESI data was used to develop allotment wide Desired Plant Community (DPC) objectives reflected in the 1994 Multiple Use Decision. There have been no new key areas established or monitored during the evaluation period using DPC objectives. The establishment of any additional key areas by the Field Office interdisciplinary team with participation from the permittees and members of the allotment interested publics will consider ESI and DPC information. **(Refer to Appendix III & IV.)**

H. WILDLIFE/RIPARIAN INVENTORY

1. SAGE GROUSE

The Western States Sage Grouse Committee presented a comprehensive guide to habitat requirements for sage grouse in their 1974 Guidelines for Habitat Protection in Sage Grouse Range (Report). In this report, habitat conditions observed most frequently, and which resulted in the highest success for sage grouse strutting, nesting, brood rearing, and wintering ranges in the west were summarized. In 2000 the Bureau of Land management established interim sage grouse management guidelines (Management Guidelines for Sage Grouse and Sagebrush Ecosystems). These guidelines were based on the Western Association of Fish and Wildlife Agencies (WAFWA) Draft guidelines and Oregon Bureau of Land Management sage grouse management guidelines, with input from all BLM field offices in Nevada. These guidelines were implemented immediately and will remain in place until the Governors' Sage Grouse Conservation Team finishes it's deliberation; at that time they will be reviewed for consistency with the conservation planning effort.

The long term revised objectives listed below represent optimum (good) habitat conditions based on the above documents and other pertinent research. These habitat objectives will be evaluated based on the actual site potential in the future to determine if they are being met.

The following parameters have been found to constitute optimum (good) conditions for sage grouse use :

1) Strutting Habitat

Low sagebrush or brush free areas for strutting, and nearby areas of sagebrush having 20-50% canopy cover for loafing.

Nesting Habitat

1. Sagebrush between seven (7) and 31 inches in height (optimum= 16 inches)
2. Sagebrush canopy coverage 15-30% (optimum = 27%)
3. 25-35% basal ground cover
4. Average understory height of 6-7 inches

Brood Rearing Habitat

Early Season

1. Sagebrush canopy cover 10-21% (optimum = 14%)

Late Season

1. Meadow areas that are in functioning condition
2. Residual meadow vegetation of no less than 3-6 inches in height

Winter Habitat

1. Greater than 20% sagebrush canopy cover

In addition NDOW personnel cited various literature sources which indicated the importance of good under story growth beneath and surrounding the nest bush. Under story cover helps to conceal the nests from predation from the air and creates a microclimate around the nest bush.

Data has not been collected to evaluate the condition and trend of sage grouse habitat in the Paiute Meadows Allotments.

In June of 2000 a sage grouse habitat study was initiated in the headwaters area of the East Fork of Colman Creek in the Summit Lake pasture of the Soldier Meadows Allotment. Ground cover was 54.7%. The shrub component of the community was consisted entirely of big sagebrush (ARTRV) and made up 56.6% of the community. Grasses made up 39.6% of the community with Idaho fescue (FEID) the predominant grass species. Forbs made up 3.8% of the community. Average cover height was 1.33 feet.

Though some of the allotment has burned the principle sage grouse use areas have not been significantly impacted by fire. All crucial habitat types (strutting, nesting, brood rearing, and wintering) are present throughout the allotment. All habitats are estimated to be in good (visual observations) condition with the exception of brood rearing habitat, which is estimated as fair. Brood rearing habitat within the allotment is limited by available riparian meadow sources, upon which sage grouse broods become heavily dependent in mid-summer.

2. STREAM SURVEYS

Stream parameter data was collected by the Nevada Division of Wildlife (NDOW) and the Summit Lake Paiute Tribe (SLPT) during the evaluation period. Both agencies use the General Aquatic Wildlife Survey for analysis of this data and calculate an Habitat Condition Index (HCI) derived by using the six habitat parameters of pool measure (PM), pool structure (PS), stream bottom (SB), bank cover (BC), bank soil stability (BSS) and bank vegetative stability (BVS). Riparian Condition Class (RCC) which correlates to bank erosion and changes in riparian vegetative composition, was also calculated as the average of bank cover and bank stability obtained from stream inventories.

Below are stream survey parameters collected during the evaluation period for Mahogany Creek, Summer Camp Creek, Snow Creek, Colman Creek, Donnelly Creek and Slumgullion Creek in the Soldier Meadow Allotment and Bartlett Creek, Battle Creek and Paiute Creek in the Paiute Meadows Allotment.

Soldier Meadows Allotment

Mahogany Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1994	SLPT	60.14	9.38	51.3	78.2	93.8	97.4	65	86

1997	NDOW	68.6	48.8	77.8	56.9	76.4	92.1	70.5	66.6

Summer Camp Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1994	SLPT	52.1	10.85	72.9	80	96.25	99.4	68.6	88
1997	NDOW	76.2	60.6	84.1	51.5	77.5	92.0	74.5	64.5

Snow Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1994	SLPT	71.4	0	57.7	67.9	82.1	88.45	61.25	75
1997	NDOW	78.6	50.0	72.9	58.1	85.0	90.0	72.4	71.5

Slumgullion Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1999	NDOW	47.5	14.6	40.2	70.6	52.1	57.4	47.1	61.3

Colman Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1997	NDOW	66.3	47.9	68.2	63.1	70.2	75.9	65.9	66.6

Donnelly Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1995	NDOW	73.7	54.3	56.0	70.6	72.1	73.0	66.6	71.3

North Fork Donnelly Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1995	NDOW	79.9	29.2	37.2	68.3	70.0	71.7	59.4	*69.2*

Paiute Meadows Allotment

Bartlett Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1994	NDOW	59.4	49.7	65.0	72.0	68.4	67.5	64.5	70.2
1998	NDOW	60.4	33.4	78.9	88.6	78.6	78.7	69.8	83.6

North Fork Battle Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1997	NDOW	62.3	53.6	47.8	82.0	68.0	75.3	64.8	75

Paiute Creek

Year	Agency	PM	PS	SB	BC	BSS	BVS	%HCI	RCC
1994	NDOW	36.9	82.1	34.1	72.5	68.7	70.0	63.6	70.6
1999	NDOW	71.0	12.1	37.1	84.5	79.8	85.7	61.6	82.1

In general, pool quality is a limiting factor in most streams in the Great Basin. The fisheries streams in these two allotments are no different and lack of quality pools is the greatest limiting factor. Desired bottom material in the streams in these allotments is the second greatest limiting factor. Pool/riffle ratios is, to a lesser extent, also a limiting factor.

3. FISHERIES

The Soldier Meadow Allotment has four occupied fisheries streams. Mahogany Creek, Summer Camp Creek, Snow Creek and Colman Creek. Mahogany Creek, Summer Camp Creek, and Snow Creek are tributaries of Summit Lake and are occupied by Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)(LCT). LCT are presently listed by the U.S. Fish and Wildlife Service as a threatened species under the Endangered Species Act (ESA). Summit Lake and its tributaries are one of only two known self-sustaining lacustrine population of LCT. In addition to providing spawning habitat for the lake population, Mahogany Creek and Summer Camp Creek also support a fluvial population of LCT. LCT were also reintroduced into Colman Creek in 1999 and the population was augmented in 2000.

Two other streams in the allotment have the potential to support fish populations. These are Donnelly Creek and Slumgullion Creek. At this time surveys of these streams by the Nevada Division of Wildlife(NDOW) indicate that they are barren. Donnelly Creek has been designated as a recovery stream in the Recovery Plan for the Lahontan cutthroat trout and it is proposed to have LCT reintroduced into it.

The hot springs and their outflows to the south and west of the Soldier Meadows Ranch are the only known habitats for another federally listed threatened species of fish, the desert dace (*Eremichthys acros*). Recent investigations of the hot springs in the area have also revealed the presence of several species of hydrobiid snails.

The Paiute Meadows Allotment has three fisheries streams, Paiute Creek, Bartlett Creek and Battle Creek. At this time only Bartlett Creek has been found to be supporting a fishery. The latest population sampling in Bartlett Creek found it was occupied by rainbow trout (*Oncorhynchus mykiss*). Earlier population sampling of this stream had found speckled dace

(Rhinichthys robustus) and Tui chub *(Gila bicolor)* present. All three of these streams have been designated as recovery streams in the Recovery Plan for the Lahontan cutthroat trout and it is proposed to have LCT reintroduced into them. In 1999 LCT were reintroduced into the North Fork of Battle Creek and the population was augmented in 2000.

4. RIPARIAN FUNCTIONALITY - PFC

PAIUTE MEADOWS ALLOTMENT

Battle Creek

Battle Creek was inventoried in mid June of 1998. The stream was divided into two reaches.

The south fork (#1) is approximately 3.5 miles in length. This reach is rated as functioning at risk with a downward trend due to the poor condition of riparian vegetation along the stream.

The north fork (#2) is approximately 11.3 miles in length. This reach is rated at functioning at risk with an upward trend due to the bank vegetation not being at potential.

Bartlett Creek

Bartlett Creek was inventoried in mid June of 1998. The stream was divided into two reaches.

The north fork (#1) is approximately 5.6 miles in length. This reach is rated as functioning at risk with a static trend due to the poor condition of riparian vegetation and stream bank instability.

The south fork (#2) is approximately 5.4 miles in length. This reach is rated at proper functioning condition.

Butte Creek

Butte Creek was inventoried in mid June of 1998. The entire stream was put into one reach.

The reach is approximately 3.3 miles in length. This reach is rated as functioning at risk with an upward trend due to the bank vegetation not being at potential.

Deer Creek

Deer Creek was inventoried in mid June of 1998. The entire stream was put into one reach.

The reach is approximately 1.2 miles in length. This reach is rated as functioning at risk with an upward trend due to the bank vegetation not being at potential.

Paiute Creek

Paiute Creek was inventoried in mid June of 1998. The stream was divided into two reaches.

The upper reach, from the headwaters to the uppermost private land holdings (#1) is approximately 1.1 miles in length. This reach is rated as functioning at risk with an upward trend due to the bank vegetation not being at potential.

The downstream reach (#2) is approximately 4.3 miles in length. This reach is rated at proper functioning condition.

Rough Canyon

Rough Canyon was inventoried in mid June of 1998. The stream was divided into two reaches.

The upper reach (#1) is approximately 3.8 miles in length and included the drainage from the headwaters to approximately a quarter mile above the falls in the canyon. This reach is rated as functioning at risk with an upward trend due to the banks being not fully vegetated.

The lower reach (#2) is approximately 1.1 miles in length and included the rest of the stream until it reaches the valley floor and goes subsurface. This reach is rated at proper functioning condition.

SOLDIER MEADOWS ALLOTMENT

Mahogany Creek

Mahogany Creek is inventoried in August of 1993. The stream was divided into three reaches.

The upper reach (#3) is approximately 2.1 miles in length and included the drainage from the headwaters to the road crossing above Wood Canyon. This reach is rated as proper functioning.

The middle reach(#2) is approximately .66 miles in length and included the stream from the road crossing to Pole Cr. This reach is rated as proper functioning.

The lower reach (#1) is approximately 1.8 miles in length and included the rest of the stream until it reaches the confluence with Summer Camp Creek. This reach is rated as proper functioning condition.

Summer Camp Creek

Summer Camp Creek is inventoried in July of 1993. The stream was divided into three reaches.

The upper reach (#1) is approximately 1.1 miles in length and includes that part of the drainage from the headwaters to approximately half a mile above the Summer Camp cabin.

This reach is rated at proper functioning condition.

The mid reach (#2) is approximately 3.0 miles in length and includes that part of the drainage from a half mile above the Summer Camp cabin to the confluence with Mahogany Creek. This reach is rated at proper functioning condition.

The lowest reach (#3) is approximately 1.2 miles in length and includes that part of the stream from the confluence with Mahogany Creek to the Summit Lake Paiute Reservation boundary. This reach is rated at proper functioning condition.

Snow Creek

Snow Creek was inventoried in July of 1993. The stream was inventoried as one reach from the headwaters to the Summit Lake Paiute Reservation boundary and is approximately 2.3 mile in length. The reach is rated as functioning at risk with a static trend. The major factor contributing to the rating is the bank damage and removal of bank cover by wild horses.

Colman Creek

Colman Creek was inventoried in June of 1998. The stream was divided into three reaches.

The upper most reach (#1) is approximately 1.3 miles in length and includes the drainage from the headwaters to approximately half a mile above the falls. The reach is rated as nonfunctional due to the headcuts and highly erosive channel.

The middle reach (#2) is approximately 4.0 miles in length and includes the public owned part of the drainage from approximately half a mile above the falls to the farthest west private land in the canyon. The reach is rated as functioning at risk with no apparent trend due to highly erosive uplands and a lack of bank stability and cover in parts of the reach.

The lowest reach (#3) is approximately 4.9 miles in length and includes the part of the drainage between the private land in the canyon and the private land on the old lake bed. The reach is rated as proper functioning condition.

Slumgullion Creek

Slumgullion Creek was inventoried in June of 1998. The stream was divided into three reaches.

The upper most reach (#1) is approximately 8.3 miles in length and includes the drainage from the headwaters to the private land in the canyon, excluding a 1.1 mile portion of the drainage in the steep canyon southwest of Red Mountain. The reach is rated as functioning at risk with a downward trend due to the instability of the uplands from wild horse trailing.

The middle reach (#2) is approximately 1.1 miles in length and includes the portion of the drainage in the steep canyon southwest of Red Mountain. The reach is rated as proper functioning condition.

The lowest reach (#3) is approximately 3.7 miles in length and includes the part of the drainage between the private land in the canyon and mouth of the confluence with Soldier Creek. The reach is rated as proper functioning condition.

Cherry Creek

Cherry Creek was inventoried in June of 1998. The stream was divided into two reaches.

The upper reach (# 1) is approximately 3.0 miles in length and includes the drainage from the headwaters down stream 3 miles. This reach is rated as functioning at risk with a downward trend due to the deep incised channel.

The lower reach (# 2) is approximately 1.7 miles in length and includes the rest of the stream until it reaches the valley floor and goes subsurface. This reach is rated at proper functioning condition.

Donnelly Creek

Donnelly Creek was survey in June of 1998. That portion of Donnelly Creek that flows through the Soldier Meadows Allotment was made up all or part of three reaches.

The headwaters of the north, middle and south forks of Donnelly Creek make up Reach #1 for approximately .9 within the Soldier Meadows Allotment. The reach is rated as functioning at risk with a static trend due to the braided, non-sinuous nature of the stream and the lack of vegetative cover along the stream banks.

The mid to lower portions of the various forks of Donnelly Cr. make up Reach #2 for approximately 4.2 miles within the Soldier Meadows Allotment. The reach is rated as proper functioning condition.

The main stem of Donnelly Creek makes up Reach #3 for approximately 3.4 mile all within the Soldier Meadows Allotment. The reach is rated as functioning at risk with a static trend due to the channelization and unstable banks on this portion of the stream.

Soldiers Creek

Soldiers Creek is inventoried in June of 1998. The stream is inventoried as only one reach of approximately 3.4 miles in length and includes the drainage from the headwaters to the confluence with Colman Creek. The reach is rated as functioning at risk with a static trend the lack of vegetated and stable banks.

Willow Creek Meadow and Outlet

The Willow Creek Meadow and outlet was inventoried in June of 1998. The meadow is approximately 3 acres in size and is rated at proper functioning condition.

5. RIPARIAN AND STREAM CONDITION RATINGS

The Winnemucca BLM Field Office had Whitehorse Associates of Logan, Utah analyze some of the key watersheds on the district. A system was developed to rate the stream and riparian attributes of a watershed by rating each section of the watershed as being in one of 7 states. Each state had a numerical score attached to it from 0 to 100. A rating was then developed for each stream based on the number of valley bottom acres in each riparian state or the number of channel miles in each stream state. The results are shown in the following graph.

Watershed	*Riparian Rating*	*Class*	*Stream Rating*	*Class*
Bartlett Cr.	89	Good	83	Good
Battle Cr.	59	Fair	61	Fair
Paiute Cr.	77	Good	75	Fair
Mahogany Cr.	100	Good	100	Good
Summer Camp Cr.	78	Good	79	Good
Snow Cr.	82	Good	83	Good
Colman Cr.	57	Fair	60	Fair
Donnelly Cr.	57	Fair	71	Fair

6. WATER QUALITY SAMPLING - SOLDIER MEADOWS

In 1999 water quality sampling was done at seven locations on spring outflows in the desert dace habitat areas of the Hot Spring Pasture. Monitoring sites were located at: **Site one** (T. 40 N. R. 24 E. SE¼SW¼ Section 23) was 143 meters downstream of the last large pool in a hot spring system that receives heavy camping and bathing usage. **Site two** (T. 40 N., R. 24 E. SW¼SW¼ Section 24) was in a diversion ditch 45 meters upstream from the lower exclosure. The distance was measured from the upstream edge of the fence line where it crossed the ditch. **Site three** (T. 40 N. R. 24 E. SW¼NW¼ Section 25) was in a natural channel between the two exclosures. The monitoring site was 33 meters downstream of the upstream exclosure. The distance was measured from the downstream edge of the fence where it crossed the ditch. There was little evidence of grazing in the area during sampling periods and the site apparently remained relatively undisturbed. Sites four through seven were located in the spring system immediately north of Mud Meadow Reservoir. A fenced exclosure has been established in order to keep cattle and other grazers out of one of the springs. **Site four** (T.40N.R.25E.,NW¼ NW¼ Section32)was downstream of an enclosed spring directly west of the exclosure. Site five was in the enclosed area. In this exclosure, the spring was surrounded by an additional fence. The monitoring site was located one meter downstream of the spring fence where it crosses the channel. Site six was also in the exclosed area. The monitoring site was located 50 meters downstream of where the spring exclosure fence crosses the channel. **Sites five and six** had high densities of aquatic vegetation throughout the year, evidence that the fence was effective at keeping grazers excluded. The sampling crew noticed an abundance of birds and dragonflies at these two sites as compared

to the other sites. Site seven was located 66 meters downstream of the large exclosure fence. This site was similar to site four in that it appeared to receive heavy use by cattle over the sampling period. The stream bank appeared to be significantly impacted by cattle.

The following physical, biological and chemical water quality parameters were measured at each site during the Memorial Day, Labor Day, and January sampling dates; temperature, discharge, turbidity, total dissolved solids (TDS), conductivity, ph., ammonia, total phosphorus, dissolved oxygen, and biological oxygen demand (BOD). The following measurements were done during the October date at sites one, two, three, and six: alkalinity (total as CaC03), bicarbonate (HCO3 as CaC03). boron, calcium, magnesium, potassium, sodium, aluminum, antimony, beryllium, chloride, fluoride, nickel, nitrate {N03 + H02 as N), sulfate, arsenic, barium, cadmium, chromium, copper, Iron, lead, manganese, mercury, selenium, silver, thallium, and zinc. Sampling was consistent with methodology described In the A3TIVI Annual Book of Standards,Part31,D3370-76["Standard Practices5 for Sampling Water").

Water quality appears to be have been good to excellent at the seven sites during the sampling period. This assessment is based on comparisons to established water quality criteria and comparisons to data collected from 40 random sites in streams and rivers in the Humboldt River basin in northern Nevada during 1998. A number of measurements were routinely below detection limits.

There are some trends. In the analyses of total dissolved solids, turbidity, and conductivity that may indicate some potential impacts of human use of the spring systems during the Memorial Day and Labor Day weekends. Measurements of TDS and conductivity were higher after each weekend than before in sites one, two, and three, which are all downstream of bathing pools in hot springs. The turbidity levels exhibited the same pattern for the Labor Day weekend, but not over the Memorial Day weekend. The Labor Day weekend most likely is a time period of heavy human usage of the springs because of the large number that visit the Black Rock region during the Burning Man festival. The differences before and after the weekends may have been induced by human activity such as bathing in the springs. The bathing pools have high levels of sediment in them that are readily mobilized during human activity. The effect of the increased levels of solutes and particulates are most likely not high enough to have an impact on desert dace populations: however the trend merits further attention. The dace have probably evolved in environmental conditions that have likely been relatively constant, so human changes to the environment may be particularly detrimental. Human use of the springs will certainly increase if Nevada's population growth continues and visitation to the Black Rock region continues to increase.

There were increases in certain parameters that may he associated with cattle activity. Site four, outside of the fence enclosure near Mud Meadow reservoir, had a strong spike in turbidity during the Labor Day weekend. Sites four and seven had high turbidity levels at all four Memorial Day and Labor Day sampling dates, compared to sites five and six . These differences are most likely explained by stream channel degradation by cattle since sites five and six are protected enclosures. Site seven had high phosphorous levels during the January sampling date, which may be associated with organic pollution from cattle. Human visitation probably is not significant at sites four through seven because the springs are not appealing

enough for bathing.

The October samples revealed that all metals concentrations were below United States Environmental Protection Agency water quality criteria. The following measurements were below the detection limits: cadmium, chromium, lead, mercury, selenium, silver, thallium, ammonia, B0D, aluminum, beryllium, antimony, and nickel. Compared to other metals, levels of arsenic were relatively high at sites one, two and three. All of which are downstream of thermal springs. The United States Environmental Protection Agency drinking water limits 0.05 ppm, a level that is easily exceeded by sites one, two, and three. The current criteria of arsenic for aquatic health is not exceeded at these sites. Hot springs tend to have naturally high sources of arsenic, and most likely does not pose a threat to the desert dace populations, especially since there is evidence that organisms acclimate to arsenic.

The hardness values were relatively low compared to other freshwater systems including the Humboldt River basin.

7. WATER TEMPERATURE - SOLDIER MEADOWS

Water temperature data was also collected as part of the analysis for each of the seven sites. Temperature parameters for the majority of the sites were consistently within the preferred temperature range of the Desert Dace (23-29C).

I. WILD HORSE/BURRO DISTRIBUTION AND REMOVAL

1. BLACK ROCK RANGE (EAST & WEST) HMA's

During the winter wild horses are found at all elevations except the highest peaks and ridge tops. The majority are located on mid slopes. By late spring the majority of horses had moved to higher elevations. North of Slumgullion and Paiute Creeks, horses are concentrated in the vicinity of Burnt Spring, Colman Creek, South Fork of Battle Creek and Slumgullion Creek. South of Slumgullion and Paiute Creeks, the majority of horses are found from Big Mountain north to Paiute Creek, on the high benches and plateau.

The distribution of horses in the summer was similar to late spring. North of Slumgullion and Paiute Creeks, horses are concentrated from Colman Creek north to Summit Lake Mountain. It appeared that many of the horses found in the vicinity of Burnt Spring and the South Fork of Battle Creek during spring had moved to the Colman Creek area. South of Slumgullion and Paiute Creeks, the majority of horses are found from Big Mountain north to Paiute Creek, on the high benches and plateau. The distribution of horses in the fall was nearly the same as spring and summer except that horses are found at all elevations, and the number of horses found in the vicinity of Burnt Spring, and the North and South Forks of Battle Creek had increased.

2. CALICO MOUNTAINS HMA

Wild horses within the Soldier Meadows Allotment portion of the HMA are widely distributed throughout the year. During the winter horses are primarily found along the toe slope and lower elevations. By late spring horses had moved to higher elevations and are concentrated between Donnelly Creek and Cherry Creek. The distribution of horses in the summer was nearly the same as late spring. There may be some movement to the Buffalo Hills Allotment portion of the HMA at this time, with the horses moving back during the fall. During fall the majority of horses are on mid and upper elevation areas between Donnelly Creek and Willow Canyon.

3. WARM SPRINGS CANYON HMA

During the winter horses are found primarily in the south and southeast area of the HMA along the toe slope and lower elevations. By late spring the majority had moved to higher elevations. At this time horses are found in large groups between Buck Spring and Black Buttes, and northwest of Bear Buttes. There are large areas of the HMA where horses are not found. The distribution of horses in the summer was similar to late spring. Horses are concentrated from Buck Spring to Black Buttes, and from Trough Mountain north to the Sheldon National Wildlife Refuge. During fall horses scattered throughout the HMA and began moving south.

During the 1994 and 1996 removals all horses that were released back into the HMA were freeze branded on the left hip. After the removals, freeze branded horses were observed in the adjacent High Rock and Wall Canyon HMA's. These horses apparently are moving through holes in the C-2-N fence to the High Rock HMA at Mustang Spring and south of Buck Spring. Horses are moving to the Wall Canyon HMA through a hole in the C-2-N fence north of Black Buttes and west of Bear Buttes.

Burros are found primarily along the toe slope from Chukar Gulch south-southwest to Fly Canyon. However, a few burros have been observed in the vicinity of Buck Spring during the spring and summer, and the mouth of Warm Spring Canyon in the fall. There were a few burros found in the adjacent Calico Mountains HMA just south of Fly Canyon from 1993 through 1996. There have not been any burros found in the Calico Mountains HMA since the Warm Springs population was reduced to the appropriate management level.

WILD HORSE/BURRO REMOVAL

Removals were conducted in February of 1994 and November/December of 1996. Removal criteria required that only wild horses 5 years old and younger could be removed during the 1994 gather. In 1996, removal criteria allowed the removal of wild horses 9 years old and younger.

The number of wild horses and burros removed from the Black Rock Range-East, Black

Rock Range-West, Calico Mountains, and Warm Springs Canyon HMAs are shown below. The number of wild horses shown for the Calico Mountains is for the entire HMA which includes part of the Buffalo Hills, and Leadville Allotments.

Black Rock-East		Black Rock-West		Calico Mountains		Warm Springs Cyn.	
Date	Number	Date	Number	Date	Number	Date	Number
Feb. 1994	139 H	Feb. 1994	231 H	Feb. 1994	313 H	Feb. 1994	175 H
Nov. 1996	236 H	Nov. 1996	236 H	Dec. 1996	430 H	Dec. 1996	243 H 22 B
Nov. 2000	281 H	Dec. 2000	490 H	Dec. 2001	262 H	Dec. 2000	389 H 31 B

J. THREATENED & ENDANGERED SPECIES

Special Status Species

The Soldier Meadows Allotment has two federally listed threatened species, the Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)(LCT) and the desert dace (*Eremichthys acros*). The last self sustaining lacustrine population of LCT is found in Summit Lake on the Summit Lake Paiute Reservation and they spawn in Mahogany Creek, Summer Camp Creek and Pole Creek on public lands within the allotment. LCT were also introduced into Colman Creek within the allotment. Six populations of desert dace are found on public lands in the hot spring complexes in the Hot Springs Pasture of the allotment.

The Paiute Meadows Allotment had LCT introduced into the North Fork of Battle Creek in 1999.

U. S. Fish and Wildlife Service Species of Concern and BLM Sensitive species that may occur in or around the project area are as follows:

U.S. Fish and Wildlife Service Species of Concern

Pygmy rabbit	*Brachylagus idahoensis*
Spotted bat	*Euderma maculatum*
Small-footed myotis	Myotis ciliolabrum
Long-eared myotis	*Myotis evotis*
Fringed myotis	*Myotis thysanodes*
Long-legged myotis	*Myotis volans*
Pacific Townsend's big eared bat	*Corynorhinus townsendii pallescens*
Pale Townsend's big eared bat	*Corynorhinus townsendii townsendii*
Western burrowing owl	*Athene cunicularia hypugea*
Black Tern	*Chlidonias niger*
Windloving buckwheat	*Eriogonum anemophilum*
Crosby's buckwheat	*Eriogonum crosbyae*
Grimy ivesia	*Ivesia rhypara* var. *rhypara*

Smooth stickleaf	*Mentzelia mollis*
Cordelia beardtongue	*Penstemon floribundus*
Soldier Meadows cinquefoil	*Potentilla basaltic*

BLM SENSITIVE SPECIES

Sage grouse	Centrocercus urophasianus

The Western burrowing owl, Pygmy rabbit, and sage grouse are the most likely to occur on these allotments. They are also the most susceptible to impacts associated with livestock grazing.

Western burrowing owl - Individuals of this species have been observed in the lower elevations of the allotment. Potential impacts from livestock grazing which could affect this species are limited to destruction of burrow entrances by hoof action.
The potential effect of livestock grazing is highly improbable due to the fact that livestock avoid stepping in and on open holes such as burrow entrances.

Pygmy rabbit - The Pygmy rabbit may be affected by livestock grazing if upland grassland species are heavily utilized. Alteration of the shrub component of their habitat may also affect this species.

Sage Grouse - Potentially timing and intensity of livestock and wild horse grazing may affect sage grouse nesting and brood rearing success. The peak of sage grouse hatch is the last week in May and the first week in June, depending on weather conditions. Livestock and wild horse grazing could directly compete with sage grouse for food (forbs and insects) and nesting cover during this time, or could physically disturb the nests. Fall grazing could remove residual cover needed the following spring for nest and brood cover. Also, persistent early spring and summer grazing could reduce plant vigor and cover of herbaceous species causing undesirable long-term changes in the vegetative composition.

Soldier Meadow Habitats

The hot springs complexes to the north, west and south of the Soldier Meadow Ranch provide the only known habitat for the desert dace (*Eremichthys acros*) a federally listed threatened species. The area is also one of only two known habitats for basalt cinquefoil *(Potentilla basaltica*) a federal species of concern and a Nevada BLM sensitive species. Several species of hydrobiid snails (Genus *Pyrgulopsis*) have also been identified residing in the hot springs complexes. This area is approximately 3600 acres in size and is entirely within the Hot Springs Pasture of the Soldier Meadows Allotment.

Population inventories conducted by the University of Nevada, Reno (UNR) in 1995 showed that the highest population densities of desert dace were in the farthest southeast hot springs complex. The lowest population densities were in the irrigation ditch.

Paired exclosures were constructed in 1997 on the original channel of the bathtub springs, the farthest southeast springs and the irrigation ditch to monitor impacts of livestock and wild equine grazing on dace. At this time no comparison monitoring on habitats and dace populations inside and outside of the exclosures has taken place.

Four transects for monitoring cover and density of basalt cinquefoil around the hot springs and the old cabin were established in 1998. The results are in the chart below.

Transect	Location	POBA % cover	POBA % comp.	POBA Density (#/frame)	POBA Freq. (# of frames present out of 20)
001	Cabin Corral	5.75	11	2	11
002	Spring Head	4.75	19	1	5
003	Bathtub	4.125	23	2	8
004	Alkali Flat	4.75	29	2	9

K. NOXIOUS WEEDS

A complete noxious weeds inventory has not been completed for the Soldier Meadows and Paiute Meadows Allotments. However, noxious weeds have been documented near springs and roadsides. Control measures will be implemented as manpower and funds are made available.

L. WATER QUALITY - THERMOGRAPH DATA

During the re-evaluation period there has been water temperature data collected on Mahogany, Summer Camp, Colman and Donnely Creeks within the Soldier Meadows Allotment and Bartlett, North Fork of Battle and Battle Creeks within the Paiute Meadows Allotment. Summary graphs of this data is presented in Appendix II of this document.

Water temperature of lotic riparian systems serves as a good indicator of overall riparian health and aquatic habitat condition. Most aquatic species have a life history requirement of a specific temperature range which provides for optimum reproduction success rates. This range has been identified for Lahontan cutthroat trout as being 55° F +/- 10°F. The state of Nevada has indicated that a general standard of 68°F is sufficient for cold water aquatic life.

There are many factors that may influence the water temperature of flowing systems. Some

of those with the greatest influence include: Flow, Aspect, Elevation, Solar radiation, Topographic Shading, Influent Groundwater, Riparian Shading, Channel Morphology, and Exposed Surface Area. It is obvious that several of these factors are interrelated, and that livestock grazing alone, cannot account for all of the variation in temperature data. Livestock grazing can, however, raise a stream's temperature beyond a specie's life history requirement and contribute to negative habitat conditions.

The graphs in Appendix II (page 159) of stream temperature data do not completely evaluate whether the temperature objectives have been met. This cannot be done without knowing what the site potential could be. They do provide a picture of habitat suitability and when paired with riparian functionality data and stream survey information they can indicate those areas which require further management actions.

Additional water quality data for both Soldier and Paiute Meadows Allotments is available in the Winnemucca Field Office monitoring files.

M. WILDLAND FIRES

In August of 1997 the Summit Lake Fire burned a total of 3348 acres of public, tribal and private lands on the northwestern portion of the Black Rock Range in the vicinity of Idaho Canyon. Since this area was already closed to livestock grazing in accordance with the 1994 allotment re-evaluation there was no decision issued to suspend livestock grazing in the burned areas.

In September of 2000 a wildland fire burned approximately 12,255 acres of public and private lands in the north end of the Black Rock Range. The fire burned through riparian areas in portions of Mahogany, Pole and Summer Camp Creeks in the Soldier Meadows Allotment and Bartlett Creek in Paiute Meadows Allotment. Mahogany, Pole and Summer Camp creeks are habitat for existing populations of Lahonton Cutthroat Trout (LCT). There have been several interagency coordination meetings, tours of the burned areas and a rehabilitation plan drafted by an interdisciplinary team. There are no reseedings planed for the burned areas within the Soldier and Paiute Meadows Allotments. The sites within the area burned have achieved late seral or potential natural community vegetative stages thereby ensuring an adequate seed source for natural recovery. Fire Closure Decisions have been issued insuring that the areas burned will be closed to livestock grazing until they are fully recovered.

N. RANGE IMPROVEMENT PROJECTS

In 1996 there were six (6) small vegetative corridor exclosures constructed along the stream channels in the Hot Springs Pasture of the Soldier Meadows Allotment. These projects were installed to assist in determining the effects of ungulate grazing versus no grazing on herbaceous streambank vegetation within the Desert Dace habitats.

There were three (3) cattle guards installed in 1997 at stream crossings on channels in the Hot Springs Pasture of the Soldier Meadows Allotment. These cattle guards are elevated above the streams and function as bridges to prevent vehicles from driving through streams,

that are habitat for Desert Dace. These bridges prevent degrading habitat and eliminate downstream sedimentation.

In 1995 there were five (5) culverts installed in the main access road to Fly Canyon. This area is outside of and down stream of the Desert Dace habitat. The road base was elevated and graveled through a wet area providing safe year round vehicle access.

O. CULTURAL RESOURCES

During the evaluation period there were several areas of heavy use recorded within the allotment which is documented in the monitoring section of this evaluation. There are no records indicating there are significant cultural resources in any of these areas of heavy use. Proper livestock distribution through water development or other range improvements could alleviate grazing pressure where cultural resources exist. All range improvements (fences, water improvements, etc.) will be required to be examined on an individual basis. Project specific inventories and Section 106 compliance will be required prior to any disturbance or construction, as is the current policy.

P. OTHER

1. SOLDIER MEADOWS ACTIVITY PLAN (SMAP)

   There have been several interagency teams working cooperatively in developing additional management plans for specific areas within the Soldier Meadows Allotment during this re-evaluation period. The Soldier Meadows Activity Plan (SMAP) was developed to addresses the unique resource values associated with the Desert Dace habitat within the Hot Springs Pasture. This was a portion of the area that was designated as a National Conservation Area (NCA) by Congress in December of 2000. Since this area falls within the NCA it will be included in that planning effort.

2. NCA & WILDERNESS

   The Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area Act of 2000 (Public Law 106-554), passed by the 106th Congress, designated about 795,200 acres of public land managed by the Bureau of Land Management (BLM) as the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA). The legislation also designated about 755,400 acres of public land managed by BLM as Wilderness in ten (10) Wilderness areas. Approximately 378,600 acres of the designated Wilderness are within the NCA.

   Soldier Meadows Allotment

   The Soldier Meadows Allotment contains portions of five (5) Wilderness

Areas and a part of the NCA. The following is a list of the newly designated areas and approximate acres within the allotment:

WILDERNESS AREA	ACRES	NCA ACRES	COMBINED TOTAL
Calico Mountains	6,437		
East Fork High Rock Canyon	6,611		
High Rock Lake	47,963		
North Black Rock Range	26,824		
Pahute Peak	25,633		
Total Acres	113,468	249,818	249,818*

* Wilderness within NCA is included within this acreage total

Paiute Meadows Allotment

The Paiute Meadows Allotment contains portions of three (3) Wilderness Areas and a part of the NCA. The following is a list of the newly designated areas and approximate acres within the allotment:

WILDERNESS AREA	ACRES	NCA ACRES	COMBINED TOTAL
Black Rock Desert	38,803		
North Black Rock Range	3,928		
Pahute Peak	30,754		
Total Acres	73,485	40,463	79,266*

* Wilderness within NCA is included within this acreage total

The following excerpts are from the **CONGRESSIONAL RECORD - HOUSE** dated December 15, 2000:

"Grazing. - Within the wilderness areas designated under subsection (a), the grazing of livestock, where established prior to the date of enactment of this Act, shall be permitted to continue subject to such reasonable regulations, policies, and practices as the secretary deems necessary, as long as such regulations, policies, and practices fully conform with and implement the intent of Congress regarding grazing in such areas as such intent is expressed

in the **Wilderness Act** and section 101(f) of Public Law 101-628."

"Grazing. - Where the Secretary of the Interior currently permits livestock grazing in the conservation area, such grazing shall be allowed to continue subject to all applicable laws, regulations, and executive orders."

The following language related to grazing is from the **Congressional Grazing Guidelines for Wilderness**

Section 4(d)(4)(2) of the **Wilderness Act** states:"the grazing of livestock, where established prior to the effective date of this Act, shall be permitted to continue subject to such reasonable regulations as are deemed necessary by the Secretary of Agriculture."

In all such cases, when enacting legislation classifying and area as wilderness, it has been the intent of the Congress, based on solid evidence developed by testimony at public hearings, that the practical language of the **Wilderness Act** would apply to grazing within wilderness areas administered by all Federal agencies, not just the Forest Service.

There shall be no curtailments of grazing in wilderness areas simply because an area is, or has been designated as wilderness, nor should wilderness designations be used as an excuse by administrators to slowly "phase out" grazing. Any adjustments in the numbers of livestock permitted to graze in wilderness areas should be made as a result of revisions in the normal grazing and land management planning and policy setting process, giving consideration to legal mandates, range condition, and protection of the range resource from deterioration.

3. STANDARDS & GUIDELINES OF RANGELAND HEALTH

1. Soil Process will be appropriate to soil types, climate and landform.

2. Riparian/Wetland systems are in properly functioning condition.

3. Water quality criteria in Nevada and California State Law shall be achieved or maintained.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

5. Habitat conditions meet the life cycle requirements of special status species.

III. CONCLUSIONS

SOLDIER MEADOWS ALLOTMENT

ALLOTMENT WIDE MULTIPLE USE OBJECTIVES

UTILIZATION OBJECTIVES

Riparian/Wet Meadows:

1. Do not exceed 30% utilization of current years growth on the key riparian trees and shrubs which includes: Aspen (Populus tremuloides) and Willows (Salix spp.). For Mahogany, Summer Camp, Snow Creeks, and the hot springs associated with the Desert Dace grasses and grass-like plants will have a minimum stubble height of 6 inches. A 4 inch stubble height will apply for Colman, Slumgullion, and Donnelly Creeks when the cows leave the pasture for the following: Nevada Bluegrass (Poa nevadensis), sedges (Carex spp.), rushes (Juncus spp.), Intermediate Wheatgrass (Agropyron intermedium), and Tufted Hairgrass (Deschampsia cespitosa).

   This objective was accomplished except in 2000. Some sites associated with the Desert Dace hot springs north of Mud Meadow Reservoir, utilization levels were exceeded and stubble height was not maintained

2. The utilization levels for the wet meadows (not identified above), grass and grass-like species is 50%. If the utilization level is exceeding the 50% level by February 28 the carrying capacity will be evaluated to determine if a downward adjustment is required. The evaluation will include livestock and wild horse actual use, along with wildlife and climatic factors.

   This objective was accomplished with the exception of exceeding utilization levels in 1995, 1997 & 1999 at Rock and Clear Springs in the Warm Springs Pasture.

Upland Grass/Dry Meadows:

1. Livestock and wild horse vegetative utilization levels are not to exceed 50% at the end of the livestock use period (except for the Black Rock Pasture).

   This objective was not accomplished. Utilization levels were exceeded in 1995, 1997 & 1999 at Rock and Clear Springs in the Warm Springs Pasture.

2. The Black Rock Pasture combined vegetative utilization shall not exceed 60% by February 28 or the start of the new growing season.

It is inconclusive as to if this objective was accomplished. Data collected in May of 1996 documented slight to moderate use.

3. By February 28, or the start of the new grazing season, vegetative utilization shall not exceed 60% (utilization on these species from 50 to 60% will occur during the dormant season and should not have a detrimental impact to plant health and vigor).

   There has not been sufficient data collected to evaluate this objective.

4. The vegetative utilization level by wild horses, once the Appropriate Management Level (AML) is reached, shall not exceed 20% by July 15 (seed dissemination) in livestock rested pastures.

   Since AML has not been achieved during the reevaluation period this objective has not been measured.

5. For the Black Rock Pasture, once AML is reached, vegetative utilization level by wild horses shall not exceed 30% by December 31.

   Since AML has not been achieved during the reevaluation period this objective has not been measured.

Upland Browse:

1. Livestock vegetative utilization levels shall not exceed 50% by the end of the livestock grazing use period.

   This objective was not accomplished at Rock and Clear springs areas in the Warm Springs Pasture, utilization levels were exceeded in 1995, 1997 & 1999.

WATER QUALITY OBJECTIVES

1. Improve and/or maintain Mahogany Creek to Class A water quality standards. (Summer Camp Creek is included as a tributary).

   Class A water quality standards were achieved on Mahogany and Summer Camp Creeks.

2. Improve and/or maintain Snow Creek to Class B water quality standards.

   Class B water quality standards were achieved on Snow Creek.

3. Prevent Bureau authorized activities from degrading the natural quality of water. The Bureau will use the State's water quality criteria, found at NAC 445A.119, as benchmarks to determine whether or not the objective is being met.

A. The criteria for watering of livestock, coldwater aquatic life propagation, water contact recreation and wildlife propagation shall be applied to the following sources: Donnelly Creek and Colman Creek.

The water quality criteria for the state of Nevada were achieved on all streams with the exception of one turbidity measurement in 2002 on Colman Creek.

B. The criteria for watering of livestock, water contact recreation and wildlife propagation shall be applied to the following sources: Slumgullion Creek and Soldier Creek.

The water quality criteria for the state of Nevada were achieved on Slumgullion Creek. Soldier Creek was not sampled..

3. Maintain water quality standards for Desert Dace habitat in the springs where they occur to the following:

temperature	32-38"C/90-100"F
nitrates	90 mg/L
turbidity	50 NTU
pH	6.5-9.0
D.O.	5.0 mg/L

Water quality standards were met.

VEGETATION OBJECTIVES

A. Riparian Objectives:

1. Improve the riparian condition class on six (6) miles of Mahogany Creek to 70% (from 1992 baseline data of 68%) within the short term (2001) and maintain excellent riparian stream condition (70% of optimum or better) to the year 2017.

   Not met in 1997, stream survey analyzes indicated 66.6%.

2. Improve the riparian condition class on 2 miles of Summer Camp Creek to 70% (from 1990 baseline data of 60%) within the short term (by 2001) and maintain excellent riparian stream condition (70% of optimum or better) to the year 2017.

   Not met in 1997, stream survey analyzes indicated 64.5%.

3. Improve the riparian condition class on 3 miles of Snow Creek to 70% (from 1990 baseline data of 60%) within the short term (by 2001) and maintain excellent riparian stream condition (70% of optimum or better) to the year 2017.

Achieved, stream survey analyzes indicated 71.5%.

4. Improve the riparian condition class on 8 miles of Donnelly Creek to 62% (from baseline 1989 data of 52%) within the short term (by 2001) and achieve excellent riparian stream condition (70% of optimum or better) to the year 2017.

   Achieved, stream survey analyzes indicated 71.3%.

5. Improve the riparian condition class on 8 miles of Colman Creek to 66% (from baseline 1991 data of 44%) within the short term (by 2001) and achieve excellent riparian stream habitat condition (70% of optimum or better) to the year 2017.

   Achieved, stream survey analyzes indicated 66.6%.

6. Improve the riparian condition class on 8 miles of Slumgullion Creek to 63% (from baseline 1990 data of 48%) within the short term (by 2001) and achieve excellent riparian stream habitat condition (70% of optimum or better) to the year 2017.

   Achieved in 1990 (74%) and not achieved in 1999 stream survey analyzes indicated 61.3%.

B. Sage Grouse:

Protect known sage grouse strutting and nesting habitat and improve brooding habitat by: (WL-1.Il)

1. Following Nevada Division Of Wildlife (NDOW) guidelines for Vegetal Control Programs in Sage Grouse Habitat in Nevada.

   The Vegetal Control Program guideline identified by Nevada Division Of Wildlife (NDOW) has been met. There has been no vegetal manipulations as a result of new range improvement projects such as fencing, brush control, or pipelines.

2. Maintain sagebrush canopy at 30% in sage grouse nesting areas where sagebrush does not exceed three (3) feet in height.

   It is unclear whether the vegetative communities present in the allotment are capable of obtaining the recommended sagebrush canopy cover adjacent to strutting areas and for nesting and brood rearing habitat. Passe et al. (1982) in: "Relation Between Soil, Plant Communities, and Climate on Rangelands of the Intermountain West", while working in the Sagebrush Steppe ecoregion, found that total vegetative canopy coverage under Potential Natural Community conditions, in Wyoming Big Sagebrush communities, ranged from 8% to 24% with an average plant cover of 17%. Sage grouse habitat condition is not

dependent solely on the availability of sagebrush canopy cover. Several authors have verified this conclusion while working to determine the conditions best suited to sage grouse production. Factors such as understory nesting cover, abundance of herbaceous forage, height of the overstory canopy, and condition and utilization of meadows have been found to be equally important in determining sage grouse habitat condition. Based on this information, the current objective for sage grouse habitat is in need of requantification.

C. Desired Plant Community Objectives: (Refer to pages 88 - 103 which lists the DPC objectives)

Desired Plant Community Objectives (DPC) for this allotment were developed based upon Ecological Status Inventory (ESI) data. These data were considered in conjunction with wildlife, wild horse, and livestock forage demands in developing site specific long term (10+ yrs.) DPC objectives. There have been no new key areas established or monitored during the evaluation period using DPC objectives. The DPC and ESI data will be considered if any additional key areas are established by an interdisciplinary team and coordinated with interested publics.

D. Standards and Guidelines of Rangeland Health

1. Soil processes will be appropriate to soil type, climate and land form.

Partially Met.

Rationale:
To maintain soil processes a healthy, productive and diverse plant community is necessary. Improved ecological condition would increase productivity, litter, soil fertility, infiltration and nutrient cycling.

Upland vegetative utilization objectives were achieved except for some sites in the Warms Springs Pasture near Rock and Clear Springs. Exceeding the utilization objectives increases the potential for erosion on areas with high erosion susceptibility from wind. Wetland/riparian vegetation utilization objectives were achieved except for one spring complex that is inhabited by desert dace within the Hot Springs use area. Exceeding the wetland/riparian vegetation utilization objectives increases the potential for soil erosion via runoff.

2. Riparian/wetland systems are in properly functioning condition.

Properly Functioning Condition = PFC
Functioning at Risk = FAR
Non Functional = NF
Trend = static, upward, downward

CREEK	REACH	RATING	FACTORS
Mahogany Ck.	1	PFC	
	2	PFC	
	3	PFC	
Summer Camp Ck.	1	PFC	
	2	PFC	
	3	PFC	
Snow Ck.	1	FAR (static)	Mechanical damage and removal of bank cover by wild horses
Colman Ck.	1	NF	Highly erosive channel and vertically unstable
	2	FAR	Erosive uplands, unstable banks and lack of cover
	3	PFC	
Slumgullion Ck.	1	FAR (downward)	Wild Horse use
	2	PFC	
	3	PFC	
Cherry Ck.	1	FAR (downward)	Incised channel
	2	PFC	
Donnelly Ck.	1	FAR (static)	Braided, non-sinuous channel and lack of cover
	2	PFC	
	3	FAR (static)	Channelization and unstable banks
Soldiers Ck.	1	FAR (static)	Lack of vegetation and unstable banks.

3. Water quality criteria in Nevada or California State Law shall be achieved or maintained.

The water quality criteria for the state of Nevada were achieved on all measured streams with the exception of one turbidity measurement on Colman Creek.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

Partially Met.

Rationale:

Healthy plant communities must be able to complete their life cycle by preventing damage during the critical growth period. Critical growth period in a plant growth cycle is when food reserves are the lowest and grazing is the most harmful. This period begins with the boot stage and closes with complete mature seed. Periodic rest during the critical growth period allows for plants to increase vigor, maintain and increase root reserves, increase density and produce seed.

Upland vegetative utilization objectives were achieved except for some sites in the Warms Springs Pasture near Rock and Clear Springs. Wetland/riparian vegetation utilization objectives were achieved except for one spring complex that is inhabited by desert dace within the Hot Springs use area. See Response for #2.

5. Habitat conditions meet the life cycle requirements of special status species.

Partially Met
Rationale:

desert dace (*Eremichthys acros*, DD)

The hot springs and their outflows to the south and west of the Soldier Meadows Ranch are the only known habitats for the Desert dace. The Desert dace has been federally listed as Threatened since 1985 (Federal Register Volume 50, p. 50304,) and is the only member of the genus, *Eremichthys*. At the time of listing, critical habitat was also listed, that encompasses 50 feet on each side of designated thermal springs and their outflow streams (USFWS 1997). At least ten thermal outlets and the associated downstream channels support this unique, spring dwelling species.

To date, there is little information regarding the species or its habitat requirements. The basic habitat requirements for the Desert dace that were identified in the "Recovery Plan for the Rare Species of Soldier Meadows" were based on the seasonal distribution of the species relative to temperature (USFWS 1997). Research is currently being conducted by the United States Geological Survey (USGS) to determine the seasonal distribution and population levels of Desert dace within each spring system. The research project is also determining the presence and distribution of non-native fish species within the spring complexes of the SMA, which were identified as a threat to the long term viability of the Desert dace (USFWS 1997). Preliminary data indicate that the populations with multiple age classes exist within all of the systems that were identified in the 1997 Recovery Plan.

MET

Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*, LCT)

Four streams and a portion of one other exist within the SMA that are considered occupied or potential habitat for LCT, a federally listed Threatened species since 1975 (Federal Register Vol. 40, p. 29864). Mahogany, Summer Camp, Snow, and Colman Creeks exist entirely within the SMA and currently are occupied by LCT. The majority of Donnelly Creek exists within the SMA, although it does not contain a population of LCT.

The SMA contains the only lacustrine population of LCT within the Northwestern Lahontan Distinct Population Segment[1] (NWLDPS). This population exists within the Summit Lake basin and is the largest and most stable population of LCT within the NWLDPS (USFWS 1995). Management within this basin since the mid-1970s has attempted to restore riparian and aquatic habitats, which had been severely degraded by improper livestock grazing during the previous decades (Platts 1990). The exclusion of livestock from the majority of the watershed has resulted in a 400% increase in summer streamflow and a 50% increase in water depth, which has led to a significant increase in LCT (Platts 1990). Mahogany and Summer Camp Creeks serve as the sole spawning tributaries for this terminal lake population. Furthermore, Mahogany and Summer Camp also support a fluvial population of LCT. The majority of these lotic habitats exist on public land with the lower portions of Snow and Mahogany Creek flowing through the Summit Lake Paiute Tribe (SLPT) reservation before entering Summit Lake. Colman Creek contains an increasing population of transplanted LCT, which were moved from Washburn Creek in 1999 and then further supplemented in 2000. Donnelly Creek is listed in the 1995 LCT Recovery Plan as a stream with the potential for LCT reintroduction (USFWS 1995).

Only the North Fork of Donnelly, which is unoccupied by LCT, remained relatively static since the last stream habitat survey. While all of the designated LCT recovery streams, which are currently occupied by a population of LCT, improved in overall stream habitat condition. This improvement is reflected in the Habitat Condition Index (HCI) of the General Aquatic Wildlife Surveys, which were conducted by the Nevada Division of Wildlife (NDOW). The HCI values, according to the last stream survey conducted by NDOW, rated Mahogany, Summer Camp, Snow, and Donnelly Creeks as being "Excellent". Colman Creek rated as "Good" and the North Fork of Donnelly rated as "Fair". Riparian functionality data indicate that all streams are at Properly Functioning Condition (PFC), except for portions of two streams. Colman Creek and Donnelly Creek each had one reach that was classified as Functional-At Risk (FAR) with a Static Trend. Colman Creek also had a headwater reach that was classified as Non-Functional. Although riparian functionality does not indicate habitat quality for

[1] The Endangered Species Act of 1973, as amended, included within its definition of a protectable species any subspecies of fish, wildlife, or plant, and any **distinct population segment** of any species of vertebrate fish or wildlife which interbreeds when mature. Thus, three DPS units of LCT were identified when the species was listed as federally listed Endangered in 1970 and maintained when the species was reclassified in 1975, as federally listed Threatened.

aquatic species, it does indicate the stream's ability to sustain these resource values. Therefore the improvement of stream habitat on Colman Creek, indicated by the recent stream survey, may be a sign of riparian functionality improvement within the headwater area. The FAR rating with a Static trend on Donnelly may be reinforced by the relatively static condition of the aquatic habitats.
MET

Soldier Meadow cinquefoil *(Potentillia basaltica)*
This species occurs in moist salt-crusted clay in alkaline meadows and cooled outflow stream margins below thermal springs, generally on slight southeast slopes. The recorded elevations are 4,380 to 4,580 feet. It occurs in the moist meadow environment of the Hot Springs use area. Soldier Meadow cinquefoil appears to invade disturbed sites but does not appear to be a disturbance dependent species. They appear to be confined to a narrow range of micro-sites associated with moist but not saturated alkaline silty soils associated with micro terrain features near thermal springs.

Cinquefoil is a low growing, perennial herb with prostate stems. Flowering begins in May and continues through the summer. Flowers are bright yellow and occur in loose clusters. A total population is estimated at 85,000 individuals in eleven subpopulations adjacent to hot springs in the Soldier Meadows area. Current data indicate that the population is stable, in fact new populations have been discovered in areas adjacent to the Hot Springs.
MET

Elongate Mud Meadows springsnail (*Prygulopsis notidicola*)
Habitat conditions for this species are included below under the Species of Concern Section for Springsnails
MET

Springsnails
At least nine species of springsnails (Hydrobiidae) exist within the SMA. Six of the nine unique species found within the SMA have been identified to genus/species (Table 1). The majority of these species are members of the genera *Prygulopsis*, with one species belonging to the *Fluminicola* genus. These genera prefer cool, flowing water and gravel substrate (Sada et al. 2001). Primary threats to springsnails are habitat alteration via water diversions, excessive livestock grazing, nonnative macroinvertebrate establishment, and water depletion (Sada et al. 2001). Habitat conditions for this species are unknown, yet they are assumed to be similar to that of the desert dace. Therefore, these species' habitats are likely to be in good condition.
MET

Table 1. Springsnails

Common Name	Scientific Name	Status
Northern Soldier Meadows pryg	*Prygulopsis militaris*	Proposed BLM Sensitive, USFWS Species of Concern
Southern Soldier Meadows pryg	*Prygulopsis umbilicata*	Proposed BLM Sensitive, USFWS Species of Concern
Elongate Mud Meadows pryg	*Prygulopsis notidicola*	Federal Candidate Species
Squat Mud Meadows pryg	*Prygulopsis limaria*	Proposed BLM Sensitive, USFWS Species of Concern
Surprise Valley pryg	*Prygulopsis gibba*	USFWS Species of Concern
Western Lahontan pyrg	*Prygulopsis longiglans*	No Status
2 species found unique[1]	*Prygulopsis* spp.	No Status
1 species found unique[1]	*Fluminicola* spp.	No Status

Pygmy rabbit (*Brachylagus idahoensis*)
This species is the smallest North American rabbit and a sagebrush obligate. The rabbit uses tall, dense stands of big sagebrush, primarily basin big sagebrush, with deep, friable soils typically loamy in texture. The Pygmy rabbit mates in early spring and summer. Its primary food is sagebrush, which makes up to 98% of its winter diet. Grasses are important during the summer, comprising as much as 30-40% of its diet. No inventories for pygmy rabbits have been completed within the allotment, and potential high quality habitat sites are considered rare. Potential sites include the edges of floodplains in the upper portions of watersheds and degraded floodplains at lower elevation where channel down-cutting has allowed for the invasion of basin big sagebrush into sites that were formerly occupied by wet and semi-wet meadows. This allotment contains 208023 acres of big sagebrush types which are conducive of pygmy rabbit habitat they are as follows: ARTRW (Wyoming sagebrush) 26399 acres, ARTRV (Vasiana) 65573 acres, ARTRT (Basin Big sagebrush) 2453 acres, ARTR2 (Big sagebrush) 33381 acres, and ARTR3 (Lohontan sagebrush) 80217 acres. With the diverse mix of sagebrush habitats withtin the allotment, habitat is in order for this species.
MET

Pale Towsend's big-eared bat (*Corynorhinus towsendii pallescens*)
Pacific Townsend's big-eared bat (*Corynorhinus towsendii townsendii*)
Spotted bat (*Euderma maculatum*)
Small footed-myotis (*Myotis ciliolabrum*)
Long-eared myotis (*Myotis evotis*)
Fringed myotis (*Myotis thysanodes*)
Long-legged myotis (*Myotis volans*)
Yuma myotis (*Myotis yumanesis*)

All of these species uses natural caves and cracks in rock outcrops or man-made cavities for breeding, rearing, and/or hibernating habitat. There is no specific information related to breeding colonies of any of these species within the allotment.

Potential breeding and hibernating habitat is considered common in the mountainous and rocky areas. Bats depend upon insect prey and the best potential for insect prey within the allotment occurs near wet meadows and marshlands. That would restrict potential high quality foraging areas to less than one percent of the allotment.
PARTIALLY MET

California bighorn sheep (*Ovis canadensis californiana*)
Bighorn occupy mountainous areas with extensive areas dominated by large rock outcrops that serve as escape cover. Their diet is primarily grasses supplemented by forbs and limited browse.

Populations of this species occur on the Black Rock Range and the Calico Range. Due to a number of factors, bighorn sheep were eliminated from northern Nevada early in the 20th century. Existing populations are the result of numerous NDOW-initiated reintroductions and supplemental releases that began as early as 1963 and most recently in January 2003. The total population in both ranges is estimated by NDOW to be about 170 animals and they currently occupy about 7,000 acres of about 100,000 acres of potential habitat. Populations are increasing slowly as sheep expand into vacant habitat.. The NDOW data for both populations shows excellent fall recruitment of lambs, which is indicative of bighorn sheep populations that are healthy and viable.
MET

Preble's shrew (*Sorex preblei*)
This species is a small burrowing mammal associated with meadows and riparian areas in the upper portions of the sagebrush zone. There are no records of shrews within the allotment but potential habitat exists associated with riparian areas and meadows in the northern portion of the Black Rock Range. Shrews feed primarily on insects and other soil invertebrates. Quality habitat includes plant communities dominated by dense herbaceous vegetation that support high levels of prey and soils high in organic matter. Therefore, riparian functionality may be a good indicator of habitat quality for this species. Currently, riparian functionality in the northern portion of the allotment is for the most part in excellent condition.
MET

Northern goshawk (*Accipter gentiles*)
The species is a known breeder in the Mahogany Creek watershed aspen stands. Found in a variety of dense, mature or old growth aspen habitat, goshawks require large, healthy multi-story stands for nesting and foraging. They forage for prey in and near woodland communities. The Mahogany Creek watershed supports a diverse mosaic of habitats for this species and its prey. These habitats range from patches of open meadows, multi story Aspen stands, and also a stand of early age class Aspen. This early age class stand is a result of the 2000 Wildland fire that burned 12,000 acres of the lower watershed. Therefore, it can be assumed that habitats are in order for this species.

MET

Western burrowing owls (*Athene cunicularia hypugea*)
No known colonies of this species have been observed in the allotment, however Western burrowing owls are known from the Black Rock desert area. Owls occupy open terrain with low vegetation, burrows created by mammals, and an adequate prey base. There is potentially 89,700 acres of suitable habitat for the burrowing owl on the SMA. Habitats are assumed to be in good condition, since the Black Rock desert area has been grazed by a relatively small number of livestock that are broadly dispersed during the evaluation period resulting in minimal effects to the owl's associated habitat types.
MET

Greater sage-grouse (*Centrocercus urophasianus*)
This species is a common large bird of the sagebrush zone. The allotment contains about 200,000 acres of sage-grouse habitat, as well as 6 known leks (communal breeding sites). Recent BLM habitat classifications have been completed as part of the Nevada sage-grouse conservation planning effort. The classifications indicate that about 39 percent of the habitat within the SMA contain all the required habitat components, 67 percent have adequate sagebrush cover but are lacking in appropriate amounts of herbaceous cover and 4 percent are lacking in adequate sagebrush cover. Of the six leks in the Soldier Meadows allotment all are considered active. Therefore the population is assumed to be stable.
MET

Least bittern (*Ixobrychus exilis hesperis*)
Bittern habitat is fresh water marshes and reedy ponds. The only habitat of this type within the allotment is on acquired lands near Soldier Meadows that are not part of any pasture and not included in the grazing schedules of any alternative. Therefore, this species habitats are assumed to be in order.
MET

White-faced ibis (*Plegadis chihi*)
Ibis are seen occasionally as migrants in the fall. They nest in marshes (mainly hardstem bulrush) and feed in marshes and meadows. There is no known breeding habitat within the allotment. Since the marsh habitats are on acquired lands near Soldier Meadows that are not part of any pasture and not included in the grazing schedules of any alternative, this species habitats are assumed to be in order.
MET

Nevada viceroy (*Limenithus archippus lahontani*)
This species of butterfly utilizes willows and aspen as host plants. Habitat includes

riparian areas, meadows, and aspen wood edges. The condition of these habitats is assumed to be commensurate with that of the riparian functionality data. Therefore, habitats are in order for riparian areas that are in PFC, whereas they may not be in areas which are FAR or NF.

PARTIALLY MET

Smooth stickleaf (*Mentzelia mollis*)
This species is an erect annual herb that blooms in May and June and known from two sites within the Black Rock use area. Habitat is associated with nearly barren eroding shoulder and side slopes of shrink-swell clay soils formed by hydrothermal alteration and weathering of air-fall volcanic ash deposits. These habitats are not likely to be affected by livestock grazing, due to the lack of vegetative resources within these areas. Therefore, it is assumed that habitats are in order for this species.
MET

The following species were also included in 2003 Species List for the SMA provided by the FWS that may occur within the allotment. Each of these species is not known to occur within the SMA.

Western yellow-billed cuckoo (*Coccyzus americanus*)
This species requires multistory cottonwood flood plain. Due to its habitat requirements this species does not exist within the SMA. The closest population is located along the Carson River to the south.

Black tern (*Childonias niger*)
Black terns are associated with open water wetlands. There are no habitats of this type within the allotment.

Tiehm milkvetch (*Astragalus tiehmii*)
Schoolcraft catseye (*Cryptantha schoolcraftii*)
Crosby buckwheat (*Eriogonum crosbaye*)
These three species commonly occur together on whitish lake deposited volcanic ash deposits that weather to deep clay soils. They generally occur on gentle slopes north and west of the allotment in the sagebrush steppe zone.

Windloving buckwheat *(Eriogonum anemophilum)*
This is a low perennial herb with leafless flower stalks rising above clumps of white leaves, which are associated with barren, rocky sites of volcanic or other origin. It blooms in late June and July. The nearest population is in Jackson Mountains east of the allotment. Other populations are located south and east of the allotment.

Grimy ivesia (*Ivesia rhypara var. rhypara*)
This is a low, spreading perennial cushion plant. Its habitat is dry, relatively barren, light-colored outcrops of welded tuffs on east, south, and west aspects. The nearest population is in Yellow Rock Canyon west of the allotment.

Cordelia beardtongue (*Penstemon floribundus*)
This is a perennial herb with tubular blue-violet flowers blooming on the top half of the stems. Its habitat is dry, open, mostly dark-colored volcanic talus, very rocky slopes, or alluvium. The nearest population is in Jackson Mountains east of the allotment.

PAIUTE MEADOWS ALLOTMENT

ALLOTMENT WIDE MULTIPLE USE OBJECTIVES

UTILIZATION OBJECTIVES

1. Short Term

   a) The objective for utilization of key streambank riparian plant species (CAREX, JUNCUS, SALIX, POTR5, ROWO, POA spp.) on Paiute, Battle and Bartlett Creeks is 30%. Utilization data will be collected at the end of the gazing period.

   This objective was not achieved on Paiute Creek in 1994, Battle Creek in 1994, 1995 & 1997 and Bartlett Creek in 1995 & 1997.

   b) The objective for utilization of key plant species (CAREX, JUNCUS and POA spp.) in wetland riparian habitats if 50%. Utilization data will be collected at the end of the gazing period.

   This objective was not achieved on those sites associated with Burnt Spring and Butte Creek in 1994, 1995 & 1997.

   c) The objective for utilization of key plant species (STTH2, AGSP, FEID, ELCI, POA, ORHY, AMAL, PUTR, SYMPH, EPHEDRA, EULA) in upland habitats is 50%.Utilization data will be collected at the end of the grazing period.

   This objective was not achieved on those sites associated with the Rough Canyon and Paiute seeding 1995 & 1997.

2. Long Term

   a) Manage, maintain, or improve public rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.

This objective was achieved based upon estimated wildlife trend data.

1) Improve to or maintain 2,134 acres in Black Rock DY-13, 41,678 acres in Black Rock DW-10, and 45,856 acres in Black Rock DS-6 in good or excellent mule deer habitat condition.

   There has not been sufficient trend data collected to evaluated this objective.

2) Improve to or maintain 45,965 acres in Black Rock PS-15 in good pronghorn habit condition. Improve to or maintain 35,274 acres in Black Rock PY-14, 2,623 acres in Leonard Creek PW-17, and 31,466 acres in Paiute Creek PW-16 in fair or good pronghorn habitat condition.

   There has not been sufficient trend data collected to evaluated this objective.

3) Improve to or maintain 69,939 acres in Black Rock BY-15 in good to excellent bighorn sheep habitat condition.

   There has not been sufficient trend data collected to evaluated this objective.

b) Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of 7,827 AUMs.

   This objective was achieved.

c) Improve range condition from poor to fair on 161,158 acres and from fair to good on 15,938 acres.

   Inconclusive, no range condition survey data was collected during the evaluation period.

d) Maintain and improve the free-roaming behavior of wild horses by protection and enhancing their home ranges.

   This objective was achieved.

1) Manage, maintain, or improve public rangeland conditions to provide 1116 AUMs of forage on a sustained yield basis for wild horses.

This objective was achieved.

2) Maintain and improve wild horse habitat by assuring free access to water.

This objective was achieved.

Ecological status will be used to redefine/quantify the following five objectives where applicable.

e) Improve to or maintain 86 acres of ceanothus habitat types in good condition.

Inconclusive, no Ecological Status Inventory data was collected during the evaluation period.

f) Improve to or maintain 345 acres of mahogany habitat types in good condition.

Inconclusive, no Ecological Status Inventory data was collected during the evaluation period.

g) Improve to or maintain 188 acres of aspen habitat types in good condition.

Inconclusive, no Ecological Status Inventory data was collected during the evaluation period.

h) Improve to or maintain 529 acres of riparian and meadow habitat types in good condition.

Inconclusive, no Ecological Status Inventory data was collected during the evaluation period.

i) Improve to or maintain 15 acres of serviceberry, 82 acres of bitterbrush, 55 acres of ephedra, and 112 acres of winterfat vegetation types in good condition.

Inconclusive, no Ecological Status Inventory data was collected during the evaluation period.

j) Improve to and maintain stream habitat conditions from the 1988 levels of 43% on Paiute Creek, 58% on North Fork of Battle creek, and 50% on Bartlett Creek to an overall optimum of 60% or above.

1) Streambank cover 60% or above.
2) Streambank stability 60% or above.
3) Maximum summer water temperatures below 70 degrees F.
4) Sedimentation below 10%.

This objective was achieved.

k) Protect sage grouse strutting grounds and brooding areas. Maintain the big sagebrush sites within two miles of active strutting grounds in mid to late seral stage with a minimum of 30% shrub composition by weight or 30% canopy cover.

The Vegetal Control Program guideline identified by Nevada Division Of Wildlife (NDOW) has been met. There has been no vegetal manipulations as a result of new range improvement projects such as fencing, brush control, or pipelines. It is unclear whether the vegetative communities present in the allotment are capable of obtaining the recommended sagebrush canopy cover adjacent to strutting areas and for nesting and brood rearing habitat. Passe et al. (1982) in: "Relation Between Soil, Plant Communities, and Climate on Rangelands of the Intermountain West", while working in the Sagebrush Steppe ecoregion, found that total vegetative canopy coverage under Potential Natural Community conditions, in Wyoming Big Sagebrush communities, ranged from 8% to 24% with an average plant cover of 17%. Sage grouse habitat condition is not dependent solely on the availability of sagebrush canopy cover. Several authors have verified this conclusion while working to determine the conditions best suited to sage grouse production. Factors such as understory nesting cover, abundance of herbaceous forage, height of the overstory canopy, and condition and utilization of meadows have been found to be equally important in determining sage grouse habitat condition. Based on this information, the current objective for sage grouse habitat is in need of requantification.

l) Improve to and maintain the water quality of Paiute, Battle and Bartlett Creeks to the state criteria set for the following beneficial uses: livestock drinking water, cold water aquatic

life, wading (water contact recreation), and wildlife propagation.

The water quality of Paiute, Battle and Bartlett Creeks was sampled during 2002. The data indicate that all criteria were met with the exception of one turbidity sample on Bartlett Creek. This same sample exceed the numerical value for fecal coliform, but the sample frequency (5 samples in a 30 day period) was not met. This data is available within the Winnemucca Field Office's monitoring files.

1. Soil Process will be appropriate to soil types, climate and landform.

Partially Met.
Rationale:
To maintain soil processes a healthy, productive and diverse plant community is necessary. Improved ecological condition would increase productivity, litter, soil fertility, infiltration and nutrient cycling.

Upland vegetative utilization objectives were achieved except for some sites associated with Rough Canyon and Paiute Seeding. Wetland/riparian vegetation utilization objectives were achieved except for Paiute, Battle, Bartlett, Butte Creeks, and Burnt Spring. Exceeding the wetland/riparian vegetation utilization objectives increases the potential for soil erosion via runoff.

2. Riparian/Wetland systems are in properly functioning condition.

Partially Met.

Properly Functioning Condition = PFC
Functioning at Risk = FAR
Non Functional = NF
Trend = static, upward, downward

CREEK	REACH	RATING	FACTORS
Battle Ck.	**1**	**FAR (downward)**	**Lack of vegetative structure, diversity, vigor, adequate cover, coarse woody debris**
	2	**FAR (upward)**	**Bank vegetation not at potential**
Bartlett Ck.	**1**	**FAR (static)**	**Poor riparian vegetation some bare banks w/ sloughing**
	2	**PFC**	
Butte Ck.	**1**	**FAR (upward)**	**Bank vegetation not at potential**
Deer Ck.	**1**	**FAR (upward)**	**Bank vegetation not at potential**
Paiute Ck.	**1**	**FAR (upward)**	**Bank vegetation not at potential**
	2	**PFC**	
Rough Canyon	**1**	**FAR (upward)**	**Banks not fully vegetated**
	2	**PFC**	

3. Water quality criteria in Nevada and California State Law shall be achieved or maintained.

   Partially Met:

   The water quality of Paiute, Battle, and Bartlett Creeks was measured in 2002. The data indicate that the Standard was achieved for all constituents, with the exception of one turbidity measurement on Bartlett Creek. The data also shows that this same sample exceeded the numerical value for fecal coliform, but the sample frequency (5 samples in a 30 day period) was not satisfied.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

Partially Met
Rationale:
Healthy plant communities must be able to complete their life cycle by preventing damage during the critical growth period. Critical growth period in a plant growth cycle is when food reserves are the lowest and grazing is the most harmful. This period begins with the boot stage and closes with complete mature seed. Periodic rest during the critical growth period allows for plants to increase vigor, maintain and increase root reserves, increase density and produce seed.

Upland vegetative utilization objectives were achieved except for some sites associated with Rough Canyon. Wetland/riparian vegetation utilization objectives were achieved except for Paiute, Battle, Bartlett, Butte Creeks, and Burnt Spring.

5. Habitat conditions meet the life cycle requirements of special status species.

Partially Met.
Rationale:
Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*, LCT)
Three streams exist within the PMA that are considered occupied or potential habitat for LCT, a federally listed Threatened species since 1975 (Federal Register Vol. 40, p. 29864). The North Fork of Battle Creek exists entirely within the PMA and is currently occupied by LCT. Bartlett and Paiute Creeks also exist entirely within the PMA, but are only listed as potential LCT habitat in the 1995 LCT Recovery Plan. Neither of these streams currently contain LCT.

Battle Creek, which is currently occupied by a population of LCT, and Bartlett Creek improved in overall stream habitat condition. This improvement is reflected in the Habitat Condition Index (HCI) of the General Aquatic Wildlife Surveys, which were conducted by the Nevada Division of Wildlife (NDOW). The HCI values, according to the last stream survey conducted by NDOW, rated Battle and Bartlett Creeks as being in "Good" condition. Paiute Creek slightly declined in condition, but also rated as being in "Good" condition.

Riparian functionality assessment data indicate that Battle Creek is FAR, with the lower portion of the watershed being on downward trend and the headwaters being in an upward trend. The north fork of Bartlett Creek was rated as FAR with a static trend, whereas the south fork was rated at PFC. Paiute Creek was rated as PFC in the lower watershed, whereas the headwaters were rated as FAR with an upward trend. Although riparian functionality does not indicate habitat quality for aquatic species, it does indicate the stream's ability to sustain these resource values. The improvement of habitat conditions on Battle Creek may be limited in the lower watershed by a degraded riparian zone. Paiute Creek is exhibiting a downward trend in aquatic habitat conditions, yet this trend will likely change given the improving riparian conditions.

Overall, the aquatic habitat conditions are good. The streamside riparian areas are functioning and for the most part they are improving in condition. Therefore, habitats for are in order for this special status species.

MET

Pygmy rabbit (*Brachylagus idahoensis*)
This species is the smallest North American rabbit and a sagebrush obligate. The rabbit uses tall, dense stands of big sagebrush, primarily basin big sagebrush, with deep, friable soils typically loamy in texture. The Pygmy rabbit mates in early spring and summer. Its primary food is sagebrush, which makes up to 98% of its winter diet. Grasses are important during the summer, comprising as much as 30-40% of its diet. No inventories for pygmy rabbits have been completed within the allotment, and potential high quality habitat sites are considered rare. Potential sites include the edges of floodplains in the upper portions of watersheds and degraded floodplains at lower elevation where channel down-cutting has allowed for the invasion of basin big sagebrush into sites that were formerly occupied by wet and semi-wet meadows. This allotment contains 88709 acres of big sagebrush types which are conducive of pygmy rabbit habitat they are as follows: ARTRW (Wyoming sagebrush) 8743 acres, ARTRV (Vaseana) 27453 acres, ARTRT (Basin Big sagebrush) 3234 acres, ARTR2 (Big sagebrush) 2052 acres, and ARTR3 (Lohontan sagebrush) 47227 acres. With the diverse mix of sagebrush habitats within the allotment, habitat is in order for this species.
MET

Pale Towsend's big-eared bat (*Corynorhinus towsendii pallescens*)
Pacific Townsend's big-eared bat (*Corynorhinus towsendii townsendii*)
Spotted bat (*Euderma maculatum*)
Small footed-myotis (*Myotis ciliolabrum*)
Long-eared myotis (*Myotis evotis*)
Fringed myotis (*Myotis thysanodes*)
Long-legged myotis (*Myotis volans*)
Yuma myotis (*Myotis yumanesis*)

All of these species uses natural caves and cracks in rock outcrops or man-made cavities for breeding, rearing, and/or hibernating habitat. There is no specific information related to breeding colonies of any of these species within the allotment. Potential breeding and hibernating habitat is considered common in the mountainous and rocky areas. Bats depend upon insect prey and the best potential for insect prey within the allotment occurs near wet meadows and marshlands. That would restrict potential high quality foraging areas to less than one percent of the allotment.
PARTIALLY MET

California bighorn sheep (*Ovis canadensis californiana*)
Bighorn occupy mountainous areas with extensive areas dominated by large rock outcrops that serve as escape cover. Their diet is primarily grasses supplemented by forbs and limited browse.

Populations of this species occur on the Black Rock Range within the PMA. Due to a number of factors, bighorn sheep were eliminated from northern Nevada early in the 20th century. Existing populations are the result of numerous NDOW-initiated reintroductions and supplemental releases that began as early as 1963 and most recently in January 2003. The total population in both ranges is estimated by NDOW to be about 170 animals and they currently occupy about 7,000 acres of about 100,000 acres of potential habitat. Populations are increasing slowly as sheep expand into vacant habitat. . The NDOW data for both populations shows excellent fall recruitment of lambs, which is indicative of bighorn sheep populations that are healthy and viable.

MET

Western burrowing owls (*Athene cunicularia hypugea*)

No known colonies of this species have been observed in the allotment, however Western burrowing owls could potentially exist within 60,979 acres of the PMA based upon habitat types. Owls occupy open terrain with low vegetation, burrows created by mammals, and an adequate prey base. Habitats are assumed to be in good condition, since the Black Rock desert area has been grazed by a relatively small number of livestock that are broadly dispersed during the evaluation period resulting in minimal effects to the owl's associated habitat types.

MET

Greater sage-grouse (*Centrocercus urophasianus*)

This species is a common large bird of the sagebrush zone. The allotment contains about 98,416 acres of sage-grouse habitat, as well as 9 known leks (communal breeding sites). Recent BLM habitat classifications have been completed as part of the Nevada sage-grouse conservation planning effort. The classifications indicate that about 25 percent of the habitat within the PMA contain all the required habitat components, 30 percent have adequate sagebrush cover but are lacking in appropriate amounts of herbaceous cover.

MET

Least bittern (*Ixobrychus exilis hesperis*)

Bittern habitat is fresh water marshes and reedy ponds. The only habitat of this type within the allotment is on private lands that are not part of any pasture and not included in the grazing schedule. Therefore, this species habitats are assumed to be in order.

MET

White-faced ibis (*Plegadis chihi*)
Ibis are seen occasionally as migrants in the fall. They nest in marshes (mainly hardstem bulrush) and feed in marshes and meadows. There is no known breeding habitat within the allotment. Since the marsh habitats are on private lands that are not part of any pasture and not included in the grazing schedule. This species habitats are assumed to be in order.
MET

The following species were also included in 2003 Species List for the SMA provided by the FWS that may occur within the allotment. Each of these species is not known to occur within the PMA.

Western yellow-billed cuckoo (*Coccyzus americanus*)
This species requires multistory cottonwood flood plain. Due to its habitat requirements this species does not exist within the PMA. The closest population is located along the Carson River to the south.

Black tern (*Childonias niger*)
Black terns are associated with open water wetlands. There are no habitats of this type within the allotment.

Northern goshawk (*Accipter gentiles*)
Found in a variety of dense, mature or old growth aspen habitat, goshawks require large, healthy multi-story stands for nesting and foraging. They forage for prey in and near woodland communities. Due to the habitat requirements of this species it is unlikely that it occurs in the PMA.

Crosby buckwheat (*Eriogonum crosbaye*)
This species commonly occur together on whitish lake deposited volcanic ash deposits that weather to deep clay soils. They generally occur on gentle slopes north and west of the allotment in the sagebrush steppe zone.

Windloving buckwheat (*Eriogonum anemophilum*)
This is a low perennial herb with leafless flower stalks rising above clumps of white leaves, which are associated with barren, rocky sites of volcanic or other origin. It blooms in late June and July. The nearest population is in Jackson Mountains east of the allotment. Other populations are located south and east of the allotment.

Grimy ivesia (*Ivesia rhypara var. rhypara*)
This is a low, spreading perennial cushion plant. Its habitat is dry, relatively barren, light-colored outcrops of welded tuffs on east, south, and west aspects. The nearest population is in Yellow Rock Canyon west of the allotment.

IV. TECHNICAL RECOMMENDATIONS

A. STOCKING RATE

The total carrying capacity was determined for the Soldier Meadows and Paiute Meadows Allotments using the potential stocking level calculation from BLM Technical Reference 4400-7 (See Appendix I). The potential stocking level is the level of use that could be achieved on a management unit, at the desired utilization figure, assuming utilization could be completely uniform. The potential stocking level calculation is:

$$\frac{\text{actual use}}{\text{average utilization}} = \frac{\text{potential actual use}}{\text{desired average utilization}}$$

Use area utilization was calculated by averaging use by year. The potential stocking level for each use area is as follows: See Appendix #1

ALTERNATIVES - LIVESTOCK MANAGEMENT

SOLDIER MEADOWS

ALTERNATIVE 1 - EXISTING SYSTEM

1.	Grazing (AUMs)		
	a.	Total	16070
	b.	Historical Suspended	3902
	c.	Permitted Use	12168
	d.	Authorized	7687
	e.	Not Scheduled	4481
2.	Season of Use:		01/01 to 04/30 & 07/15 to 12/31
3.	Kind and Class of Livestock		Cow/Calf
4.	Percent Federal Range		100%
5.	Grazing System		

YEARS 1 & 2

Livestock	Season of Use	Use Area	AUMs
500	01/01 to 03/31	Black Rock	1496
1117	04/01 to 04/30	Calico	1120
1117	05/01 to 07/14	**Wall Canyon**	**CA BLM**
1117	07/15 to 10/14	Warm Springs	3379
1117	10/15 to 11/15	**Soldier M. Ranch**	**PRIVATE**
1117	11/16 to 12/31	Hot Springs	1689

TOTAL 7684

YEARS 3 & 4

Livestock	Season of Use	Use Area	AUMs
500	01/01 to 03/31	B. Rock	1496
1117	04/01 to 04/30	Soldier M.	1120
1117	05/01 to 07/14	**Wall Canyon**	**CA BLM**
1117	07/15 to 10/14	Summit Lake	3379
1117	10/15 to 11/15	**Soldier M. Ranch**	**PRIVATE**
1117	11/16 to 12/31	Hot Springs	1726

TOTAL 7684

RATIONALE:

This existing grazing system utilizes six pastures or use areas with the spring and summer pastures rested two (2) years in a four (4) year rotation. The livestock are on public lands within the allotment for a total of eight and one half (8.5) months grazing a total of one thousand one hundred and seventeen

(1117) head under the existing system. This system allows two years of rest from livestock grazing which provides the opportunity to increase plant vigor, food storage, forage production and establishment of seedlings.

ALTERNATIVE 2 - ESTILL RANCHES

This alternative would implement a two year clockwise (Idaho Cyn. to Colman Ck.) rotational grazing system followed by two years rotating counterclockwise (Colman Ck. to Idaho Cyn.) utilizing the entire allotment on an annual basis. The use areas would be grazed early for two years followed by late use the following two years. The proposed system would also activate a total of 4,481 livestock AUMs, currently shown as Not Scheduled on the permit. The activation of these AUMs would be implemented over a five year period (Phase 1,2&3) with a third or approximately 1,494 AUMs added to the grazing schedule in years one, three and five. These AUMs were identified as Not Scheduled in the 1994 Decision primarily due to the existing grazing system implemented by R.C. Roberts, prior owner of the Soldier Meadows Ranch. The existing system is currently used by Estill Ranches LLC.

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Not Scheduled	2987

2. Season of Use — 02/01 to 12/31

3. ind and Class of Livestock — Cow/Calf

4. Percent Federal Range — 100%

5. Grazing System

YEARS 1 & 2 PHASE 1 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

Livestock	Season of Use	Use Area	AUMs
838	01/01 to 03/31	B. Rock S.*	2479

838	04/01 to 05/31	Calico S.**	1681
838	06/01 to 07/30	Warm Springs	1240
838	08/01 to 08/31	Id. Canyon***	1267
838	09/01 to 09/30	Colman/ Slumgullion	827
838	10/01 to 11/30	Hot Springs	1681

* South of Wagner Spring ***TOTAL*** 9175

* * South of Cherry Creek

*** Livestock will be trailed around the reservation into Colman/Slumgullion use area, no trailing will occur within the Stanley Camp Riparian Pasture.

YEARS 3 & 4 PHASE 2 - COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

   a. Total 16070
   b. Historical Suspended 3902
   c. Permitted Use 12168
   d. Authorized 10675
   e. Non Scheduled 1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
975	01/01 to 03/31	B. Rock N.*	2885
975	04/01 to 05/31	Calico N**	1955

975	06/01 to 07/15	Colman/ Slumgullion	1442
	06/22 to 07/15	Riparian Pasture***	Trailing
975	07/16 to 08/30	Id. Canyon	1475
975	09/01 to 09/30	Warm Springs	962
975	10/01 to 11/30	Hot Springs	1955

* North of Wagner Spring ***TOTAL*** 10674

** North of Cherry Creek

*** Livestock trailing within the Stanley Camp Riparian Pasture will be within the Permit Terms and Conditions.

YEARS 5 & 6 PHASE 3 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1111	01/01 to 03/31	B. Rock S.*	3287
1111	04/01 to 05/31	Calico S.**	2228

1111	06/01 to 07/30	Warm Springs	1644
1111	08/01 to 08/31	Id. Canyon***	1680
1111	09/01 to 09/30	Colman/ Slumgullion	1096
1111	10/01 to 11/30	Hot Springs	2228

* South of Wagner Spring ***TOTAL*** 12163

* * South of Cherry Creek

*** Livestock will be trailed around the reservation into Colman/Slumgullion use area, no trailing will occur within the Stanley Camp Riparian Pasture.

RATIONALE:

This proposed grazing alternative utilizes smaller use areas for a shorter duration in a four year grazing cycle somewhat similar to the existing system. This proposal would extend the time that livestock are on public lands within the allotment, eleven (11) months under the proposed system versus eight and a half (8.5) months under the existing system. These phased in AUMs will result in approximately a nineteen percent (19%), a thirty-eight percent (38%) and fifty-eight percent (58%) increases in years one, three and five respectively. The livestock numbers in this proposed plan would be increased to seven hundred and two (702), eight hundred and thirty eight (838) and nine hundred and seventy five (975) head in years one, three and five respectively. The existing grazing system currently allows the grazing of one thousand one hundred and seventeen (1117) head.

The Idaho Canyon, Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would be at different times every two years. This herding effect of controlled short duration grazing should help to achieve and maintain allotment objectives. Any livestock movement through the Stanley Camp Riparian Pasture, once fire rehabilitation objectives are accomplished, will require herders to prevent cattle from damaging critical riparian areas. The intent is to trail livestock through the riparian pasture from the south (Colman/Slumgullion) to the north (Idaho Canyon.) use areas in a counterclockwise rotation starting in years 3 & 4. When following the proposed grazing system and moving in a counterclockwise rotation (early season) from the Colman/Slumgullion use area to the Idaho Canyon pasture livestock would trail through the Stanley Camp Riparian Pasture sometime between June 22 - July 15th. Actual dates would be coordinated with BLM personnel prior to trailing and be dependent upon range readiness, soil moisture and location and extent of snowpack. The

actual time allowed to move cattle from one pasture to another (south to north) trailing through the riparian pasture would be one week. The preferred trail route would be along the eastern boundary of the pasture above the creeks headwaters, moving north between the eastern section of the existing exclosure fence and Horseshoe Bend into the Idaho Canyon Pasture. In the event that allotment objectives or Standards for Rangeland Health are not achieved or livestock trailing conditions are unfavorable livestock may be trailed around the reservation and into the Idaho Canyon use area. Until fences are constructed in the Idaho Canyon area, herders will be present to prevent livestock from drifting into the Stanley Camp Riparian Pasture or onto the areas burned in the 2000 wildland fire.

ALTERNATIVE 3 - ESTILL RANCHES

This grazing alternative would implement a rotational grazing system that utilizes the entire allotment on an annual basis. The livestock would graze use areas within the allomeni in a counterclockwise rotation (Colman Creek to Idaho Canyon) for two years followed by two years of clockwise rotation (Idaho Canyon to Colman Creek). In the third year, two years after implementing the new grazing system, if monitoring data indicates allotment objectives and Standards for Rangeland Health are being attained the activation of Non Scheduled AUMs would begin. These AUMs were identified as Not Scheduled in the 1994 Multiple Use Decision primarily due to the existing grazing system implemented by R.C. Roberts, prior owner of the Soldier Meadows Ranch. The existing system is currently used by Estill Ranches L.L.C..

This activation of 4,481 Non Scheduled AUMs would be implemented over a five year period (Phases 1,2 & 3) with a third or approximately 1,494 AUMs added to the grazing schedule in years three, five and seven.

YEARS 1 & 2 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	7687
e.	Not Scheduled	4481

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
702	01/01 to 03/31	B. Rock S.*	2077
702	04/01 to 05/31	Calico S**	1408
702	06/01 to 07/30	W. Springs	1385
702	08/01 to 08/31	Id. Canyon***	715
702	09/01 to 09/30	Colman/ Slumgullion	692
702	10/01 to 11/30	Hot Springs	1408

* South of Wagner Spring ***TOTAL*** 7685

** South of Cherry Creek

*** Livestock will be trailed around the reservation into Colman/Slumgullion use area, no trailing will occur within the Stanley Camp Riparian Pasture.

YEARS 3 & 4 PHASE 1 - COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Not Scheduled	2987

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
838	01/01 to 03/31	B. Rock N.*	2479
838	04/01 to 05/31	Calico N.**	1681
838	06/01 to 07/15	Colman/ Slumgullion	1240
	06/22 to 07/15	Riparian Pasture***	Trailing
838	07/16 to 08/30	Id. Canyon	1267
838	09/01 to 09/30	Warm Springs	827
838	10/01 to 11/30	Hot Springs	1681

* North of Wagner Spring ***TOTAL*** 9175

** North of Cherry Creek.

*** Livestock trailing within the Stanley Camp Riparian Pasture will be within the Permit Terms and Conditions.

YEARS 5 & 6 PHASE 2 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	10675
e.	Non Scheduled	1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
975	01/01 to 03/31	B. Rock S.*	2885
975	04/01 to 05/31	Calico S**	1955
975	06/01 to 07/30	W. Springs	1442
975	08/01 to 08/31	Id. Canyon***	1475
975	09/01 to 09/30	Colman/ Slumgullion	962
975	10/01 to 11/30	Hot Springs	1955

* South of Wagner Spring ***TOTAL*** 10674

** South of Donnelly Creek

*** Livestock will be trailed around the reservation into Colman/Slumgullion use area, no trailing will occur within the Stanley Camp Riparian Pasture.

YEARS 7 & 8 PHASE 3 - COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1111	01/01 to 03/31	B. Rock N.*	3287
1111	04/01 to 05/31	Calico N.**	2228
1111	06/01 to 07/15	Colman/ Slumgullion	1644
	06/22 to 07/15	Riparian Pasture***	Trailing
1111	07/16 to 08/30	Id. Canyon	1680
1111	09/01 to 09/30	Warm Springs	1096
1111	10/01 to 11/30	Hot Springs	2228

* North of Wagner Spring ***TOTAL*** 12163

** North of Cherry Creek

*** Livestock trailing within the Stanley Camp Riparian Pasture will be within the Permit Terms and Conditions.

RATIONALE:

This proposed grazing alternative utilizes smaller use areas for a shorter duration in a four year grazing cycle somewhat similar to the existing system. This proposal would extend the time that livestock are on public lands within the allotment, eleven (11) months under the proposed system versus eight and a half (8.5) months under the existing system. These phased in AUMs will result in approximately a nineteen percent (19%), a thirty-eight percent (38%) and fifty-eight percent (58%) increases in years one, three and five respectively. The livestock numbers in this proposed plan would be increased to seven hundred and two (702), eight hundred and thirty eight (838) and nine hundred and seventy five (975) head in years one, three and five respectively. The existing grazing system currently allows the grazing of one thousand one hundred and seventeen (1117) head.

The Idaho Canyon, Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would be at different times every two years. This herding effect of controlled short duration grazing should help to achieve and maintain allotment objectives. Any livestock movement through the Stanley Camp Riparian Pasture, once fire rehabilitation objectives are accomplished, will require herders to prevent cattle from damaging critical riparian areas. The intent is to trail livestock through the riparian pasture from the south (Colman/Slumgullion) to the north (Idaho

Canyon.) use areas in a counterclockwise rotation starting in years 3 & 4. When following the proposed grazing system and moving in a counterclockwise rotation (early season) from the Colman/Slumgullion use area to the Idaho Canyon pasture livestock would trail through the Stanley Camp Riparian Pasture sometime between June 22 - July 15th. Actual dates would be coordinated with BLM personnel prior to trailing and be dependent upon range readiness, soil moisture and location and extent of snowpack. The actual time allowed to move cattle from one pasture to another (south to north) trailing through the riparian pasture would be one week. The preferred trail route would be along the eastern boundary of the pasture above the creeks headwaters, moving north between the eastern section of the existing exclosure fence and Horseshoe Bend into the Idaho Canyon Pasture. In the event that allotment objectives or Standards for Rangeland Health are not achieved or livestock trailing conditions are unfavorable livestock may be trailed around the reservation and into the Idaho Canyon use area. Until fences are constructed in the Idaho Canyon area, herders will be present to prevent livestock from drifting into the Stanley Camp Riparian Pasture or onto the areas burned in the 2000 wildland fire.

ALTERNATIVE 4 - ESTILL RANCHES

This alternative would implement a two year counterclockwise (Colman Creek. to Idaho Canyon.) rotational grazing system followed by two years rotating clockwise(Idaho Canyon to Colman Creek) utilizing the entire allotment on an annual basis. The use areas would be grazed early for two years followed by late use the following two years. This proposed system would also activate a total of 4,481 livestock AUMs, currently showing as Not Scheduled on the permit. The activation of these AUMs would be totally implemented the first year and utilized every year on an annual basis. These AUMs were identified as Not Scheduled in the 1994 Decision primarily due to the existing grazing system implemented by R.C. Roberts, prior owner of the Soldier Meadows Ranch. The existing system is currently used by Estill Ranches LLC.

YEARS 1 & 2 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock — Cow/Calf

4. Percent Federal Range — 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1108	01/01 to 03/31	B. Rock S.*	3278
1108	04/01 to 05/31	Calico S.**	2222
1108	06/01 to 07/30	Warm Springs	2186
1108	08/01 to 08/31	Id. Canyon***	1129
1108	09/01 to 09/30	Colman/Slumgullion	1093
1108	10/01 to 11/30	Hot Springs	2222

* South of Wagner Spring — ***TOTAL*** 12130

* * South of Cherry Creek

*** Livestock will be trailed around the reservation into Colman/Slumgullion use area, no trailing will occur within the Stanley Camp Riparian Pasture.

YEARS 3 & 4 - COUNTERCLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock — Cow/Calf

4. Percent Federal Range — 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1111	01/01 to 03/31	B. Rock N.*	3278
1111	04/01 to 05/31	Calico N.**	2222
1111	06/01 to 07/15	Colman/ Slumgullion	1639
	06/22 to 07/15	Riparian Pasture***	Trailing
1111	07/16 to 08/30	Id. Canyon	1676
1111	09/01 to 09/30	Warm Springs	1093
1111	10/01 to 11/30	Hot Springs	2222

* North of Wagner Spring ***TOTAL*** 12130

** North of Cherry Creek

*** Livestock trailing within the Stanley Camp Riparian Pasture will be within the Permit Terms and Conditions.

RATIONALE:

This proposed grazing alternative utilizes smaller use areas for a shorter duration in a four year grazing cycle somewhat similar to the existing system. This proposal would extend the time that livestock are on public lands within the allotment, eleven (11) months under the proposed system versus eight and a half (8.5) months under the existing system. These phased in AUMs will result in approximately a nineteen percent (19%), a thirty-eight percent (38%) and fifty-eight percent (58%) increases in years one, three and five respectively. The livestock numbers in this proposed plan would be increased to seven hundred and two (702), eight hundred and thirty eight (838) and nine hundred and seventy five (975) head in years one, three and five respectively. The existing grazing system currently allows the grazing of one thousand one hundred and seventeen (1117) head.

The Idaho Canyon, Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would be at different times every two years. This herding effect of controlled short duration grazing should help to achieve and maintain allotment objectives. Any livestock movement through the Stanley Camp Riparian Pasture, once fire rehabilitation objectives are accomplished, will require herders to prevent cattle from damaging critical riparian areas. The intent is to trail livestock through the riparian pasture from the south (Colman/Slumgullion) to the north (Idaho

Canyon.) use areas in a counterclockwise rotation starting in years 3 & 4. When following the proposed grazing system and moving in a counterclockwise rotation (early season) from the Colman/Slumgullion use area to the Idaho Canyon pasture livestock would trail through the Stanley Camp Riparian Pasture sometime between June 22 - July 15th. Actual dates would be coordinated with BLM personnel prior to trailing and be dependent upon range readiness, soil moisture and location and extent of snowpack. The actual time allowed to move cattle from one pasture to another (south to north) trailing through the riparian pasture would be one week? The preferred trail route would be along the eastern boundary of the pasture above the creeks headwaters, moving north between the eastern section of the existing exclosure fence and Horseshoe Bend into the Idaho Canyon Pasture. In the event that allotment objectives or Standards for Rangeland Health are not achieved or livestock trailing conditions are unfavorable livestock may be trailed around the reservation and into the Idaho Canyon use area. Until fences are constructed in the Idaho Canyon area, herders will be present to prevent livestock from drifting into the Stanley Camp Riparian Pasture or onto the areas burned in the 2000 wildland fire.

ALTERNATIVE 5 - ESTILL RANCHES & BLM

This grazing alternative would implement a rotational grazing system that utilizes the entire allotment on an annual basis. The livestock would graze use areas within the allotment in a clockwise (Idaho Cyn. to Colman/Slumgullion) rotation for one year followed by one year of counterclockwise (Colman/Slumgullion to Idaho Cyn.) rotation the next year. In the third year, two years after implementing the new grazing system, if monitoring data indicates allotment objectives and Standards for Rangeland Health are being attained the activation of Non Scheduled AUMs would begin. These AUMs were identified as Not Scheduled in the 1994 Multiple Use Decision primarily due to the existing grazing system implemented by R.C. Roberts, prior owner of the Soldier Meadows Ranch. The existing system is currently used by Estill Ranches LLC..

This activation of 4,481 Non Scheduled AUMs would be implemented over a five year period (Phases 1,2 & 3) with a third or approximately 1,494 AUMs added to the grazing schedule in years three, five and seven.

YEAR 1 - CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a..	Total	16070
b..	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	7687
e.	Not Scheduled	4481

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
700	01/01 to 03/31	B. Rock S.*	2071
700	04/01 to 05/31	Calico S.**	1404
700	06/01 to 07/31	W. Springs	1404
700	08/01 to 08/31	Id. Canyon***	713
700	09/01 to 09/30	Colman/ Slumgullion	690
700	10/01 to 11/30	Hot Springs	1404

* South of Wagner Spring ***TOTAL*** 7686

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 2 - COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

   a. Total 16070
   b. Historical Suspended 3902
   c. Permitted Use 12168
   d. Authorized 7687
   e. Not Scheduled 4481

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
700	01/01 to 03/31	B. Rock N.*	2071
700	04/01 to 05/31	Calico N.**	1404
700	06/01 to 06/30	Colman/ Slumgullion	690
700	07/01 to 07/31	Id. Canyon***	713
700	08/01 to 09/30	Warm Springs	1404
700	10/01 to 11/30	Hot Springs	1404

* North of Wagner Spring ***TOTAL*** 7686

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 3 PHASE 1 CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Non Scheduled	2987

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
836	01/01 to 03/31	B. Rock S.*	2474
836	04/01 to 05/31	Calico S.**	1677
836	06/01 to 07/31	W. Springs	1677
836	08/01 to 08/31	Id. Canyon***	852
836	09/01 to 09/30	Colman/ Slumgullion	825
836	10/01 to 11/30	Hot Springs	1677

* South of Wagner Spring
TOTAL 9209

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 4 PHASE 1 COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Non Scheduled	2987

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock: Cow/Calf

4. Percent Federal Range: 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
836	01/01 to 03/31	B. Rock N.*	2474
836	04/01 to 05/31	Calico N.**	1677
836	06/01 to 06/30	Colman/ Slumgullion	825
836	07/01 to 07/31	Id. Canyon***	852
836	08/01 to 09/30	Warm Springs	1677
836	10/01 to 11/30	Hot Springs	1677

* North of Wagner Spring ***TOTAL*** 9209

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 5 PHASE 2 CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	10675
e.	Non Scheduled	1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
972	01/01 to 03/31	B. Rock S.*	2876

972	04/01 to 05/31	Calico S.**	1949
972	06/01 to 07/31	W. Springs	1949
972	08/01 to 08/31	Id. Canyon***	991
972	09/01 to 09/30	Colman/ Slumgullion	959
972	10/01 to 11/30	Hot Springs	1949

* South of Wagner Spring ***TOTAL*** 10673

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 6 PHASE 2 COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	10675
e.	Non Scheduled	1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
972	01/01 to 03/31	B. Rock N.*	2876
972	04/01 to 05/31	Calico N.**	1949

972	06/01 to 06/30	Colman/ Slumgullion	959
972	07/01 to 07/31	Id. Canyon***	991
972	08/01 to 09/30	Warm Springs	1949
972	10/01 to 11/30	Hot Springs	1949

* North of Wagner Spring ***TOTAL*** 10673

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 7 PHASE 3 CLOCKWISE ROTATION (Idaho Cyn. to Colman Ck.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1108	01/01 to 03/31	B. Rock S.*	3278
1108	04/01 to 05/31	Calico S.**	2222
1108	06/01 to 07/31	W. Springs	2222

1108	08/01 to 08/31	Id. Canyon***	1129
1108	09/01 to 09/30	Colman/ Slumgullion	1093
1108	10/01 to 11/30	Hot Springs	2222

* South of Wagner Spring ***TOTAL*** 12166

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 8 PHASE 3 COUNTERCLOCKWISE ROTATION (Colman Ck. to Idaho Cyn.)

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1108	01/01 to 03/31	B. Rock N.*	3278
1108	04/01 to 05/31	Calico N.**	2222
1108	06/01 to 06/30	Colman/ Slumgullion	1093
1108	07/01 to 07/31	Id. Canyon***	1129
1108	08/01 to 09/30	Warm Springs	2222

1108	10/01 to 11/30	Hot Springs	2222

* North of Wagner Spring ***TOTAL*** 12166

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

RATIONALE:

This proposed livestock grazing system utilizes smaller pastures or use areas for short durations annually throughout the allotment. This proposal would extend the total time that livestock are on public lands within the allotment, to eleven (11) months under this system versus eight and a half (8.5) months under the existing system. These phased in AUMs will result in approximately a nineteen percent (19%), a thirty-eight percent (38%) and fifty-eight percent (58%) increases (from existing actual use) in years 3,5 & 7 respectively. The livestock numbers in this proposed plan would be adjusted to eight hundred thirty-six (836), nine hundred seventy-two (972) and one thousand one hundred and eight (1108) head in years 3, 5 & 7 respectively. The existing grazing system currently allows the grazing of one thousand one hundred and seventeen (1117) head of livestock.

The Idaho Canyon, Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would be at different times each year (early one year followed by later the next year). The Idaho Canyon use area would be grazed from 07/01 to 07/31 one year and 08/01 to 08/31 the following year. This system of grazing these areas for short durations (30 days) allows rest until seedripe which will increase plant vigor, food storage, forage production and seed production. Deferring grazing until later in the season also will provide the opportunity for the establishment of seedlings. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would also be at different times each year (early one year followed by later the next year). This use area would be grazed from 06/01 to 06/30 one year and 09/01 to 09/30 the following year. This deferred short duration rotational grazing system will provide some rest until seedripe increasing plant vigor, food storage, forage production and establishment of seedlings. Grazing this area early in the year when the upland sites are greening up, prevents livestock from concentrating in the riparian areas of Colman and Slumgullion creeks. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%)

should result in achieving allotment objectives and standards and guidelines for rangeland health.

There are three perennial streams (Mahogany, Summer Camp and Snow creek) on public lands administered by BLM that flow into Summit Lake on tribal lands. These creeks, within The Stanley Camp Riparian Pasture, provide spawning habitat for one of only two genetically pure strains of the federally listed threatened Lahontan cutthroat trout (LCT). There will be no livestock authorized to graze or trail through the Stanley Camp Riparian Pasture. Two sections of fence will be reconstructed and built to prevent livestock from drifting into the Stanley Camp Riparian Pasture. The first section will be reconstructed from the existing private fence around Stanley Camp Cabin to the Summit Lake Reservation fence. Another small section will be constructed from the Pine Forest Allotment boundary fence to the existing Lahontan cutthroat trout exclosure fence. The purpose of the fences is to prevent livestock from drifting into the Stanley Camp Riparian Pasture and adversely impacting the watershed which is habitat for the federally listed threatened Lahontan cutthroat trout.

The Warm Springs Pasture would be grazed 06/01 to 07/31 one year followed by 08/01 to 09/30 the next year. This system of relatively short duration (60 days) grazing combined with early use in rotation with later use will provide one season of deferred grazing allowing seedripe. This system will increase plant vigor, food storage, forage production and seed production. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Hot Springs pasture would be grazed late season from 10/01 to 11/30 allowing seedripe annually. This system will increase plant vigor, food storage, forage production and seed production. Grazing this area later during the cool season when livestock are not as dependent on water will prevent them from concentrating near the geothermal springs. These springs provide habitat for Desert Dace which is another federally listed threatened species. There is also a sensitive plant species, Basalt cinquefoil, that grows on the sites adjacent to the geothermal pools. Late season grazing during plant dormancy will provide a complete growing season annually for the cinquefoil. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Calico Pasture is divided into two use areas (North & South) with a grazing season of 04/01 to 05/31 annually. This system provides a year of rest followed by a relatively short (60 days) early season of use. This system will increase plant vigor, food storage, forage production and seed production.

Once the livestock are removed on May 31 the vegetative resources will have approximately ten months rest until being grazed again. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Black Rock Pasture in also divided into two use areas (North & South) with a grazing season of 01/01 to 03/31 annually. Grazing impacts should be minimal since use occurs during the winter season when most of the vegetation is dormant. This system will increase plant vigor, food storage, forage production and seed production by having a complete growing season of rest.

INTERIM GRAZING SYSTEM

In the interim until fences are reconstructed between the Idaho Canyon use area and the Stanley Camp Riparian Pasture, herders will be present to prevent livestock from drifting into the Stanley Camp Riparian Pasture or onto the areas burned in the wildland fire of 2000. Since the season of use is relatively short (30 days) and there are existing fences around the most of the use area there will be little opportunity for livestock drift. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

PAIUTE MEADOWS

ALTERNATIVE 1 - EXISTING SYSTEM

1.	Grazing (AUMs)		
	a.	Total	9932
	b.	Historical Suspended	6382
	c.	Permitted Use	3550
	d.	Authorized	3550
	e.	Non Scheduled	0
2.	Season of Use		03/15 to 10/06
3.	Kind and Class of Livestock		Cow/Calf
4.	Percent Federal Range		100%
5.	Grazing System		

Livestock	Season of Use	Use Area	AUMs
524	03/15 to 05/15	North Low el*	1068
524	05/16 to 07/17	North High el.**	1086
524	07/18 to 10/06	South High el.***	1395

* North of Paiute Creek below 1550 meters in elevation *TOTAL* 3531
** North of Paiute Creek above 1550 meters in elevation.
*** South of Paiute Creek above 1550 meters in elevation.

RATIONALE:

This existing grazing system utilizes three pastures or use areas within the allotment. Livestock use begins in the lower elevations east of the Leonard Creek Road. This area includes the lower foothills and alluvial fans along the eastern potion of the allotment north of Paiute Creek below 1550 meters in elevation. Season of use is March fifteenth through May fifteenth. Livestock use of the higher elevations will be deferred until after May first by salting and herding. The livestock are moved into the high elevation use area on May sixteenth and graze until July seventeenth. This use area includes the area north of Paiute Creek above the drift fence and those sites above 1550 meters in elevation. On July eighteenth the livestock are moved south of Paiute Creek on sites above 1550 meters in elevation and graze until October sixteenth when they are moved onto the private lands at Paiute Meadows Ranch.

ALTERNATIVE 2 - <u>IRV AND SANDY BROWN</u>

1. Grazing (AUMs)

a.	Total	9932
b.	Historical Suspended	5770
c.	Permitted Use	4162
d.	Authorized	4162
e.	Non Scheduled	0

2. Season of Use 03/15 to 10/06

11/15 to 01/15

3. Kind and Class of Livestock — Cow/Calf

4. Percent Federal Range — 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
524	03/15 to 05/15	North Low el.*	1068
524	05/16 to 07/17	North High el.**	1086
524	07/18 to 10/06	South High el.***	1395
300	11/15 to 01/15	South Low el.****	612

* North of Paiute Creek below 1550 meters in elevation — ***TOTAL*** 4161
** North of Paiute Creek above 1550 meters in elevation.
*** South of Paiute Creek above 1550 meters in elevation.
**** South of Paiute Creek below 1550 meters in elevation.

RATIONALE:

This alternative maintains the same livestock numbers and use areas as the existing system with the exception that there is a proposed winter season of use within the South Paiute low elevation area. Temporary non use within this area has been granted since 1998. This area is outside of any Herd Management Area (HMA) and wildlife use areas. This alternative would extend the season of use within the allotment by approximately two months (11/15 to 01/15) to accommodate a winter grazing season and increase the Permitted Use an additional 612 AUMs, approximately a 17% increase.

ALTERNATIVE 3 - <u>IRV AND SANDY BROWN</u>

1. Grazing (AUMs)

   a. Total — 9932
   b. Historical Suspended — 4769
   c. Permitted Use — 5163
   d. Authorized — 5163

2. Season of Use — 03/15 to

02/28

3. Kind and Class of Livestock — Cow/Calf

4. Percent Federal Range — 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
524	03/15 to 05/15	N. Paiute low el.*	1068
524	05/16 to 07/31	N. S. Fork Battle**	1327
524	08/01 to 10/31	S. S. Fork Battle***	1585
300	11/01 to 02/28	S. Paiute low el.****	1184

* North of Paiute Creek below 1550 meters in elevation ***TOTAL*** 5164
** North of South Fork of Battle Creek above1550 meters in elevation.
*** South of South Fork of Battle Creek above 550 meters in elevation.
**** South of Paiute Creek below 1550 meters in elevation.

RATIONALE:

This alternative proposes to change some of the areas of use, extend the season of use and increase the number of AUMs of Permitted use from the existing system. This proposal would use the South Fork of Battle Creek as the boundary between the north and south use areas instead of Paiute Creek as under the existing system. The lack of adequate water sources south of Paiute Creek and the excessive numbers of wild horses combined with livestock tend to concentrate use on those limited water sources and vegetation under the existing system. Changing the use areas and allowing livestock to graze the northern portion of the allotment for a longer season allows better distribution and more uniform vegetative utilization since there are more sources of water and more forage production in those higher elevation sites. This alternative would extend the season of use within the allotment by approximately five months and increase the Permitted Use an additional 1615 AUMs, approximately a 45% increase.

ALTERNATIVE 4 - <u>IRV AND SANDY BROWN & BLM</u>

1. Grazing (AUMs)

a. Total — 9932

b.	Historical Suspended	5789
c.	Permitted Use	4143
d.	Authorized	4143
e.	Non Scheduled	0

2. Season of Use 03/15 to 10/06
   11/15 to 01/15

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
522	03/15 to 05/15	N. Paiute low el.*	1064
522	05/16 to 07/17	N. S. Fork Battle**	1081
522	07/18 to 10/06	S.S. Fork Battle***	1390
300	11/15 to 01/15	S. Paiute low el.****	612

* North of Paiute Creek below 1550 meters in elevation ***TOTAL*** 4147
** North of South Fork of Battle Creek above1550 meters in elevation.
*** South of South Fork of Battle Creek above 1550 meters in elevation.
**** South of Paiute Creek below 1550 meters in elevation.

RATIONALE:

This alternative would maintain the same livestock numbers, seasons of use and areas as the existing system with the exception that there is a proposed winter season of use for 300 head within the South Paiute low elevation area. Temporary non use within this winter use area has been granted since 1998. The winter use area is outside of any Herd Management Areas (HMAs) or identified wildlife use areas. Livestock grazing during the winter when most of the vegetation is dormant should minimize vegetative impacts. This management action would extend the season of use within the allotment by approximately two months (11/15 to 01/15) to accommodate the winter grazing season and increase the Permitted Use an additional 594 AUMs, approximately a 17% increase.

This alternative also proposes to change some of the areas of use by designating the South Fork of Battle Creek as the boundary between the north

and south use areas instead of Paiute Creek as under the existing system. The lack of adequate water sources south of Paiute Creek and the combined numbers of wild horses and livestock tend to concentrate use on the limited water sources and vegetation under the existing system. Changing the use areas allows better distribution and more uniform vegetative utilization since there are more sources of water and greater forage production in the higher elevation sites on the northern portion of the allotment. Since the cattle will be moved to the larger southern use area around the middle of July alleviating hot season use in the riparian areas this system will allow attainment of the allotment objectives and Standards for Rangeland Health. Riding and herding is essential to ensure livestock are properly distributed within the appropriate use area north or south of the South Fork of Battle Creek during the authorized period of use.

TERMS AND CONDITIONS

The terms and conditions must be in conformance with the Standards and Guidelines for the Sierra Front - Northwestern Great Basin Resource Advisory Council, approved by the Secretary of the Interior on February 12, 1997.

1. Since the majority of the use areas are unfenced it is the responsibility of the permittees to incorporated riding and herding to insure livestock grazing occurs within the appropriate pasture in accordance with the permit schedules.

2. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to Mahogany, Summer Camp, Snow, Colman and Donnelly creeks in the Soldier Meadows Allotment and the North Fork of Battle Creek, Paiute Creek and Bartlett Creek in Paiute Meadows Allotment.

    a. Maintain a minimum stubble height of six inches (6") based on site potential, in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp), rushes (Juncus spp.), and Tufted Hairgrass (Deschampsia cespitosa).

    b. The objective for utilization of key woody plant species is thirty percent (30%) for Aspen (Populus tremuloides) and Willows (Salix spp.).

    c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout. This standard would apply to the following streams Mahogany, Summer Camp, Snow, Colman and Donnelly Creeks in the Soldier Meadows Allotment and the North Fork of Battle Creek, Bartlett Creek and Paiute creek in Paiute Meadows Allotment.

3. Maintain a minimum stubble height of six inches (6") on the grass and grass-like plants in those sites associated with the federally listed threatened Desert Dace in the Soldier Meadows Allotment.

4. "Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer."

5. Salt and/or mineral blocks shall not be placed within one quarter (1/4) mile of springs, streams, riparian habitats or aspen stands.

6. The permittees are required to perform maintenance on range improvements as per their signed cooperative agreements and section 4 permits prior to livestock turnout.

7. The permittees certified actual use report, by pasture, is due 15 days after the end of the authorized grazing period.

8. The grazing authorization with the schedules of use outlined in this evaluation will be the only approved use and all other schedules, flexibilities and terms and conditions addressed in the Soldier Meadows or Paiute Meadows Allotment Multiple Use Decisions are suspended unless revised.

9. The authorized officer reserves the right to modify annual grazing authorizations as long as the modification is consistent with management objectives, standards for rangeland health and remains in the designated season of use.

B. WILD HORSE & BURRO MANAGEMENT

The management of Wild Horses and Burros is based on the Bureau of Land Managements' 2001 Wild Horse Strategy where all Herd Management Areas (HMAs) would be gathered over a ten (10) year period to reach Appropriate Management Level (AML). The plan outlines a four (4) year gather cycle plan to manage horses and burros Bureau wide. The strategy is to implement the management changes identified in the Allotment Multiple Use s (MUDs) which is to remove wild horses and burros to forty percent (40%) below AML, then manage at a range where the AML is the maximum number of the HMA.

In accordance with 43 CFR Subpart 4700, it has been determined through the evaluation of monitoring data that a thriving natural ecological balance will be maintained by managing and providing forage (AUMs) for the following numbers of wild horses and burros within the Herd Management Areas (HMAs):

PAIUTE MEADOWS ALLOTMENT

HMA	NO. HORSES @ AML	AUMS/YR.. @ AML	NO. HORSES @60% OF AML	AUMS/YR. @60%OF AML
BLACK ROCK RANGE EAST	93	1116	56	672

SOLDIER MEADOWS ALLOTMENT

HMA	#AUMs @AML & 60% OF AML	#BURROS@ AML & 60% OF AML	#AUMs@ AML & 60% OF AML
BLACK ROCK RANGE WEST	1116 672	0 0	0 0
WARM SPRINGS	2100 1260	24 14	288 168
CALICO MOUNT AIN*	780 468	0 0	0 0

*Approximately twenty percent (20%) of the horse numbers within the Calico HMA are in the Soldier Meadows Allotment.

Excess wild horses and burros within the Soldier Meadows Allotment will be removed periodically to maintain the population within the AML range outlined above or until the AML is modified.

Excess wild horses within the Paiute Meadows Allotment will be removed periodically to maintain the population within the AML range outlined above or until the AML is modified.

Rationale:

Based on monitoring data collected during the re-evaluation period there have not been any significant problems associated with wild horse use of the range. The Appropriate Management Level (AML) established in the 1995 Multiple Use Decision for the Paiute Meadows Allotment is still applicable today. It is recognized that the horses from the Black Rock Range East HMA interact with horses in the Black Rock Range West HMA and this interaction will assure

genetic viability. The wild horses within Paiute Meadows Allotment (Black Rock Range East) will be managed in conjunction with horses in Soldier Meadows Allotment (Black Rock Range West). Appropriate Management Levels (AMLs) have been established within the two Herd Management Areas (HMAs) and will be managed in accordance with the 2001 Wild Horse Strategy. When population levels exceed the AML within the total herd area, the horses will be gathered regardless of the allotment they may be inhabiting at the time of the gather.

Compliance and Monitoring

Population adjustments will occur when data indicates the population is not consistent with the established AML. The AML will remain unchanged until data indicates a change is necessary to reach HMA objectives including maintenance of a thriving natural ecological balance and multiple-use relationship in the herd area.

C. WILDLIFE

Analysis of existing management of wildlife habitat indicate that current wildlife populations did not contribute to the non-attainment of the allotment objectives or standards for rangeland health. Therefore, a change in the existing wildlife populations or the existing wildlife management within the Paiute Meadows Allotment, is not warranted. Wildlife populations will remain at the reasonable numbers outlined in the Land Use Plan. Reasonable numbers of wildlife are as follows:

SOLDIER MEADOWS ALLOTMENT:

Mule Deer	786 AUMs
Bighorn Sheep	264 AUMs
Antelope	429 AUMs

PAIUTE MEADOWS ALLOTMENT:

Mule Deer	1838 AUMs
Bighorn Sheep	180 AUMs
Antelope	307 AUMs

RATIONALE:

Analysis of monitoring data indicates that the utilization objectives, for upland, wetland riparian and streambank riparian habitats have been typically met in most years. There is no data indicating that wildlife use is attributed to non attainment of any allotment objective or standard for rangeland health.

Therefore, a change in the existing wildlife populations or the existing wildlife management, within the Paiute Meadows Allotment, is not warranted.

D. RANGE IMPROVEMENTS

SOLDIER MEADOWS ALLOTMENT

1. Reconstruct the existing fence from Stanley Camp cabin to the Summit Lake Reservation fence.

2. Construct a small portion of fence from the existing Pine Forest Allotment fence to the Lahontan cutthroat trout exclosure fence.

Rationale: These projects are required to prevent livestock from entering the Stanley Camp Riparian Pasture and adversely impacting habitat of the federally listed threatened Lahontan cutthroat trout.

E. REVISED OBJECTIVES

SOLDIER MEADOWS ALLOTMENT

A. Short Term:

1. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan Cutthroat Trout (LCT) will be subject to the following restrictions. These standards would apply to Mahogany, Summer Camp, Snow, Colman and Donnelly Creeks.

   a. Maintain a minimum stubble height of six inches (6") in streambank herbaceous vegetative sites consisting of primarily: Sedges (Carex spp), Rushes (Juncus spp.), Intermediate Wheatgrass (Agropyron intermedium) and Tufted Hairgrass (Deschampsia cespitosa).

   b. The objective for utilization of key woody plant species is thirty percent (30%) : Aspen (Populus tremuloides) and Willows (Salix spp.).

   c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%).

2. Maintain a minimum stubble height of six inches (6") on the grass and grass-like plants in those sites associated with the federally listed threatened Desert Dace.

3. The objective for utilization of key plant species in wetland riparian habitats is fifty percent (50%), (Carex, Juncus, Poa).

4. The objective for utilization of key plant species in upland habitats is fifty percent (50%) on the following: AGSP, CELE3, DISP2, ELCI2, FEID, HOBR, JUBA, LUPIN, ORHY, POA++, PONE3, POSE, PUTR2, SIHY, STCO4 and STTH2.

B. Long Term:

WATER QUALITY OBJECTIVES

1. Improve and/or maintain Mahogany Creek to Class A water quality standards. (Summer Camp Creek is included as a tributary).

2. Improve and/or maintain the Snow Creek to Class B water quality standards.

3. Prevent Bureau authorized activities from degrading the natural quality of water. The Bureau will use the State's water quality criteria, found at NAC 445A.119, as benchmarks to determine whether or not the objective is being met.

   A. The criteria for watering of livestock, coldwater aquatic life propagation, water contact recreation and wildlife propagation shall be applied to the following sources: Donnelly Creek and Colman Creek.

   B. The criteria for watering of livestock, water contact recreation and wildlife propagation shall be applied to the following sources: Slumgullion Creek and Soldier Creek.

4. Improve and/or maintain riparian condition class on six (6) miles of Mahogany Creek, 2 miles of Summer Camp Creek, 3 miles of Snow Creek and 8 miles of Donnelly Creek to an overall optimum of 70% by achieving the following:

   1) Streambank cover 60% or above.
   2) Streambank stability 60% or above.
   3) Maximum summer water temperatures below 68 degrees F.

5. Improve and/or maintain riparian condition class on 8 miles of Colman Creek to an overall optimum of 66% by achieving the following:

   1) Streambank cover 66% or above.
   2) Streambank stability 66% or above.

3) Maximum summer water temperatures below 68 degrees F.

6. Improve and/or maintain riparian condition class on 8 miles of Slumgullion Creek to an overall optimum of 63% by achieving the following:

1) Streambank cover 63% or above.
2) Streambank stability 63% or above.
3) Maximum summer water temperatures below 68 degrees F.

7. Improve or maintain suitable sage grouse strutting, nesting, brood rearing, and/or wintering habitat in good condition within the ecological potential of the rangeland habitat.

The following parameters have been found to constitute optimum (good) conditions for sage grouse use :

Strutting Habitat

Low sagebrush or brush free areas for strutting and nearby areas of sagebrush having 20-50% canopy cover for loafing.

Nesting Habitat

1. Sagebrush between seven 7 and 31 inches in height (optimum= 16 inches).
2. Sagebrush canopy cover of 15-30% (optimum = 27%).
3. 25-35% basal ground cover.
4. Average understory height of 6-7 inches (grasses).

Brood Rearing Habitat

Early Season

1. Sagebrush canopy cover 10-21% (optimum = 14%).

Late Season

1. Meadow areas that are in functioning condition.
2. Residual meadow vegetation of no less than 3-6 inches in height.

Winter Habitat

1. Greater than 20% sagebrush canopy cover.

8. Manage, maintain, or improve rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 786 AUMs for mule deer, 429 AUMs for pronghorn, and 264 AUMs for bighorn sheep.

   a. Improve to or maintain good to excellent mule deer habitat conditions.

   b. Improve to or maintain fair to good pronghorn habitat conditions.

   c. Improve to or maintain good to excellent bighorn sheep habitat conditions.

9. Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of 7,687 AUMs.

10. Maintain and improve the free-roaming behavior of wild horses by protection and enhancing their home ranges.

    a. Manage, maintain, or improve public rangeland conditions to provide 5,034 AUMs of forage on a sustained yield basis for wild horses.

    b. Maintain and improve wild horse habitat by assuring free access to water.

C. Desired Plant Community Objectives:

Desired Plant Community Objectives (DPC) for this allotment were developed based upon Ecological Status Inventory (ESI) data. This ESI data indicates existing seral stages of each vegetative community (ecological site) and that sites' vegetative potential. These data were considered in conjunction with wildlife, wild horse, and livestock forage demands in developing site specific DPC objectives. The allotment short term utilization objectives will be used to determine progress each site is making toward it's desired stage. Key areas in all pastures will be established by an interdisciplinary team.

The following is a list of the key species plant symbols used, there common name, and scientific name:

Symbol	Common Name	Scientific Name
AGSP	Bluebunch wheatgrass	Agropyron spicatum
CELE3	Mountain mahogany	Cercocarpus ledifolius
DISP2	Inland saltgrass	Distichlis spicata stricta
ELCI2	Basin wildrye	Elymus cinereus
FEID	Idaho fescue	Festuca idahoensis
HOBR	Meadow barley	Hordeum brachyantherum
JUBA	Baltic rush	Juncus balticus
LUPIN	Lupine	Lupinus spp.
ORHY	Indian ricegrass	Oryzopsis hymenoides
POA++	Bluegrass	Poa spp.
PONE3	Nevada bluegrass	Poa nevadensis
POSE	Sandberg bluegrass	Poa secunda
PUTR2	Antelope bitterbrush	Purshia tridentata
SIHY	Bottlebrush squirreltail	Sitanion hystrix
STCO4	Needle & thread grass	Stipa comata
STTH2	Thurber needlegrass	Stipa thurberiana

Summit Lake Pasture

Resource Objectives

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase the composition by weight the overall percentage of the following perennial grasses: AGSP, FEID, STTH2, ELCI2, POA++, STCO4, and SIHY from 28% to 35% on Ecological Site 023XY007 (Loamy 14-16") in Site Write-up Area (SWA) U044 by the year 2010. The aggregate of ELCI2, POA++, SIHY, and STCO4 can only make up 10% of the total composition.

Long Term

Within Ecological Site 023XY007 (Loamy 14-16") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL

GRASSES	28%	45%	60%
FORBS	7%	10%	10%
SHRUBS	65%	45%	30%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Maintain or increase perennial grasses at 45% composition by weight on Ecological Site 023XY017 (Claypan 14-16") in SWA U044 by the year 2010. These perennial grasses are FEID, AGSP, STTH2, POA++, SIHY, and ELCI2 with the aggregate of the latter three making up no more than 10% of the total composition.

Long Term

Within Ecological Site 023XY017 (Claypan 14-16") manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	45%	55%	65%
FORBS	11%	10%	10%
SHRUBS	44%	35%	25%

This objective should be accomplished by the year 2017.

Objective 3 Short Term

Increase FEID and AGSP each from 2% to 6% composition by weight on Ecological Site 023XY026 (Mahogany Savanna) in SWA U044 by the year 2010. Maintain PUTR2 above 10% and CELE3 at 22% composition by weight.

Long Term

Within Ecological Site 023XY026 (Mahogany Savanna) manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	23%	30%	40%
FORBS	Trace	8%	10%
SHRUBS	77%	62%*	50

At least 25% must be CELE3 and 10% PUTR2.

This objective should be accomplished by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 4 **Short Term**

Maintain the existing plant community with 61% perennial grasses, 22% forbs, and 17% shrubs in Ecological Site 023XY013 (dry meadows) in SWA U044 by the year 2001.

Long Term

Within Ecological Site 023XY013 (dry meadows) in SWA U044 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	61%	65%	80%
FORBS	22%	22%	20%
SHRUBS	17%	13%	0%

Decrease the percent composition by weight of JUBA by increasing the percent composition by weight of PONE3 and HOBR. This objective should be achieved by 2017.

Objective 5 **Short Term**

Maintain the existing plant community with 89% perennial grasses, 11% forbs, and 0% shrubs in Ecological Site 023XY025 (wet meadows) in SWA U202 by the year 2010.

Long Term

Within Ecological Site 023X025 (wet meadows) in SWA U202 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	89%	85%	80%
FORBS	11%	15%	20%
SHRUBS	0%	0%	0%

Decrease the percent composition by weight of Carex by increasing the percent composition by weight of DECE.

This objective should be achieved by 2017.

Rationale: The Summit Lake Pasture has been identified as yearlong bighorn sheep range (BRBY-2, BRBY-4), mule deer summer range (BRDS-8), as well as a sage grouse strutting ground and brood use area. This area is also used by wild horses and cattle. By achieving these objectives the vegetative communities would be meeting the needs of the mentioned wildlife, wild horses, and livestock.

Warm Springs Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase perennial grasses from 34% to 41% composition by weight on Ecological Site 023XY017 (Claypan 14-16") in SWA U125 by the year 2010. These perennial grasses are: AGSP, STTH2, POA++, SIHY, and FEID.

Long Term

Increase FEID from a trace to 7% composition by weight while managing for a desired plant community with the following percent composition by weight.

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	34%	50%	65%
FORBS	8%	10%	10%
SHRUBS	56%	40%	25%

This objective should be completed by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Maintain the following perennial grasses: STTH2, SIHY, and POA++ at 46% composition by weight through the year 2001 on Ecological Site 023XY031 (Claypan 10-14") in SWA U174. Also try to get AGSP established on the site.

Long Term

Increase AGSP to 5% composition by weight, as it's potential on the site is 20 to 50% composition by weight. Establish a desired plant community consisting of the following vegetation:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	46%	55%	65%
FORBS	12%	12%	10%
SHRUBS	42%	33%	25%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 3 Short Term

Increase AGSP from 9% to 13% and STTH2 from 8% to 12% composition by weight on Ecological Site 023XY039 (Loamy Slope 10-14") in SWA U125 by the year 2010.

Long Term

Manage for a desired plant community consisting of the following percent composition by weight within Ecological Site 023XY039 (Loamy Slope 10-14"):

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	35%	50%	65%
FORBS	6%	10%	10%
SHRUBS	52%	40%	25%

This objective should be reached by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 4 Short Term

Increase AGSP, FEID, and STTH2 collectively, from 27% to 36% composition by weight on Ecological Site 023XY066 (Ashy Loam 12-14") in SWA U162 by the year 2010 while maintaining PUTR2 above 20% composition by weight.

Long Term

Within Ecological Site 023XY066 (Ashy Loam 12-14") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	33%	43%*	60%
FORBS	2%	8%	10%
SHRUBS	65%	49%**	30%

*Must be at least 20 % FEID.
** Must be at least 20% PUTR2.

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as

described in BLM's 6630 Manual.

Objective 5 Short Term

Maintain or increase FEID at 12% and increase AGSP from 2% to 5% composition by weight. Maintain PUTR2 at 9% composition; increase CELE3 from 3% to 6% composition by weight on Ecological Site 023XY026 (Mahogany Savanna) in SWA U161 by the year 2010.

Long Term

Manage for the following percent composition by weight on Ecological Site 023XY026 (Mahogany Savanna):

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	35%	40%*	40%
FORBS	3%	10%	10%
SHRUBS	54%	50%**	50%

* Must be at least 15% FEID, 10% AGSP.
** Must be at least 9% CELE3, and 9% PUTR2.

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 6 Short Term

Maintain PONE3 at 12% and increase composition by weight for forbs from 8% to 11% with LUPIN making up no more than 5% composition by weight of the forbs in SWA U199 on Ecological Site 023XY013 (dry meadows) by the year 2010.

Long Term

Within Ecological Site 023xy013 (dry meadows) in SWA U199 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	92%	85%	80%
FORBS	8%	15%	20%
SHRUBS	0%	0%	0%

Increase composition by weight PONE3 from 12% to 15% in SWA U199 on Ecological Site 023XY013 (dry meadows) by the year 2017.

Rationale: This Warm Springs Pasture has been identified as pronghorn yearlong (BRPY-7) and summer range (BRPS-1, BRPS-8); mule deer yearlong (BRDY-3) and winter range (BRDW-4); and as a sage grouse brood use area. It is also used yearlong by wild horses/burros and by cows for three months a year.

Calico Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase STTH2 from 9% to 12% composition by weight on Ecological Site 027XY079 (Gravelly Claypan 8-10") in SWA U063 by the year 2010.

Long Term

Within Ecological Site 027XY079 (Gravelly Claypan 8-10") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	25%	32%	45%
FORBS	8%	8%	5%
SHRUBS	67%	60%	50%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Increase AGSP from 2% to 5% composition by weight on Ecological Site 023XY037 (Clay Slope 8-12") in SWA U109 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight on Ecological Site 023XY037 (Clay Slope 8-12"):

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	26%	36%	70%
FORBS	25%	22%	10%
SHRUBS	41%	42%	20%

Perennial grasses may include: AGSP- must be at least 8%, STTH2, POA++, SIHY, FEID. This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Objective 3 Short Term

Increase FEID from 2% to 6% composition by weight while trying to establish AGSP on Ecological Site 023XY017 (Claypan 14-16") in SWA U042 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	34%	46%	65%
FORBS	28%	20%	10%
SHRUBS	38%	34%	25%

Perennial grasses include FEID, AGSP, POA++, STTH2, SIHY and other perennial grasses. This objective should be accomplished by 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Rationale: The Calico Pasture has been identified as pronghorn antelope winter range (BRPW-1). Wild horses use this pasture yearlong and cows use it for one month (April 1 - April 30) for two years and then rest it for two years.

Soldier Meadows Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase composition by weight of AGSP from 31% to 36% on Ecological Site 023XY039 (loamy slope 10-14") in SWA U159 by the year 2010.

Long Term

Within Ecological Site 023XY039 (loamy slope 10-14") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	35%	44%	65%
FORBS	7%	10%	10%
SHRUBS	58%	46%	25%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer and antelope habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Increase FEID and STTH2 collectively from 12% to 18% composition by weight on Ecological Site 023XY017 (claypan 14-16") in SWA U229 by the year 2010.

Long Term

Within Ecological Site 023XY017 (claypan 14-16") in SWA U229 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	23%	35%	65%
FORBS	8%	10%	10%
SHRUBS	69%	55%	25%

This objective should be achieved by the year 2017.

Objective 3 Short Term

Increase the composition by weight STTH2 from 1% to 6% on Ecological Site 024XY005 (loamy 8-10") in SWA U181 by the year 2010.

Long Term

Within Ecological Site 024XY005 (loamy 8-10") in SWA 181 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING *	DESIRED	POTENTIAL
GRASSES	7%	17%	55%
FORBS	3%	5%	5%
SHRUBS	87%	78%	40%

* The remaining 3% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 4 Short Term

Maintain or increase by weight the perennial grasses at 40% or higher on Ecological Site 023XY039 (loamy slope 10-14") in SWA U117 by 2010. The perennial grasses include AGSP and SIHY.

Long Term

Within Ecological Site 023XY039 (loamy slope 10-14") in SWA U117 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING *	DESIRED	POTENTIAL
GRASSES	40%	45%	65%
FORBS	7%	10%	10%
SHRUBS	48%	45%	25%

* The remaining 5% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 5 **Short Term**

Increase by weight the following perennial grasses: SIHY, STTH2, and POA++ collectively from 12% to 18% on Ecological Site 023XY037 (clay slope 8-12") in SWA U187 by 2010. Also try to establish AGSP on the site from the adjacent range sites.

Long Term

Within Ecological Site 023XY037 (clay slope 8-12") manage for the following Desired Plant Community while trying to establish AGSP on the site:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	12%	25%	70%
FORBS	2%	7%	10%
SHRUBS	86%	68%	20%

This objective should be achieved by 2017.

Objective 6 **Short Term**

Increase by weight the perennial grasses from 5% to 8% and increase ARSPS5 from 4% to 10% on Ecological Site 024XY025 (loamy slope 5-8") in SWA U114 manage for the following Desired Plant Community:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	5%	10%	20%
FORBS	Trace	5%	5%
SHRUBS	92%	85%	75%

* The remaining 3% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 7 **Short Term**

Maintain the existing plant community with 61% perennial grasses, 22% forbs, and 17% shrubs in Ecological Site 023XY013 (dry meadows) in SWA U201 by the year 2010.

Long Term

Within Ecological Site 023XY013 (dry meadows) in SWA U201 manage for

the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	61%	65%	80%
FORBS	22%	22%	20%
SHRUBS	17%	13%	0%

Increase the percent by weight of the perennial grasses by 4%, while maintaining or decreasing the percent JUBA at 24%.

Rationale: The Soldier Meadows Pasture has been identified as pronghorn yearlong (BRPY-5) and winter (BRPW-6, BRPW-7); mule deer summer (BRDS-7, BRDS-5) and winter (BRDW-4); and bighorn sheep yearlong (BRBY-1, BRBY-2). It is also used yearlong by
wild horses and burros and cows for one month a year (April 1-April 30).

Black Rock Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase ORHY, SIHY, and STSP3 from a trace to 3% composition by weight on Ecological Site 027XY018 (Gravelly Loam 4-8") in SWA U005 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight on Ecological Site 027XY018 (Gravelly Loam 4-8").

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	Trace	9%	25%
FORBS	Trace	3%	5%

SHRUBS	100%	88%	70%

The perennial grasses may include ORHY, POSE, SIHY,and STSP3. This objective should be achieved by 2017.

Objective 2 Short Term

Increase ORHY from 6% to 9% composition by weight on Ecological Site 027XY016 (Sodic Dunes) in SWA U004.

Long Term

Within Ecological Site 023XY016 (Sodic Dunes) manage for a plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING	DESIRED	POTENTIAL
GRASSES	16%	20%	35%
FORBS	Trace	3%	5%
SHRUBS	84%	77%	65%

Perennial grasses may include : ORHY- must be at least 12% composition, DISP3, ELCI2, and SIHY. This objective should be accomplished by the year 2017.

Rationale: The Black Rock Pasture has been identified as yearlong pronghorn antelope range (BRPY-5). It is used as a winter pasture by cattle (Jan. 1 - March 30) and it has wild horse use.

Hot Springs Pasture

Resource Objectives

Resource objectives, including livestock, wild horse and wildlife use will be addressed in the Soldier Meadows Activity Plan (SMAP).

D. Standards and Guidelines of Rangeland Health

1. Soil processes will be appropriate to soil type, climate and land form.

2. Riparian/wetland systems are n properly functioning condition.

3. Water quality criteria in Nevada or California State Law shall be achieved or maintained.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

5. Habitat conditions meet the life cycle requirements of special status species.

PAIUTE MEADOWS ALLOTMENT

A. Short Term Objectives:

1. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan Cutthroat Trout (LCT) will be subject to the following restrictions. These standards would apply the South Fork of Battle Creek and Paiute Creek.

   a. Maintain a minimum stubble height of six inches (6") in streambank herbaceous vegetative sites consisting of primarily: Sedges (Carex spp), Rushes (Juncus spp.), Intermediate Wheatgrass (Agropyron intermedium) and Tufted Hairgrass (Deschampsia cespitosa).

   b. The objective for utilization of key woody plant species is thirty percent (30%) Aspen (Populus tremuloides) and Willows (Salix spp.).

   c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan Cutthroat Trout. This standard would apply to the following streams the South Fork of Battle Creek and Paiute Creek.

3. The objective for utilization of key plant species in wetland riparian habitats is fifty percent (50%), (Carex, Juncus, Poa).

4. The objective for utilization of key plant species in upland habitats is

fifty percent (50%)
on the following: AGSP, ELCI2, FEID, ORHY, POA++, PUTR2, SIHY, STCO4, AMAL, SYMPH, EPHEDRA, EULA and STTH2.

5. The objective for utilization of key streambank riparian plant species on Bartlett Creek is thirty percent (30%), (CAREX, JUNCUS, SALIX, POTR5, ROWO, POA spp.).

A. Long Term Objectives:

1. Manage, maintain, or improve rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.

   a. Improve to or maintain good to excellent mule deer habitat conditions.

   b. Improve to or maintain fair to good pronghorn habitat conditions.

   c. Improve to or maintain good to excellent bighorn sheep habitat conditions.

2. Improve or maintain suitable sage grouse strutting, nesting, brood rearing, and/or wintering habitat in good condition within the ecological potential of the rangeland habitat.

   The following parameters have been found to constitute optimum (good) conditions for sage grouse use :

   Strutting Habitat

   Low sagebrush or brush free areas for strutting and nearby areas of sagebrush having 20-50% canopy cover for loafing.

   Nesting Habitat

   1. Sagebrush between seven 7 and 31 inches in height (optimum= 16 inches).
   2. Sagebrush canopy cover of 15-30% (optimum = 27%).
   3. 25-35% basal ground cover.
   4. Average understory height of 6-7 inches (grasses).

   Brood Rearing Habitat

Early Season

1. Sagebrush canopy cover 10-21% (optimum = 14%).

Late Season

1. Meadow areas that are in functioning condition.
2. Residual meadow vegetation of no less than 3-6 inches in height.

Winter Habitat

1. Greater than 20% sagebrush canopy cover.

3. Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of 3,549 AUMs.

5. Ecological status will be used to redefine/quantify the following five objectives where applicable.

   a. Improve to and/or maintain ceanothus habitat by allowing for successful reproduction and recruitment within the ecological potential of the site.

   b. Improve to and/or maintain mahogany habitat by allowing for successful reproduction and recruitment within the ecological potential of the site.

   c. Improve to and/or maintain aspen habitat by allowing for successful reproduction and recruitment within the ecological potential of the site.

   d. Improve to and/or maintain riparian and meadow habitat types to ensure species diversity and quality and to maximize reproduction and recruitment of woody riparian species.

   e. Improve to and/or maintain serviceberry, bitterbrush, ephedra and winterfat habitat by allowing for successful reproduction and recruitment within the ecological potential of the site.

6. Improve to and/or maintain Riparian Condition Class to an overall optimum of 60% or above on Paiute Creek, North Fork of Battle Creek and Bartlett Creek by achieving the following:

   1) Streambank cover 60% or above.

2) Streambank stability 60% or above.
3) Maximum summer water temperatures below 68 degrees F.

C. Standards and Guidelines of Rangeland Health

1. Soil processes will be appropriate to soil type, climate and land form.

2. Riparian/wetland systems are n properly functioning condition.

3. Water quality criteria in Nevada or California State Law shall be achieved or maintained.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

5. Habitat conditions meet the life cycle requirements of special status species.

V. CONSULTATION

A. Consultation on the Draft Soldier Meadows and Paiute Meadows Allotment Re-evaluations are as follows:

December 2000 - Draft Re-Evaluation sent to:

Sierra Club-Toiyabe Chapter
Nevada Cattlemans' Assoc.
U.S. Fish & Wildlife Service
Wild Horse Organized Assistance
Irv & Sandy Brown
Humboldt Co. Commissioners
BLM - Surprise Resource Area
Winnemucca Indian Colony
NV. Dept. of Administration
Orient Farms
Friends of NV. Wilderness
Natural Resource Defense Council
Nevada Division of Wildlife - Winnemucca
Nevada Division of Wildlife - Fallon
Summit Lake Paiute Tribe
Nevada Woolgrowers Assoc.
Comm. for Preservation of Wild Horses
Resource Concepts Inc.
Estill Ranches LLC.
Jim Linebaugh
Intnal. Soc. Protection for Mustang/Burros

IRV AND SANDY BROWN January 11, 2001

COMMENT #1

We are submitting the following comments in response to the draft Soldier Meadows/Paiute Meadows Allotment Re-Evaluation summary (NV-22.15) 4120.2. On page 67, par. 2a of Terms and Conditions, a stubble height of six inches is set as the grazing restriction, within use areas that are habitat or potential habitat for Lahontan trout. There should not now, nor should there ever be any LCT planted in the allotment streams without NDOW first having obtained landowner agreements where there is private property within the elevational range of the proposed planting. Please refer to the attached pages 21, 22 and appendix "B" copied from the NDOW June 1, 1999 final recovery plan as approved by the US Fish and Wildlife Service. NDOW has violated it's own recovery plan by planting fish in the North Fork of Battle Creek without first obtaining a landowner agreement. This action was a blatant disregard for ones constitutional property rights and litigation to remove the existing planting and/or to prohibit future plantings is a possibility. It is unlikely that agreements for other streams will be obtained in the future. Why would a landowner enter such an agreement only to be awarded a six inch grazing restriction for his cooperation. Page 24 of the same document states that introductions shall be restricted to historic habitat. NDOW has not been able to show evidence that LCT were ever in these waters. Under the circumstances, I don't believe it is appropriate to use the six inch stubble heights as a restriction.

RESPONSE

The Bureau of Land Management as a federal land management agency is required by law to conserve threatened and endangered, and sensitive species by protecting their habitat. The BLM has very little involvement in the actual population management of LCT. The Nevada Division of Wildlife is responsible for the actual statewide management of LCT on Federal lands including: population monitoring, fish eradication, projects, and reintroductions. The Fish and Wildlife Service has the responsibility of working with private landowners, Federal Agencies, State Wildlife Agencies, and Tribal governments to coordinate recovery activities for the species.

The North Fork of Battle Creek is one of 32 streams identified by the USFWS in the Recovery Plan for the Lahontan cutthroat trout January 1995, as an occupied Lahontan cutthroat trout (LCT) stream or as a stream designated as a recovery stream for LCT within the Winnemucca Field Office. The BLM has the responsibility to manage the vegetative resources of those streams which contain existing LCT populations as well as those streams which have been identified as recovery streams in a manner to optimize habitat conditions to support existing and future LCT populations. Riparian research has repeatedly shown that the residual stubble/regrowth should average at least 4-6 inches in height to provide sufficient herbaceous forage biomass to meet the requirements of plant vigor maintenance, streambank protection, and sediment entrapment. Several of the most proficient authors in riparian research also comment on the fact that "Where threatened, endangered, or sensitive species occur, or where streambanks are highly erodible: additional management considerations should be given, such as to increase stubble

height criterion to greater than six inches or perhaps to remove from grazing." Clary, W.P., and B.F. Webster. 1990. Riparian Grazing Guidelines for the Intermountain Region. Rangelands 12(4):209-212. Several of the streams which were identified as LCT recovery streams within the Paiute Meadows allotment have monitoring data which shows they are Functioning at Risk and not in Proper Functioning Condition. The 6" stubble height requirement along with additional management strategies would address the need to be proactive in correcting these problems. It would also provide the opportunity to monitor key areas within the respective riparian zones and determine if 6" is an appropriate criteria on a site specific basis. The 6" inch stubble height would apply to all those streams identified as recovery streams even if there was no existing LCT populations within the stream system.

JAMES LINEBAUGH January 16, 2001

COMMENT #1 - OBJECTIVES-Short Term

Should utilization and stubble height really be objectives? It seems they should be short term guidelines that help to lead to desired future conditions - usually plant communities in line with site capability. Utilization mapping is very useful for improving animal distribution. Guidelines are also helpful in defining desired habitat conditions, for example, cover for sage grouse nesting.

RESPONSE

Utilization and stubble height as used in the draft Re-Evaluation represent short-term objectives or standards designed to assist in attaining long-term ecological objectives.

COMMENT #2

A 6" minimum stubble height for streambank sites associated with Lahontan cutthroat trout seems to have been arbitrarily established and certainly without consultation with or concurrence of the Soldier Meadows/Paiute Meadows grazing permittees. This requirement is rather extreme, probably unnecessary , and severely complicates grazing management. For more information on this read the invited paper by Warren Clary and Wayne Leininger in the November 2000 Journal of Range Management.

RESPONSE

The existing stubble height objectives were developed and incorporated into the Soldier Meadows and Paiute Meadows Multiple Use Decisions in 1994 and 1995 respectively. The current permittees agreed to the Terms and Conditions of these permits during the permit transfers therefore are subject to these existing allotment objectives. Please refer to the response to comment #1 from Irv and Sandy Brown to gain insight into the value of a 6" stubble height criterion to enhance and protect sensitive areas and habitats.

COMMENT #3

It is questionable whether 6" vegetative growth can even be attained on some sites associated with threatened specie in the Soldier Meadows dace habitats and in locations associated with LCT streams during dry years. It appears that this revised requirement is in

line with an effort to ultimately remove grazing from the Black Rock Range by making management unreasonably difficult. It is not even that such a requirement is necessary for stream improvement and LCT viability. The historic Soldier Meadows use area in the Summit Lake pasture has been off limits to livestock for many years and only limited and closely supervised use for trailing will be allowed in half the years, if approved, under the new plan alternatives. We urge BLM to drop this new requirement.

The issue of LCT introductions in area streams is a "sore" one with graziers. The NV Division of Wildlife LCT recovery plan makes it very clear that "solutions to long range improvement of stream habitat will lie with the cooperative efforts of all interested parties." The plan lists Colman, Donnelly, and Mahogany Creeks as having private lands and where Cooperative agreements/Safe Harbor agreements should be pursued. A statement in the plan is that "The key thought is that NDOW will have the landowners support." In Colman Creek LCT were introduced without consultation or landowner support. The result is that the private land owner is being prevented from stocking fish in a downstream reservoir completely on deeded land. This is a significant economic and recreational opportunity loss. The suggested revised 6" stubble height requirement is another result of this LCT introduction.

RESPONSE

Colman, Donnelly, and Mahogany Creek are three of 32 streams identified by the USFWS in the 1995 Recovery Plan for the Lahontan cutthroat trout January 1995, as occupied Lahontan cutthroat trout (LCT) streams or as streams designated as recovery streams for LCT within the Winnemucca Field Office. Please see the response to Comment #1 to gain insight into the need for a 6" stubble height on LCT streams. Both Donnelly and Colman Creek have reaches that have been identified as not functioning in proper condition. The 6" stubble height requirement along with additional management strategies would address the need to be proactive in correcting these problems. It would also provide the opportunity to monitor key areas within the respective riparian zones and determine if 6" is an appropriate criteria on a site specific basis. The 6" inch stubble height would apply to all those streams identified as recovery streams even if there was no existing LCT populations within the stream system.

COMMENT #4 -OBJECTIVES- Long Term

The Long Term Water Quality Objectives raise several questions. Why should Donnelly, Mahogany, Snow, and Summer Camp Creeks have a riparian condition class objective of 70% with streambank cover and stability at 60% or above while Colman Creek has a condition class of 66% with streambank cover and stability at 66% or above? It is also difficult to comment on the temperature objective without detailed data. We do know that elevation plays an important role and that all of the streams in the Re-Evaluation are on steep gradients. Recent research indicates that stream shade cover, itself, may not significantly influence water temperatures in rapidly flowing streams.

RESPONSE

The cover and stability objective on Donnelly, Mahogany, Snow and Summer Camp should actually have read 70%. The major riparian impacts from livestock grazing

manifest themselves in the form of bank erosion and changes in the composition of riparian vegetation. The riparian condition class rating is calculated as the average of bank cover and bank stability obtained from stream inventories which correlates to bank erosion and changes in riparian vegetative composition. The riparian condition class is expressed as a percentage of optimum based on riparian condition class descriptions as follows:

>70%	**1.**	**Class I, Excellent - No negligible use/damage; well-rooted vegetation (primarily grasses, sedges, and forbs); sod intact; very little if any erosion from vegetation areas, less than 5% bare soil showing along shoreline.**
60-69%	**2.**	**Class II, Good - Some use/damage; vegetation generally well-rooted; Sod mostly intact; soil showing in places (6 percent to 15 percent bare soil showing overall); some surface erosion evident.**
50-59%	**3.**	**Class III, Fair - Use or damage close to sod; vegetation shallow-rooted; moderate surface erosion (16 percent to 25 percent bare soil showing overall).**
<49%	**4.**	**Class IV, Poor - Heavy to severe use/damage; vegetation generally grazed down to the soil; considerable soil showing (over 25%) with sod damage serious; active surface erosion a serious problem.**

The actual potential of the stream is also evaluated through this process; therefore potentials for Colman Creek are lower than the other streams.

Detailed thermograph data will be added to the Final Re-Evaluation to describe existing conditions.

COMMENT #5

Is Mahogany Creek now classified as a Class A stream by the state? Is there any real reason to have an objective for it different from that of other LCT streams?

RESPONSE

Mahogany Creek is classified as a Class A stream by the Nevada Division of Environmental Protection, Bureau of Water Quality Planning. Based on this classification there is a specific set of quality standards that pertain to these streams. These standards can be found in Nevada Administrative Code NAC(445A.124) and include temperature, fecal coliform, total phosphates, total dissolved solids and settleable solids They also allow for no floating solids, sludge deposits, tastes or odor producing substances, sewage, industrial wastes, or other wastes, toxic materials, oils, deleterious substances, colored or other wastes.

COMMENT #6

The sage grouse objectives are probably compatible with grazing management alternatives if the 6-7 inch average underscore height is reasonably applied. This can probably be attained for grasses in nesting locations under sagebrush. Residual meadow vegetation of 3-6" is realistic and compatible with grazing, but it is well documented that sage grouse do not prefer ungrazed or lightly grazed meadows with rank or decadent growth.

The objectives for mule deer, pronghorn, bighorns, and wild horses can probably be attained under the management alternatives. It is imperative that AMLS for wild horses be maintained with routine gathers.

With wild horses and burros at the AML there should be no problem attaining adequate forage to support a stocking level of 12168 AUMs for livestock. This should be stated as the objective with an ultimate goal of returning to a total of 16070 AUMs.

RESPONSE

Any increase in the previously Non-Scheduled livestock AUMs will be based upon forage availability on a sustained yield basis supported by monitoring data and the attainment of vegetative related allotment objectives and rangeland standards.

COMMENT #7 - GRAZING MANAGEMENT PLAN

The carrying capacities calculated in the Re-Evaluation indicate that all of the alternatives are well within limits for moderate grazing use. Inventory data and observations also confirm that grazing has been light to moderate in recent years except for a few concentration locations-usually at or near watering places and riparian sites. These problems will be addressed with livestock watering facilities improvements/restorations, increased riding and herding, and reduced time within pastures under a modified grazing strategy. Some fencing of problem locations, may also be in order.

Thanks to the BLM the wild horse and burro situation has greatly improved. From verbal reports it appears that as many as 1200 (and possibly more) animals were removed from the Soldier Meadows Allotment in late 2000. That reduction in yearlong grazing finally opens the door for activation of Not Scheduled livestock use in place since the 1994 Decision by the BLM.

Estill Ranches respectfully insists that these AUMs be activated beginning this year (2001) under Alternative 4, but a phase in as outlined in Alternative 2 could be acceptable if good reasons are presented for delaying the full activation. The more than 14000 AUMs reduction in wild horse and burro use easily provides the necessary forage supply to accommodate restoration of the 4481 Not Scheduled AUMs.

RESPONSE

We recognize that by removing a substantial number of wild horses and burros in 2000, the amount of grazing competition between livestock and horses/burros has been alleviated within the Herd Management Areas (HMAs). We don't know how the remaining horses/burros will redistribute within these areas until we conduct distribution flights and collect utilization data. Also there are portions of the allotment grazed by livestock that are outside an HMA that will be affected by the

proposed grazing system. Adopting a more conservative approach, as in alternative #3, provides us the opportunity to monitor use levels and ensure allotment wide objectives and standards are being accomplished prior to activation of any previously non scheduled AUMs. Prior to activating any non-scheduled AUMs the proposed grazing management plan will be implemented. If this new management plan is achieving the allotment specific objectives and standards, then the scheduled increase in AUMs will occur. We acknowledge that the WH&B removal alleviated pressure from the vegetative resources, yet and the BLM will monitor to ensure that enough forage exists to sustain an increase in AUMs for livestock while still attaining the Standards for Rangeland Health and short-term objectives.

COMMENT # 8

We have a few suggestions for your writeup on the alternatives. How about taking out the reference to clockwise and counterclockwise rotation? The headings are contradictory with the narrative in some cases and the tables and maps clearly explain the rotation strategy without these references. The off date for the Warm Spring Pasture in the Table on page 52 should be 07/30. Please change the terminology for activation of the Not Scheduled AUMs from the word "Increases." This indicates an increase in permitted use which it is not. It's just resumption of use interrupted for personal reasons by the former owner and to accommodate the wild horse and burros until excess animals could be gathered.

RESPONSE

The suggested modifications will be considered in the preparation of the Final Re-Evaluation.

COMMENT #9 -MONITORING

Soldier Meadows expects to be involved with BLM in monitoring activity with the hope that valid, objective, and understandable data can be assembled to further improve management in the allotment for all resources, uses, and interests.

RESPONSE

Rangeland monitoring is essential to the success of any livestock grazing management plan. Monitoring will indicate if the grazing system is achieving the allotment specific objectives and standards. Whenever rangeland monitoring is conducted on the allotment you will be notified and given the opportunity to participate.

SUMMIT LAKE PAIUTE TRIBE January 23, 2001

COMMENT #1 - Cultural Resources

The Tribe requests that the Tribe be contacted and a Tribal representative be allowed to participate when individual examinations are performed for range improvements.

RESPONSE

Native Americans will be consulted on all proposed range improvements which have the potential to impact areas of Native American concern.

COMMENT #2 - Conclusions (page 41)

The Tribe feels a 6" stubble height should be required for Colman and Donnelly Creeks. Currently, the summary indicates poorer riparian conditions for these drainages, but they are planned/ongoing recovery streams for LCT. These streams are not protected through connection with other LCT streams, thus, provide adequate riparian protection or remove from LCT recovery program.

RESPONSE

Refer to the Revised Objectives on page 69 of the Draft Soldier Meadows/Paiute Meadows Allotment Re-Evaluation. Under the Short Term Objectives No. 1 states:

"Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to Mahogany, Summer Camp, Snow, Colman and Donnelly Creeks."

a. **"Maintain a minimum stubble height of six inches (6") in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp.), rushes (Juncus spp.), Intermediate Wheatgrass (Agropyron intermedium) and Tufted Hairgrass (Deschampsia cespitosa).**

COMMENT #3 - Water Quality Objectives (pages 42-43)

The Tribe requests protection of the water that flows onto the Reservation. Although you mention Class A Water Standards for Mahogany Creek, you propose lower standards for Summer Camp (largest flow in Mahogany Creek basin) and Snow Creeks.

RESPONSE

The State of Nevada who has the responsibility of designating water quality standards has established Mahogany Creek as a Class A water. Since Summer Camp Creek is a tributary to Mahogany Creek it must be held to the same standards.

COMMENT #4 - Conclusion of Tribal Comments

The Summit Lake Paiute Tribe believes that portions of the allotments which are east of the Summit Lake Reservation and within the Summit Lake basin should be excluded from all grazing and trailing of cattle, while being managed to prevent excessive wild horse damage.

RESPONSE

There has been no authorized livestock grazing or trailing within the Stanley Camp Riparian Pasture since 1990. This area remains closed to livestock grazing due to the Mahogany Fire of 2000, until rehabilitation objectives are achieved. There is proposed livestock trailing through the Riparian Pasture although an alternative would be to trail to the west around the Reservation boundary. The interdisciplinary team will take all resource values into consideration when selecting the preferred grazing/trailing alternative.

COMMENT #5

The Mahogany Creek basin (Mahogany, Summer Camp, Pole, Stanley Camp and Snow Creeks) is home to the world's fittest lacustrine LCT population.

The Mahogany Fire of 2000 has put this threatened fish population in a venerable position by increasing uncertainty associated with future reproduction and recruitment processes.

RESPONSE

It would be presumptuous to estimate the cumulative effects of the 1997 and 2000 fires upon the resource values within the Mahogany Creek watershed or predict potential impacts to the Lahontan cutthroat trout (LCT) and its' habitat. It is our opinion that we have adequately coordinated with everyone that has an interest in this area and have incorporated every reasonable rehabilitation measure into the Emergency Fire Rehabilitation (EFR) Plan to ensure the rapid and complete recovery of the areas that were burned. These areas will remain closed to livestock grazing for a minimum of two years and will be monitored by an interagency, interdisciplinary team to determine attainment of the recovery objectives.

COMMENT #6

Passerine bird surveys indicate that Mahogany/Summer Camp riparian areas are as good as any surveyed by NDOW.

RESPONSE

This area could be used as another example of proper multiple use management and attaining a thriving natural ecological balance.

COMMENT #7

Riparian studies, bird surveys, and utilization data all suggest lower amounts of grazing may be a primary cause of increased biodiversity in the Mahogany Creek basin.

Protection of the Mahogany Creek basin and slight improvements on Bartlett, Battle, Paiute, and Colman Creek could lead this to becoming one of the last, best natural areas of northwest Nevada and the Great Basin.

Most summary information would indicate that the Mahogany Creek basin is in better shape than other parts of these two allotments. The Tribe feels this is primarily due to protection from grazing, receiving only moderate grazing from wild horses and trespass cows.

Passerine Bird Investigations (pages 11-15)

NDOWs passerine bird investigations indicate the Mahogany/Summer Camp Station (#21) had the highest species count of any survey since the initiation of monitoring in 1997.

Although Bartlett Creek exhibited a short stretch of excellent willow habitat with high bird species diversity, the majority was in poor habitat condition. The North Fork of Battle Creek exhibited good riparian habitat.

RESPONSE

No response necessary to this comment.

COMMENT #8 - Utilization Data
Although NDOWs passerine bird investigations found poor habitat condition for Bartlett Creek (pages 13-14) , utilization data (pages 17-18) reports only light to moderate use.

RESPONSE
This data may indicate that there is little direct correlation between proper livestock grazing and the natural recruitment of woody species based upon site potential.

COMMENT #9
Pages 21-22 indicate riparian utilization and stubble height objectives are not being met for Snow and Colman Creeks.

RESPONSE
This necessitates the development of various technically sound livestock grazing alternatives that should result in attainment of all allotment objectives, specifically riparian related objectives.

COMMENT #10
Trespass cows use the Mahogany Creek basin on many occasions throughout a growing season. One period during the summer of 1999 saw at least 40 head using Summer Camp Creek. The Tribe feels utilization of Summer Camp Creek did occur in 1999 and 2000, grazing sign was obvious when compared to mid-Mahogany Creek.

RESPONSE
The Code of Federal Regulations (CFR) prohibits the grazing of unauthorized livestock on Public Lands. It will continue to be the policy of the Bureau of Land Management to vigorously pursue unauthorized grazing use whenever it occurs. We currently conduct livestock compliance checks of this high priority area and plan to increase our presence in the future.

COMMENT #11 - Riparian and Stream Condition Ratings
The Whitehorse Associates report (page 32) indicates "riparian" and "stream" ratings are lower for Summer Camp Creek than they are for Bartlett Creek.

In light of the Mahogany Fire (9/2000) having burned most of Mahogany and Pole Creeks and the fact that Summer Camp Creek is the largest producer of the threatened Lahontan cutthroat trout for the Summit Lake basin, the Tribe believes better protection should be afforded the Summer Camp Creek drainage.

RESPONSE
Before the smoke had settled from the Mahogany Fire an Emergency Fire Rehabilitation Team began assessing options to protect and assist in the rapid recovery of the fragile resources within the watershed. There were numerous tours and meetings that were attended by specialists from BLM, Nevada Division of Wildlife, Summit Lake Paiute Tribe and U.S. Fish and Wildlife Service. Collectively this team compiled a rehabilitation plan and secured funding to insure on the ground

efforts were accomplished in a timely manner. Once the fire suppression activities were completed Decisions were issued to all livestock permit holders within the allotments affected by the fire stating that the area was closed to livestock grazing. The areas that burned will remain closed to livestock grazing until such time as the rehabilitation objectives are attained. However, no authorized livestock use has occurred nor will occur in this use area. During the fall/winter of 2000/2001 a scheduled wild horse gather was conducted which removed several hundred horses from the Black Rock Range resulting in reduced impacts to the vegetative resources within the watershed.

NEVADA DIVISION OF WILDLIFE January 26, 2001

COMMENT #1

The Nevada Division of Wildlife has a long term and vested interest in the land use planning of the Black Rock Range in Humboldt County. Previous allotment Re-Evaluations and multiple use decisions were protested and appealed by our agency. Issues concerning allotment objectives, rangeland standards and guidelines were mutually agreed upon by our agencies. These allotments were to be managed under the auspices of past decisions and intensively monitored to determine the success or failure of management actions.

Actual use data are essential to determining the allotment's carrying capacity. It is difficult to determine actual use of livestock during 1995. These data are portrayed on pages two and four. Wild horse actual use data were to be determined by census data from each herd management area. It is not clear if the wild horse AUMs were observed or estimated. Please list the wild horse census data and AUM calculations of adult horses.

RESPONSE

The Paiute Meadows livestock actual use data is somewhat difficult to follow primarily due to changes in ranch owners and adjustments to the grazing permit. This portion of the document will be modified in the Final Re-Evaluation which will present the data in a more readable format.

Data used to determine AUMs and actual use by wild horses was both observed and estimated. Census data is used to determine approximate population levels. Our budget does not allow for yearly census flights. During those non flight years census data is used with a reproductive factor to calculate current populations.

Insufficient data has been collected to determine if adjustments to Appropriate Management Levels (AML's) are necessary. With the completion of wild horse and burro gathers in the fall/winter of 2000/2001 the population of wild horses within Warm Springs Canyon, Black Rock Range East and West and Calico Mountains Herd Management Area (HMA's) were 20% below AML. The attainment of AML within these HMA's will improve the resource conditions within the Soldier and Paiute Meadows Allotments. Utilization data will be collected to validate if current numbers are appropriate or if adjustments are needed to sustain a thriving wild horse and burro population and multiple use relationship.

COMMENT #2

Passerine bird surveys are important to our agency's commitment to "Nevada Partners in Flight Conservation Plan". We appreciate the efforts and cooperation of the Bureau to include these data in these assessments. Since this document has comparative data for riparian habitat, we suggest that wildlife data be expressed in relation to habitat data.

Utilization studies are the primary obligation of the Winnemucca Field Office's land use plan. Use-pattern mapping data and studies were the primary agreements of our agencies in previous disputes. Use pattern data maps were not presented in these documents. It is difficult to discern the extent of impacts to critical wildlife habitat. The authors described Burnt Spring and Butte Creek as being in the North Pasture, but are in fact located in the South Pasture. Monitoring data were collected on May 8, 1996, which is prior to the scheduled livestock use from June 1 to August 8, 1996. Utilization objectives to measure wild horse use or mid-season use were not monitored.

RESPONSE

BLM has not displayed the actual utilization maps in the document but have complied the data from the use pattern maps and used this data to determine if allotment objectives have been achieved. Under the existing livestock grazing system Paiute Creek is the boundary between the north and south pastures. Therefore Burnt Springs and Butte Creek are in the North Pasture. The season of use in the North Pasture is from May 16 to July 17. Utilization data collected on May 8, prior to livestock turnout, provides data indicating utilization level by wild horses.

COMMENT #3

The document suggests that monitoring obligations and studies were abandoned since 1993 and 1995. Key areas were not established at high priority riparian areas or big game winter ranges. The general lack of data to fully assess the intensive management systems and horse gathers cannot support the past actions or provide any rationale for any new change on the allotments.

RESPONSE

There have been no studies abandoned within the Soldier Meadows or Paiute Meadows Allotments during the Re-Evaluation period. Since monitoring efforts are predicated upon staff availability, funding and workload prioritization, BLM doesn't always have the opportunity to collect as much data as the agency would like too. Current management actions such as horse gathers are a result of data collection during the previous Re-Evaluation and issuance of the 1994 and 1995 Multiple Use Decisions for Soldier Meadows and Paiute Meadows Allotments respectively.

COMMENT #4

Sage grouse and sage grouse habitat are very important land use issues. We suggest that the "Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada" be incorporated into this document. Habitat assessment and allotment objectives can better assess the present status of sage grouse. Some additional attention to this issue will better explain our agencies' efforts to provide conservation planning for the species.

RESPONSE

The Bureau of Land Management in Nevada has established interim sage grouse management guidelines (Management Guidelines for Sage Grouse and Sagebrush Ecosystems in Nevada, January 2001). These guidelines were based on Western Association of Fish and Wildlife Agencies (WAFWA) draft guidelines and Oregon Bureau of Land Management sage grouse management guidelines, with input from all BLM field offices in Nevada. These guidelines were implemented immediately and will remain in place until the Governors' Sage Grouse Conservation Team finishes it's planning effort. At that time the interim guidelines will be reviewed and evaluated for consistency with the conservation planning effort.

The long term revised objectives for sage grouse on page 71 in the draft Re-Evaluation represent optimum (good) habitat conditions based on WAFWA habitat descriptions by life cycle for sage grouse and other pertinent research. These habitat objectives will be evaluated based on the actual site potential to determine if they are being met.

COMMENT #5

Stream survey data collected by our agencies may not concur. While our methodologies may differ between Habitat Condition Index and Habitat Optimum results, we should have complete agreement on the data and its assessment. We request that the document better explain how the minor differences in HCI might inflate the Habitat Optimum determinations for Pauite and Bartlett Creeks. Data collected by our stream survey suggests differences on observed utilization on riparian habitats in 1999 than expressed in the document. Our mutual efforts to re-establish Lahontan cutthroat trout in the North Fork of Battle Creek in 1999 and 2000 should be mentioned in the document.

Stream survey data collected on the Soldier Meadows Allotment are confusing. In 1994, did the Bureau of Land Management conduct surveys on Mahogany, Summer Camp and Snow Creeks? The data presented for 1994 and 1997 does not match our trend data collected in 1992 and 1997 for Mahogany Creek. Again, our agency's observed utilization on Slumgullion Creek (Stations 143, 648, 684 and 930) during 1999 do not agree with this document.

The removal of 2,207 wild horses suggests that the Bureau was able to achieve 20 percent less than the appropriate management level for wild horses. It would appear that these removals were a significant action that should have made significant differences in overall utilization of key forage species. Special allotment objectives and monitoring studies were established in the multiple use decisions to evaluate the impacts by these removals. We fail to find the data or assessment to validate the present AML.

It would be to our benefit to meet and discuss all available data prior to the proposed multiple use decisions for these allotments. Please contact our field office in Winnemucca to arrange a convenient time to meet.

RESPONSE

An interagency meeting between NDOW and BLM personnel was held on March 12, 2001 to discuss any missing or inaccurate data as well as varied methodology data collection techniques. These discrepancies will be resolved in the Final Re-Evaluation.

U.S. FISH AND WILDLIFE January 30, 2001

COMMENT #1 - General Comments:
Although this document may be in the standard Bureau of Land Management (BLM) format for allotment Re-Evaluations, it is difficult to read and understand. We recommend a more streamlined approach where current short and long term objectives are stated up front and their level of achievement discussed. Following this section is a description of the proposed short and long term objectives and how they differ from the current ones. Terms and conditions and standards and guidelines of rangeland health for each allotment should then be stated and explained. The methods for assessing all the parameters of the allotments should be described in detail.

RESPONSE
Thanks for your candid comments related to the existing allotment Re-Evaluation format and the difficulties you experienced in reviewing this document. Since this is an allotment Re-Evaluation we follow a slightly different format by not duplicating the allotment objectives. Instead the Bureau lists them in the beginning portion of the document and reiterates them in the conclusion section. BLM is currently assessing the allotment Re-Evaluation format and will be attempting to modify and hopefully streamline these often cumbersome documents. The Winnemucca Field Office does have a standard format whereby the agency is required to display and evaluate pertinent data to determine if specific objectives and standards are being achieved. The challenge is to determine how much data is adequate to demonstrate whether an objective has been attained without cluttering the document with data duplication such as in a table followed by narrative.

COMMENT #2

Our review indicates that the document's determination that current management is achieving allotment objectives and standards for rangeland health may be premature. The data used to support and justify changing the grazing system and increasing the animal unit months (AUM's) are either inconclusive, missing, or misleading. Inconclusive data is cited as the reason for not meeting several objectives. For other objectives, the document states that the objective was met but then goes on to present a series of years that the objective was not met. Some of the remaining objectives were not assessed because no data were collected. Lastly, on page 23, it states that no trend data have been gathered for the past 6 years for either of the allotments and yet the allotments are being reevaluated to change the grazing systems and to increase the AUM's.

RESPONSE

The purpose of the allotment Re-Evaluation is to analyze, interpret and evaluate monitoring data to determine if objectives and standards for rangeland health are being met under existing management. The document indicates that some of the objectives were not achieved therefore various alternative management systems are presented in the technical recommendation section and evaluated in this process. The selected management alternatives are chosen based upon their capability to meet specific management objectives and standards. In the past, livestock numbers have been adjusted based upon the number of wild horses above the Appropriate Management Level (AML) utilizing the allotment. Changing the grazing system or increasing livestock use will be based only upon meeting all management objectives and standards.

The vegetative trend studies were established to determine the "long term" changes to the soils and vegetation within a defined ecological site. These sites are monitored every three to five years over a period of decades to determine site evolution in terms of percent vegetative composition and seral stage.

COMMENT #3 - Species Comments Lahontan cutthroat trout

Lahontan cutthroat trout (LCT) and its habitat are found on both allotments. The preferred grazing system for both allotments will need to be consulted upon under section 7 of the Endangered Species Act of 1973 (Act), as amended. We have some concerns about the quality of the habitat, the data being used to support the conclusions about the habitat, and the impacts to this listed species. We recommend incorporating our comments into the biological assessment done for the allotments. Specifically our comments are:

Page 15 - The document recommends maintaining the excellent habitat quality of the Mahogany/Summer Camp watershed at its present level; however, its present level is severely degraded due to a fire in September 2000. A discussion is needed on when Mahogany Creek habitat will be restored and the time frame for restoration. As stated in the document, this recommendation cannot be obtained at this time.

RESPONSE

The wording will be changed to reference the historical (pre-burn) habitat condition. Refer to Section II. (M) WILDLAND FIRES for more detail related to the Emergency Fire Rehabilitation (EFR) plan.

COMMENT #4

Page 23 - The fire on Mahogany Creek is briefly discussed but no discussion is given for how the conditions in this area have been changed by the fire or how the conditions of the allotment have been affected. Potential impacts to LCT, must be discussed especially since the environmental baseline for this population has been severely affected.

RESPONSE

It would be presumptuous to estimate the cumulative effects of the fire upon the resource values within the Mahogany Creek watershed or predict potential impacts to the LCT and its habitats. It is our opinion that we have adequately coordinated with everyone that has an interest in this area and have incorporated every reasonable rehabilitation measure into the Emergency Fire Rehabilitation (EFR) Plan to ensure the rapid and complete recovery of the area that was burned. This area will remain closed to livestock grazing, although this area will eventually achieve recovery objectives.

COMMENT #5

Page 27 – Summit Lake is actually one of only two self-sustaining populations of lacustrine LCT.

RESPONSE

Added to document. The document originally listed Summit Lake as the only self-sustaining population of LCT.

COMMENT #6

Page 28 – North Fork Battle Creek should be added as another stream which is currently supporting a population of LCT.

RESPONSE

Added to document. The document originally did not list North Fork of Battle Creek as an LCT stream.

COMMENT #7

Page 45 – A discussion of the rationale for having both long term and short term objectives for this allotment would be beneficial. A more detailed discussion on why objectives were not met for certain years would be helpful in assessing the allotment and impacts to listed species habitat and potential habitat.

RESPONSE

Allotment monitoring studies such as utilization and stubble height are displayed in the draft Re-Evaluation to represent attainment of short- term objectives or guidelines which will assist in determining if long-term ecological objectives are achieved. There is additional discussion starting on page 17 related to utilization data and beginning on page 28 riparian functionality data is discussed in more detail. In an effort to streamline the document we have summarized and displayed data that will assist in determining if objectives and standards have been attained. It would be impractical, if not impossible to make copies of every piece of data collected over the Re-Evaluation period. Additional monitoring data was compiled and integrated into the Biological Assessment prior to the initation of formal Section 7 consultation.

COMMENT #8

Page 47 – Much of the ecological status inventory data were not collected which were to be used to quantify/redefine the condition of many of the habitat types within this allotment. Without these data, assessing the habitat quality of this allotment is premature especially as it pertains to impacts which may be occurring to listed fish habitats.

RESPONSE

Ecological Status Inventory (ESI) data is an allotment wide inventory of the existing vegetative and soils components of a specific ecological site. These inventories collect data based on a point in time and are used to determine a sites existing condition as well as potential for change based upon natural influences such as annual precipitation and fires as well as human impacts from various activities such as livestock grazing and recreation. An ESI inventory would be used to determine long term (decades) changes in percent composition of individual vegetative components within a specific site. These data collection guidelines are in accordance with the National Cooperative Soil Survey and for public lands correlated to Order three survey standards which could delineate an individual vegetative community down to approximately fifty acres. Any impacts to fisheries habitats would be based primarily upon short term (annually) utilization levels which if exceeded could potentially adversely impact vegetation by not providing adequate stubble height which traps sediment or facilitate willow/aspen recruitment. This data would be collected using Bureau approved methodologies identified in the Nevada Rangeland Monitoring Handbook (Blue Book).

COMMENT #9

Page 69 – It is unclear whether reconstruction of the Stanley Camp cabin fence extending to the Summit Lake Reservation fence is the same as the Idaho Canyon area fence mentioned earlier in the document.

RESPONSE

Yes, these references are to the same fences; locations will be clarified in the Final document.

COMMENT #10 - Desert Dace

Desert dace are found only on the Soldier Meadows Allotment and the preferred grazing system will also need to be consulted upon under section 7 of the Act. We have some concerns about the quality of the habitat, conclusions about the habitat, and about the impacts to this species. We recommend incorporating our comments and request for information into the biological assessment done for this allotment. Specifically our comments are:

Page 22 – Key areas for assessing objectives, and standards and guidelines were not designated for this allotment. This is the only area in which the desert dace, a federally threatened fish, is known to occur. Without the needed areas and necessary data, we feel it is premature to significantly change the grazing protocols of this allotment since the impact of the current grazing system on the listed fish has yet to be determined. Key areas will need to be designated as quickly as possible to determine impacts to the allotment and the listed fish.

RESPONSE

Although we have yet to establish allotment wide key areas, we have collected some utilization and water quality data within the desert dace habitat. Working in conjunction with University of Nevada Reno (UNR), Nevada Division of Wildlife (NDOW) and the U. S. Fish and Wildlife Service (USFWS) we have installed projects to reduce recreation impacts to the dace habitats and established several exclosures used to determine the effects of grazed versus ungrazed habitats. Unfortunately due to the untimely death of Dr. Gary Vineyard we have lost our primary partner and resident expert related to Desert dace studies. It is also important to note that during the Re-Evaluation period we have completed the Soldier Meadows Activity Plan which further defines additional needs to collect data and consider adjustments in management related to multiple use activities. Working with UNR and the Service we have also assisted in the development of the Recovery Plan For The Rare Species Of Soldier Meadows which the Service approved in May of 1997. This ecosystem recovery plan addresses the recovery strategy for the desert dace (Eremichthys acros), basalt cinquefoil (Potentilla basaltica) and four hydrobiid snail species of the genus Pyrgulopsis.

COMMENT #11

Page 33 – We are greatly concerned with the heavy cattle use cited in the document at sites 4, 5, and 6 within desert dace habitat areas. This impact will need to be more fully examined in the biological assessment when looking at impacts to listed species from the change in grazing system and increase in AUM's.

RESPONSE

We have coordinated with the Service during Section 7 consultation to ensure that our actions would not jeopardize the existence of a federally listed species or its critical habitat.

COMMENT #12 - Sage Grouse

We believe guidelines adopted under the most current Memorandum of Understanding (August 2000) signed by BLM, Forest Service, Fish and Wildlife Service, and the Western

Association of Fish and Wildlife Agencies should be implemented in this re-Evaluation for sage grouse. This represents the most current assessment of this species habitat needs. All sections of the document which discuss sage grouse and its habitat needs should be updated with the new guidelines.

RESPONSE
See the response to NDOW comment #4

COMMENT #13 - Technical Comments, Coordination
Page 16 – There are several areas which were not monitored due to availability of manpower, range conditions, and accessibility. We recommend that specific teams for each area be established and used to obtain additional data more frequently. The data presented are not robust enough to support many of the conclusions about the quality of the allotments.

RESPONSE
It is noteworthy to realize that the Winnemucca Field Office manages for multiple use in excess of nine million acres of public lands with a limited staff. Having made that statement it is equally important to understand that the Soldier Meadows and Paiute Meadows Allotments are some of out highest priority areas to monitor and collect data related to management of these multiple use activities. We have established a Field Office interdisciplinary team for this purpose of data collection/Re-Evaluation and will continue to prioritize our efforts into those areas of high resource values such as the LCT watershed and Desert dace habitats. We will continue to work cooperatively with other agencies and individuals in the collection and Re-Evaluation of these data. A monitoring plan which includes key area establishment will be initiated that will outline the monitoring for the next Re-Evaluation period.

COMMENT #14
Page 45 – We support the desired plant community objectives developed and request membership on the interdisciplinary team which will evaluate these objectives.

RESPONSE
Rangeland monitoring is essential to the success of any livestock grazing management plan. Monitoring will indicate if the grazing system is achieving the allotment specific objectives and standards. Whenever rangeland monitoring is conducted on the allotment you will be notified and given the opportunity of participate.

COMMENT #15 - Utilization Objectives: Riparian/Wet Meadows
Page 41 – The methods used for calculating the percent utilization should be explained in the document. The utilization objectives call for a 4 inch stubble height on known/potential LCT habitat but the terms and conditions section (page 67) states a minimum of 6 inches for those same streams. For the height implemented, the impacts to LCT and desert dace habitat need to be addressed and the method for analyzing the impacts explained. The level of utilization of wet meadows intuitively seems excessive at 50 percent when considering that this level was not meet for 3 of 6 years. This utilization level should be assessed in

terms of impacts from trampling to bank stability especially for areas around springs, streams, ponds, and lakes.

RESPONSE

Utilization monitoring is conducted at the end of the growing season or grazing period. Vegetative utilization is expressed as the amount, by weight, of a Key Forage Plant that has been used (grazed) within a particular ecological site. A transect is conducted within a particular ecological site to determine utilization of the Key Forage species that are components of that site and are preferred by a particular class of livestock such as cattle or wild horses/burros. A minimum of ten stops per transect are conducted at five pace intervals and the percent utilization recorded on the Key Forage Method from. The use levels are then averaged to arrive at percent utilization, by weight, for each selected species per transect at a given site. The stubble height methodolgy is similar to that for utilization within the riparian greenline, although a utilization level is not derived from the data only an average vegetative height.

The 4 inch stubble height was listed in the current objectives developed in 1994 and used during the Re-Evaluation period. The 6 inch stubble height referenced on page 67 under Terms and Conditions reflects the revised objective for those potential LCT reintroduction streams. The BLM has the responsibility to manage those streams which contain existing LCT populations as well as those streams which have been identified as recovery streams in a manner to optimize habitat conditions to support existing and future LCT populations. Riparian research has repeatedly shown that the residual stubble/regrowth should average at least 4-6 inches in height to provide sufficient herbaceous forage biomass to meet the requirements of plant vigor maintenance, streambank protection, and sediment entrapment.

Based on the presence of two threatened species, Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*) and Desert dace (*Eremichthys acros*), the BLM felt that the upper end of the height range would be an appropriate short term standard to assist in obtaining long term optimum habitat requirements for these species.

COMMENT #16 - Alternatives- Livestock Management
Soldier Meadows - Four alternatives were evaluated; the current system and three other alternatives which only differed in the direction of rotation and the timing of activation of 4,481 Not Scheduled AUM's. Several other alternatives should be analyzed including, but not limited to: 1) current system with the activated AUM's; 2) the rotation alternatives without any activation of Not Scheduled AUM's; and 3) an alternative with no trailing through the Stanley Camp riparian pasture. We have serious concerns about the impacts to listed species and their habitats if the AUM's are increased without the data to support the ability of this allotment to remain viable and healthy.

RESPONSE

We have concluded section 7 consultation on the proposed alternative and have been issued a Biological Opinion.

COMMENT #17 - Term and Conditions (Page 67)

The first term and condition states that the majority of the pastures are unfenced so it is the permittees responsibility to ensure livestock grazing occurs within the appropriate pasture in accordance with the permit schedules. We believe this condition is insufficient to protect the area around Idaho Canyon, therefore, a fence must be constructed here regardless of the alternative selected. Under condition 2, North Fork Battle Creek should be added as another area of habitat or potential habitat for LCT. For the purpose of the biological assessment, the methods by which items a, b, and c under condition 2 will be evaluated need to be discussed. Under condition 3, the methods for maintaining a minimum stubble height of 6 inches on sites with desert dace also need to be discussed. We believe this may not be enough protection for those areas. For example, trampling, bank stability, and bank erosion may significantly degrade desert dace habitat, but these parameters are not addressed in the terms and conditions. Reinitiation of consultation may be necessary under condition 5 should the grazing authorization be modified during the life of this permit. We request copies of all the actual use reports prepared for these allotments as defined in condition 8, so we can evaluate grazing schedules impacts to listed species.

RESPONSE

Regardless of the grazing alternative selected, the proposed reconstruction of the existing fence and construction of a small portion of new fence will be implemented to prevent livestock from drifting into the Stanley Camp Riparian Pasture. Duly noted the North Fork of Battle Creek will be added to the document as LCT habitat. Additional monitoring data was compiled and integrated into the Biological Assessment prior to the initation of formal Section 7 consultation.

There were also several coordination meetings and tours related to the re-evaluation as follows:

October 31, 2000	Meeting with BLM, U.S Fish & Wildlife Service, Summit Lake Paiute Tribe, Irv & Sandy Brown and Estill Ranches LLC to discuss livestock grazing alternatives, and the Consultation process.
February 5, 2001	Meeting between Nevada Division of Wildlife and BLM to discuss allotment stream survey data.
March 12, 2001	Meeting with BLM, U.S. Fish & Wildlife Service, Summit Lake Paiute Tribe, Irv & Sandy Brown, John Estill, Jim Linebaugh and Mack Hedges to discuss grazing alternatives and consultation process.
April 17, 2001	BLM & U.S. Fish & Wildlife Service tour of the Desert Dace & Lanontan Cutthroat Trout areas on Soldier Meadows Allotment.
May 17,18, 2001	BLM, U.S. Fish & Wildlife Service and permittee tour of Paiute and Soldier Meadows Allotments.
March 29, 2002	Meeting between BLM and U.S. Fish & Wildlife Service to

discuss the ongoing Consultation process.

VI. MANAGEMENT ACTIONS

A. LIVESTOCK

SOLDIER MEADOWS ALLOTMENT - ESTILL RANCHES LLC.

Clockwise Rotation (Idaho Cyn. to Colman/Slumgullion) on even years.
Counterclockwise Rotation (Colman/Slumgullion to Idaho Cyn.) on odd years.

This grazing alternative implements a rotational grazing system wherein livestock would graze in a clockwise (Idaho Cyn. to Colman/Slumgullion) rotation one year followed by one year of counterclockwise (Colman/Slumgullion to Idaho Cyn.) rotation the next year. Animal Unit Months (AUMs) identified as Non Scheduled in the 1994 Multiple Use Decision under a grazing system used by prior Soldier Meadows Ranch owner R.C. Roberts are scheduled for activation in three increments over a five year time frame by Estill Ranches LLC., current ranch owner. These 4481 Non Scheduled AUMs would be restored in three phases of approximately 1494 AUMs each.

Activation and phase in of Non Scheduled AUMs would be postponed until the third year of the rotational grazing system assuming Allotment Objectives and Standards and Guidelines for Rangeland Health are attained. This conservative approach to reinstating these AUMs are attributed to the following:

* Facilitate vegetation recovery in the allotment following heavy use by livestock, wild horses and burros for several years. One thousand one hundred and seventy-two (1172) wild horses and burros were removed during the winter of 2000 - 2001 and their numbers are expected to remain at or near an Appropriate Management Level (AML) for the next couple of years..

* Prevent overutilization and facilitate attainment of Allotment Objectives and Standards for Rangeland Health.

This activation of 4,481 Non Scheduled AUMs would be implemented over a five year period (Phases 1,2 & 3) with a third or approximately 1,494 AUMs added to the grazing schedule in years three, five and seven.

YEAR 1 CLOCKWISE (Idaho Cyn. to Colman/Slumgullion) ROTATION

1. Grazing (AUMs)

   a. Total 16070

b. Historical Suspended 3902
c. Permitted Use 12168
d. Authorized 7687
e. Not Scheduled 4481

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
700	01/01 to 03/31	B. Rock S.*	2071
700	04/01 to 05/31	Calico S.**	1404
700	06/01 to 07/31	W. Springs	1404
700	08/01 to 08/31	Id. Canyon***	713
700	09/01 to 09/30	Colman/Slumgullion	690
700	10/01 to 11/30	Hot Springs	1404

* South of Wagner Spring ***TOTAL*** 7686

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 2 COUNTERCLOCKWISE (Colman/Slumgullion to Idaho Cyn.) ROTATION

1. Grazing (AUMs)

a. Total 16070
b. Historical Suspended 3902
c. Permitted Use 12168
d. Authorized 7687
e. Not Scheduled 4481

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
700	01/01 to 03/31	B. Rock N.*	2071
700	04/01 to 05/31	Calico N.**	1404
700	06/01 to 06/30	Colman/Slumgullion	690
700	07/01 to 07/31	Id. Canyon***	713
700	08/01 to 09/30	Warm Springs	1404
700	10/01 to 11/30	Hot Springs	1404

* North of Wagner Spring ***TOTAL*** 7686

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 3 - PHASE 1 CLOCKWISE (Idaho Cyn. to Colman/Slumgullion) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Non Scheduled	2987

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
836	01/01 to 03/31	B. Rock S.*	2474
836	04/01 to 05/31	Calico S.**	1677
836	06/01 to 07/31	W. Springs	1677

836	08/01 to 08/31	Id. Canyon***	852
836	09/01 to 09/30	Colman/Slumgullion	825
836	10/01 to 11/30	Hot Springs	1677

* South of Wagner Spring ***TOTAL*** 9182

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 4 - PHASE 1 COUNTERCLOCKWISE (Colman/Slumgullion to Idaho Cyn.) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	9181
e.	Non Scheduled	2987

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
836	01/01 to 03/31	B. Rock N.*	2474
836	04/01 to 05/31	Calico N.**	1677
836	06/01 to 06/30	Colman/Slumgullion	825
836	07/01 to 07/31	Id. Canyon***	852
836	08/01 to 09/30	Warm Springs	1677
836	10/01 to 11/30	Hot Springs	1677

* North of Wagner Spring ***TOTAL*** 9182

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 5 - PHASE 2 CLOCKWISE (Idaho Cyn. to Colman/Slumgullion) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	10675
e.	Non Scheduled	1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock: Cow/Calf

4. Percent Federal Range: 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
972	01/01 to 03/31	B. Rock S.*	2876
972	04/01 to 05/31	Calico S.**	1949
972	06/01 to 07/31	W. Springs	1949
972	08/01 to 08/31	Id. Canyon***	991
972	09/01 to 09/30	Colman/Slumgullion	959
972	10/01 to 11/30	Hot Springs	1949

* South of Wagner Spring ***TOTAL*** 10673

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 6 - PHASE 2 COUNTERCLOCKWISE (Colman/Slumgullion to Idaho Cyn.) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	10675
e.	Non Scheduled	1493

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
972	01/01 to 03/31	B. Rock N.*	2876
972	04/01 to 05/31	Calico N.**	1949
972	06/01 to 06/30	Colman/Slumgullion	959
972	07/01 to 07/31	Id. Canyon***	991
972	08/01 to 09/30	Warm Springs	1949
97276	10/01 to 11/30	Hot Springs	1949

* North of Wagner Spring ***TOTAL*** 10673

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 7 - PHASE 3 CLOCKWISE (Idaho Cyn. to Colman/Slumgullion) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1108	01/01 to 03/31	B. Rock S.*	3278

1108	04/01 to 05/31	Calico S.**	2222
1108	06/01 to 07/31	W. Springs	2222
1108	08/01 to 08/31	Id. Canyon***	1129
1108	09/01 to 09/30	Colman/Slumgullion	1093
1108	10/01 to 11/30	Hot Springs	2222

* South of Wagner Spring ***TOTAL*** 12166

** South of Cherry Creek

*** Livestock will be trailed around the reservation into the Colman/Slumgullion use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

YEAR 8 - PHASE 3 COUNTERCLOCKWISE (Colman/Slumgullion to Idaho Cyn.) ROTATION

1. Grazing (AUMs)

a.	Total	16070
b.	Historical Suspended	3902
c.	Permitted Use	12168
d.	Authorized	12168
e.	Non Scheduled	0

2. Season of Use: 01/01 to 11/30

3. Kind and Class of Livestock Cow/Calf

4. Percent Federal Range 100%

5. Grazing System

Livestock	Season of Use	Use Area	AUMs
1108	01/01 to 03/31	B. Rock N.*	3278
1108	04/01 to 05/31	Calico N.**	2222
1108	06/01 to 06/30	Colman/Slumgullion	1093
1108	07/01 to 07/31	Id. Canyon***	1129
1108	08/01 to 09/30	Warm Springs	2222
1108	10/01 to 11/30	Hot Springs	2222

* North of Wagner Spring ***TOTAL*** 12166

** North of Cherry Creek.

*** Livestock will be trailed around the reservation into the Idaho Canyon use area, no grazing or trailing will occur within the Stanley Camp Riparian Pasture.

RATIONALE:

This proposed livestock grazing system utilizes smaller pastures or use areas for short durations annually throughout the allotment. This proposal would extend the total time that livestock are on public lands within the allotment, to eleven (11) months under this system versus eight and a half (8.5) months under the existing system. These phased in AUMs will result in approximately a nineteen percent (19%), a thirty-eight percent (38%) and fifty-eight percent (58%) increases (from existing actual use) in years 3,5 & 7 respectively. The livestock numbers in this proposed plan would be adjusted to eight hundred thirty-six (836), nine hundred seventy-two (972) and one thousand one hundred and eight (1108) head in years 3, 5 & 7 respectively. The existing grazing system currently allows the grazing of one thousand one hundred and seventeen (1117) head of livestock.

The Idaho Canyon, Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would be at different times each year (early one year followed by later the next year). The Idaho Canyon use area would be grazed from 07/01 to 07/31 one year and 08/01 to 08/31 the following year. This system of grazing these areas for short durations (30 days) allows rest until seedripe which will increase plant vigor, food storage, forage production and seed production. Deferring grazing until later in the season also will provide the opportunity for the establishment of seedlings. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Colman Creek/Slumgullion Creek use areas would be grazed for short durations and the season of use would also be at different times each year (early one year followed by later the next year). This use area would be grazed from 06/01 to 06/30 one year and 09/01 to 09/30 the following year. This deferred short duration rotational grazing system will provide some rest until seedripe increasing plant vigor, food storage, forage production and establishment of seedlings. Grazing this area early in the year when the upland sites are greening up, prevents livestock from concentrating in the riparian areas of Colman and Slumgullion creeks. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

There are three perennial streams (Mahogany, Summer Camp and Snow creek) on public lands administered by BLM that flow into Summit Lake on tribal lands. These creeks, within The Stanley Camp Riparian Pasture, provide spawning habitat for one of only two genetically pure strains of the federally listed threatened Lahontan cutthroat trout (LCT). There will be no livestock authorized to graze or trail through the Stanley Camp Riparian Pasture. Two sections of fence will be reconstructed and built to prevent livestock from drifting into the Stanley Camp Riparian Pasture. The first section will be reconstructed

from the existing private fence around Stanley Camp Cabin to the Summit Lake Reservation fence. Another small section will be constructed from the Pine Forest Allotment boundary fence to the existing Lahontan cutthroat trout exclosure fence. The purpose of the fences is to prevent livestock from drifting into the Stanley Camp Riparian Pasture and adversely impacting the watershed which is habitat for the federally listed threatened Lahontan cutthroat trout.

The Warm Springs Pasture would be grazed 06/01 to 07/31 one year followed by 08/01 to 09/30 the next year. This system of relatively short duration (60 days) grazing combined with early use in rotation with later use will provide one season of deferred grazing allowing seedripe. This system will increase plant vigor, food storage, forage production and seed production. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Hot Springs pasture would be grazed late season from 10/01 to 11/30 allowing seedripe annually. This system will increase plant vigor, food storage, forage production and seed production. Grazing this area later during the cool season when livestock are not as dependent on water will prevent them from concentrating near the geothermal springs. These springs provide habitat for Desert Dace which is another federally listed threatened species. There is also a sensitive plant species, Basalt cinquefoil, that grows on the sites adjacent to the geothermal pools. Late season grazing during plant dormancy will provide a complete growing season annually for the cinquefoil. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Calico Pasture is divided into two use areas (North & South) with a grazing season of 04/01 to 05/31 annually. This system provides a year of rest followed by a relatively short (60 days) early season of use. This system will increase plant vigor, food storage, forage production and seed production. Once the livestock are removed on May 31 the vegetative resources will have approximately ten months rest until being grazed again. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

The Black Rock Pasture in also divided into two use areas (North & South) with a grazing season of 01/01 to 03/31 annually. Grazing impacts should be minimal since use occurs during the winter season when most of the vegetation is dormant. This system will increase plant vigor, food storage, forage production and seed production by having a complete growing season of rest.

INTERIM GRAZING SYSTEM

In the interim until fences are reconstructed between the Idaho Canyon use area and the Stanley Camp Riparian Pasture, herders will be present to prevent livestock from drifting

into the Stanley Camp Riparian Pasture or onto the areas burned in the wildland fire of 2000. Since the season of use is relatively short (30 days) and there are existing fences around the most of the use area there will be little opportunity for livestock drift. This herding effect of controlled short duration grazing and limiting utilization to fifty percent (50%) in the uplands and restricting riparian vegetation utilization to thirty percent (30%) should result in achieving allotment objectives and standards and guidelines for rangeland health.

TERMS AND CONDITIONS:

The terms and conditions must be in conformance with the Standards and Guidelines for the Sierra Front - Northwestern Great Basin Resource Advisory Council, approved by the Secretary of the Interior on February 12, 1997.

1. Since the majority of the use areas are unfenced it is the responsibility of the permittee to incorporated riding and herding to insure livestock grazing occurs within the appropriate pasture in accordance with the permit schedules.

2. There will be no livestock grazing authorized within the Mahogany Creek Exclosure.

3. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to Colman and Donnelly Creeks.

   a. Maintain a minimum stubble height of six inches (6") in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp), rushes (Juncus spp.), and Tufted Hairgrass (Deschampsia cespitosa). If stubble heights are exceeded prior to the end of the designated grazing season, the livestock permittee will be given a seven (7) day notice in which to remove livestock from the use area/pasture and/or allotment.

   b. The objective for utilization of key woody plant species is thirty percent (30%) : Aspen (Populus tremuloides) and Willows (Salix spp.).

   c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout. This standard would apply to the following Colman and Donnelly creeks.

4. Maintain a minimum stubble height of six inches (6") on the grass and grass-like plants in those sites associated with the federally listed threatened Desert Dace. If stubble heights are exceeded prior to the end of the designated grazing season, the livestock permittee will be given a seven (7) day notice in which to remove livestock from the use area/pasture and/or allotment.

5. "Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of

human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer."

6. Salt and/or mineral blocks shall not be placed within one quarter (1/4) mile of springs, streams, riparian habitats or aspen stands.

7. The permittees are required to perform maintenance on range improvements as per their signed cooperative agreements and section 4 permits prior to livestock turnout.

8. The permittees certified actual use report, by pasture, is due 15 days after the end of the authorized grazing period.

9. The grazing authorization with the schedules of use outlined in this evaluation will be the only approved use and all other schedules, flexibilities and terms and conditions addressed in the 1994 Soldier Meadows Allotment Multiple Use Decisions are suspended, unless revised.

10. The authorized officer reserves the right to modify annual grazing authorizations as long as the modification is consistent with management objectives, standards for rangeland health and remains in the designated season of use.

PAIUTE MEADOWS ALLOTMENT - IRV AND SANDY BROWN

1.	Grazing (AUMs)		
	a.	Total	9932
	b.	Historical Suspended	5789
	c.	Permitted Use	4143
	d.	Authorized	4143
2.	Season of Use		03/15 to 10/06 11/15 to 01/15
3.	Kind and Class of Livestock		Cow/Calf
4.	Percent Federal Range		100%
5.	Grazing System		

Livestock	Season of Use	Use Area	AUMs
522	03/15 to 05/15	N. Paiute low el.*	1064
522	05/16 to 07/17	N. S. Fork Battle**	1081
522	07/18 to 10/06	S.S. Fork Battle***	1390
300	11/15 to 01/15	S. Paiute low el.****	612
			TOTAL 4147

* North of Paiute Creek below 1550 meters in elevation.
** North of South Fork of Battle Creek above1550 meters in elevation.
*** South of South Fork of Battle Creek above 1550 meters in elevation.
**** South of Paiute Creek below 1550 meters in elevation.

RATIONALE:

This management action will maintain the same livestock numbers, seasons of use and areas as the existing system with the exception that there is a proposed winter season of use for 300 head within the South Paiute low elevation area. Temporary non use within this winter use area has been granted since 1998. The winter use area is outside of any Herd Management Areas (HMAs) or identified wildlife use areas. Livestock grazing during the winter when most of the vegetation is dormant should minimize vegetative impacts. This management action would extend the season of use within the allotment by approximately two months (11/15 to 01/15) to accommodate the winter grazing season and increase the Permitted Use an additional 594 AUMs, approximately a 17% increase.

This management action also proposes to change some of the areas of use by designating the South Fork of Battle Creek as the boundary between the north and south use areas instead of Paiute Creek as under the existing system. The lack of adequate water sources south of Paiute Creek and the combined numbers of wild horses and livestock tend to concentrate use on the limited water sources and vegetation under the existing system. Changing the use areas allows better distribution and more uniform vegetative utilization since there are more sources of water and greater forage production in the higher elevation sites on the northern portion of the allotment. Since the cattle will be moved to the larger southern use area around the middle of July alleviating hot season use in the riparian areas this system will allow attainment of the allotment objectives and Standards for Rangeland Health. Riding and herding is essential to ensure livestock are properly distributed within the appropriate use area north or south of the South Fork of Battle Creek during the authorized period of use.

TERMS AND CONDITIONS:

The terms and conditions must be in conformance with the Standards and Guidelines for the Sierra Front - Northwestern Great Basin Resource Advisory Council, approved by the Secretary of the Interior on February 12, 1997.

1. Since the majority of the use areas are unfenced it is the responsibility of the permittee to incorporated riding and herding to insure livestock grazing occurs within the appropriate use area in accordance with the permit schedules.

2. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to the North Fork of Battle Creek, Paiute Creek, and Bartlett Creek.

   a. Maintain a minimum stubble height of six inches (6") in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp), rushes (Juncus spp.), and Tufted Hairgrass (Deschampsia cespitosa). If stubble heights are exceeded prior to the end of the designated grazing season, the livestock permittee will be given a seven (7) day notice in which to remove livestock from the use area/pasture and/or allotment.

   b. The objective for utilization of key woody plant species is thirty percent (30%) for Aspen (Populus tremuloides) and Willows (Salix spp.).

   c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout. This standard would apply to the following North Fork of Battle Creek, Paiute Creek, and Bartlett Creek.

3. "Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined at 43 CFR 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer."

4. Salt and/or mineral blocks shall not be placed within one quarter (1/4) mile of springs, streams, riparian habitats or aspen stands.

5. The permittees are required to perform maintenance on range improvements as per their signed cooperative agreements and section 4 permits prior to livestock turnout.

6. The permittees certified actual use report, by pasture, is due 15 days after the end of the authorized grazing period.

7. The grazing authorization with the schedules of use outlined in this evaluation will be the only approved use and all other schedules, flexibilities and terms and conditions addressed in the 1994 Paiute Meadows Allotment Multiple Use Decisions are suspended. unless revised.

8. The authorized officer reserves the right to modify annual grazing authorizations as long

as the modification is consistent with management objectives, standards for rangeland health and remains in the designated season of use.

RATIONALE:

This management action will maintain the same livestock numbers, seasons of use and areas as the existing system with the exception that there is a proposed winter season of use for 300 head within the South Paiute low elevation area. Temporary non use within this winter use area has been granted since 1998. The winter use area is outside of any Herd Management Areas (HMAs) or identified wildlife use areas. Livestock grazing during the winter when most of the vegetation is dormant should minimize vegetative impacts. This management action would extend the season of use within the allotment by approximately two months (11/15 to 01/15) to accommodate the winter grazing season and increase the Permitted Use an additional 594 AUMs, approximately a 17% increase.

This management action also proposes to change some of the areas of use by designating the South Fork of Battle Creek as the boundary between the north and south use areas instead of Paiute Creek as under the existing system. The lack of adequate water sources south of Paiute Creek and the combined numbers of wild horses and livestock tend to concentrate use on the limited water sources and vegetation under the existing system. Changing the use areas allows better distribution and more uniform vegetative utilization since there are more sources of water and greater forage production in the higher elevation sites on the northern portion of the allotment. Since the cattle will be moved to the larger southern use area around the middle of July alleviating hot season use in the riparian areas this system will allow attainment of the allotment objectives and Standards for Rangeland Health. Riding and herding is essential to ensure livestock are properly distributed within the appropriate use area north or south of the South Fork of Battle Creek during the authorized period of use.

B. WILD HORSE & BURRO MANAGEMENT

The management of Wild Horses and Burros is based on the Bureau of Land Managements' 2001 Wild Horse Strategy where all Herd Management Areas (HMAs) would be gathered over a ten (10) year period to reach Appropriate Management Level (AML). The plan outlines a four (4) year gather cycle plan to manage horses and burros Bureau wide. The strategy is to implement the management ranges which will be identified in the Allotment Multiple Use Decisions (MUDs). BLM will remove wild horses and burros to forty percent (40%) below AML, then manage at a range where the AML is the maximum number of animals in the HMA.

In accordance with 43 CFR Subpart 4700, it has been determined through the evaluation of monitoring data that a thriving natural ecological balance will be maintained by managing and providing forage (AUMs) for the following numbers of wild horses and burros within the Herd Management Areas (HMAs):

PAIUTE MEADOWS ALLOTMENT

HMA	NO. HORSES @ AML	AUMS/YR.. @ AML	NO. HORSES @ 60% OF AML	AUMS/YR. @ 60%OF AML
BLACK ROCK RANGE EAST	93	1116	56	672

SOLDIER MEADOWS ALLOTMENT

HMA	# HORSES @AML 60% OF AML	#AUMs @AML 60% OF AML	#BURROS@AML 60% OF AML	#AUMs@ AML 60% OF AML
BLACK ROCK RANGE WEST	93 56	1116 672	0 0	0 0
WARM SPRINGS	175 105	2100 1260	24 14	288 168
CALICO MOUNTAIN*	65 39	780 468	0 0	0 0

*Approximately twenty percent (20%) of the horse numbers within the Calico HMA are in the Soldier Meadows Allotment.

Excess wild horses and burros within the Soldier Meadows Allotment will be removed periodically to maintain the population within the AML range outlined above or until the AML is modified.

Excess wild horses within the Paiute Meadows Allotment will be removed periodically to maintain the population within the AML range outlined above or until the AML is modified.

Rationale:

Based on monitoring data collected during the re-evaluation period there have not been any significant problems associated with wild horse use of the range. The Appropriate Management Level (AML) established in the 1995 Multiple Use Decision for the Paiute Meadows Allotment is still applicable today. It is recognized that the horses from the Black Rock Range East HMA interact with horses in the Black Rock Range West HMA and this interaction will assure genetic viability. The wild horses within Paiute Meadows Allotment (Black Rock Range East) will be managed in conjunction with horses in Soldier Meadows Allotment (Black Rock Range West). Appropriate Management Levels (AMLs) have been established within the two Herd Management Areas (HMAs) and will be managed in accordance with the 2001 Wild Horse Strategy. When population levels exceed the AML within the total herd area, the horses will be gathered regardless of the allotment they may be inhabiting at the time of the gather.

Compliance and Monitoring

Population adjustments will occur when data indicates the population is not consistent with the established AML. The AML will remain unchanged until data indicates a change is necessary to reach HMA objectives including maintenance of a thriving natural ecological balance and multiple-use relationship in the herd area.

C. WILDLIFE

Analysis of existing management of wildlife habitat indicate that current wildlife populations are not significantly impacting multiple use objectives, therefore, no change in wildlife populations will be implemented. Wildlife populations will remain at the reasonable numbers outlined in the Land Use Plan. Reasonable numbers of wildlife are as follows:

SOLDIER MEADOWS ALLOTMENT

Mule Deer	786	AUMs
Bighorn Sheep	264	AUMs
Antelope	48	AUMs

PAIUTE MEADOWS ALLOTMENT

Mule Deer	1838	AUMs
Bighorn Sheep	180	AUMs
Antelope	307	AUMs

RATIONALE:

Analysis of monitoring data indicates that the utilization objectives, for upland, wetland riparian and streambank riparian habitats have been typically met in most years. There is no data indicating that wildlife use is attributed to non attainment of any allotment objective or standard for rangeland health. Therefore, a change in the existing wildlife populations or the existing wildlife management, within the Paiute Meadows Allotment, is not warranted.

D. RANGE IMPROVEMENT PROJECTS

The following range improvements, which are required for the final grazing system to function, will be incorporated into proposed multiple use decisions. Until the fences are installed an interim livestock grazing system will require riding and herding to maintain cattle in the authorized use areas. The following projects are scheduled to be evaluated through the project planning process. Construction of projects is dependent upon National Environmental Policy Act (NEPA) analysis, funding and project priorities.

1. Reconstruct the existing fence from Stanley Camp cabin to the Summit Lake Reservation fence.

2. Construct a small portion of fence from the existing Pine Forest Allotment fence to the Lahontan cutthroat trout exclosure fence.

3. Construct fences to protect desert dace and their critical habitats within the Hot Springs Use Area.

Rationale: These projects are required to prevent livestock from adversely impacting habitat of the federally listed threatened Lahontan cutthroat trout and desert dace.

RATIONALE:

Upon the installation of the proposed range improvements and the "final grazing system", livestock distribution and management will be improved. The allotment pastures will benefit from the range projects by providing a more uniform utilization pattern, better use of the annual vegetation and the flexibility to rest or defer livestock from resource sensitive areas. Several of the range improvements are essential for the final grazing system to function properly.

E. MONITORING

The following types of monitoring data will be used to make a determination of attainment of allotment objectives.

1. Utilization - Key Areas
2. Trend - Key Areas
3. Actual Use
4. Climatological
5. Stream Survey
6. Lotic/Lentic Riparian Functionality Assessments
7. Water Quality
8. Condition and Trend Assessment - Wildlife Habitat
9. Ecological Site Inventory
10. Wild Horse/Burro Distribution & Census

F. OBJECTIVES

SOLDIER MEADOWS ALLOTMENT

A. Short Term:

1. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to Colman and Donnelly Creeks.

a. Maintain a minimum stubble height of six inches (6") based on site

potential, in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp.), rushes (Juncus spp.), and tufted hairgrass (Deschampsia cespitosa).

b. The objective for utilization of key woody plant species is thirty percent (30%) for aspen (Populus tremuloides) and willows (Salix spp.).

c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout. This standard would apply to Colman and Donnelly Creeks.

2. Maintain a minimum stubble height of six inches (6") based on site potential, on the grass and grass-like plants in those sites associated with the federally listed threatened Desert Dace.

3. The objective for utilization of key plant species in wetland riparian habitats is fifty percent (50%) for sedges (Carex spp.), rushes (Juncus spp.) and bluegrass (Poa).

4. The objective for utilization of key plant species in upland habitats is fifty percent (50%) on the following: bluebunch wheatgrass (Agropyron spicatum), serviceberry (Amelanchier), curlleaf mountainmahogany (Cercocarpus ledifolius), basin wildrye (Elymus cinereus), ephedra (Ephedra), winterfat (Eurotia lanata), Idaho fescue (Festuca idahoensis), meadow barley (Hordeum brachyantherum), Baltic rush (Juncus balticus), lupine (Lupinus caudatus), Indian ricegrass (Oryzopsis hymenoides), bluegrass (Poa), Nevada bluegrass (Poa nevadensis), Sandberg bluegrass (Poa secunda), antelope bitterbrush (Purshia tridentata), bottlebrush squirreltail (Sitanion hystrix), needleandthread (Stipa comata), Thurber needlegrass (Stipa thurberana),and snowberry (Symphoricarpos).

B. Long Term:

1. Manage, maintain, or improve rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 786 AUMs for mule deer, 429 AUMs for pronghorn, and 264 AUMs for bighorn sheep.

a. Improve to or maintain good to excellent mule deer habitat conditions.

b. Improve to or maintain fair to good pronghorn habitat conditions.

c. Improve to or maintain good to excellent bighorn sheep habitat conditions.

2. Improve or maintain suitable sage grouse strutting, nesting, brood rearing, and/or wintering habitat in good condition within the site potential of the rangeland habitat.

The following parameters have been found to constitute optimum (good) conditions for sage grouse use :

Strutting Habitat

Low sagebrush or brush free areas for strutting and nearby areas of sagebrush having 20-50% canopy cover for loafing.

Nesting Habitat

1. Sagebrush between seven 7 and 31 inches in height (optimum= 16 inches).
2. Sagebrush canopy cover of 15-30% (optimum = 27%).
3. 25-35% basal ground cover.
4. Average understory height of 6-7 inches (grasses).

Brood Rearing Habitat

Early Season

1. Sagebrush canopy cover 10-21% (optimum = 14%).

Late Season

1. Meadow areas that are in functioning condition.
2. Residual meadow vegetation of no less than 3-6 inches in height.

Winter Habitat

1. Greater than 20% sagebrush canopy cover.

3. Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of 7,687 AUMs.

4. Maintain and improve the free-roaming behavior of wild horses and burros by protecting and enhancing their home ranges.

   a. Manage, maintain, or improve public rangeland conditions to provide 4,284 AUMs of forage on a sustained yield basis for wild horses.

   b. Maintain and improve wild horse habitat by assuring free access to water.

5. Improve to and/or maintain ceanothus (Ceanothus) habitat by allowing for successful reproduction and recruitment based on site potential.

6. Improve to and/or maintainmahogany (Cercocarpus) habitat by allowing for

successful reproduction and recruitment based on site potential.

7. Improve to and/or maintain aspen (Populus tremuloides) habitat by allowing for successful reproduction and recruitment based on site potential.

8. Improve to and/or maintain riparian and meadow habitat types to ensure species diversity and quality and to maximize reproduction and recruitment.

9. Improve to and/or maintain serviceberry (Amelanchier), bitterbrush (Purshia tridentata), ephedra (Ephedra) and winterfat (Eurotia lanata) habitat by allowing for successful reproduction and recruitment based on site potential.

10. Improve and/or maintain riparian condition class on six (6) miles of Mahogany Creek, two (2) miles of Summer Camp Creek, three (3) miles of Snow Creek and eight (8) miles of Donnelly Creek to an overall optimum of 70% by achieving the following:

    1) Streambank cover 70% or above.
    2) Streambank stability 70% or above.
    3) Maximum summer water temperatures below 68 degrees F.

11. Improve and/or maintain riparian condition class on eight (8) miles of Colman Creek to an overall optimum of 66% by achieving the following:

    1) Streambank cover 66% or above.
    2) Streambank stability 66% or above.
    3) Maximum summer water temperatures below 68 degrees F.

12. Improve and/or maintain riparian condition class on eight (8) miles of Slumgullion Creek to an overall optimum of 63% by achieving the following:

    1) Streambank cover 63% or above.
    2) Streambank stability 63% or above.
    3) Maximum summer water temperatures below 68 degrees F.

WATER QUALITY OBJECTIVES

13. Maintain Mahogany Creek and Summer Camp Creek to the State of Nevada designated Class A water standards.

14. Prevent Bureau authorized activities from degrading the natural quality of water. The Bureau will use the State's water quality criteria, found at NAC 445A.119, as benchmarks to determine whether or not the objective is being met.

    A. The criteria for watering of livestock, coldwater aquatic life propagation, water contact recreation and wildlife propagation shall be applied to the following sources: Snow Creek

Donnelly Creek
Colman Creek.

B. The criteria for watering of livestock, water contact recreation and wildlife propagation shall be applied to the following sources:
Slumgullion Creek
Soldier Creek

C. Standards and Guidelines of Rangeland Health

1. Soil processes will be appropriate to soil type, climate and land form.

2. Riparian/wetland systems are in properly functioning condition.

3. Water quality criteria in Nevada or California State Law shall be achieved or maintained.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

5. Habitat conditions meet the life cycle requirements of special status species.

PAIUTE MEADOWS ALLOTMENT

A. Short Term Objectives:

1. Livestock grazing within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout (LCT) will be subject to the following restrictions. These standards would apply to the North Fork of Battle Creek, Bartlett Creek and Paiute Creek.

   a. Maintain a minimum stubble height of six inches (6") based on site potential, in streambank herbaceous vegetative sites consisting of primarily: sedges (Carex spp.), rushes (Juncus spp.), and tufted hairgrass (Deschampsia cespitosa).

   b. The objective for utilization of key woody plant species is thirty percent (30%) for aspen (Populus tremuloides) and willows (Salix spp.).

   c. Mechanical streambank damage such as livestock hoof action resulting in bank punching or shearing shall not exceed ten percent (10%) within use areas that are habitat or potential habitat for the federally listed threatened Lahontan cutthroat trout. This standard would apply to the North Fork of Battle Creek, Bartlett Creek and Paiute Creek.

2. The objective for utilization of key plant species in wetland riparian habitats is fifty percent (50%) for sedges (Carex spp.), rushes (Juncus spp.) and bluegrass (Poa).

3. The objective for utilization of key plant species in upland habitats is fifty percent (50%) on the following: bluebunch wheatgrass (Agropyron spicatum), serviceberry (Amelanchier), curlleaf mountainmahogany (Cercocarpus ledifolius), basin wildrye (Elymus cinereus), ephedra (Ephedra), winterfat (Eurotia lanata), Idaho fescue (Festuca idahoensis), meadow barley (Hordeum brachyantherum), Baltic rush (Juncus balticus), lupine (Lupinus caudatus), Indian ricegrass (Oryzopsis hymenoides), bluegrass (Poa), Nevada bluegrass (Poa nevadensis), Sandberg bluegrass (Poa secunda), antelope bitterbrush (Purshia tridentata), bottlebrush squirreltail (Sitanion hystrix), needleandthread (Stipa comata), Thurber needlegrass (Stipa thurberana),and snowberry (Symphoricarpos).

B. Long Term Objectives:

1. Manage, maintain, or improve rangeland conditions to provide forage on a sustained yield basis for big game, with an initial forage demand of 1,838 AUMs for mule deer, 307 AUMs for pronghorn, and 180 AUMs for bighorn sheep.

   a. Improve to or maintain good to excellent mule deer habitat conditions.

   b. Improve to or maintain fair to good pronghorn habitat conditions.

   c. Improve to or maintain good to excellent bighorn sheep habitat conditions.

2. Improve or maintain suitable sage grouse strutting, nesting, brood rearing, and/or wintering habitat in good condition within the site potential of the rangeland habitat.

   The following parameters have been found to constitute optimum (good) conditions for sage grouse use:

   Strutting Habitat

   Low sagebrush or brush free areas for strutting and nearby areas of sagebrush having 20-50% canopy cover for loafing.

   Nesting Habitat

   1. Sagebrush between seven 7 and 31 inches in height (optimum= 16 inches).
   2. Sagebrush canopy cover of 15-30% (optimum = 27%).
   3. 25-35% basal ground cover.
   4. Average understory height of 6-7 inches (grasses).

Brood Rearing Habitat

Early Season

1. Sagebrush canopy cover 10-21% (optimum = 14%).

Late Season

1. Meadow areas that are in functioning condition.
2. Residual meadow vegetation of no less than 3-6 inches in height.

Winter Habitat

1. Greater than 20% sagebrush canopy cover.

3. Improve public rangeland conditions to provide forage on a sustained yield basis for livestock, with a stocking level of 4,143 AUMs.

4. Maintain and improve the free-roaming behavior of wild horses by protection and enhancing their home ranges.

   a. Manage, maintain, or improve public rangeland conditions to provide 1,116 AUMs of forage on a sustained yield basis for wild horses.

   b. Maintain and improve wild horse habitat by assuring free access to water.

5. Improve to and/or maintain ceanothus (Ceanothus) habitat by allowing for successful reproduction and recruitment based on site potential.

6. Improve to and/or maintainmahogany (Cercocarpus) habitat by allowing for successful reproduction and recruitment based on site potential.

7. Improve to and/or maintain aspen (Populus tremuloides) habitat by allowing for successful reproduction and recruitment based on site potential.

8. Improve to and/or maintain riparian and meadow habitat types to ensure species diversity and quality and to maximize reproduction and recruitment.

9. Improve to and/or maintain serviceberry (Amelanchier), bitterbrush (Purshia tridentata), ephedra (Ephedra)and winterfat (Eurotia lanata) habitat by allowing for successful reproduction and recruitment based on site potential.

10. Improve to and/or maintain Riparian Condition Class to an overall optimum of 60% or above on Paiute Creek, North Fork of Battle Creek and Bartlett Creek by achieving the following:

1) Streambank cover 60% or above.
2) Streambank stability 60% or above.
3) Maximum summer water temperatures below 68 degrees F.

C. Standards and Guidelines of Rangeland Health

1. Soil processes will be appropriate to soil type, climate and land form.

2. Riparian/wetland systems are in properly functioning condition.

3. Water quality criteria in Nevada or California State Law shall be achieved or maintained.

4. Populations and communities of native plant species and habitats for native animal species are healthy, productive and diverse.

5. Habitat conditions meet the life cycle requirements of special status species.

APPENDIX I-STOCKING RATE CALCULATIONS

Utilization, Actual Use and Stocking Rate Calculations by Use Area for the Soldier Meadows and Paiute Meadows Allotments.

Data was analyzed and proper stocking levels calculated on a use area/pasture basis.

PAIUTE MEADOWS ALLOTMENT

North Paiute Use Area

1. **1995 - July 6, 7**

Weighted Average Utilization

$$\frac{(55153 \times .10) + (172 \times .50)}{55325} = .10$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524	1343

Horses	**Total AUMs**
78	**936**

Stocking Rate Calculation

$$\frac{2279}{.10} = \frac{x}{.50} = \mathbf{11395\ AUMs}$$

2. **1995 - August 31**

Weighted Average Utilization

$$\frac{(39055 \times .10) + (1455 \times .30) + (4056 \times .50) + (865 \times .70)}{45431} = .15$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524	1343

Horses	**Total AUMs**
78	**936**

Stocking Rate Calculation

$$\frac{2279}{.15} = \frac{x}{.50} = \textbf{7596 AUMs}$$

3. **1996 - May 8**

Weighted Average Utilization

$$\frac{(679 \times .10)}{679} = .10$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
300	1371

Horses*	**Total AUMs**
89	**805**

Horses*	**Total AUMs**
56	**166**

* Numbers vary due to horses gathered and removed from the allotment.

Stocking Rate Calculation

$$\frac{2342}{.10} = \frac{x}{.50} = \textbf{11710 AUMs}$$

4. **1997 - August 27, September 25 & 30**

Weighted Average Utilization

$$\frac{(49371 \times .10) + (1151 \times .30) + (391 \times .50) + (249 \times .70)}{51162} = .11$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
250 & 375	476

Horses	**Total AUMs**
73	**876**

Stocking Rate Calculation

1352 = x = 6145 AUMs
.11 .50

South Paiute Use Area

1. **1996 - October 8**

Weighted Average Utilization

$$\frac{(20089 \times .10) + (5683 \times .30) + (4164 \times .50)}{5796} = .19$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
300	493

Horses*	**Total AUMs**
340	**3074**

Horses*	**Total AUMs**
112	**331**

* Numbers vary due to horses gathered and removed from the allotment.

Stocking Rate Calculation

3898 = x = 10258 AUMs
.19 .50

2. **1996 - May 7, 30**

Weighted Average Utilization

$$\frac{(438 \times .10)}{4375} = .10$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
300	493

Horses*	**Total AUMs**
340	**3074**

Horses*	**Total AUMs**

112 331

*** Numbers vary due to horses gathered and removed from the allotment.**

Stocking Rate Calculation

3898 / .10 = x / .50 = 19490 AUMs

3. **1997 - October 29, 30**

Weighted Average Utilization

$$\frac{(44676 \times .10) + (5819 \times .30)}{50495} = .12$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524 & 200	2007

Horses	**Total AUMs**
144	**1728**

Stocking Rate Calculation

3735 / .12 = x / .50 = 15563 AUMs

4. **1997 - April 2**

Weighted Average Utilization

$$\frac{(9624 \times .10)}{9624} = .10$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524 & 200	2007

Horses	**Total AUMs**
144	**1728**

Stocking Rate Calculation

3735 = x = 18675 AUMs
.10 .50

5. **1998 - September 5**

Weighted Average Utilization

$$\frac{(25242 \times .10) + (1643 \times .30)}{26885} = .11$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524	1395

Horses	**Total AUMs**
166	**1992**

Stocking Rate Calculation

1395 = x = 3387 AUMs
.11 .50

6. **1999 - October 20**

Weighted Average Utilization

$$\frac{(30683 \times .10)}{30683} = .10$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
524	1395

Horses	**Total AUMs**
191	**2292**

Stocking Rate Calculation

3687 = x = 18435 AUMs
.10 .50

SOLDIER MEADOWS ALLOTMENT

1. **1994 - May 15, 16 - Calico Spring Pasture**

Weighted Average Utilization

$$\frac{(17710 \times .30) + (172 \times .50)}{17882} = .30$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
1117	1102

Horses	**Total AUMs**
167	**2004**

Burros	**Total AUMs**
3	**36**

Stocking Rate Calculation

$$\frac{\mathbf{3142}}{\mathbf{.30}} = \frac{\mathbf{x}}{\mathbf{.50}} = \mathbf{5236\ AUMs}$$

2. **1995 - October 5 - Warm Springs Summer Pasture**

Weighted Average Utilization

$$\frac{(23290 \times .10) + (7561 \times .30) + (6004 \times .50) + (568 \times .70)}{37423} = .21$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
1117	3379

Horses	**Total AUMs**
528	**6336**

Burros	**Total AUMs**
30	**360**

Stocking Rate Calculation

$\frac{10075}{.21} = \frac{x}{.50}$ **= 23988 AUMs**

3. **1996 - May 14 - Soldier Meadows Spring Pasture**

Weighted Average Utilization

$$\frac{(34681 \times .10) + (889 \times .30) + (420 \times .50)}{135990} = .11$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
1117	1102

Stocking Rate Calculation

$\frac{1102}{.11} = \frac{x}{.50}$ = 5009 AUMs

4. **1996 - May 15 - Black Rock Winter Pasture**

Weighted Average Utilization

$$\frac{(15123 \times .10) + (38857 \times .30) + (2047 \times .50)}{56027} = .25$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
500	1480

Stocking Rate Calculation

$\frac{1480}{.25} = \frac{x}{.50}$ = 12960 AUMs

5. **1997 - November 4 - Warm Springs Summer Pasture**

Weighted Average Utilization

$$\frac{(14455 \times .10) + (15258 \times .30) + (2261 \times .50) + (327 \times .70)}{32301} = .23$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
1000	3025

Horses	**Total AUMs**
453	**5436**

Burros	**Total AUMs**
24	**54**

Stocking Rate Calculation

$$\frac{8515}{.23} = \frac{x}{.50} = \textbf{18510 AUMs}$$

6. **1998 - October 12 - Warm Springs Summer Pasture**

Weighted Average Utilization

$$\frac{(11367 \times .10) + (18545 \times .30) + (5511 \times .50) + (1919 \times .70)}{37342} = .29$$

Livestock Actual Use (AUMs)

Cattle	Total AUMs
1117	3379

Horses	**Total AUMs**
521	**6252**

Burros	**Total AUMs**
28	**336**

Stocking Rate Calculation

$$\frac{9967}{.29} = \frac{x}{.50} = \textbf{17184 AUMs}$$

7. **1999 - October 7 - Warm Springs Summer Pasture**

Weighted Average Utilization

$$\frac{(9427 \times .10) + (22839 \times .30) + (3311 \times .50) + (696 \times .70)}{36273} = .27$$

Livestock Actual Use (AUMs)

Horses	**Total AUMs**

599 **7188**

Burros	**Total AUMs**
32	**384**

Cattle	Total AUMs
1117	3379

Stocking Rate Calculation

$$\frac{\textbf{10951}}{\textbf{.27}} = \frac{\textbf{x}}{\textbf{.50}} = \textbf{20279 AUMs}$$

APPENDIX II-DESIRED PLANT COMMUNITY OBJ.

Desired Plant Community Objectives:

Desired Plant Community Objectives (DPC) for this allotment were developed based upon Ecological Status Inventory (ESI) data. This ESI data indicates existing seral stages of each vegetative community (ecological site) and that sites' vegetative potential. These data were considered in conjunction with wildlife, wild horse, and livestock forage demands in developing site specific DPC objectives. The allotment short term utilization objectives will be used to determine progress each site is making toward it's desired stage. Key areas in all pastures will be established by an interdisciplinary team.

The following is a list of the key species plant symbols used, there common name, and scientific name:

Symbol	Common Name	Scientific Name
AGSP	Bluebunch wheatgrass	Agropyron spicatum
CELE3	Mountain mahogany	Cercocarpus ledifolius
DISP2	Inland saltgrass	Distichlis spicata stricta
ELCI2	Basin wildrye	Elymus cinereus
FEID	Idaho fescue	Festuca idahoensis
HOBR	Meadow barley	Hordeum brachyantherum
JUBA	Baltic rush	Juncus balticus
LUPIN	Lupine	Lupinus spp.
ORHY	Indian ricegrass	Oryzopsis hymenoides
POA++	Bluegrass	Poa spp.
PONE3	Nevada bluegrass	Poa nevadensis
POSE	Sandberg bluegrass	Poa secunda
PUTR2	Antelope bitterbrush	Purshia tridentata
SIHY	Bottlebrush squirreltail	Sitanion hystrix
STCO4	Needle & thread grass	Stipa comata
STTH2	Thurber needlegrass	Stipa thurberiana

Summit Lake Pasture

Resource Objectives

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase the composition by weight the overall percentage of the following perennial grasses: AGSP, FEID, STTH2, ELCI2, POA++, STCO4, and SIHY from 28% to 35% on Ecological Site 023XY007 (Loamy 14-16") in Site Write-up Area (SWA) U044 by the year 2001. The aggregate of ELCI2, POA++, SIHY, and STCO4 can only make up 10% of the total composition.

Long Term

Within Ecological Site 023XY007 (Loamy 14-16") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	28%	45%	60%
FORBS	7%	10%	10%
SHRUBS	65%	45%	30%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Maintain or increase perennial grasses at 45% composition by weight on Ecological Site 023XY017 (Claypan 14-16") in SWA U044 by the year 2001. These perennial grasses are FEID, AGSP, STTH2, POA++, SIHY, and ELCI2 with the aggregate of the latter three making up no more than 10% of the total composition.

Long Term

Within Ecological Site 023XY017 (Claypan 14-16") manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	45%	55%	65%
FORBS	11%	10%	10%
SHRUBS	44%	35%	25%

This objective should be accomplished by the year 2017.

Objective 3 **Short Term**

Increase FEID and AGSP each from 2% to 6% composition by weight on Ecological Site 023XY026 (Mahogany Savanna) in SWA U044 by the year 2010. Maintain PUTR2 above 10% and CELE3 at 22% composition by weight.

Long Term

Within Ecological Site 023XY026 (Mahogany Savanna) manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	23%	30%	40%
FORBS	Trace	8%	10%
SHRUBS	77%	62%*	50

At least 25% must be CELE3 and 10% PUTR2.

This objective should be accomplished by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 4 **Short Term**

Maintain the existing plant community with 61% perennial grasses, 22% forbs, and 17% shrubs in Ecological Site 023XY013 (dry meadows) in SWA U044 by the year 2001.

Long Term

Within Ecological Site 023XY013 (dry meadows) in SWA U044 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	61%	65%	80%
FORBS	22%	22%	20%
SHRUBS	17%	13%	0%

Decrease the percent composition by weight of JUBA by increasing the percent compostion by weight of PONE3 and HOBR. This objective should be achieved by 2017.

Objective 5 **Short Term**

Maintain the existing plant community with 89% perennial grasses, 11% forbs, and 0% shrubs in Ecological Site 023XY025 (wet meadows) in SWA U202 by the year 2010.

Long Term

Within Ecological Site 023X025 (wet meadows) in SWA U202 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	89%	85%	80%
FORBS	11%	15%	20%
SHRUBS	0%	0%	0%

Decrease the percent composition by weight of Carex by increasing the percent composition by weight of DECE.

This objective should be achieved by 2017.

Rationale: The Summit Lake Pasture has been identified as yearlong bighorn sheep range (BRBY-2, BRBY-4), mule deer summer range (BRDS-8), as well as a sage grouse strutting ground and brood use area. It is also used yearlong by wild horses and by cattle for 3 months. By achieving these objectives the vegetative communities would be meeting the needs of the mentioned wildlife, wild horses, and livestock.

Warm Springs Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 **Short Term**

Increase perennial grasses from 34% to 41% composition by weight on Ecological Site 023XY017 (Claypan 14-16") in SWA U125 by the year 2010. These perennial grasses are: AGSP, STTH2, POA++, SIHY, and FEID.

Long Term

Increase FEID from a trace to 7% composition by weight while managing for a desired plant community with the following percent composition by weight.

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	34%	50%	65%
FORBS	8%	10%	10%
SHRUBS	56%	40%	25%

This objective should be completed by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Maintain the following perennial grasses: STTH2, SIHY, and POA++ at 46% composition by weight through the year 2001 on Ecological Site 023XY031 (Claypan 10-14") in SWA U174. Also try to get AGSP established on the site.

Long Term

Increase AGSP to 5% composition by weight, as it's potential on the site is 20 to 50% composition by weight. Establish a desired plant community consisting of the following vegetation:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	46%	55%	65%
FORBS	12%	12%	10%
SHRUBS	42%	33%	25%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 3 Short Term

Increase AGSP from 9% to 13% and STTH2 from 8% to 12% composition by weight on Ecological Site 023XY039 (Loamy Slope 10-14") in SWA U125 by the year 2010.

Long Term

Manage for a desired plant community consisting of the following percent composition by weight within Ecological Site 023XY039 (Loamy Slope 10-14"):

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	35%	50%	65%
FORBS	6%	10%	10%
SHRUBS	52%	40%	25%

This objective should be reached by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 4 Short Term

Increase AGSP, FEID, and STTH2 collectively, from 27% to 36% composition by weight on Ecological Site 023XY066 (Ashy Loam 12-14") in SWA U162 by the year 2010 while maintaining PUTR2 above 20% composition by weight.

Long Term

Within Ecological Site 023XY066 (Ashy Loam 12-14") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	33%	43%*	60%
FORBS	2%	8%	10%
SHRUBS	65%	49%**	30%

*Must be at least 20 % FEID.
** Must be at least 20% PUTR2.

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 5 Short Term

Maintain or increase FEID at 12% and increase AGSP from 2% to 5% composition by weight. Maintain PUTR2 at 9% composition; increase CELE3 from 3% to 6% composition by weight on Ecological Site 023XY026 (Mahogany Savanna) in SWA U161 by the year 2010.

Long Term

Manage for the following percent composition by weight on Ecological Site 023XY026 (Mahogany Savanna):

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	35%	40%*	40%
FORBS	3%	10%	10%
SHRUBS	54%	50%**	50%

* Must be at least 15% FEID, 10% AGSP.
** Must be at least 9% CELE3, and 9% PUTR2.

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer habitat as described in BLM's 6630 Manual.

Objective 6 Short Term

Maintain PONE3 at 12% and increase composition by weight for forbs from 8% to 11% with LUPIN making up no more than 5% composition by weight of the forbs in SWA U199 on Ecological Site 023XY013 (dry meadows) by the year 2010.

Long Term

Within Ecological Site 023xy013 (dry meadows) in SWA U199 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	92%	85%	80%
FORBS	8%	15%	20%
SHRUBS	0%	0%	0%

Increase composition by weight PONE3 from 12% to 15% in SWA U199 on Ecological Site 023XY013 (dry meadows) by the year 2017.

Rationale: This Warm Springs Pasture has been identified as pronghorn yearlong (BRPY-7) and summer range (BRPS-1, BRPS-8); mule deer yearlong (BRDY-3) and winter range (BRDW-4); and as a sage grouse brood use area. It is also used yearlong by wild horses/burros and by cows for three months a year.

Calico Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 Short Term

Increase STTH2 from 9% to 12% composition by weight on Ecological Site 027XY079 (Gravelly Claypan 8-10") in SWA U063 by the year 2010.

Long Term

Within Ecological Site 027XY079 (Gravelly Claypan 8-10") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	25%	32%	45%
FORBS	8%	8%	5%
SHRUBS	67%	60%	50%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Objective 2 Short Term

Increase AGSP from 2% to 5% composition by weight on Ecological Site 023XY037 (Clay Slope 8-12") in SWA U109 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight on Ecological Site 023XY037 (Clay Slope 8-12"):

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	26%	36%	70%
FORBS	25%	22%	10%
SHRUBS	41%	42%	20%

Perennial grasses may include: AGSP- must be at least 8%, STTH2, POA++, SIHY, FEID. This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Objective 3 Short Term

Increase FEID from 2% to 6% composition by weight while trying to establish AGSP on Ecological Site 023XY017 (Claypan 14-16") in SWA U042 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	34%	46%	65%
FORBS	28%	20%	10%
SHRUBS	38%	34%	25%

Perennial grasses include FEID, AGSP, POA++, STTH2, SIHY and other perennial grasses. This objective should be accomplished by 2017. The shrub component still maximizes the potential of the site to provide quality antelope habitat as described in BLM's 6630 Manual.

Rationale: The Calico Pasture has been identified as pronghorn antelope winter range (BRPW-1). Wild horses use this pasture yearlong and cows use it for one month (April 1 - April 30) for two years and then rest it for two years.

Soldier Meadows Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 **Short Term**

Increase composition by weight of AGSP from 31% to 36% on Ecological Site 023XY039 (loamy slope 10-14") in SWA U159 by the year 2010.

Long Term

Within Ecological Site 023XY039 (loamy slope 10-14") manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	35%	44%	65%
FORBS	7%	10%	10%
SHRUBS	58%	46%	25%

This objective should be achieved by the year 2017. The shrub component still maximizes the potential of the site to provide quality mule deer and antelope habitat as described in BLM's 6630 Manual.

Objective 2 **Short Term**

Increase FEID and STTH2 collectively from 12% to 18% composition by weight on Ecological Site 023XY017 (claypan 14-16") in SWA U229 by the year 2010.

Long Term

Within Ecological Site 023XY017 (claypan 14-16") in SWA U229 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	23%	35%	65%
FORBS	8%	10%	10%
SHRUBS	69%	55%	25%

This objective should be achieved by the year 2017.

Objective 3 Short Term

Increase the composition by weight STTH2 from 1% to 6% on Ecological Site 024XY005 (loamy 8-10") in SWA U181 by the year 2010.

Long Term

Within Ecological Site 024XY005 (loamy 8-10") in SWA 181 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %*	DESIRED %	POTENTIAL %
GRASSES	7%	17%	55%
FORBS	3%	5%	5%
SHRUBS	87%	78%	40%

* The remaining 3% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 4 Short Term

Maintain or increase by weight the perennial grasses at 40% or higher on Ecological Site 023XY039 (loamy slope 10-14") in SWA U117 by 2010. The perennial grasses include AGSP and SIHY.

Long Term

Within Ecological Site 023XY039 (loamy slope 10-14") in SWA U117 manage for the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %*	DESIRED %	POTENTIAL %

GRASSES	40%	45%	65%
FORBS	7%	10%	10%
SHRUBS	48%	45%	25%

* The remaining 5% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 5 **Short Term**

Increase by weight the following perennial grasses: SIHY, STTH2, and POA++ collectively from 12% to 18% on Ecological Site 023XY037 (clay slope 8-12") in SWA U187 by 2010. Also try to establish AGSP on the site from the adjacent range sites.

Long Term

Within Ecological Site 023XY037 (clay slope 8-12") manage for the following Desired Plant Community while trying to establish AGSP on the site:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	12%	25%	70%
FORBS	2%	7%	10%
SHRUBS	86%	68%	20%

This objective should be achieved by 2017.

Objective 6 **Short Term**

Increase by weight the perennial grasses from 5% to 8% and increase ARSPS5 from 4% to 10% on Ecological Site 024XY025 (loamy slope 5-8") in SWA U114 manage for the following Desired Plant Community:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	5%	10%	20%
FORBS	Trace	5%	5%
SHRUBS	92%	85%	75%

* The remaining 3% is comprised of BRTE.

This objective should be achieved by 2017.

Objective 7 **Short Term**

Maintain the existing plant community with 61% perennial grasses, 22% forbs, and 17% shrubs in Ecological Site 023XY013 (dry meadows) in SWA U201 by the year 2010.

Long Term

Within Ecological Site 023XY013 (dry meadows) in SWA U201 manage for the desired plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	61%	65%	80%
FORBS	22%	22%	20%
SHRUBS	17%	13%	0%

Increase the percent by weight of the perennial grasses by 4%, while maintaining or decreasing the percent JUBA at 24%.

Rationale: The Soldier Meadows Pasture has been identified as pronghorn yearlong (BRPY-5) and winter (BRPW-6, BRPW-7); mule deer summer (BRDS-7, BRDS-5) and winter (BRDW-4); and bighorn sheep yearlong (BRBY-1, BRBY-2). It is also used yearlong by wild horses and burros and cows for one month a year (April 1- April 30).

Black Rock Pasture

Resource Objectives:

Key areas will be established by an interdisciplinary team in key Ecological Sites based on the desired plant community objective.

Objective 1 **Short Term**

Increase ORHY, SIHY, and STSP3 from a trace to 3% composition by weight on Ecological Site 027XY018 (Gravelly Loam 4-8") in SWA U005 by the year 2010.

Long Term

Manage for a desired plant community with the following percent composition by weight on Ecological Site 027XY018 (Gravelly Loam 4-8").

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	Trace	9%	25%
FORBS	Trace	3%	5%
SHRUBS	100%	88%	70%

The perennial grasses may include ORHY, POSE, SIHY,and STSP3. This objective should be achieved by 2017.

Objective 2 Short Term

Increase ORHY from 6% to 9% composition by weight on Ecological Site 027XY016 (Sodic Dunes) in SWA U004.

Long Term

Within Ecological Site 023XY016 (Sodic Dunes) manage for a plant community with the following percent composition by weight:

PERCENT COMPOSITION BY WEIGHT

	EXISTING %	DESIRED %	POTENTIAL %
GRASSES	16%	20%	35%
FORBS	Trace	3%	5%
SHRUBS	84%	77%	65%

Perennial grasses may include : ORHY- must be at least 12% composition, DISP3, ELCI2, and SIHY. This objective should be accomplished by the year 2017.

Rationale: The Black Rock Pasture has been identified as yearlong pronghorn antelope range (BRPY-5). It is used as a winter pasture by cattle (Jan. 1 - March 30) and it has wild horse use.

Hot Springs Pasture

Resource Objectives

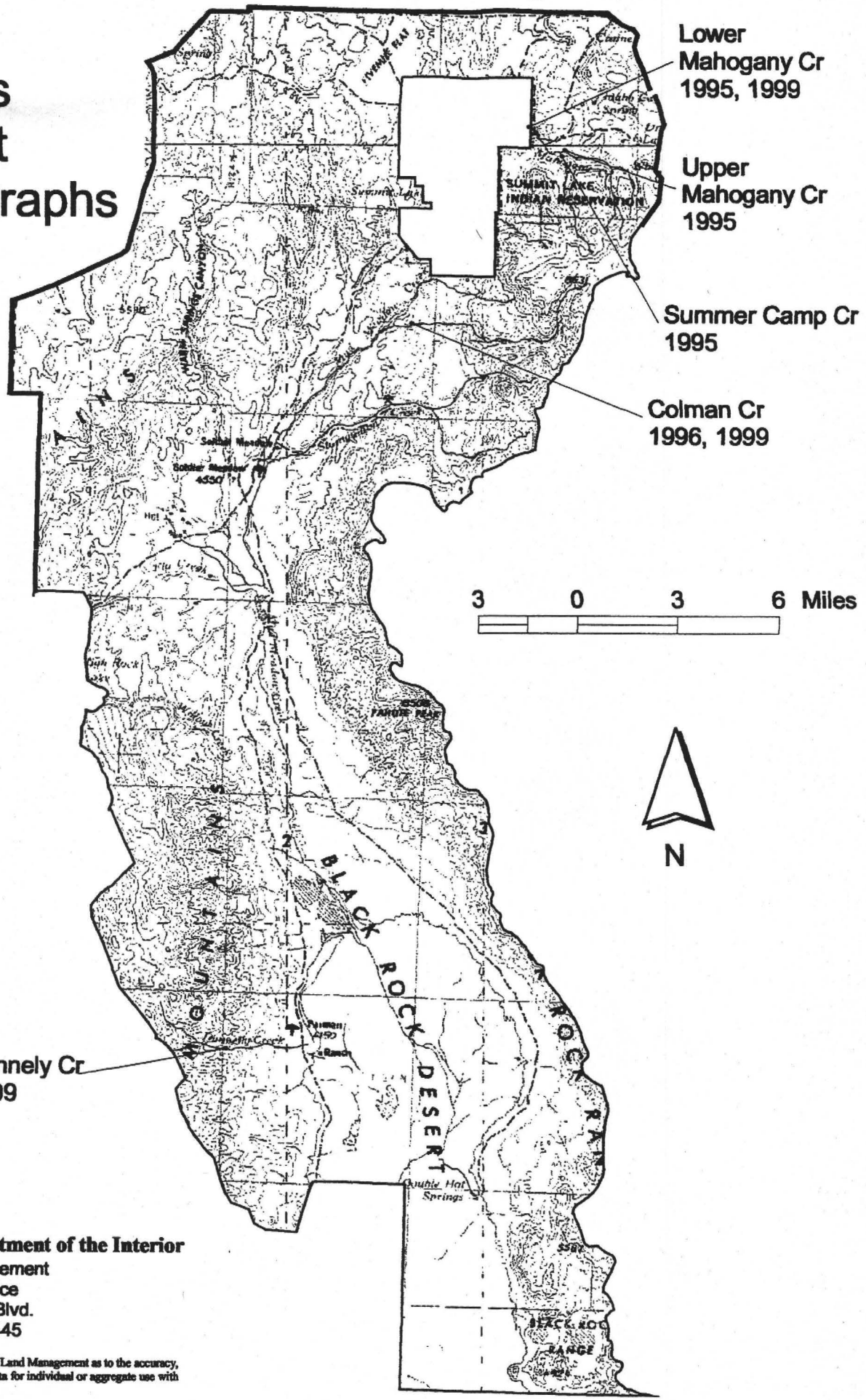
Resource objectives, including livestock, wild horse and wildlife use will be addressed in the Soldier Meadows Activity Plan (SMAP).

APPENDIX III-THERMOGRAPH DATA

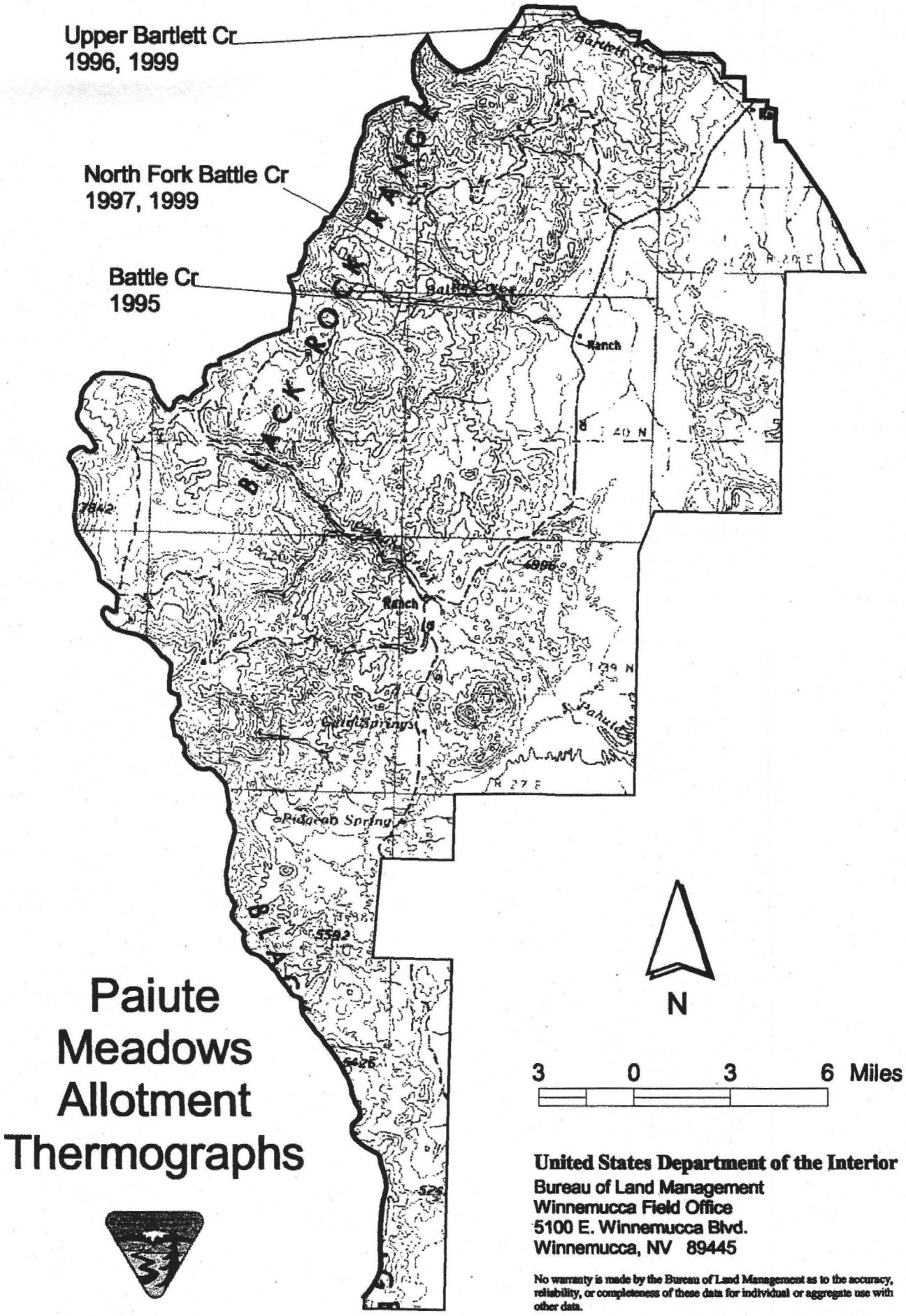
APPENDIX IV-ALLOTMENT ESI MAPS

APPENDIX V-ALLOTMENT PASTURE MAP

Soldier Meadows Allotment Thermographs

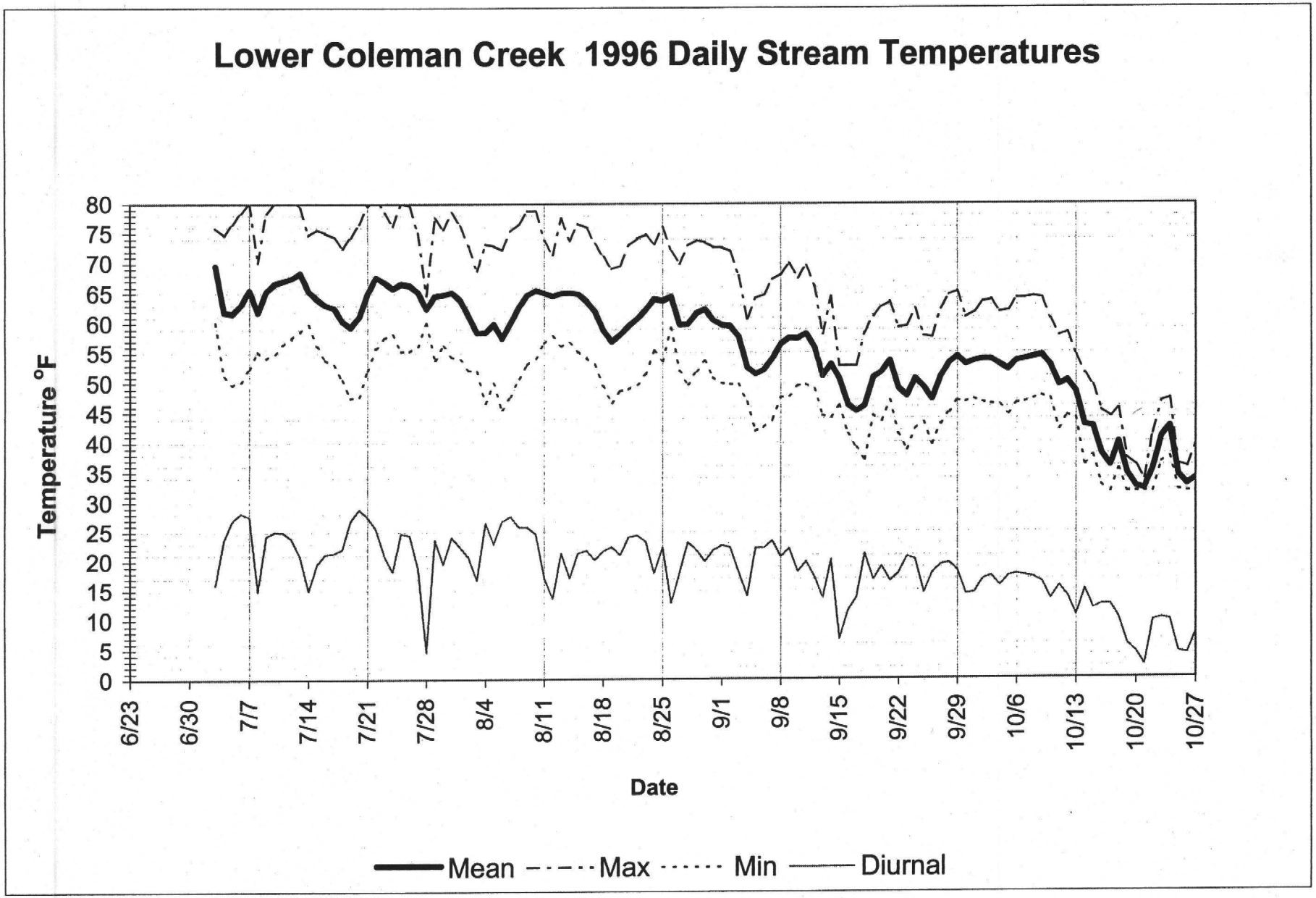


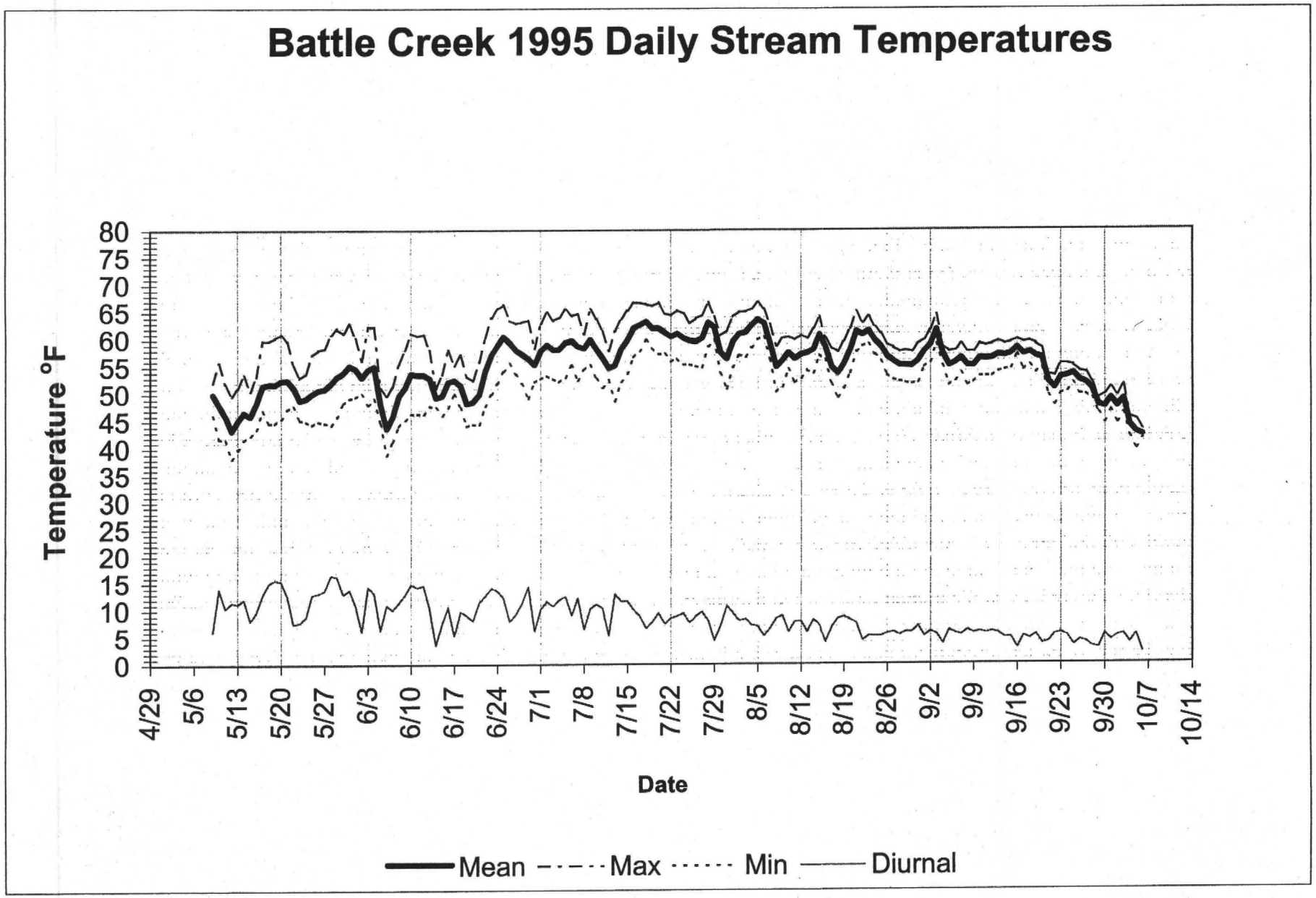
United States Department of the Interior
Bureau of Land Management
Winnemucca Field Office
5100 E. Winnemucca Blvd.
Winnemucca, NV 89445



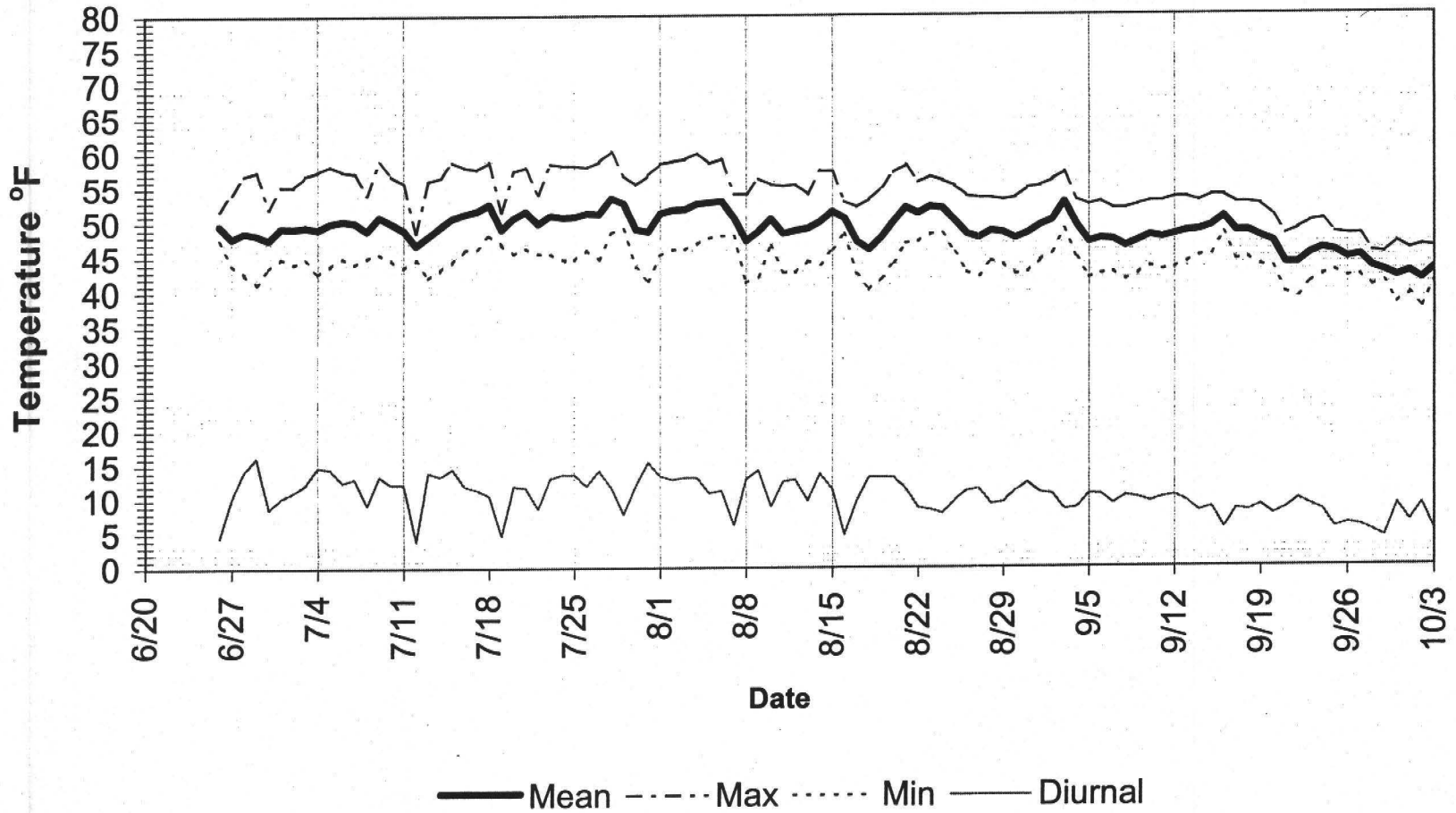
Paiute Meadows Allotment Thermographs

United States Department of the Interior
Bureau of Land Management
Winnemucca Field Office
5100 E. Winnemucca Blvd.
Winnemucca, NV 89445

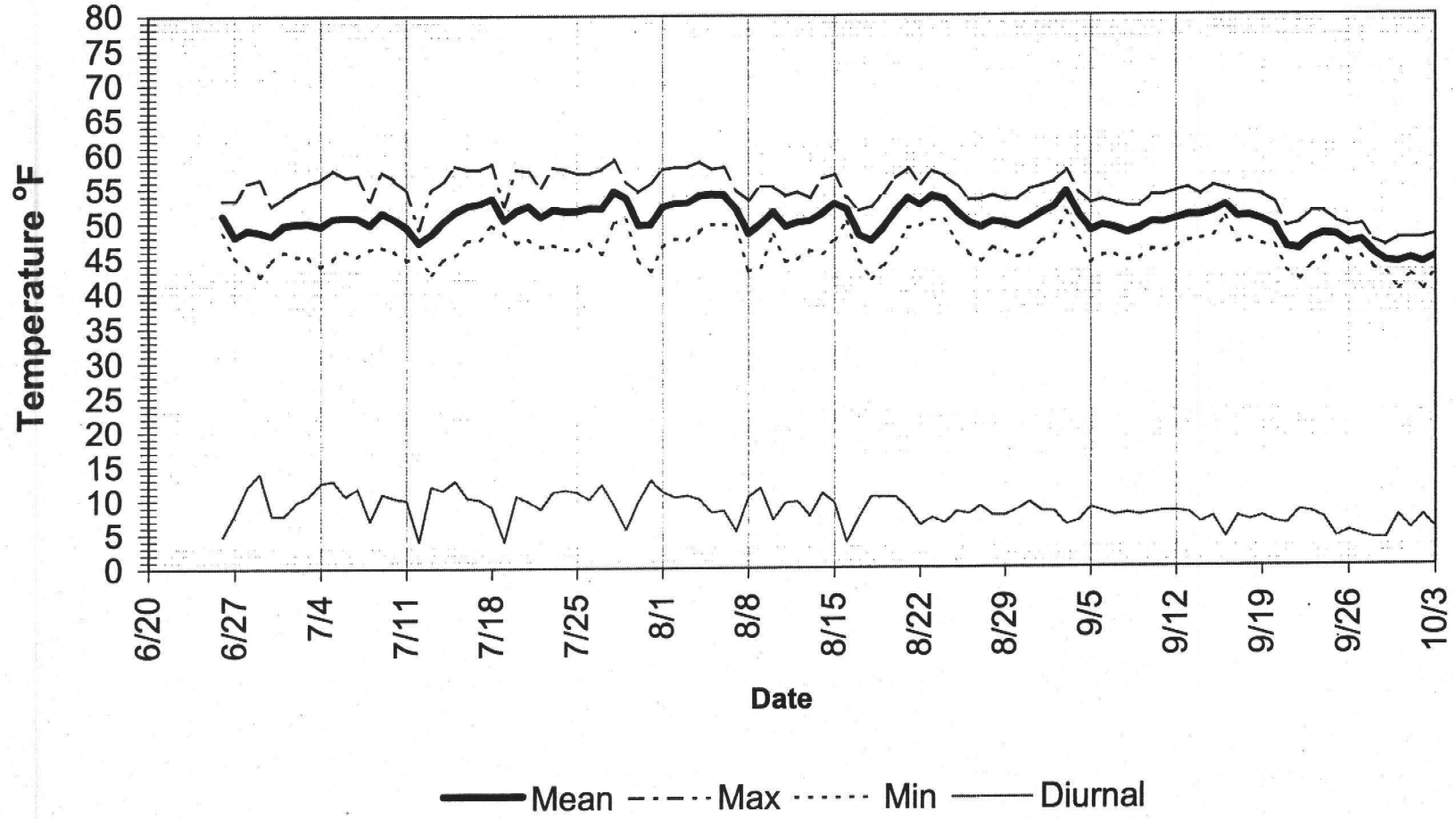

Lower Coleman Creek 1996 Daily Stream Temperatures
Temperature °F
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
6/23
6/30
7/7
7/14
7/21
7/28
8/4
8/11
8/18
8/25
9/1
9/8
9/15
9/22
9/29
10/6
10/13
10/20
10/27
Date
Mean
Max
Min
Diurnal


Battle Creek 1995 Daily Stream Temperatures
Temperature °F
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
4/29
5/6
5/13
5/20
5/27
6/3
6/10
6/17
6/24
7/1
7/8
7/15
7/22
7/29
8/5
8/12
8/19
8/26
9/2
9/9
9/16
9/23
9/30
10/7
10/14
Date
Mean
Max
Min
Diurnal

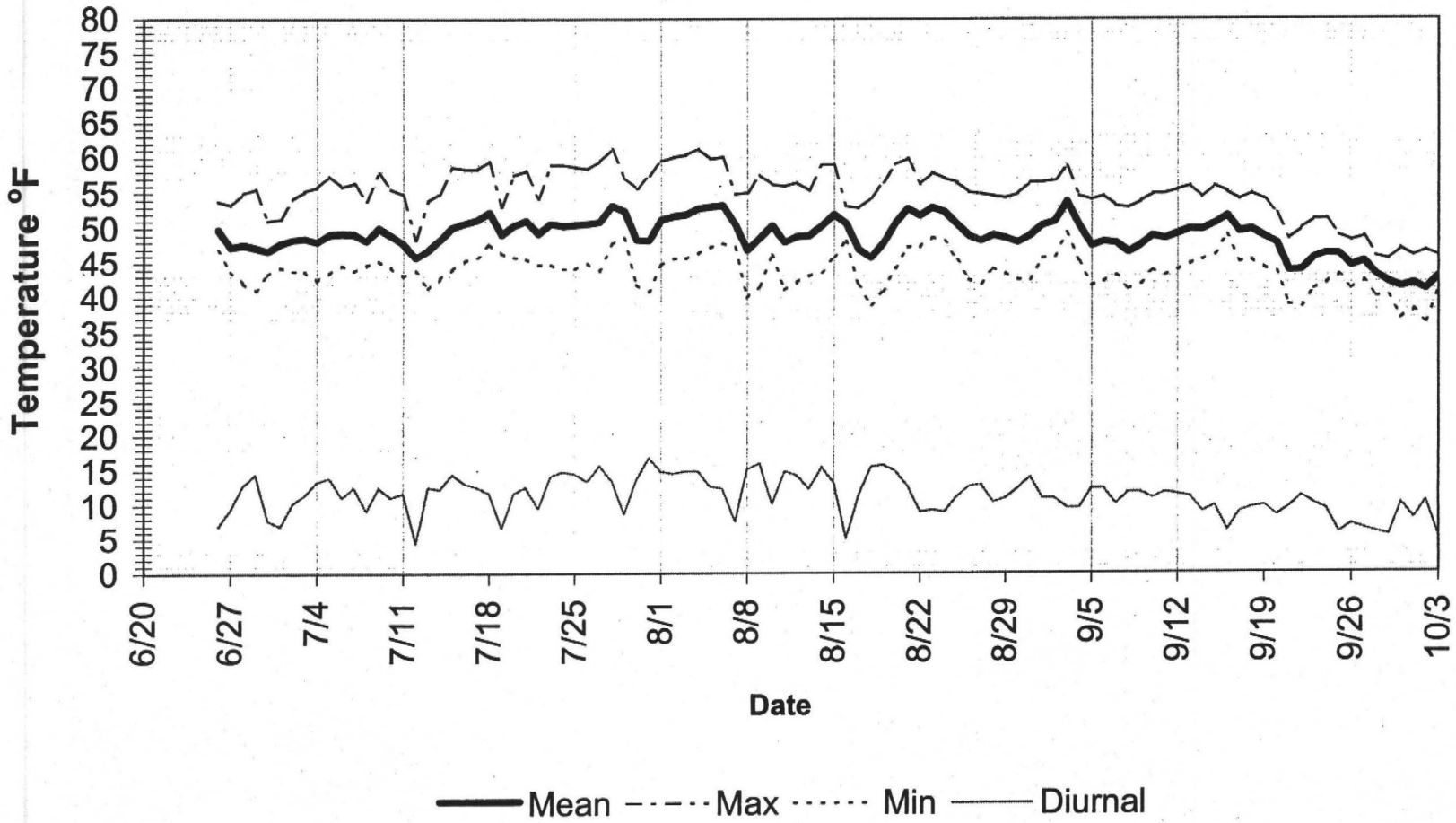
Upper Mahogany Creek 1995 Daily Stream Temperatures

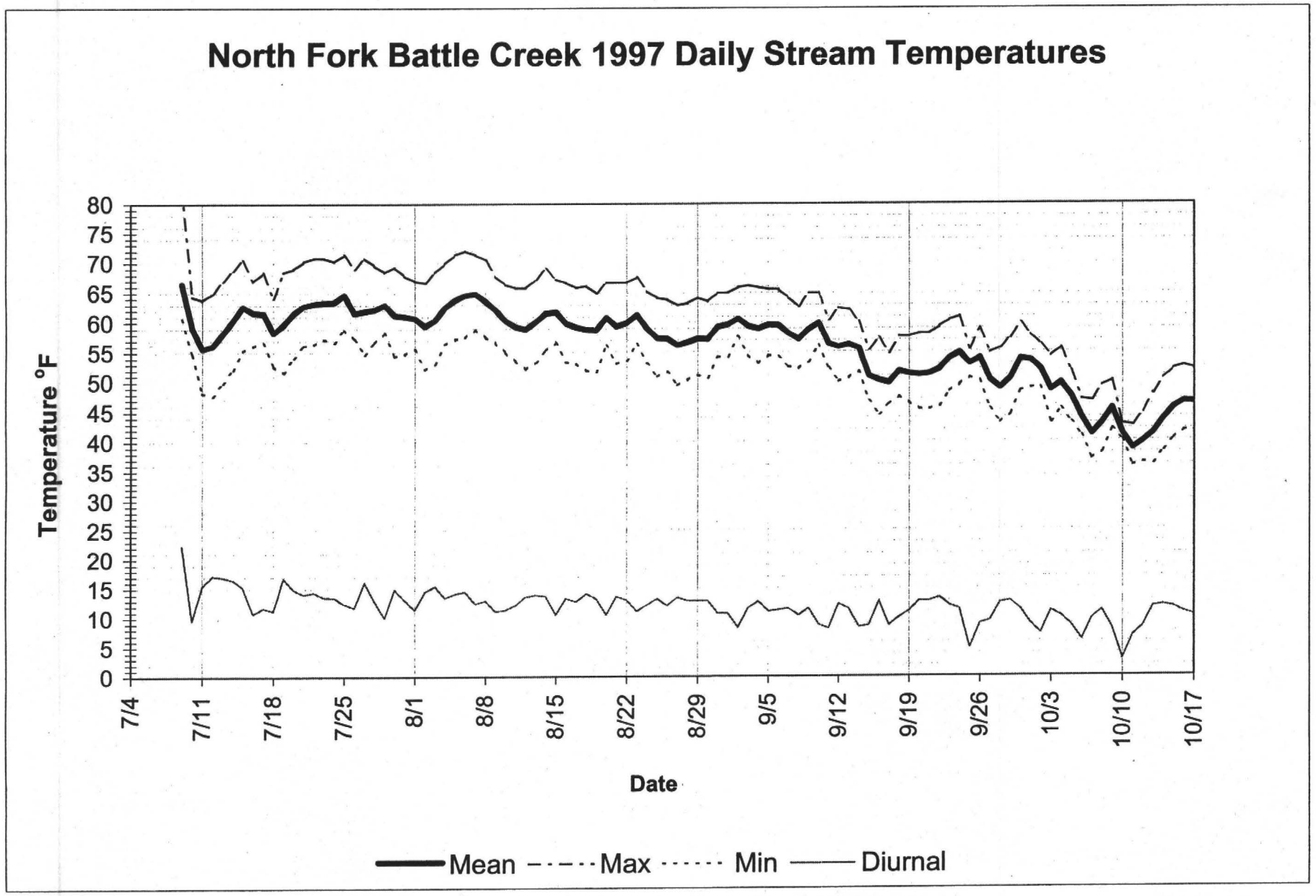


Lower Mahogany Creek 1995 Daily Stream Temperatures

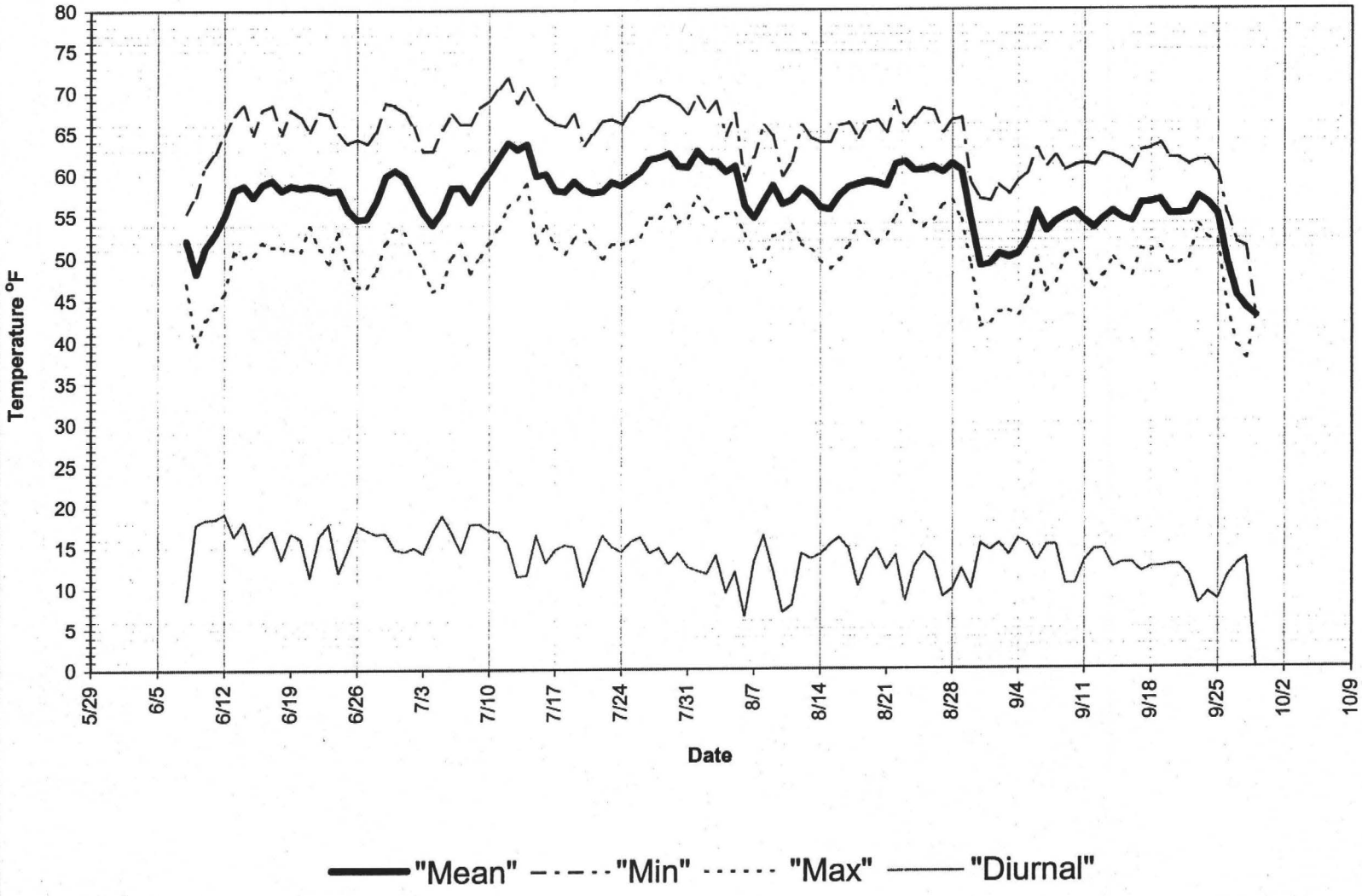


Lower Summer Camp Creek 1995 Daily Stream Temperatures

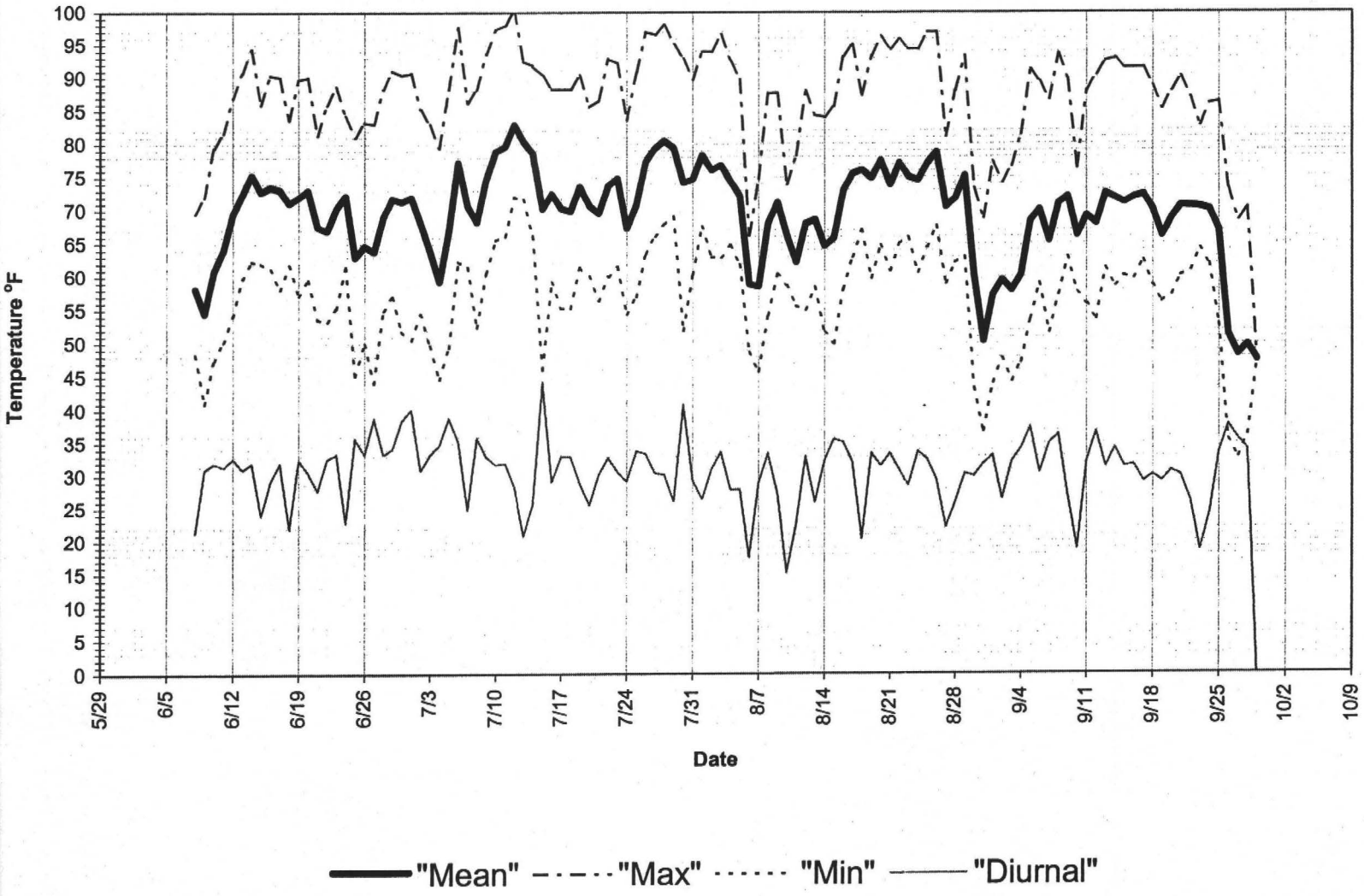


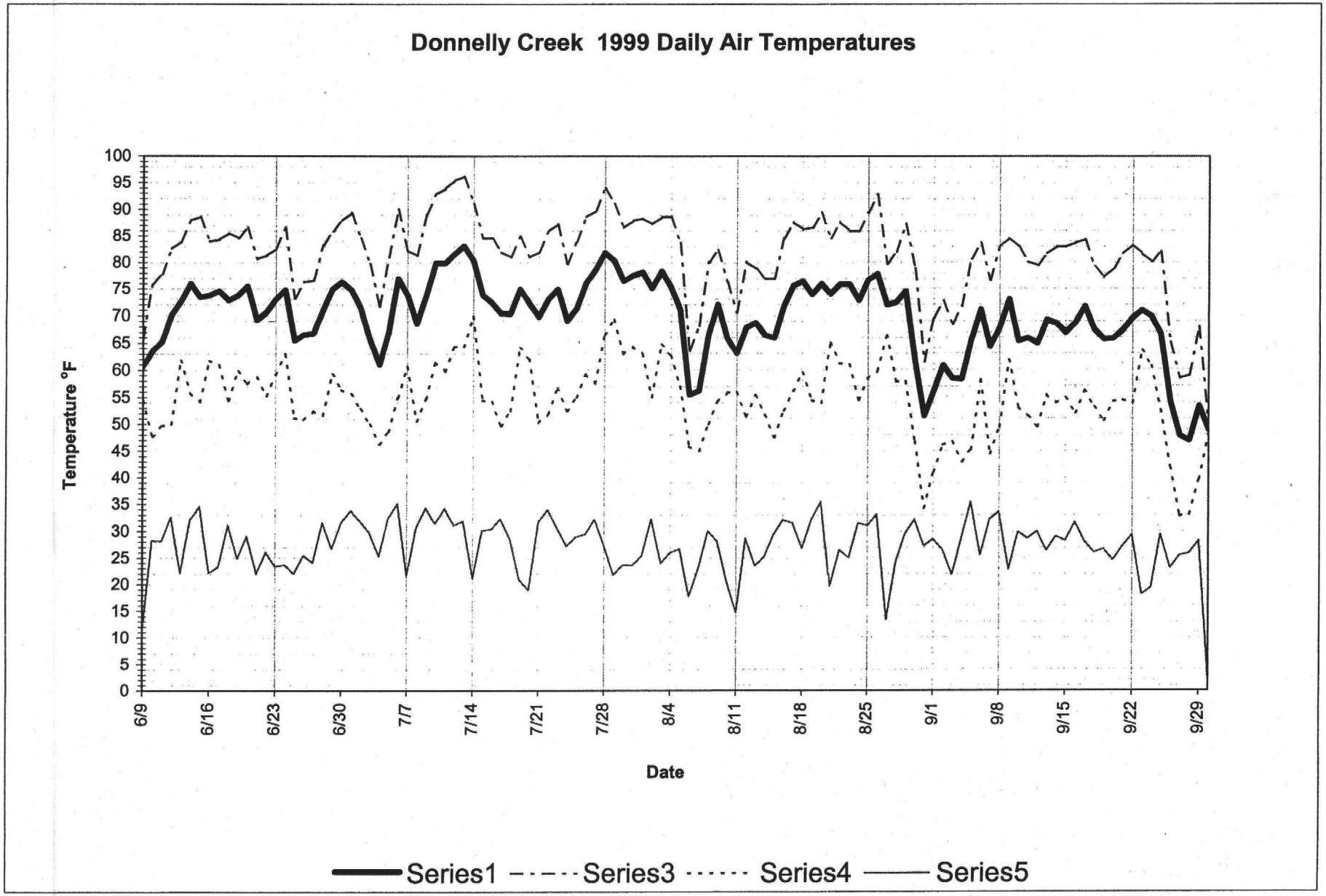

North Fork Battle Creek 1997 Daily Stream Temperatures
Temperature °F
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
7/4
7/11
7/18
7/25
8/1
8/8
8/15
8/22
8/29
9/5
9/12
9/19
9/26
10/3
10/10
10/17
Date
Mean
Max
Min
Diurnal

NF Battle Creek 1999 Daily Stream Temperatures

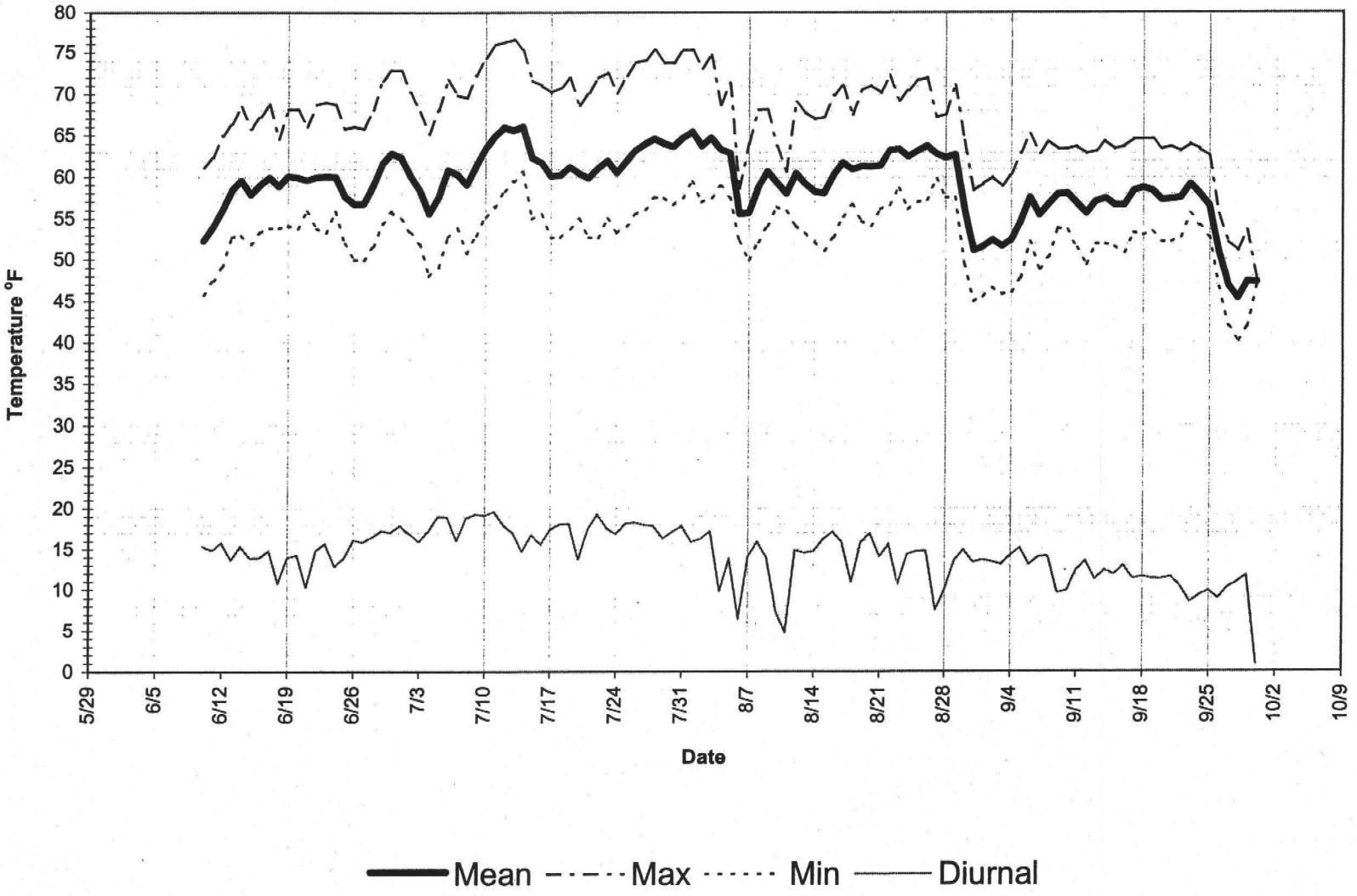


NF Battle Creek 1999 Daily Air Temperatures

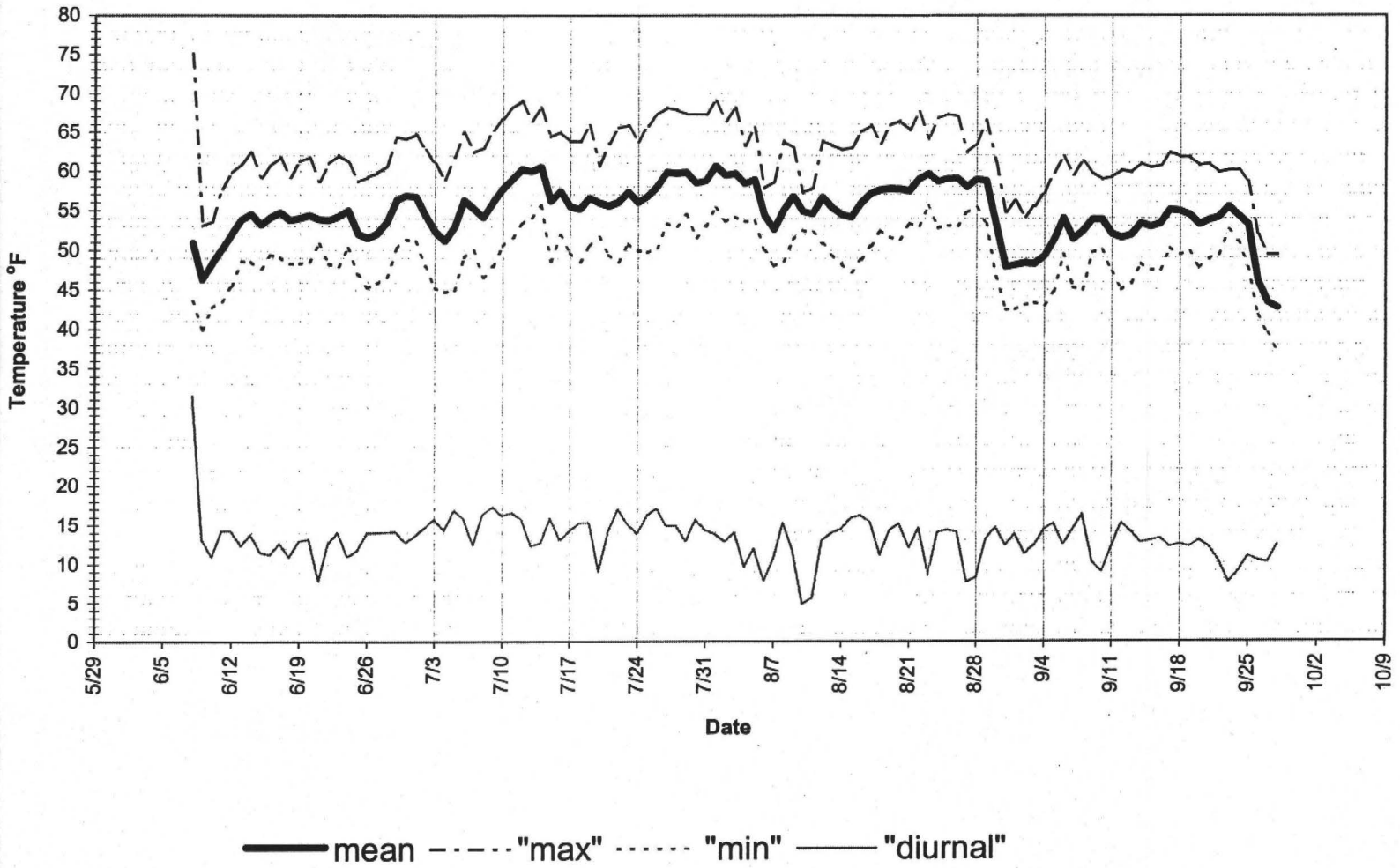



Donnelly Creek 1999 Daily Air Temperatures
Temperature °F
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0
6/9
6/16
6/23
6/30
7/7
7/14
7/21
7/28
8/4
8/11
8/18
8/25
9/1
9/8
9/15
9/22
9/29
Date
Series1
Series3
Series4
Series5

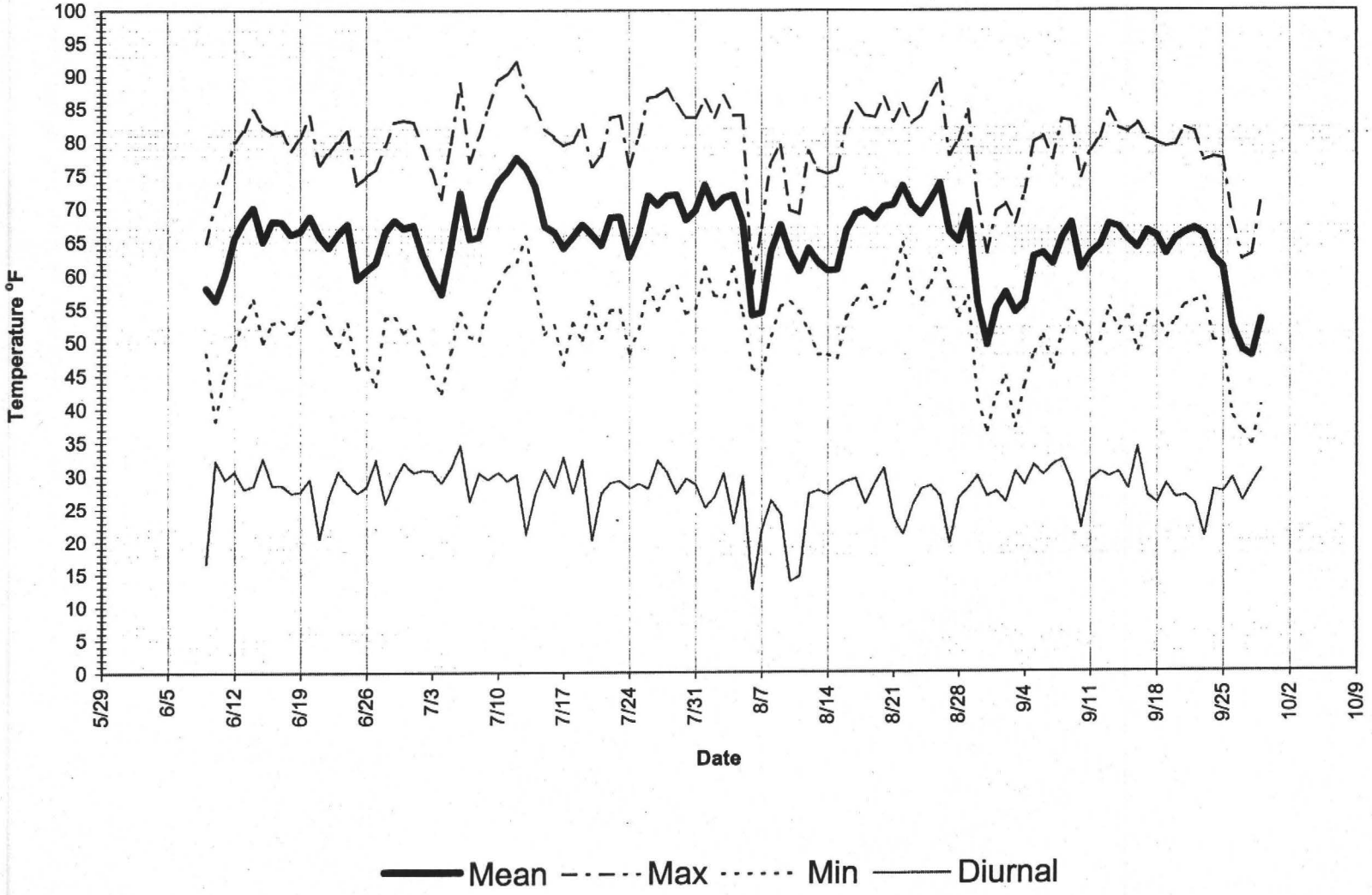
Donnelly Creek 1999 Daily Stream Temperatures



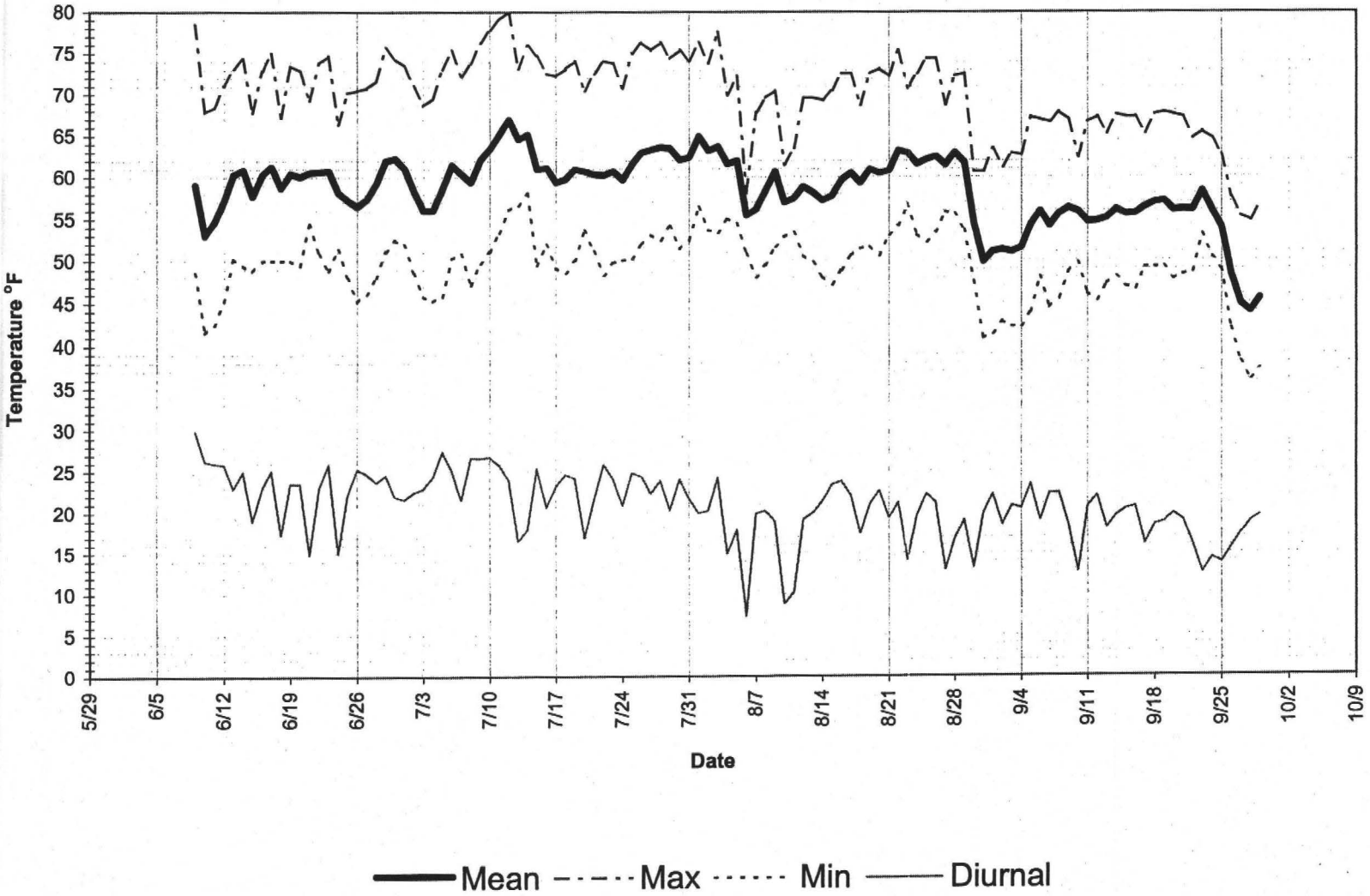
U Bartlett Creek 1999 Daily Stream Temperatures



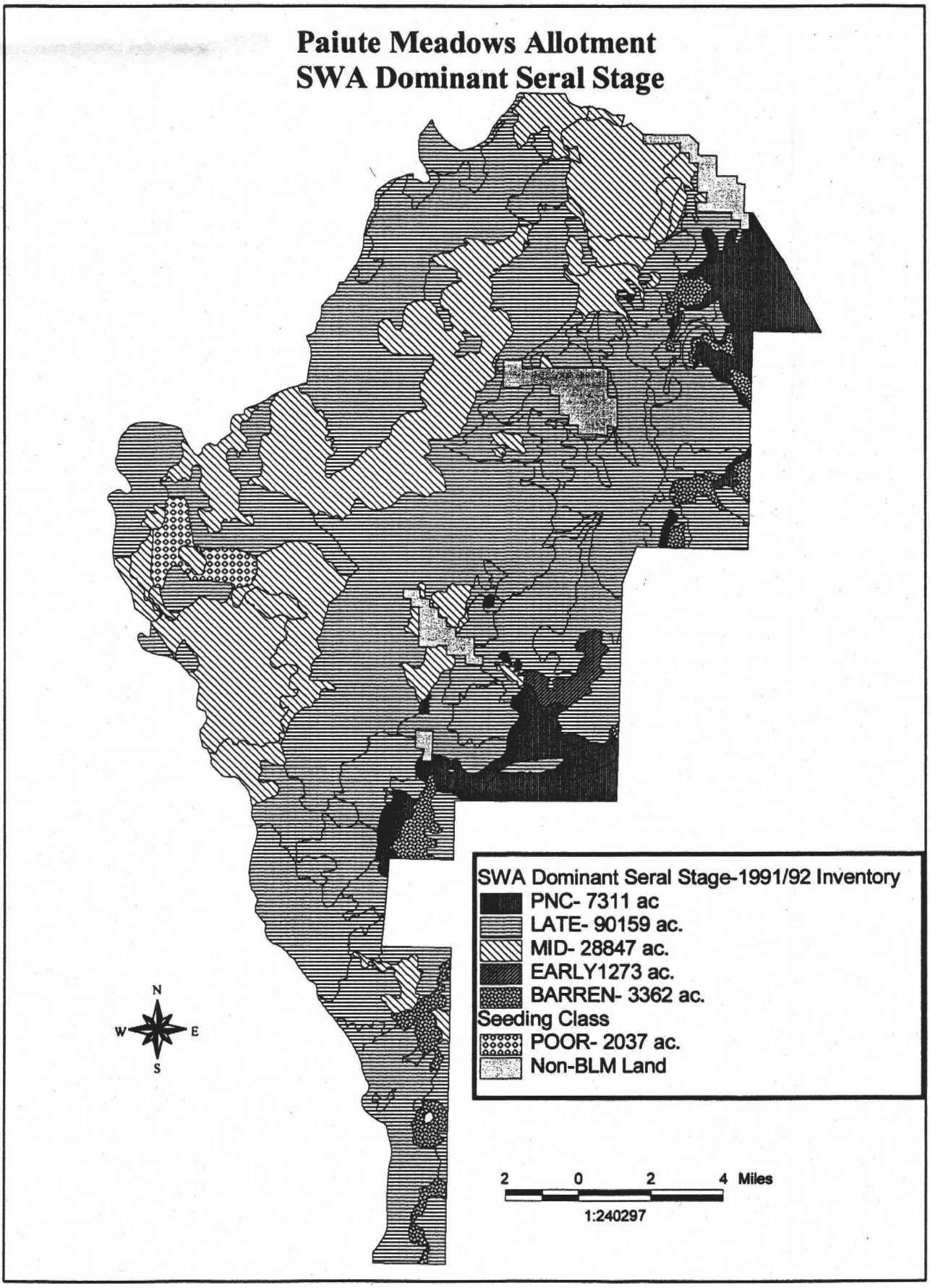
Coleman Creek 1999 Daily Air Temperatures



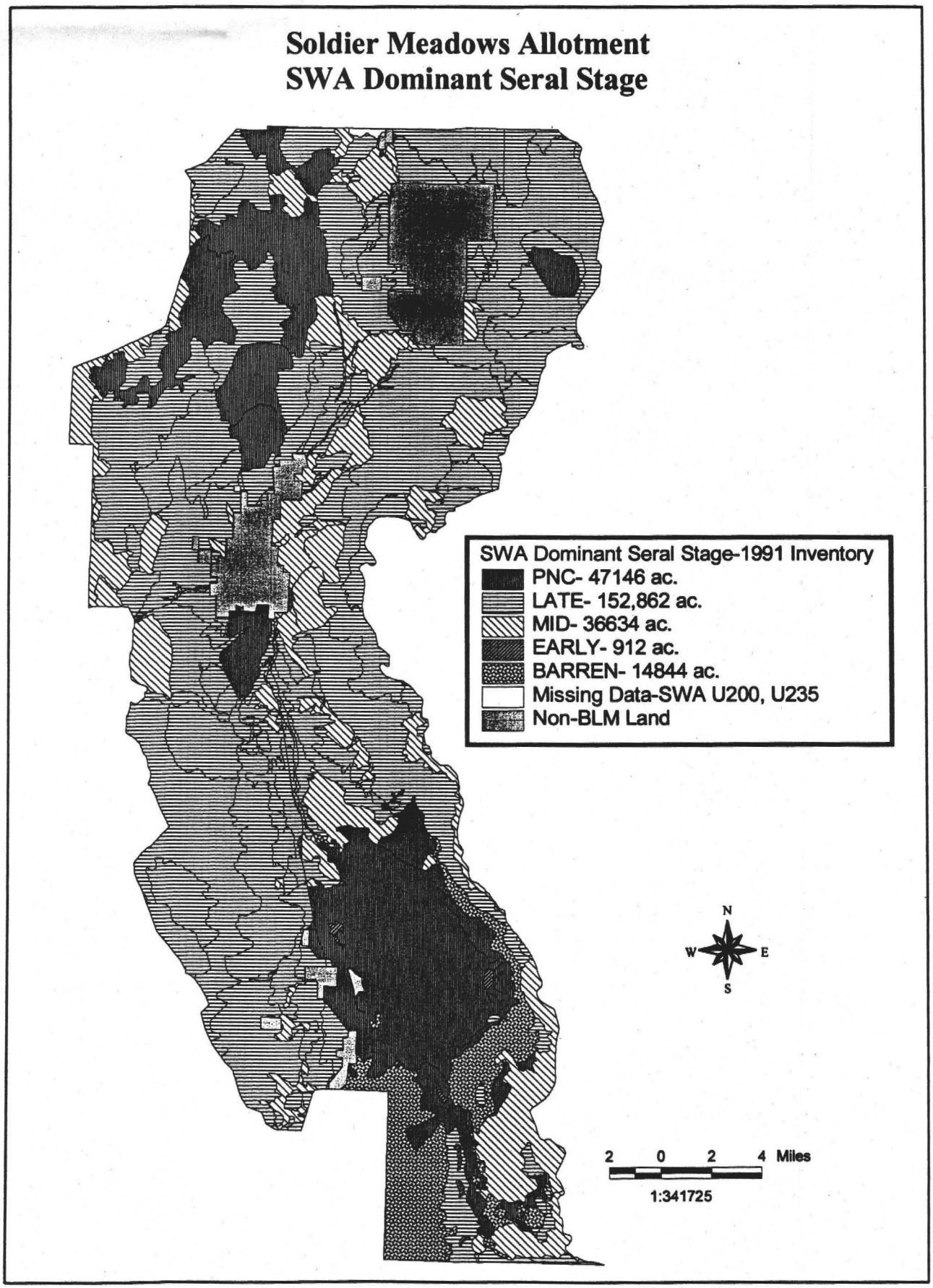
Coleman Creek 1999 Daily Stream Temperatures

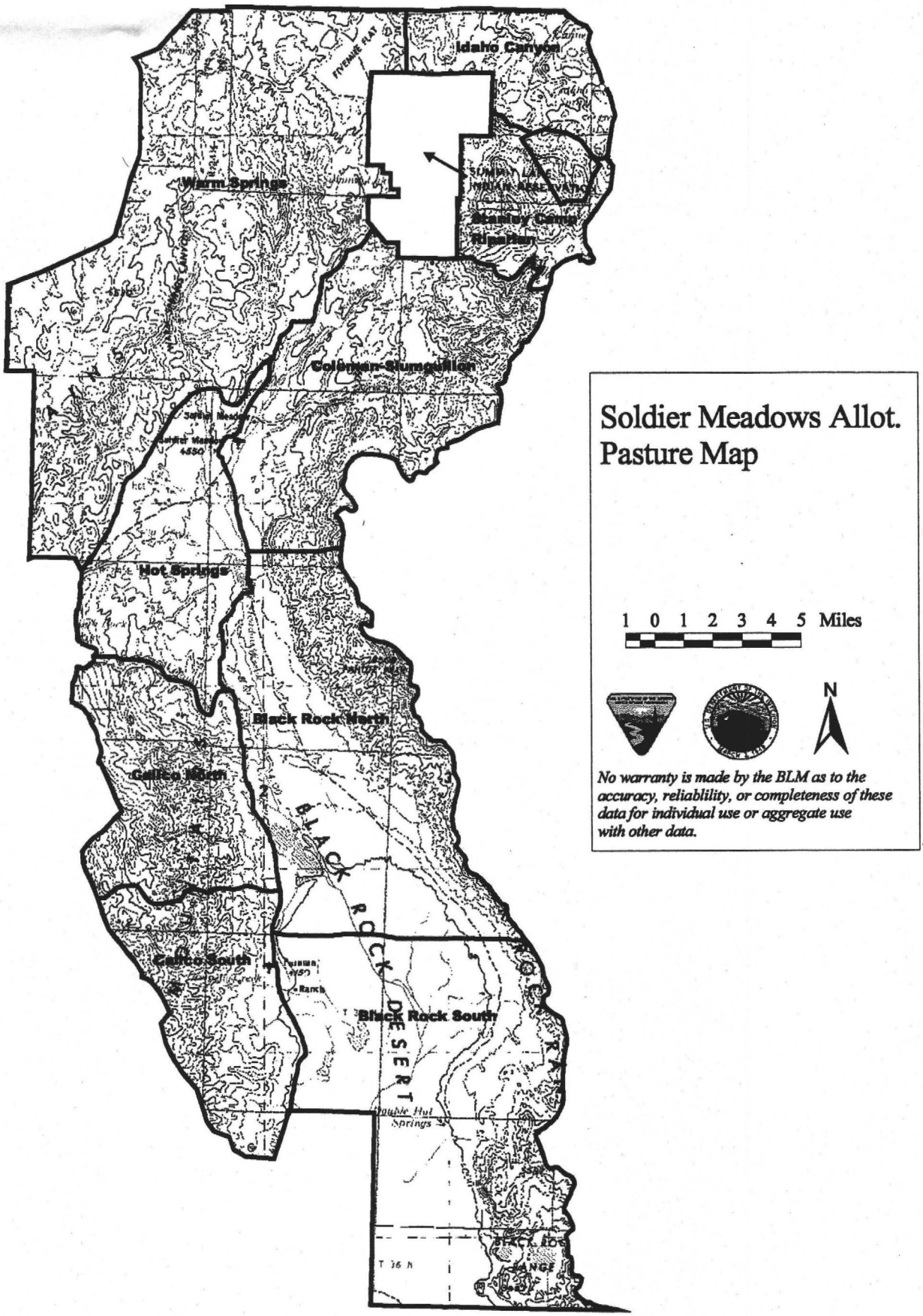


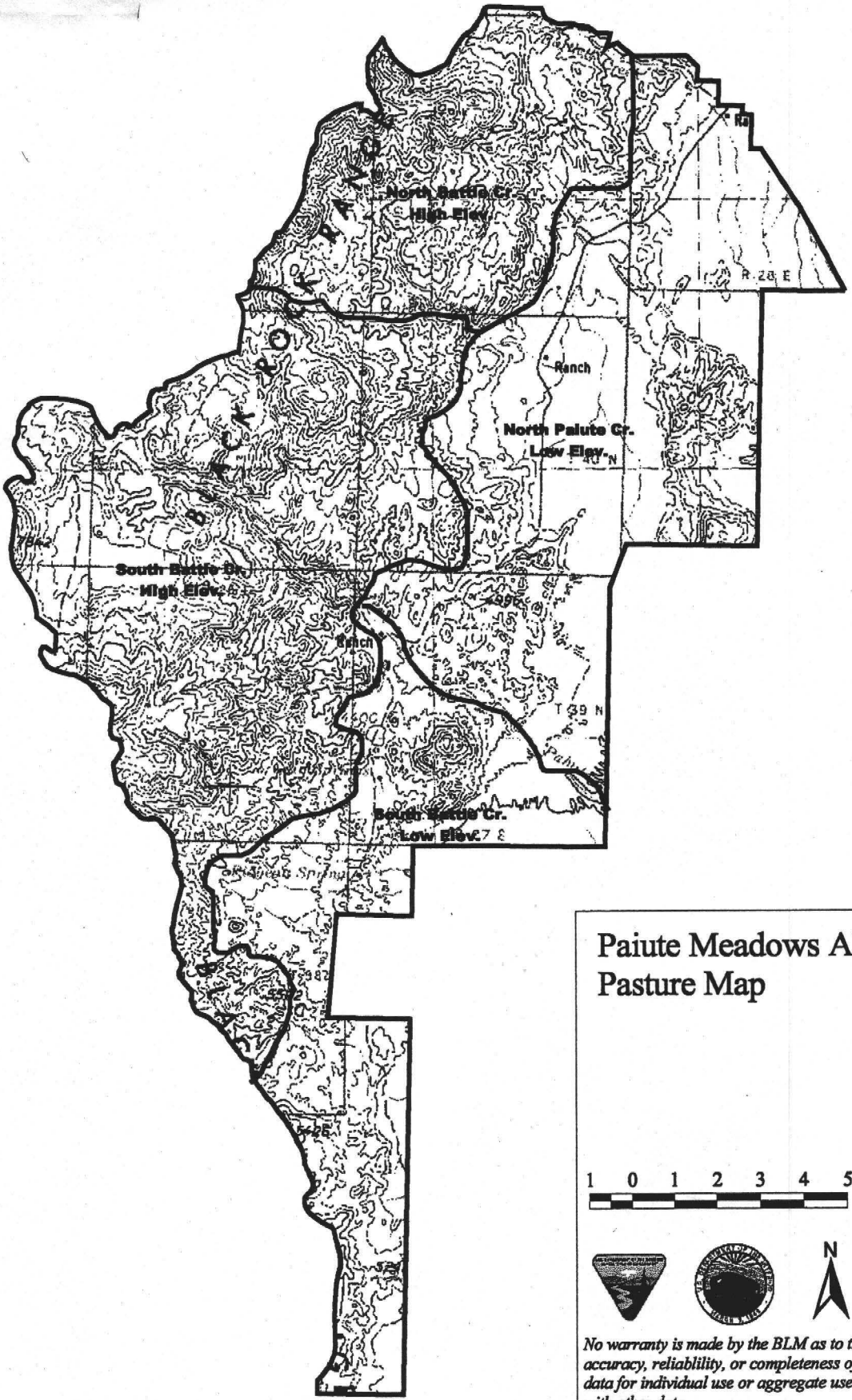
Paiute Meadows Allotment
SWA Dominant Seral Stage



Soldier Meadows Allotment
SWA Dominant Seral Stage




Idaho Canyon
Warm Springs
Marsley Canyon Riparian
Coleman-Slumgullion
Hot Springs
Black Rock North
Gallo Rock
Gallo South
Black Rock South
BLACK ROCK DESERT
Double Hot Springs
Soldier Meadows Allot.
Pasture Map
1 0 1 2 3 4 5 Miles
N
No warranty is made by the BLM as to the accuracy, reliablility, or completeness of these data for individual use or aggregate use with other data.



Paiute Meadows Allot. Pasture Map

1 0 1 2 3 4 5 Miles

N

No warranty is made by the BLM as to the accuracy, reliablility, or completeness of these data for individual use or aggregate use with other data.