



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Winnemucca District Office  
705 East 4th Street  
Winnemucca, Nevada 89445



IN REPLY REFER TO:

4400  
(NV-241)

DEC 1 1 1992

Rose Strickland  
Sierra Club Toiyabe Chapter  
619 Robinson Ct.  
Reno, NV 89503

Dear Rose:

Enclosed is the monitoring write ups/stop summary information you requested on December 4, 1992 in your conversation about the Paiute Meadows Allotment Evaluation, with Bob Hopper of my range staff. Please remit \$ 3.77 (29 pages @ .13/page) for the copy fee payable to the Bureau of Land Management.

If you should have further questions feel free to contact our office.

Sincerely yours, .

*Scott Bellin*  
Area Manager  
Paradise-Denio Resource Area

Enclosures

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

In reply refer to:  
4100(NV 241.4)

7-13-92

Asj

Memorandum

To: SRC/Area Manager PD RA  
From: Abbie Jossie, RC  
Subject: Paiute Meadows Allotment Mid-Season Monitoring

On July 6-9, 1992 I visited the Paiute Meadows Allotment to conduct a mid-season monitoring check of utilization in an effort to assess utilization to date at the key areas, the streambank riparian habitats and in the uplands of the south half of the allotment. My concerns prompting this visit were that following the gather in February 1992, a total of appx. 200 wild horses remained within the HMA in the allotment. As of March 10, 1992 this figure had increased to 255 animals, and by May 23, 1992 had increased again to over 500 (counting colts). This number of horses combined with 700 head of cows exceeds the estimated carrying capacity of the 1991 allotment evaluation by over 100%. The original license for the Paiute Meadows livestock use calls for a change to the south half of the allotment effective August 1. This inspection will assist us in determining whether or not that move should or can be made, as well as whether or not the livestock could or should remain in the north half past 7/31.

I concentrated on inspecting the utilization study sites established by the BLM in 1990. I UPMed areas that I observed where a change in use was obvious. I also checked utilization in the streambank riparian habitats on Paiute, Battle and Bartlett Creeks, as well as checked on water availability at the majority of the water sources in the allotment. Due to some time and access limitations, some of these areas were not checked. In general these were limited to areas in the lower elevations where livestock use would not have occurred, and wild horse use would have been limited due to the season of use. Utilization was assessed on current year's growth only. A pre-season check had been made in May on most of the study sites as well, and at that time utilization was assessed on previous year's growth.

Summary of Study Site Data:

South of Paiute Creek-Low Elevation sites

<u>Site #</u>	<u>Key Species</u>	<u>Percent Use</u>	<u>Level</u>
2	ORHY	0	No Use
3	ORHY/GRSP	10/0	Slight
4	ORHY/EPNE/GRSP	12/3/8	Slight
5	GRSP/EPNE	0/0	No Use
6	SIHY/ATCO	46/0	Moderate

South of Paiute Creek-High Elevation sites

<u>Site #</u>	<u>Key Species</u>	<u>Percent Use</u>	<u>Level</u>
10	FEID/POA	24/15	Light/Slight
11	FEID/POA	0/0	No Use
12	STTH/FEID	39/30	Light
13	FEID/SIHY/POA	0/0/0	No Use
14	FEID	36	Light
15	AGCR	56	Moderate(close to heavy)

North of Paiute Creek-High Elevation sites

<u>Site #</u>	<u>Key Species</u>	<u>Percent Use</u>	<u>Level</u>
16	STCO/ORHY/SIHY	10/10/10	Slight
17	STTH/FEID	10/10	Slight
18	STTH/FEID	42/35	Moderate
19	POA/CAREX	75/68	Heavy (appeared to be severe)
20	STTH/SIHY/POSE	65/42/48	Moderate
21	POSE/SIHY	10/10	Slight
22	AGSP/STTH	35/31	Light
23	POSE	10	Slight
24	AGSP/FEID/STTH	48/28/32	Light Moderate
26	POA/STTH	10/10	Slight
27	FEID/STTH	28/7	Light
28	STTH	61	Heavy - close to H2O
29	STTH/POSE	66/48	Heavy - close to H2O
30	FEID	0	No Use

Those areas that had received heavy use were either right at or close to water or salt blocks.

Streambank Riparian Utilization:

Stops were made along Paiute, Bartlett and the south and north forks of Battle Creek. Use of herbaceous forage along all three streams was heavy to date at the accessible locations.

In Paiute Creek, the woody species also had received some moderate use at the more easily accessed locations. Deer, livestock and wild horses were observed in Paiute Creek during data collection. One roan stallion was consistently spotted in the lower reaches of the stream within 1 mile of the ranch. This area also had deer and cow use, although no cows were observed. At the present time, Paiute Creek is fed by springs only, limited to within the canyon and on private land, and by Deer Creek, a tributary from the south. Flow is at or below what it was in the fall of 91, but is sufficient to water a large number of animals.

It is limited by its confinement. Livestock and horses have generally come down Deer and Butte Creeks to Paiute to water and return up the draws or out the basin at the west end. Several cows (at least 6 pairs) appear to remain in the canyon above the private lands. One bull appears to be restricted to just above the drift fence.

In the south fork of Battle Creek the use is fairly equal between livestock and wild horses. The utilization along the stream itself is heavy on the herbaceous forage and slight to no use on the woody vegetation. The springs and side drainages to this tributary have also received heavy use by both horses and cows. Antelope were also observed throughout this basin, in excess of 100 head.

In the north fork of Battle Creek the use is quite similar to the lower reaches of the high elevation area. The herbaceous forage has received heavy use, while the woody species have slight to no use. The upper reaches appear to have patchy heavy use in the natural access points on herbaceous forage, but no use on woody species. The majority of the upper reaches have no use due to natural barriers. Again, here there are nearly equal numbers of horses and cows using the entire basin. The uplands have slight use for the most part.

Bartlett Creek has the least use of the three. The lower reaches have received heavy use on herbaceous forage, but the upper reaches have no use at all. The uplands also have no use. No horses were observed in this area, and no cows were noted either. In fact no cows or wild horses were seen after approx 1 1/2 miles north of Rough Canyon. There are many springs scattered throughout this area, with good water.

The UPM indicates scattered areas of moderate and heavy use on the uplands, but those areas are limited (not including the seeding). There currently is heavy use of the herbaceous forage along all three of the streams to some degree.

#### Water Availability:

South Paiute: Water is available at most spring sources, however only in seep type conditions. The exception to this is at Cane Spring and Running Water Spring. The only good, easily available water for livestock would be at these two springs, and at Deer and Sheep Creeks which still have good flows. However the majority of these two creeks are in canyons, and lead to lower elevation areas. Deer Creek is fairly confined, and is a tributary to Paiute Creek. The low elevation springs (White Rock, Indian, Pidgeon, Crowbar) that I checked are in seep conditions only. I was unable to check upstream Sheep Creek to the other springs.

North Paiute: All springs and creeks have water. Most of the springs in the north end are not developed with the exception of a few reservoirs. Burnt Spring is quite limited in flow. The livestock and horses seem to favor the hidden springs to the north of Burnt Spring. All the forks of Battle Creek have excellent water at present. Bartlett Creek has good flow as well. Butte Creek is nearly dry, and is fed by the hidden springs which are being used.

#### Livestock/Wild Horse/Wildlife Distribution:

Livestock were observed south of Paiute Creek in the seeding (8 head). At the same time 70 head of horses were observed in the seeding and 50 antelope. Antelope and wild horses were scattered throughout the south use area in both the high and low elevation areas. 6 head of cows were observed south of Paiute Ranch just adjacent to the fence.

Livestock were scattered in small groups throughout the north half. Generally, no more than 20 pairs were observed congregated in any one location, including in springs, meadows or creeks. Wild horses were scattered throughout the area as well, but did not appear to range north of Rough Canyon. Over 200 head of antelope were seen in the north and south use areas, and in most cases, there were fawns. I observed twins in many cases. Adult/Fawn ratios appeared to be about 30/20--sometimes less, sometimes more. Few deer were seen, except in Paiute Creek, where a fawn was also observed. Young chukars are numerous in Paiute Creek but were not observed with regularity anywhere else. One sage grouse was observed above the south fork of Battle Creek.

No livestock were seen in the lower elevation areas of the north half. Water is limited in the lower areas.

I did not perform a livestock count, however, it did not appear to me that there were 700 cows in the north half of the allotment. This could be due to access restrictions, and I may not have observed areas of concentrations. In addition, wild horses were scattered between north and south--neither seeming of greater concentration.

#### Forage availability:

The low elevation areas of the south half of the allotment are not suitable for summer use. Very little grass is available with the exception of the very south end where ORHY is abundant. However, no water is available in the very south end.

Grass production is high, and very little use of shrubs of any kind was evident anywhere in the allotment. Many of the stops and study sites have shrubs such as snowberry, PUTR, AMELA, GRSP, TEGL, ATCO, SAVE, etc.. In the higher elevations no use was evident on the shrubs either.

Preliminary information provided to me by the ESI coordinator for PD, indicates that the south half of the allotment is in mid seral stage in many areas. Grass composition for natives is low. This is not reflected in many of the study site locations, as they appear to be placed in the areas that do contain species identified in the range site descriptions. My own cursory observations of the north half indicate that it is in late seral, and in some locations possibly even PNC.

#### Recommendations:

We have already exceeded the utilization objectives for streambank riparian habitats on the herbaceous components along all three of the

streams, as well as in the tributaries and at wetland meadows and spring sites. Regrowth potentials may be limited due to a low water year. If livestock are moved to the south end, no progress towards long term objectives will be made in the south half, however some progress might be achieved in the north half on streambank riparian habitats. However, water is limited in the south half to a few springs and two small creeks. Currently all of these sources have exceeded objectives with just wild horse use.

To be consistent with past licenses, livestock would have to remain in the north half until November, continuing to exceed objectives in that area. Any livestock use, whether in the north half, or south half would exceed short term objectives, and inhibit progress towards long term objectives.

Some livestock use may be available in the upper watershed of Bartlett Creek, and along the eastern front. This distribution would require diligent herding efforts to maintain, efforts which were not evidenced in the past by the previous ranch manager. There is a new manager on site, but by their own admission, they are not familiar with the range, and have spent the majority of their time since arrival three weeks ago-farming. It is my understanding that they are currently in trespass on the Soldier Meadows Allotment, indicating a lack of control of the livestock that are in the north half of the allotment.

It is my recommendation to discuss with the permittee the possibility of taking non-use for the remainder of the grazing season. If this is not palatable to the permittee, then a proposed decision cancelling the permittee's license for the remainder of the grazing season should be issued on the basis of drought conditions and wild horses/livestock in excess of the carrying capacity causing degradation to the riparian habitats. If more intensive data is necessary I recommend the Fisheries Biologist and the wild horse specialist examine the water sources mentioned for additional data to support this decision.

Some compromise in numbers may be feasible for a short time frame in the north half, north of Battle Creek or on the eastern front. Low elevation areas should not be utilized due to NDOW concerns with winter habitats.

ALLOTMENT: PAUTEobserver: Jessiedate: 7-6-92

KEY SPP.	USE		STUDIES	GENERAL OBSERVATIONS
	KEY SPP.	OVERALL		
① Feid Stth	<10% <10%	SL		South end - MGS Chipmunk Springs #91 No H <sub>2</sub> O except a drip into old rusted trough
② Stth	65%	H		Painte Windmill Basin
③ Feid Stth	45% 50%	LM		low moderate
④ Feid Agsp Elci Stth	10% 3% 40% 15%	SL		Opal Spring #713 DRY Pipe is checked up - 15' capable of carrying H <sub>2</sub> O to troughs - but no H <sub>2</sub> O at source
⑤ Agsp	65%	H	KFPM # 15 Heavy	Seeding from west to east end - patches of heavy through center of seeding - moderate around edges 70+ wild horses 50+ antelope 8 cow/calf prs at west
⑥ Agsp	70%	H		Southwest end of seeding Prj 4396 no water reaching troughs
⑦ Stth Feid	45% 35%	M		Through Spring - seep only heavy use at spring but uplands moderate canyon goes on down to

ALLOTMENT: Private  
 date: 7-6-92

observer: Jarvis

Continued

KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES		GENERAL OBSERVATIONS
			TYPE/READ Y/N	FORMS ATTACHED	
⑧ Feid Stth	20% 35%	L			Running water spring #13/9 Round tank full with some overflow / seep as only good spring development on whole mt. Use at spring - heavy
⑨ Feid Stth	25% 40%	L			Drip Spring - seep only not good flow heavy use at spring
			7-7-92		South end - low elevation
⑩ Silly Atco	45 0	Low Mod.	KPPM #6 46% Silly		Sheep Cr. - excellent H <sub>2</sub> O 6 cows/calves next to fence
⑪ Carex Gnarus Typha	20%	SL	PRIVATE LAND		Cane Spring - excellent H <sub>2</sub> O Private land w/ horse use only North end
⑫ Grsp Epre Atco Tetra		No Use	#5 KPPM Grsp No Use		No fresh sign of wild horse no discernible use from May 1 to present Near Pidgeon Spring (did not V H <sub>2</sub> O)
⑬ Grsp Epre Orhy Tetra Atco Silly	<10 <10 25 <10 <16 <10	SL to L	#4 KPPM Light		Light use on Orhy only



Mid Season ✓

ALLOTMENT: PHH/E observer:                       
date: 7-7-92

cont'd

I	KEY SPP.	USE	USE	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
		KEY SPP.	OVERALL		
14	Orhy Grsp	<20 <10	SL		
15	Orhy	NU	NU	KFRM #2 NU	
16	Atco Orhy	<20	SL		
17	Salix Rowo Elci Poa	<50 <40 <40 <50	L		White Rock Spring H <sub>2</sub> O fair to poor - mostly a seep with 2 small reservoirs - maybe 1 foot deep basin below WR spring horses present
18	Sihy Atco Grsp	30 <10 <10	SL to L		
19	Salix Carex Poa Rowo	25 50 15 <10	SL I		Some patches of heavy but overall slight Indian Springs H <sub>2</sub> O poor to fair - seep mostly
20	Typha Carex Poa rust.	<20%	SL		Cane Spring - south end Excellent H <sub>2</sub> O - but has slowed down see # 11
21	Brtk Posc	<20%	SL		
22	Poa Carex	65+ 65+			Deer Creek Excellent H <sub>2</sub> O Herbaceous species only
23	Keid Poa	<30 <10	SL	KFRM #13	

ALLOTMENT: \_\_\_\_\_  
 date: \_\_\_\_\_

observer: \_\_\_\_\_

KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/M FORMS ATTACHED	GENERAL OBSERVATIONS
24) Feid Stth	40 50	M	KFPM #12	
25) Feid Pose. Epvi	0	No Use	KFPM # 11	
26) Feid Sth	20 10	SL		Big Mt Spring - nearly dry someone dug a pit hole over source about 1 ft in diam by 2" deep - is probably right over headbox - is holding only 170 (antelope blind w/in 50' of H <sub>2</sub> O)
27) Stth	65% +	H		south of Little Big Mt looking SW over Black Rock West arm Worse trails all over - horses present
28) Feid Poa	25 30	SL to L	KFPM # 10	Little Big Mt Indian Cr upper watershed horses are ardent horses present
29) Feid	20	SL	#14 KFPM SL	
30) Stth Feid	20	SL		in uplands H <sub>2</sub> O at source pool Heavy use on spring no rip. veg noted

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
37	Poa Sily	710	SL	KFPM #21 SL	cows + horses present 50 antelope
38	Poa Carex	390+	Severe 90%	KFPM #19 90%	Butte Creek site H <sub>2</sub> O is seeping in from side draw spgs only - poor cows + horses present in area LOW production in case
39	Agsp Sily	46 50	LM		too near salt blocks use w/in 1/4 mile of salt is moderate farther out is slight
40	Poa Carex Salix	60+ 50+ NU	3 H 3 NU		SF of Butte Creek Herbaceous species have heavy use but woody have no use - good H <sub>2</sub> O horses + cows 100+ in whole basin Potential for regrowth high
41	Poa Sily	420 420	SL	PRIVATE KFPM #23 Slight	

ALLOTMENT: PAUTE observer: Josue

date: 7-8-92

Northhalf

	KEY SPP.	USE KEY SPP.	USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
31	Sto Orhy Schy	15 10 10	SL	#16 KPPM Sght	Orhy - Sto more dominant
32	Feid Stth	10 15	SL	RPPM #17 SL	
33	Feid Stth	35 50	M ↓ w/ patches of H	KPPM #18 Mod.	livestock + wild horse use evident wild horses present no cows in sight
34					Burnt Spring H <sub>2</sub> O seep w/ reeds uplands ad moderate use H <sub>2</sub> O/+ stinger meadow have severe use
35	Stth Pose Dihy	55 20 30	M	KPPM #20	North of Burnt Spring on hill
36	Pose Sihy Stth	<10 <10 15	SL		at end of the road on top of the ridge overlooking Soldier Meadows country

ALLOTMENT: PAIUTE  
date: 7-8-92

observer: Jarvis

CONTINUED

KEY SPP.	% USE		STUDIES	GENERAL OBSERVATIONS
	KEY SPP.	OVERALL		
(42)				NW of SF of Battle Creek Up to Rock Wall - several small springs + wet meadows all with heavy use by cows + horses
(43) Agsp Feid Stth	50+ 30+ 30+	M	KFPM # 24 LM	
(44) Poa Carex Juncus Salix	70 50 60 110	} H } SL	KFPM # 26 slight	} case is in uplands Stop was at water gap below cabin natural access (photos) Herbaceous forage used only
(45) Agsp Feid Stth	<20 <30 <20	SL	# 27 KFPM Light to slight	basin has approx. equal # of horses + cows - all scattered but with cows right on springs + creek approx. 45 horses / 60 cows of calves (hard to ct)
* heavy use of springs + riparian vegetation				
(46)				In general - NW - Battle Creek Heavy use - herbaceous slight to none - woody

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
(47)	Stth	65+	H	KFPM #28 61% Stth	horse + livestock use Saddle between H <sub>2</sub> O's
(48)	Stth Poa Sicc	65 20 40	M-H	KFPM #29 Stth/Poa 66 48 M/H	
(49)	Feid		NU	KFPM #30 Feid No Use	above Bartlett Creek South side North-facing slope
(50)	Poa Carex Juncus Salix Potr Chokedch.	65+ 10-20	H SL	Bartlett Creek - lower reaches are heavy on herbaceous + slight to no use on woody	Upper reaches of Bartlett have <u>no use</u>
(51)	Poa Carex + Juncus	}	60+ H	UPLANDS have slight to No Use in general adj to stream	PAIUTE CREEK again - Heavy on herbaceous/mod on woody in most accessible areas otherwise woody slight
(52)	Salix Potr Chokedch.				

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

*Loe*  
*9/10/92*

In reply refer to:

4110  
(NV-241.2) *28*  
*1/2/92*

Memorandum

To: Paiute Meadows Monitoring File  
From: Lynnda Jackson, Range Conservationist  
Subject: Utilization South of Paiute Creek

On November 12, 13 and 14, I conducted monitoring studies on portions of Paiute Meadows Allotment south of Paiute Creek. Les McKenzie, representing Western Range Service, was present. I ran utilization transects at utilization cages established by the former Area Wild Horse and Burro Specialist and at some additional locations. No cages were moved so that the cages can be used when observing winter utilization. General observations and the results of the utilization transects are summarized below.

At the lower elevations on the eastern portion of the area, use on squirreltail grass was slight (1-20%) to light (21-40%). There was little or no use on spiny hopsage, bud sagebrush, ephedra or greasewood. Use on Indian ricegrass and winterfat ranged from light to heavy (61-80%). Utilization of Indian rice grass was heavy to moderate (41-60%) on the majority of the areas where it is present and plant vigor was low. Use was moderate at key area 057-04 (L-4 on attached map). The partially enclosed area adjacent to Emigrant Well is useful as a comparison area. The plants within the enclosure are vigorous and appear to receive little or no grazing. Soil differences may account for some of the difference in plant vigor, however I suspect that the low vigor of the Indian ricegrass plants results primarily from repeated grazing throughout the growing season year after year. This was particularly apparent in the formerly burned area 1½ miles east and south of Pidgeon Spring (L-8 on attached map). Utilization was heavy in this area and I suspect it has been favored for grazing since the burn occurred. While Indian ricegrass is still present on this site, density is very low and vigor is extremely poor.

At the upper elevations on the western portion of the area observed, utilization of Idaho fescue, Thurber's needlegrass, western wheatgrass and dryland sedge was below 41%. Utilization of crested wheatgrass was moderate to heavy, with heavy use on the majority of the area. Plant vigor is poor. The seeding appears to be a valuable asset, attracting grazing use away from native species. However, I suspect that the heavy use this area receives is

resulting in a decline of the seeding.

The short term objective was met at key area 057-04. We may wish to establish a key area which will represent those areas receiving higher grazing levels considering these plants are particularly vulnerable under yearlong grazing. The short term objective was not met on the seeding. Horses were present in both the lower and upper elevations at the time of these observations.



ALLOTMENT: Painted Meadow observer: L. Jackson  
 date: 11/13/91 11/14/91  
11/24/91

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
L-11	Sily Arsp	24% 0%	light	Util. KFPM	Utilization cage #8
L-12	Feid	36%	light	Util. KFPM	Utilization cage #10
L-13	Feid	13%	slight	Util. KFPM	Utilization cage #11
L-14	Acsp Feid Stih	36% 25% 36%	light	Util. KFPM	Utilization cage #13
L-15	Feid Carex	22% 22%	light	Util. KFPM	Utilization cage #12 (Transect L-15 was run before L-14)



ALLOTMENT:

date:

observer:

I	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
L-16	Agcr	70%	heavy	Util. KFPM	Use very uniform Western Range Service study site (#4)
L-17	Agcr	55%	mod.	Util. KFPM	Western Range Service study site (#2)

UTM STOP SUMMARY

ALLOTMENT: Paute Meadows observer: Jackson  
 date: 11/12/91 11/13/91 11/14/91

KEY SPP.	% USE		STUDIES	GENERAL OBSERVATIONS
	KEY SPP.	OVERALL		
-1 Sibh Ephed Arsp	69% 0%	slight	Utilization Key Forage Plant method (KFFM)	Utilization case #1 as listed on Chris Meyer's memo "Utilization case locations" in Blackrock East HMA Study file (No date)
-2 Orhy Grsp	69% 1%	heavy	Util. KFFM	Utilization case #2 No water at Emigrant Well (broken) Low use - Orhy
L-3 Orhy Sibh Cela Arsp Grsp	49% 30% 38% 10% 10%	mod.	Util. KFFM	Utilization case #3 Low use - Orhy  } adjacent
L-4 Orhy Sibh Ephed	53% 40% 0%	mod	Util. KFFM	Key Area 057-04 "Emigrant" No use on Ephed - is producing litter, but not grazed.
-5 Orhy Sibh	31% 14%	light	Util. KFFM	Utilization case #4 - case not found. Outside allotment but within HMA. Transect on W. side of road "in vegetative transition" area.

ALLOTMENT: Painted Meadow observer: L. Jackson

date: 11/13/91 11/14/91

11/29/91

KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
L-11 Sily Arsp	24% 0%	light	Util. KFPM	Utilization cage #8
L-12 Feid	36%	light	Util. KFPM	Utilization cage #10
L-13 Feid	13%	slight	Util. KFPM	Utilization cage #11
L-14 Acsp Feid Stth	36% 25% 36%	light	Util. KFPM	Utilization cage #13
L-15 Feid Carex	22% 22%	light	Util. KFPM	Utilization cage #12 (Transect L-15 was run before L-14)



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

In reply refer to:

6516 (NV-0249)  
12/3/91

Memorandum

To: Paiute Meadows Monitoring File, Western Range Services  
From: Paradise-Denio Fishery Biologist *PWR 12/3/91*  
Subject: Riparian Monitoring on North Fork Battle Creek

On November 13 and 14 1991, riparian utilization monitoring on the North Fork of Battle Creek (Paiute Meadows Allotment) was conducted in the riparian zone. The mainstem of the North Fork (see map) was surveyed approximately 200 yards upstream from the Basin Cabin 4WD road where a tributary entered and proceeded upstream approximately one mile. The tributary was also surveyed.

Mainstem N. Fk. Battle Ck.

Utilization monitoring using the "Key Forage Plant Method" showed an average use of 44% (moderate) for key plant species of Aspen (44%), Salix (35%), Carex (60%), Juncus (61%), POPR (36%) and Rose (29%).

N. Fk. Battle Ck. Tributary

Utilization monitoring on a tributary running parallel to the North Fork of Battle Creek (see map) showed an average use of 68% (heavy) for key plant species of Aspen (60%), Salix (67%), Carex (74%), Juncus (80%), and Rose (61%). Observation of ungulate sign on this reach showed one deer pellet group, 12 horse droppings, and 71 cattle dropping groups.

Summary

Utilization levels were moderate to heavy in monitored reaches. Other reaches that were visually surveyed had similar utilization levels.

Although the North Fork reach had moderate to heavy utilization levels on key riparian plant species, the riparian area could return to a more stable, improved condition by removing livestock from this pasture at an earlier date. Wild horse removal would also benefit the stream system as well.

Six cows were observed on the upper reach of the North Fork approximately one half mile up from where the road ends. This area showed heavy utilization by

livestock and wild horses and was receiving grazing pressure at the time of survey. Several springs and seeps were observed in this area which must receive protection from livestock/horse use. These areas are critical in maintaining a constant supply of cool water for the entire North Fork Battle Creek system. Continued degradation of these areas will result in decreased water quality and quantity.

It was also noted that there was only 2 age classes of Aspen: mature and young (1 - 5 years). Mature Aspen appear to be dying much faster than they are being replaced. Beaver appear to be exacerbating this problem on the reach below the confluence of the tributary.

Visual observations were made on a section of the North Fork downstream from the 4WD crossing (see map). Utilization was moderate to heavy where livestock had access. Several areas of the stream had dense cover of brush and rock, thus preventing livestock and horse use. This area of the North Fork would also benefit from earlier livestock removal and removal of wild horses.

Although livestock utilization was moderate to heavy, a change in the grazing system for this pasture (earlier removal and wild horse collection) could lead to a beneficial change in the condition of Battle Creek and subsequent Lahontan Cutthroat Trout re-introduction. The North Fork system may currently be suitable for transplants if further declines in riparian vigor are prevented and examination during winter periods show ice conditions to be favorable for over-wintering fish.

#### Use Pattern Mapping

Use pattern mapping stop summaries were conducted at 4 locations (see map) within the North Fork Battle Creek drainage. Stop 1 had the following results:

STIPA (needle grass, heavy), FEID (Idaho Fescue, heavy), Posa (Sandberg bluegrass, heavy), AgSp (Bluetunch wheatgrass, moderate), ELCI (Basin Wildrye, moderate), and SIHY (light) for an overall use of heavy.

#### Stop #2:

FEID (heavy), STIPA (heavy), AgSp (moderate to heavy), Posa (light), ELCI (moderate to heavy), SIHY (moderate to heavy), Carex (moderate), and Juncus (moderate) for an overall use of heavy.

#### Stop #3:

AgSp (moderate to heavy), Posa (heavy), SIHY (light), ELCI (moderate to heavy), FEID (heavy), and STIPA (heavy) for an overall use of heavy.

Stop 4 was monitored using the "Key Forage Plant Method" whose results were reported above.

These four stops showed significant cattle and horse sign as evidenced by stud piles and cow pies.



Range Utilization  
Key Forage Plant Method

Used Cages Set UP.

20 PACE Interval

(1) District: **WYCA** (2) Date: **11-13-91** (3) Observer: **RIEBER** (4) Resource Area: **P/D NV-024** (5) Allotment: **White Mts.** (6) Operator/Allottee: **Battle Creek** (7) Field Name or No.: **N.F.K. BASIN** (8) Vegetation Type: **RIPARIAN** (9) Range Site: (10) Kind(s) & Class(es) of Grazing Animal(s): **Cow/CALF & Wild HORSES** (11) Use Period: (12) Grazing Management System:

started where 1<sup>st</sup> Branch enters

(13) Transect Location/Key Area No.: **N.F.K. BATTLE CK (MAINSTEM) UPPER (Above 1<sup>st</sup> year trail)**

(14) Use Rating of Current Year's Growth	Mid-Point (x)	ASPEN Key Species		SALIX Key Species		CAREX Key Species		JUBA Key Species		POPP Key Species		ROSE Key Species	
		Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)
Ended where Second Road Crossing is													
<small>Rating 10: The vegetation has the appearance of very light grazing. The best forage plants have been grazed or clipped only. Current available and young plants of low to medium growth are little disturbed. The available biomass of the best forage plants has been returned.</small>	10	10	30	10	30					10	70	10	80
<small>Rating 30: The vegetation has to be grazed, clipped, or grazed to produce. The best forage plants are grazed and 25 to 50 percent of the number of current buds/blossoms of the best forage plants remain. Most young plants of the best species are ungrazed. Little or no use of low to medium plants. There is evidence of moderate to heavy use. The available biomass of the best forage plants has been returned.</small>	30	330	420	30	30					300			360
<small>Rating 50: The vegetation appears to be grazed or clipped to produce. The best forage plants are grazed and 25 to 50 percent of the number of current buds/blossoms of the best forage plants remain. Some young plants of the best species are ungrazed. There is evidence of moderate to heavy use. The available biomass of the best forage plants has been returned.</small>	50	550	400	450	4	350				700			350
<small>Rating 70: The vegetation has the appearance of moderate grazing. The best forage plants are almost completely utilized with less than 10 percent of the current buds/blossoms remaining. Young plants of the best species are grazed. Some 25 to 50 percent of the number of low to medium forage plants have been utilized. The preferred forage plants are grazed and some plant clumps may be slightly broken. Nearly all available biomass of the best forage plants has been returned. Approximately 25 to 50 percent of the available biomass of the best forage plants has been returned.</small>	70	350	70	840	630					70			
<small>Rating 90: The vegetation has a low appearance and there are indications of repeated coverage. There is an abundance of reproduction of current buds/blossoms of low to medium growth. The number of buds/blossoms of the best forage plants are grazed to the soil surface. There is an abundance of moderate to heavy use. The available biomass of the best forage plants has been returned. Some 25 to 50 percent of the available biomass of the best forage plants has been returned. Some 25 to 50 percent of the available biomass of the best forage plants has been returned.</small>	90												

most of mainstem has downcut - 5'-10'

X = 44

TOTAL	28/1240	26/920	22/1320	16/980	32/1140	27/79
Average Utilization = $\frac{\sum fx}{\sum f}$	44	35	60	61	36	29

REMARKS (Use back of sheet)

\* Where f = the frequency or number of observations within each class interval (f column), x = the class interval midpoint (x column), and  $\Sigma$  = the summation symbol.

High Amounts of silt. several Pools  
fish Barrier noted over silted.



KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/M FORMS ATTACHED	GENERAL OBSERVATIONS
① STIPA FEID POSA Ag SP EICI SINY	H H H M M SL	H	UPM	Much Cattle & Horse sign
② FEID STIPA AGSP POSA ELCI SINY CAREX JUBA	H H M-H L M-H M M	H	UPM	Much Cattle & Horse sign
③ Ag SP POSA SINY EICI FEID STIPA	M-H H L M-H H H	H	UPM	Much Cattle & Horse sign
④ Aspen Salix CAREX JUBA ROSE Symphoricarpos	60 M-H 67 H 74 H 80 M-S 61 M-H 47 M	68 H	UPM Key Forage Plant Use Form	1 deer pellet group 12 Horse Piles 61 Cow Pies



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

In reply refer to:

6516 (NV-0249)

Memorandum

To: Paiute Meadows Monitoring File, Western Range Services

From: Paradise-Denio Fishery Biologist *RWR 12-3-91*

Subject: Riparian Monitoring on Paiute and Battle Creek

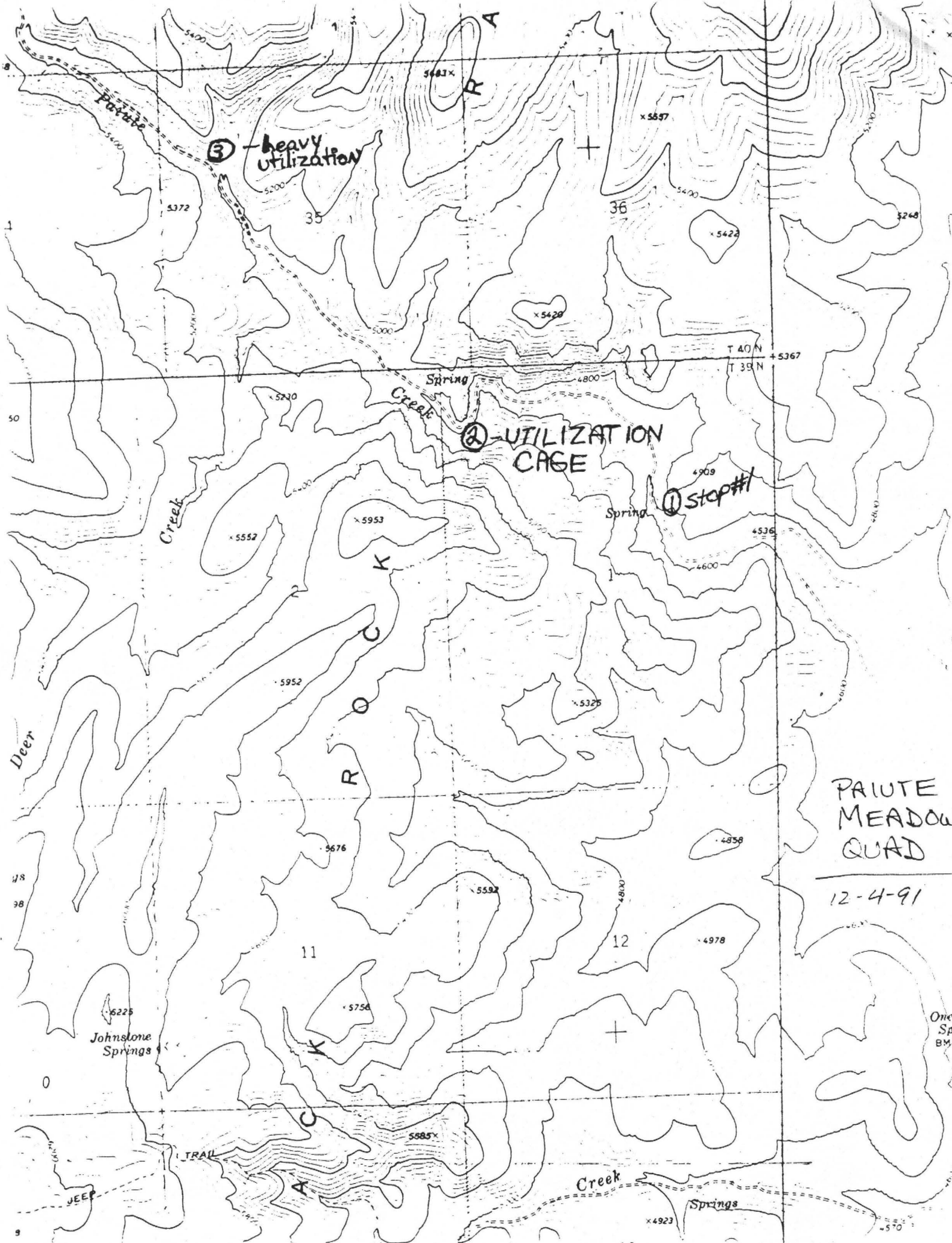
On July 22 and 23, 1991, observations were made of riparian conditions on Paiute and Battle Creeks.

PAIUTE CREEK

Location approximately midway up canyon (see map). Stream temperature 67 degrees F. at 1400 hours. At this location, Paiute Creek riparian zone is vegetating in nicely following the severe downcutting event. Good cover on lower reaches. Streamflow approximately 1.5 cubic feet per second.

Utilization cage installed (see map).

Upper Paiute Creek shows intensive grazing pressure with about 30 cows grazing in downcut streambed. Heavy utilization (> 80%) was noticed.



PAIUTE  
MEADOW  
QUAD  
12-4-91

heavy utilization

UTILIZATION CAGE

stop #1

PAIUTE  
MEADOW  
QUAD

12-4-91

Johnstone  
Springs

TRAIL

JEEP

One  
Sp  
BM

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Winnemucca District Office  
705 East Fourth Street  
Winnemucca, Nevada 89445

In reply refer to:

4700 (NV-248)

Memorandum

To: Black Rock East HMA Files, Paiute Meadows allotment monitoring files

From: David Stockdale, WH/B Specialist

Subject: Use Pattern Mapping

On November 6,7 and 13, 1991, I did Use Pattern Mapping along Paiute Creek and north to the Battle Creek drainage, just after removal of cattle on 11/5. Generally, UPM showed heavy to severe use along Paiute Creek, moderate use from the Paiute Windmill into the Butte Creek drainage, slight use in the South Fork Battle Creek area, and light use in the North Fork Battle Creek area. Severe use was noted along Butte Creek itself, and heavy use in the springs in 41N-26E-27. Use has generally been by both horses and cattle, as evidenced by droppings seen at the stops. Maps showing UPM distribution, and photographs of utilization cages, are in the Paiute Meadows allotment monitoring files.

I inspected the reservoir in 40N-26E-16 and found it to be in excellent condition but currently dry. Horse use was seen around the reservoir.

I observed cattle in the Rough Canyon area (9 animals) and upper North Fork Battle Creek, at KMA 057-03 (5 animals).

Forty-one different bands of wild horses, ranging in size from one to 20 individuals, were observed during the three days of UPM and on a preliminary trip to the area November 5. Locations are marked on 1:24000 topographic maps and described further in "Horseloc" database file.

*David R. Stockdale*  
11/15/91

DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Range Utilization  
Key Forage Plant Method

(1) District Wmca	(2) Date 11/13/51	(3) Observer D Stochale
(4) Resource Area P-D	(5) Allotment Paint Meadows	(6) Operator/Allottee D Russell
(8) Vegetation Type ARAR8/STTHZ	(9) Range Site 02324017N	(10) Kind(s) & Class(es) of Grazing Animal(s) LWesbck and hrgs
(11) Use Period Summer-Fall	(12) Grazing Management System	
(13) Transect Location/Key Area No. 057-02		

(14) Use Rating of Current Year's Growth	Mid-Point (x)	STTHZ Key Species		LUPINE 87112 Key Species		S, 11y Key Species	
		Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)
<small>In this class, the range land shows no evidence of use by grazing animals.</small>						□	0
<small>Class (1)-20%: The range land has the appearance of very light grazing. The low herbaceous forage plants have been topped or slightly used. Current seedheads and young plants of low herbaceous species are little disturbed. The available leaders of low browse plants are little disturbed.</small>	10	1	20			☒	10
<small>Class (2)-30%: The range land may be topped, grazed, or grazed in patches. The low value herbaceous plants are grazed and 5 to 25 percent of the number of current seedheads of low herbaceous plants remain intact. Most young plants of the key species are damaged. Little or no use of low value plants. There is evidence of limited use. The available leaders appear grazed or browsed in places and 25 to 50 percent of the available leader growth of the low browse plants has been removed.</small>	30		90				
<small>Category (3)-50%: The range land appears entirely grazed or uniformly so grazed. Pasture and seedlings will allow 25 to 50 percent of the number of current seedheads of low herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear rather uniformly utilized and 40 to 60 percent of the available leader growth of low browse plants has been removed.</small>	50		250				
<small>Class (4)-70%: The range land has the appearance of complete grazing. Low herbaceous species are almost completely utilized with less than 10 percent of the current seedheads remaining. Stems of unbranched grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are grazed and some plant clumps may be slightly grazed. Nearly all available leaders are used and the terminal buds remain on low browse plants. Approximately 60 to 80 percent of the available leader growth of the low browse plants has been removed.</small>	70		70				
<small>Class (5)-90%: The range land has a bare appearance and there are indications of repeated overgrazing. There is no evidence of reproduction of current seedheads of low herbaceous species. Low herbaceous forage species are completely utilized. The remaining stubble of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 80-100% of available leader growth on the low browse plants has been removed. Some and often most of the 2nd and 3rd year's growth of the browse plants has been utilized. Seedling is readily apparent, and the browse plants are over frequently grazed.</small>	90						
TOTAL		15	470	0	0	18	100
Average Utilization = $\frac{\sum fx}{\sum f}$			31		0	25	6

REMARKS (Use back of sheet)

\* Where f = the frequency or number of observations within each class interval (f column), x = the class interval midpoint (x column), and Σ = the summation symbol.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Range Utilization  
Key Forage Plant Method

(1) District NWC A	(2) Date 11/13/91	(3) Observer D Stockdale	
(4) Resource Area 1-1	(5) Allotment Pinto Plains	(6) Operator/Allottee Russell	(7) Field Name or No.
(8) Vegetation Type ARUA/S144	(9) Range Site 023X4/007NV	(10) Kind(s) & Class(es) of Grazing Animal(s) cattle Wild Horses	
(11) Use Period Summer-1990	(12) Grazing Management System		
(13) Transect Location/Key Area No. 057-03			

(14) Use Rating of Current Year's Growth	Mid-Point (x)	FED Key Species		AC SP Key Species		CUPINE Key Species	
		Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)	Frequency (f)	(f) X (x)
<small>To the 1st: The rangeland shows no evidence of use by grazing animals.</small>							
<small>First (1-25%): The rangeland has the appearance of very light grazing. The low herbaceous forage plants have been topped or slightly used. Current seedheads and young plants of low herbaceous species are little disturbed. The available leaders of low browse plants are little disturbed.</small>	10						
<small>Light (25-50%): The rangeland has been topped, clipped, or grazed in patches. The low value herbaceous plants are grazed and 60 to 80 percent of the number of current seedheads of low herbaceous plants remain intact. Most young plants of the low species are undamaged. Little or no use of low value plants. There is occasional evidence of leader use. The available leaders appear clipped or browsed in patches and 25 to 40 percent of the available leader growth of the low browse plants has been removed.</small>	30						
<small>Moderate (50-75%): The rangeland appears actively grazed to an extent that current seedheads and available leaders are all gone. 25 percent to 35 percent of the number of current seedheads of low herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear rather uniformly utilized and 40 to 60 percent of the available leader growth of low browse plants has been removed.</small>	50		100	<del>100</del>	500		
<small>Good (75-90%): The rangeland has the appearance of complete browse. Low herbaceous species are almost completely utilized with less than 10 percent of the current seedheads remaining. Stems of unremoved grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heaped and some plant stems may be slightly broken. Nearly all available leaders are used and few terminal buds remain on low browse plants. Approximately 60 to 80 percent of the available leader growth of the low browse plants has been removed.</small>	70		350		280		
<small>Heavy (90-100%): The rangeland has a worn appearance and there are indications of repeated overgrazing. There is no evidence of reproduction of current seedheads of low herbaceous species. Low herbaceous forage species are completely utilized. The remaining stubble of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 100% of available leader growth on the low browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Staging is readily apparent, and the browse plants are more frequently broken.</small>	90						
<b>TOTAL</b>			7	450	14	780	
<b>Average Utilization = <math>\frac{\sum fx}{\sum f}</math></b>			64		56		

REMARKS (Use back of sheet)

\* Where f = the frequency or number of observations within each class interval (f column),  
x = the class interval midpoint (x column), and  $\Sigma$  = the summation symbol.

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
D1	SALIX (young) SILV ELCI unid. shrubs (upland across rd) POSE SILV	60 80 50 75 0-5 60	65-70	UPM	1.2 mi From P.M. Ranch up Paint Creek Riparian area - heavy use Sage brush trampled willow good right by creek. Fring grasses grazed to ground
D2	SILV ARAR ELCI SALIX upland ARCO ORHY	70-80 10 10	70		1.0 mi From 1 Deer tracks Somewhat better than strip 1 good willow growth (old) along creek didn't see young willows Few if any fring grasses on upland Photo #2  Heavy/cattle use in canyon along creek P.3
D3	SALIX (young) grasses	50 150	80		1.0 mi From 2 at gate banks highly eroded moderate use of young willow heavy humping & no fring plants to be seen upland - SILV, POSE slight to none up Paint road
D4	SALIX (young) SILV ELCI	50 80 5	75		1.3 mi From 3 heavy humping severe use
D5	SILV POSE ELCI AGSP ? EPHEDRA	70-80 0-5 40-50 80-90 0	75		2.0 mi From 4 Creek bed now dry AGSP/strip? Photo 4 upland: AGSP - 30-50 SILV 0-5 POSE 5 ORHY horse tracks & signs (old) Ladder AGSP only that



	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/M FORMS ATTACHED	GENERAL OBSERVATIONS
D6	SIMY AGSP ORHY POSE STTH	40 20 60 5 60	50		1.4 mi, near windmill at Jct Umdal. PS Flat area cattle + horse use overall moderate
	(across road) ORHY SIMY AGSP STTH POSE	60-70 30-40 10 60 0-5			N. Side of road gets lighter use up hill esp AGSP SIMY ORHY Umd. short PS overall moderate near rd light up hill
D7	SIMY AGSP STTH FE10 POSE	10-20 25 2 70-80 0-5	60		meadow cage 40-26-17 Case #16 lots of horse trails photos 6-8
D8	FE10 AGSP SIMY ELCI POSE	60-70 30-40 10-20 5-10 0-5	50		meadow cage 40-26-20 Case #17 photos 9-10 FE10 on SW slope AGSP on NE
	FE10 AGSP				unimproved strip top of ridge see D8 FE10 mid/leaving AGSP light/road.

214

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
D9	FEID AGSP SILY POSE	60-70 20-35 5-10 0-5	50		at Reservoir (Project 47) a to east Severe use around reservoir overall moderate/heavy
D10	FEID SILY AGSP POSE	60 25 20-30 0-5	50		Meyer cage 40-26-16 heavy near road - changing to moderate to west (eat now seed stalks) photos 9-12 lots of horse trails, tracks, signs
D11	FEID SILY POSE	50 0-5 5-10	40		end of road branching off Bunt Spring rd. (not on map) over looking Slinggullion Creek drainage Horses in Slinggullion ck moderate use
D12	FEID SILY POSE	50-60 0-5 5-10	50		on ridge, Meyer cage 40-26-3 moderate to heavy Unidentified helicopter flew over, heard spotted band of horses a herd of antelope to east horse signs, also old cattle photos
D13					Meyer cage - Butte Creek Severe use Private land photos

ALLOTMENT: Private Mls observer: D. Stebbins  
 date: 11/7/91

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/M FORMS ATTACHED	GENERAL OBSERVATIONS
D14	POSE SITTY FEID	10-20 30-40 40	35		cage 40-26-2      Cage # 21 no witness post, cage at rd. easily visible light + moderate SITTY 3" high w/ seed stacks
D15	AGSP SITTY POSE	60-70 20-30 0-5	50		cage 40-26-11      Cage # 22 horse sign horses observed in area 11/7 1145
D16	FEID SITTY POSE	50-60 5-10 0-5	45		1.0 m from 15 on continuation of road (not on map), rd. turns north horse & some cattle sign
D17	POSE SITTY	20 10	15		top of hill, going down into S. Forkettle Creek

ALLOTMENT: K. Smith 11/13/91  
 dates: 11/13/91

observer: P. J. ...

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
018	FETD POSE SITHY	40 0-5 0-5	25		end of road at west above spring heavy to severe use at spring towards fresh sand piles
019	FETD SITHY POSE	~30 0 0-2	15		Spring looped, where it starts downhill noise on SITHY, light on FETD
020	FETD POSE	10-20 0-5	10		on down grade to S. Fork slight use
021	SITHY POSE	0-2 0-2	1		Mexican cage 41-26-35 Case # 23 Cage overturned, replaced photo 1-2
022	SITHY POSE	0-2 0-5	1		end of road E. from road (not on map) ~30 hours to reach p. 3

date: 11/21/91

	KEY SPP.	% USE KEY SPP.	% USE OVERALL	STUDIES TYPE/READ Y/N FORMS ATTACHED	GENERAL OBSERVATIONS
023	SIHY FE10 PDSE AGSP ELC1	-25 3040 0-5 -25 110	25		Set loop to spring band of 40 horses walking along road up to spring (#L141)
024	FE10 SITHZ SIHY	31 25 6	20		KMA # 057-02
025	FE10 AGSP	64 56	60		KMA # 057-03