Attachment #1 M 11-13-92

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

In reply refer to:

NV026.12

Memorandum

To: Area Manager, Sonoma/Gerlach Resource Area. ~~Area Manager~~ ~~Rodeo Creek Study File~~

From: Peggy Wiltse, Range Conservationist PSW

Subject: Use Pattern Mapping the Summer Country of the Rodeo Creek and Pole Canyon Allotments

Use Pattern Mapping (UPM) data was collected November 2-5,1992 by Amanda McCutcheon, Arn Berglund, Tom Seley, Vala Livingston, and Peggy Wiltse on the summer range of the Rodeo Creek Allotment and on the Pole Canyon Allotment. Stan Ceresola, the permittee, rode with Berglund and Wiltse on November 2. This data was collected to determine the amount of summer use by cattle and wild horses. Only 100 dry cows out of a possible 485 cow/calves were put onto the summer country of the Rodeo Creek Allotment this year due to the forage condition. The area received very little snow this past winter and very little rain during the spring. The grass species present only grew about 1/2-1" of leaf growth before seeding out this year. The area was covered in a four wheel drive pickup, by foot and by horseback. The access in the summer country is primarily limited to horseback or by foot. The weather was overcast with temperatures in the 50's and 60's. Six utilization classes were used: no apparent use (0%); slight use (1-20%); light use (21-40%); moderate use (41-60%); heavy use (61-80%); and severe use (81-100%). The acres mapped for Rodeo Creek by use class was: no apparent use - 0 acres; slight use - 754 acres; light use - 11,861 acres; moderate use - 10,366 acres; heavy use 18,657 acres; severe use - 0 acres; and 3657 acres not mapped. The acres mapped for Pole Canyon by use class was: no apparent use - 0 acres; slight use - 0 acres; light use - 2829 acres; moderate use - 0 acres; heavy use - 4769 acres; severe use - 0 acres; and 2199 acres not mapped. The key grass forage species with the highest utilization were used when coloring the map. The browse use is discussed in this memo.

WILLOW CREEK, JUNIPER FLATS, COYOTE CREEK, AND BULL BASIN

UPM data was collected up along Willow Creek to Juniper Flats, over to a utilization cage at the head of Coyote Creek, and then over to Bull Basin by Berglund, Ceresola, and Wiltse on November 2. Along Willow Creek the uplands had very few grass species. The POSE was used lightly and the SIHY when seen was under the cover of the browse species and unaccessible for use. The

tamarisk seen growing along the creek had moderate to heavy use. Three PUTR2 plants were seen along Willow Creek and they were heavily hedged. The CHVI seen was also heavily to severely used, many to ground level. The use at cage 1 (KF#1) at Juniper Flats was: SIHY 54%; POSE 50%; and CHVI 70%. Some of the Lahontan sagebrush had been hedged as well. SIHY was mostly seen in the protection of the sagebrush. At cage 2 (KF#2) at the head of Coyote Creek the use was: SIHY 60%; POSE 58%; and CHVI 82%. The desert peach plants present had heavy use and the Stipa also had heavy use where present. At cage 3 (KF#3) at Bull Basin the use was: SIHY 68%; STTH2 66%; POSE 66%; and CHVI 76%.

RATTLESNAKE CANYON

UPM was conducted by Amanda McCutcheon on November 2 in Rattlesnake Canyon. Hardly any grasses were found. Those that were in the area were moderately to heavily grazed or were found in the protective cover of the shrubs and therefore were unaccessible.

Most utilization occurred on the shrubs with moderate grazing on GRSP, ATCO, and SAVE4 and heavy on PUTR2. The PUTR2 has been dwarfed in the past, but there were no new leaders showing on the plants.

LITTLE RATTLESNAKE

UPM was conducted by Amanda McCutcheon on November 2 in Little Rattlesnake. Grass was scarce in this area. Use occurred on shrubs. KFT#10 was conducted using GRSP and PUTR2. The use of PUTR2 (66%) may be higher than normal because the animals have very few grasses to graze and are primarily feeding on browse species. All new growth was down within the plant. There were no leaders present. GRSP was moderately grazed at 50%. CHVI and SAVE4 were also hedged.

TRAIL CANYON

UPM was conducted by Amanda McCutcheon on November 2 in Trail Canyon. KFT#11 was conducted using POSE and GRSP. CHVI and SAVE4 were also hedged. Use on POSE was 68%. There were no seed heads left on the plants and there were numerous trails through the canyon. Use on GRSP was 42%. There was no SIHY found along the transect.

RODEO CREEK SOUTH

UPM data was collected on November 4 by McCutcheon and Wiltse from Rodeo Creek south toward the Pole Canyon Allotment by horseback. Two cages were planned to be looked at, but an aspen tree had fallen since the last mapping and only one cage was reached. The use at cage 6 (KF#6) was: SIHY 72%; POSE 70%; and CHVI 72%.

PAHRUM PEAK

UPM data was collected on November 5 by McCutcheon and Wiltse at the cage near Pahrum Peak. The STTH2 was showing fall green up from the rain that occurred a few weeks prior to mapping. The SYMPH seen while sidehilling by foot from the truck to the cage had been heavily hedged. The use at the cage was: SIHY 67%; LUPINE 78%; and CHVI 76%.

COTTONWOOD BASIN, SMITH CANYON TO THE SOUTH

UPM data was collected on November 4 by Seley, Berglund, and Livingston by horseback from Cottonwood Basin south to Smith Canyon, then continuing south almost to Willow Creek, and then looping back to Cottonwood Basin. At cage 8 (KF#8) at Cottonwood Basin, the use was: POSE 24% and GRSP 28%. SIHY was found at a very low density and not enough hits occurred to determine an average utilization level. Generally the use seen during the rest of the mapping was: heavy use was found on the low density shrubby Eriogonum. Slight use was found on budsage and Lahontan sagebrush. The Poa density was high, but had low vigor with 1/2" leaf growth. Low density ELCI2 had heavy use in Cottonwood. No perennial grasses were seen with the exception of a few plants on the northern exposures while travelling south from Cottonwood Basin to approximately the T.31N./T.30N. line. At that point POSE was seen as well as SIHY underneath the cover of the browse species. SAVE4 and GRSP had moderate to heavy use. CHNA had slight use when used. ATCO had heavy use on select plants. The animals have been very selective in which plants they have selected to use. TEGL had slight use. CHVI had heavy to severe use. ARTEM had light use and when present tamarisk had moderate to heavy use. Since the recent rain there has been very few horses using the area mapped.

An 18 year old mare was found dead at T.31N.,R.22E.,Sec.30,SW1/4SE1/4. She appeared to have been dead for less than a week and probable cause was old age.

KF#9 was done on November 5 by Seley, Berglund, and Livingston also by horseback. The PUTR2 was decadent, low vigor, and available for use. One PUTR2 seedling was seen. The use found was: PUTR2 14% and POSE 3%. Not enough SIHY hits were found to determine an average utilization for the transect. No hedging on the sagebrush was found. Use was made by wildlife.

POLE CANYON ALLOTMENT

Cage 4 (KF#4) was done at the head of Mullens Canyon. The vegetation consisted of ARTEM, SIHY, POSE, SYMPH, CHVI, and shrubby Eriogonum. The use was: SIHY 61% and POSE 45%. Not enough hits occurred on SYMPH or CHVI to determine an average utilization for the transect, but the hits that did occur, had severe use. Shrubby Eriogonum was not found along the transect, but those seen walking to the cage were heavily hedged. At cage 5 (KF#5) the use was: POSE 72%; SIHY 65%; and CHVI 74%. Not enough hits occurred on SYMPH to determine an average utilization for the transect. These two cages are in a heavy horse concentration area. Fresh stud piles were seen throughout the area. No cows have used the Pole Canyon Allotment for the last three years because of the lack of water and forage. The use on the Sodic Terrace near Rough Canyon was generally light use on the POSE and SIHY which composed less then 10% of the total composition by weight. ATCO and GRSP had slight use. The ARSP5 was dormant and the use was not determined on it. Ephedra where present had heavy use. Horse sign (stud piles) was scarce, but 5 horses could be seen from the transect in the same vegetation type.

Peggy Sue Wittse
11/13/92

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

KF/ Where CHVI is present it is hit hard. SIHY mostly in the brush

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WINNEMUCCA	11/2	WILTSE/BERGLUND/CERESOLA	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S/G	RODEO	S. CERESOLA	Summer
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
JUOS, ARTRW, SIHY, POSE	CHVI		
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

Page 1 every 5 spaces Juniper Flats

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	CHVI Key Species Frequency (f)	CHVI Key Species (f) X (x)	ARTR Key Species (f) X (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0							
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current undesirable and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	2	20				2	20
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current undesirable of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of lesser use. The available leaders appear ungrazed or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	1	30				1	30
Moderate (41-60%): The rangeland appears entirely covered or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current undesirable of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	4	200				2	100
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current undesirable remaining. Shoots of bluebunch grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	3	210	X	700	3	3	210
Severe (81-100%): The rangeland has a dense appearance and there are indications of removal coverage. There is no evidence of reproduction of current undesirable of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90	1	90				2	180
TOTAL		11	550	10	700		10	540
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		50%		70%		—	54%	

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.

Peach - heavy
TIPA - heavy

KF #2

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	11-2-92	Wiltse, Berglund, Cerezola	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
5-G	Rodeo Creek	Stan Cerezola	Summer
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Cage #2 every 5 steps Coyote Creek

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	SINY Key Species Frequency (f)	SINY Key Species (f) X (x)	CHVI Key Species Frequency (f)	CHVI Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annualgrowth and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			1	10		
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annualgrowth of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear grazed or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	2	60				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annualgrowth of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	5	250	3	150		
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annualgrowth remaining. Sheets of palatable grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	8	560	5	350	4	280
Severe (81-100%): The rangeland has a denuded appearance and there are indications of removal of cover. There is no evidence of reproduction of current annualgrowth of key 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 81-100% of available leader growth on the key browse plants has been removed. Hedging and often rank, of the 3rd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90			1	90	6	540
TOTAL		15	870	10	600	10	820
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58%		60%		82%	

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.

KF #3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer
Winnemucca	11-2-92	Wiltse, Berglund, Cervantes
(4) Resource Area	**(5) Allotment**	**(6) Operator/Allottee** / **(7) Field Name or No.**

(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)

(11) Use Period	(12) Grazing Management System

(13) Transect Location/Key Area No.
Cage #3 Bull Basin every 5 paces

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	POSE (f) X (x)	SINI Key Species Frequency (f)	SINI (f) X (x)	STTH2 Key Species (f)	STTH2 (f) X (x)	CHVI Key Species Frequency (f)	CHVI (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0								
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalk and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10								
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30								
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	4	200	2	100	2	100		
Heavy (61-80%): The rangeland has the appearance of complete warmth. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	9	630	7	490	8	560	7	490
Severe (81-100%): The rangeland has a bare appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90	1	90	1	90			3	270
TOTAL		14	920	10	680	10	660	10	760
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		66%		68%		66%		76%	

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.

KF #4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer
Winnemucca	11-3-92	Wiltse, McCutcheon, Berglund
(4) Resource Area	**(5) Allotment**	**(6) Operator/Allottee**	**(7) Field Name or No.**
S-G	Pole Canyon	John Torvick	
(8) Vegetation Type	**(9) Range Site**	**(10) Kind(s) & Class(s) of Grazing Animal(s)**
Artem SIHY, POSE		
(11) Use Period	**(12) Grazing Management System**	

(13) Transect Location/Key Area No.

Trans. 4 every 5 spaces Used a Williams Combo

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Key Species: POSE Frequency (f)	POSE (f) X (x)	Key Species: SIHY Frequency (f)	SIHY (f) X (x)	Key Species: SYMPH Frequency (f)	SYMPH (f) X (x)	Key Species: CHVI Frequency (f)	CHVI (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0								
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annuals and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	3	30						
Light (21-30%): The rangeland may be topped, pruned, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annuals of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is various evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	1	30	3	90				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annuals of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	3	150						
Heavy (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current annuals remaining. Shoots of undesirable grasses are grazing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	4	280	7	490				
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annuals of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90			1	90	5		5	
TOTAL		11	490	11	670				
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		45%		61%		—		—	

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.

KF#5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	11-3-92	Wiltse, Berglund, McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S-G	Pole Canyon	John Turvick	
(8) Vegetation Type: ARTRV, SIHY, POSE, STTH2, FEID, SYMPH, CHVI	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Coal #5 Wildhorse Canyon KF#5

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY (f) X (x)	POSE Key Species Frequency (f)	POSE (f) X (x)	SYMPH Key Species Frequency (f)	SYMPH (f) X (x)	CHVI Key Species Frequency (f)	CHVI (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0								
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annual and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10								
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annual of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	2	60						
Moderate (41-60%): The rangeland appears entirely covered or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annual of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50			1	50	1	50	2	100
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annual remaining. Beats of ungrazed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	8	560	9	630	2	140	4	280
Severe (81-100%): The rangeland has a open appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annuals of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90	1	90	2	180	2	180	4	360
TOTAL		11	710	12	860	—		10	740
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		65%		72%		—		74%	

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.

KF#6

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer
Winnemucca	11-4-92	Wiltse / McCutcheon
(4) Resource Area	**(5) Allotment**	**(6) Operator/Allottee**	**(7) Field Name or No.**
5-C	Rodriguez	Stan Cowden	Summit
(8) Vegetation Type	**(9) Range Site**	**(10) Kind(s) & Class(s) of Grazing Animal(s)**
ARTRTO-ELCI/CHNA,	ROSE, SIHY	
(11) Use Period	**(12) Grazing Management System**	

(13) Transect Location/Key Area No.
Trans. 6 Pinyon 5 Rose

(14) Use Rating of Current Year's Growth	Mid-Point (x)	ROSE Key Species Frequency (f)	ROSE Key Species (f) X (x)	CNVI Key Species Frequency (f)	CNVI Key Species (f) X (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annualls and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annualls of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear ragged or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						
Moderate (41-60%): The rangeland appears entirely covered or uniformly or natural features and facilities will allow. Fifteen to 25 percent of the number of current annualls of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	3	150	2	100	2	100
Heavy (61-80%): The rangeland has the appearance of complete grazing. Key herbaceous species are almost completely utilized with less than 10 percent of the current annualls remaining. Shoots of bluebunch grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	5	350	5	350	6	420
Severe (81-100%): The rangeland has a more appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annualls of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90	3	270	3	270	3	270
TOTAL		11	770	10	720	11	790
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		70%		72%		72%	

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.

KF#-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

STTN2 is showing fall green-up
Symph seen waxing & focas was heavily hedged

(1) District	(2) Date	(3) Observer	
Ely	11-5-02	Wilkes + [illegible]	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S-C	Robinson K	Stan Ceresola	Summer
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
[illegible]	STTN2, POSE, SIHY		
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Pasture Peak - saddle

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	(f) X (x)	SIHY Key Species Frequency (f)	(f) X (x)	STTN2 Key Species Frequency (f)	(f) X (x)	CNVI Key Species Frequency (f)	(f) X (x)	LUPINE Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0										
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current geophytes and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	5	50			1					
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 10 to 20 percent of the number of current geophytes of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear grazed or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	2	60								
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current geophytes of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	5	250	3	150						
Severe (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current geophytes remaining. Shoots of dominant grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70			0	560	9	630	7	490	6	42
Severe (81-100%): The rangeland has a dense appearance and there are indications of repeated coverage. There is no evidence of reproduction of current geophytes of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90			1	90	1	90	3	270	4	36
TOTAL		12	360	12	800	11	729	10	760	10	78
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		30%		67%		65%		76%		78%	

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

SHRUBBY TERROG
2) SLIGHT USE ON BIG SAGE, LANCEOLATE SAGE
3) SYM LOW SEEDS
4) FOR DEPENDENT USE IN 1992

KF#8

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WINNEMUCCA	11/4/92	BERGLUND, SELBY, LIVINGSTON	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S-G	2NDEED	CERESOLA	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
COTTONWOOD CR

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SKHY Key Species Frequency (f)	SKHY Key Species (f) X (x)	GRSP Key Species Frequency (f)	GRSP Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	2	20	4	40	5	50
Light (21-40%): The rangeland may be topped, clipped, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current perennials of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear grouped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			3	90	3	90
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50			3	150	2	100
Severe (61-80%): The rangeland has the appearance of complete bounds. Key herbaceous species are closely utilized with less than 10 percent of the current perennials remaining. Amounts of ungrazed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are badged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	1	70				
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated coverings. There is no evidence of reproduction of current perennials of key herbaceous species. Key herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90	2	180				
TOTAL				10	280	10	240
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		—		28%		24%	

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.

NV 4400-12 (January 19

PUER. NO WEEDING ON SAGE
1 PUER SEEDLING FOUND

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

17 MM 2MM KF #4
14 M 10MM
5 MM
4 MM
12 MM
24 MM

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer
WINNEMUCCA	11/5/92	BERGLUND, STEELE, LIVINGSTON
(4) Resource Area	(5) Allotment	(6) Operator/Allottee / (7) Field Name or No.
5-G	RODEO	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)
(11) Use Period	(12) Grazing Management System	

(13) Transect Location/Key Area No.
RODEO PUER ± 1

(14) Use Rating of Current Year's Growth	Mid-Point (x)	PUER Key Species Frequency (f)	PUER Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	SIMA Key Species Frequency (f)	SIMA Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0			☒ 9	0	∴ 4	0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	☐ 8	80				
Light (21-40%): The rangeland may be topped, clipped, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is limited evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	∴ 2	60	· 1	30		
Moderate (41-60%): The rangeland appears entirely covered or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear either uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70			·			
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	140	10	30		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		14%		3%		—	

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.

NV 4400-12 (January 1982)

Little Rattlesnake Canyon

KF #10

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	11/2/92	McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SC	Roden Creek	Stan Cressola	Post-Summer
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cows, Horses, Wildlife	
(11) Use Period	(12) Grazing Management System		
Summer			

(13) Transect Location/Key Area No.
SAGE FLAT TEGL, GRSP, SIHY POSE CHVI, ARTR (SAGE EXCLUDED)

(14) Use Rating of Current Year's Growth	Mid-Point (x)	GRSP Key Species Frequency (f)	GRSP Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	CHVI Key Species Frequency (f)	CHVI Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Slight (1%-5%): The rangeland has the appearance of very slight grazing. The key herbaceous forage plants may be topped or slightly used. Current perennial and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10					•	
Light (6%-20%): The rangeland may be topped, skimmed, or grazed in patches. The key value herbaceous plants are improved and 0 to 20 percent of the number of current perennials of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is minimal evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	• •	60				
Moderate (21-50%): The rangeland appears entirely grazed or uniformly or natural features and facilities will allow. Fifteen to 35 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		300	•	100	•	•
Severe (51-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current perennials remaining. Stands of objectionable grasses are thinning. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are badged and some plant change may be slightly broken. Nearly all available leaders are used and the terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	• •	140		560	• • •	
Severe (81-100%): The rangeland has a stark appearance and there are indications of removal of coverage. There is no evidence of reproduction of current perennials of key herbaceous species. Key herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 3rd and 4th year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken	90						
TOTAL		10	500	10	660		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		50%		66%			

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.

NV 4400-12 (January 1992)

Trail Canyon

KF# 11

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	11/2/92	McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cows, Horses, Wildlife.	
(11) Use Period	(12) Grazing Management System		
Summer			

(13) Transect Location/Key Area No.

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Key Species Frequency (f)	Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Slight (1-20%): The rangeland has the appearance of very slight grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						10
Light (21-40%): The rangeland may be topped, clipped, or grazed in patches. The low value herbaceous plants are ungrazed and 00 to 20 percent of the number of current perennials of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						90
Moderate (41-60%): The rangeland appears entirely grazed or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		150				250
Heavy (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current perennials remaining. Stands of this grasses are thinning. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heavily and some plant change may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		350				70
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated coverage. There is no evidence of reproduction of current perennials of key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 1yr year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90		180				
TOTAL		10	680			10	420
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		68%				42%	

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
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:

4700 (026.14)

June 10,1992

Memorandum

To: Sonoma-Gerlach Area Manager

From: Leigh Redick, Range Conservationist

Subject: Use Pattern Mapping the Rodeo Creek Allotment

Use Pattern Mapping data was collected June 1 and 2, 1992 by Peggy Wiltse, Debbie Anderson and myself on the spring range of the Rodeo Creek Allotment. This data was collected to determine the amount of spring use by cattle and wild horses. The area was covered in a four wheel drive pickup and by foot. The weather was hot and sunny with temperatures in the high 80's and low 90's. Six utilization classes were used: no apparent use (0%); slight (1-20%); light (21-40%); moderate (41-60%); heavy (61-80%); and severe (81-100%). 4010 acres of no apparent use, 1540 acres of slight, 13483 acres of light, and 2789 acres of heavy use were mapped. The key forage species with the highest utilization were used when coloring the map.

East Side of the Fox Range

Key forage transect #1 was at Trail Canyon. Use on Pose was 16.3% and on StthI 22%. Three cows were sighted in the area. We also stopped at Little Rattlesnake Canyon, Rattlesnake Canyon, Coyote Creek, Cottonwood Basin and some other unnamed drainages on the east side of the Fox Range. Key forage transects were not conducted in these areas since they were very similar to KFT #1. Grass cover was very sparse throughout the area (mostly under perennial shrubs), and all vegetation was showing the effect of the drought. Eight horses, five antelope, and 1 mule deer were seen in the vicinity of Cottonwood Creek.

West Side of the Fox Range

KFT #2 was at Smith Canyon. Key species were: Grsp (use 30%), Chvi (use 59%), and Epne (use 79%). Grasses were very scarce again. Arsp5 Was not used as a key species because it was dried up and use was difficult to determine. There was very little leaf development on Grsp this year. Four cows and one horse were seen at Smith Canyon and seven horses were seen near Lost Creek. The area from Wild Horse Canyon to Lost Creek was barren except for scattered

grass which was heavily utilized, and dried up Sial2. Artrw, Atco, and Crop were growing in the draws. This area looks like it has had very heavy use in previous years. Water sources in the area are about dried up. Lost creek and the adjacent canyon to the south had some water but it is just a trickle and won't last long. Wild Horse Canyon is now the only water source in this part of the spring range.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

- EPNEDRA present was heavily hedged
- STTH2 found where it was rocky or partially protected by shrubs
- saw several shrubs pruned at to get at grass in the shrubs cover

KFT #1

(1) District	(2) Date	(3) Observer	
WMCA	6-1-92	Wiltse + Redick	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S-G	Rodeo Creek	Stan Ceresola	Spring
(8) Vegetation Type: ARTEM, TETRA, STTH2, POSE,	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Trail Canyon - transect every 5 paces

This year's growth

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	(f) X (x)	STTH2 Key Species Frequency (f)	(f) X (x)	ORHY Key Species Frequency (f)	(f) X (x)	SIHY Key Species
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0		0			
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		50		50			
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30				30			
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50							
Severe (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shorts of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		210		140			
Severe (81-100%): The rangeland has a worn appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90							
TOTAL		16	260	10	220			
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		16.3%		22%				

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

- MPEP [illegible] key species [illegible] + dormant
- Note growth this year's [illegible] development

KFT #2

(1) District	(2) Date	(3) Observer	
Winn	6-2-92	Waters, Redick, Anderson	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S-G	Rodeo Creek	Stan Gerla	Spring Pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
SAVI/TEGL ATCO-ACHY-BOGR-PIPUS			
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Spring Canyon - SAVI & BOGR this year's growth

(14) Use Rating of Current Year's Growth	Mid-Point (x)	GFST Key Species Frequency (f)	GFST Key Species (f) X (x)	CHVI Key Species Frequency (f)	CHVI Key Species (f) X (x)	EPNE Key Species Frequency (f)	EPNE Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0		0		
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annualls and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		30				
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annualls of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		150		60		
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annualls of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		150		100		50
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annualls remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70				70		490
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annualls of key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90				360		180
TOTAL		11	330	10	590	10	720
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *			30%		59%		72%

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
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:

(NV-026.12)

Memorandum

To: Sonoma Gerlach Resource Area Manager, Bud Cribley

From: Peggy Wiltse, Range Conservationist

Subject: Use Pattern Mapping - Winter Pasture

Dale Owen and I conducted Use Pattern Mapping (UPM) and Frequency plots on May 4,5 and 6, 1992 in the winter pasture of the Rodeo Creek Allotment on 1991 forage production. UPM was conducted using six use classes: No Use (0%); Slight Use (1-20%); Light Use (21-40%); Moderate Use (41-60%); Heavy Use (61-80%); and Severe Use (81-100%). The species with the highest utilization level was used while coloring the map. It was unseasonably warm with temperatures in the upper 90's. The acres mapped by use class are as follows: no apparent use 0 acres (0%); slight use 9625 acres (12%); light use 7327 acres (10%); moderate use 25844 acres (33%); heavy use 33607 acres (44%); severe use 0 acres (0%); and barren 618 acres (1%).

An area of 1160.89 acres of barren land was identified around White Sage Well. Key Forage #1 was conducted at the Empire Frequency Plot. The use was heavy on Orhy and slight on Cela, Arsp, and Atco.

Key Forage #2 was conducted at Three Mile Canyon Frequency Plot. No utilization Cage was found on this site. Heavy use was found on Sihy and Orhy and slight use on Arsp. Slight use was noted on this years growth for Orhy and Sihy. A lot of young Atco and Arsp plants establishing. There was some Cela growing near the witness post.

Key Forage #3 was performed at Photo Trend Plot #1, White Sage Flat. The transect was performed between the two utilization cages present. Slight use was found on Cela.

Key Forage #4 was conducted at Trail Canyon Photo Trend Plot. Slight use was found on Arsp and Grsp. Only four Orhy plants were found within the transect. New Atco and Arsp plants establishing, but the older Atco plants appears to be dying. It was very dry this year and a big difference in production from last year was observed.

Key Forage #5 was performed at a utilization cage near Rattlesnake Canyon. Moderate use was found on Orhy and Cela and slight use on Arsp. Only one Sihy

plant was seen and it was heavily utilized.

Key Forage #6 was conducted on the flat 1.5 to 2 miles north of Cottonwood Canyon. Slight use was found on Arsp and Atco. The only Sihy seen was inside the utilization cage and near the road. Poa and Orhy were very sparse throughout the area. The Sihy showed no sign of growth this year and the Atco appeared to have some kind of disease. There were fresh horse tracks and stud piles in the area, but no cow sign was seen. A well used horse trail cut through the area heading toward the standing water on the playa.

Key Forage #8 had moderate use on Sihy and Cela. Orhy had light use and Arsp had slight used. The Arsp was already starting to dry up and it was hard to distinguish what was use and what had already dried up. The utilization cage was knocked over, so Dale and I put it back up covering Orhy, Cela, and Arsp.

Key Forage #9 was conducted at the utilization cage along the main road to San Emidio just as you start to go up the hill. The use was heavy on Orhy, light on Cela, and slight on Arsp. Only three Sihy plants were found on the transect. This cage is close to where Stan Ceresola, the permittee, hauls water to the cows. Light (35-40%) use was found on this years growth of Orhy.

Key Forage #10 was conducted at Three Mile Canyon. Light use was found on Sihy and moderate use on Cela. Only three plants of Orhy fell within the transect. The Ephedra was heavily hedged when present.

Key Forage #11 was on the Lake Range. Heavy use was found on the Stth2 and moderate use (60%) on Sihy. The Pose had already dried up and the Ephedra was heavily hedged when present.

Key Forage #12 was conducted in Manure Canyon. Heavy use was found on Stth2 and light use on Sihy. The Pose had already dried up. Use on this years growth of Sihy and Stth2 was slight (5%). Ephedra was heavily hedged. Selected plants on Grsp were heavily hedged, but other plants were not used at all.

The area between Manure Canyon and Three Mile Canyon is a mosaic of Grsp sites, Cela sites, and Artem sites as you move closer up into the canyons. The use on the Grsp and Cela sites was generally light use except for the few Orhy plants present which had heavy use on last years growth and slight use on this years growth. The use on the Artem sites was similar to the transect done in Manure Canyon.

Stan told me later that he had kept his cows in the southern part of the winter pasture until right before the cows were suppose to go onto the spring pasture. No horses were seen on the Lake Range while the mapping was being conducted.

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

In reply refer to:

NV026.12
4/13/92

Memorandum

To: Rodeo Creek Monitoring File

From: Peggy Wiltse, Range Conservationist

Subject: Use Pattern Mapping Summer Country

Use Pattern Mapping (UPM) was conducted April 6,7,8, and 9, 1992 by Dale Owen, Amanda McCutcheon, Leigh Redick, and myself in the summer country of the Rodeo Creek Allotment. Stan Ceresola, the permittee, accompanied us on Monday. Usually this area is monitored in November after the cows come off, but due to snow and time constraints it was not done at that time. Horse back was used since most of the area is inaccessible by vehicle. Six use classes were used: no use (0%); slight use (1-20%); light use (21-40%); moderate use (41-60%); heavy use (61-80%); and severe use (81-100%). The use on last years growth was what was monitored. The weather was sunny and breezy with temperatures in the upper 60's. Sihy was used as the key forage species when coloring the UPM. 22,717 of moderate use and 425 acres of heavy use was mapped.

Key forage transect #1 was at Bull Basin. The use on the Sihy was 58%. Two antelope and three horses were seen near the cage. Key forage transect #2 was at Coyote Creek. The use was as follows: Sihy-54% and Pose-58%. We saw 1 deer and 6/1 horses between cages 1 and 2. The third key forage transect was conducted at Juniper Flats. The area is a highway of horse trails and is close to Juniper Flat Springs. The use was as follows: Sihy-56% and Pose-68%. Transect #4 was in the Pole Canyon Allotment. The cage is on a saddle close to the allotment fence where you would expect the use to be heavy. I suggest putting another cage off the saddle because that may better reflect the use in the area. The use was as follows: Sihy-68%, Pose- 66%, Symph-40%, Chvi- had heavy use on scattered plants, moderate use was found on Feid plants found in the open, and the Amal plants present were heavily hedged. At key forage transect #5 the use was: Sihy-56%, Pose-62%, Symph-54%, and Chvi and Feid had heavy use when present. Both the Symph and Amal have been heavily hedged in past years. Four mule deer were seen on the ridge north of where the transect was done. No key forage transect was done in the Cottonwood and Smith Canyon areas, but the use there was moderate use on the grasses and heavy use on the shrubs. In Smith Canyon Grsp, Chvi, and Save4 were heavily hedged.
Use on this years growth appears to already be at 40%. Production this year is behind what it was a year ago however.

Peggy Sue Wiltse

~ 2 Antelope, 3 Horses } near cage

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

Photo # 4&5

(1) District	(2) Date	(3) Observer	
Winnemucca	4/6/92	Wiltse, Redick, McCutcheon, Owen, + Ceresola	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Nmbr or No.
56	Rodeo Creek	Stan Ceresola	Summer
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Cage 1 ARAR8, SINY, STTN2, POSE

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SINY Key Species Frequency (f)	SINY Key Species (f) X (x)	STTN2 Key Species Frequency (f)	STTN2 Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annuals and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		10				
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annuals of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		30				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annuals of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		50				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annuals remaining. Shoots of taller herbaceous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	II	490		70		280
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annuals of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90			only one hit, so not used	hit, so	not enough hits to use for method	
TOTAL		10	580				
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58%					

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.

6/4 horses between Cage #1 & 2
1 deer
Photo # 6-7

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
	4/16/92		
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
	Rodeo CK		
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Cage #2 ARTEM, Juniper, SIHY, POSE, Ribes, STTH2

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	STTH2 Key Species Frequency (f)	STTH2 Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear ragged or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	2	60	2	60		
Moderate (41-60%): The rangeland appears entirely grazed or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	4	200	2	100	1	50
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Sheets of thinestemmed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	4	280	6	420		
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browse.	90					not used because need to have @ least 10 hits.	
TOTAL		10	540	10	580		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		54%		58%			

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	(2) Date	(3) Observer	
Winnemucca	4/6/92	McCutcheon, Redick, Owen, Wiltse & Cerresola	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Cerresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Cag #3 Atem, SIHY, Juniper, BRTE, POSE, STTH2

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 10 to 20 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						
Moderate (41-60%): The rangeland appears entirely covered or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	1	50	7	350		
Severe (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Plants of thinopentous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	9	630	3	210		
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	680	10	560		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		6890		5690			

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.

use on this years growth appears to already be 40%

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

Chvi - heavy use @ stop 2
FEID - moderate use @ Stop 4
AMAL - heavily hedge @ Stop 10

last year's growth

(1) District	(2) Date	(3) Observer	
Winnemucca	4-9-92	Wiltse, Redick	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
5-6	Pole Canyon	John Torvick	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No. every 5 paces AMAL
KF #4 POA, SINY, RIBES, ARVA2, ARAR8, PENST, SYMPH, FEID, CRAC, DEIPH

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POA Key Species Frequency (f)	POA Key Species (f) X (x)	SINY Key Species Frequency (f)	SINY Key Species (f) X (x)	SYMPH Key Species Frequency (f)	SYMPH Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be tapped or slightly used. Current woodcutting and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10					1	10
Light (21-40%): The rangeland may be tapped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current woodcutting of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	1	30			4	120
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current woodcutting of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear pasture uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	1	50	1	50	4	200
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current woodcutting remaining. Shoots of thinnestemmed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	7	490	9	630	1	70
Severe (81-100%): The rangeland has a worn appearance and there are indications of repeated coverage. There is no evidence of reproduction of current woodcutting of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browse.	90	1	90				
TOTAL		10	660	10	680	10	400
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		66%		68%		40%	

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.

FEID- moderate use at stop 6

4MD on N ridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SYMPH & AMAL have been heavily hedged in previous years

Range Utilization
Key Forage Plant Method

Last year's growth

CHVI8 - heavy use

(1) District	(2) Date	(3) Observer	
WMCA	4/9/92	Wiltse, Redick	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
	Rodeo Crk		
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

KF #5 - Every 5 paces ARVA2, SIHY, POA, CHVI8 SYMPH, DELPH LUPINE, ALLIUM

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	POA Key Species Frequency (f)	POA Key Species (f) X (x)	SYMPH Key Species Frequency (f)	SYMPH Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be tapped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	1	10				
Light (21-30%): The rangeland may be tapped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			1	30	2	60
Moderate (41-60%): The rangeland appears entirely covered or uniformly on natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	4	200	2	100	4	200
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of thinnest-stem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	5	350	7	490	4	280
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	560	10	620	10	540
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		5690		6290		5490	

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.

4PM-WHOA

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 026.81)

November 10, 1992

Memorandum

To: Sonoma Gerlach Area Manager (R)

From: Amanda McCutcheon, WH & B Specialist Please signed date at end of memo. (R)

Subject: Use Pattern Mapping on the Fox and Lake HMA (NV 216)

On October 5, 6, and 19, 1992 and November 4, 1992, pre-livestock Use Pattern Mapping was conducted on the winter country in the Rodeo Creek Allotment. Mapping was done by traversing the area by vehicle and conducting 15 key forage transects (KFT). Key forage transects #1 through #6 were conducted on October 5th and 6th by Dale Owen and myself, KFT's #7 through #14 were conducted by Dale Owen on October 19th, and KFT #15 was conducted on November 4th by Peggy Wiltse and myself.

Six utilization classes were used: No Apparent Use; Slight Use 1-20%; Light Use 21-40%; Moderate Use 41-60%; Heavy Use 61-80%; and Severe Use 81-100%. There were 54,139 total acres mapped: 1754 acres of slight use, 34,865 acres of light use, 16,408 acres of moderate use, 49 acres of severe use, and 1063 acres of barren ground.

Owen and McCutcheon, October 5 & 6, 1992

KFT #1
Key forage transect #1 was located in the Lake Range, north of Wildcat Peak in Three Mile Canyon. The transect was conducted using EULA, SIHY, POA++, GRSP, and ARSP as key species. Actual use was determined to be 7% on EULA, 24% on SIHY, 18% on POA++, 16% on GRSP, and 3% on ARSP. Overall use for this area was considered to be light. (Photo)

KFT #2
The second transect was located south of White Sage Flat with SIHY, ORHY, ATCO, ARSP, and EULA being the key species. The results of the transect were 22% use on SIHY, 0% on ATCO, 12% on ARSP, and 10% on EULA. There was not enough ORHY in the area to conduct the transect, so it was omitted. Total use for the area was determined to be light. (Photo)

KFT #3
KFT #3 located at White Sage Flat and was conducted using EULA as the key specie. The use on EULA was 30% and overall use for the area was considered to be light. (Photo)

KFT #4
This transect was located on the flats, northeast of Trail Canyon. The key species used were EULA 36%, ATCO 0%, and ARSP 21%. Overall use for the area was light. (Photo)

KFT #5
Key forage transect #5 was located in the flats north of Cottonwood Creek with key species being ATCO, SIHY, and ARSP. Utilization on these species was 2% on ATCO and 25% on ARSP. SIHY was eliminated from the transect due to the scarcity of the plant. Total utilization in the area was light. (Photo)

KFT #6
Transect #6 was located in the flats on the northwest end of the Lake Range. The key species used to conduct this transect were SIHY, EULA, and ARSP. Utilization of SIHY was 60%, with 48% use on EULA, and 6% use on ARSP. Overall use in the area was moderate. (Photo)

Owen, October 19, 1992

KFT #7
This transect was located on the east side of the Lake Range, south of Schell Spring. Key species utilization was 56% on SIHY, 38% on ORHY, and 7% on ATCO. Overall use in this area was determined to be moderate.

KFT #8
Key forage transect #8 was located south of Manure Canyon. Key species used to conduct the transect were SIHY with 54% utilization, ATCO at 7%, and ORHY with 22% use. Total utilization was considered moderate.

KFT #9
KFT #9 was located north of Boiling Springs and was conducted using SIHY, ORHY, and ATCO as the key species. Actual use appeared to be 58% on SIHY, 16% on ORHY, and 7% on ATCO. Use for this area was determined to be moderate.

KFT #10
Transect #10 was located east of Wildcat Peak in Threemile Canyon with SIHY, ORHY, and ATCO as the key species used to conduct the transect. Utilization appeared to be 58% on SIHY, 14% on ORHY, and 7% on ATCO. Overall use in the area was moderate.

KFT #11
The location of key forage transect #11 was north of Threemile Canyon on the east side of the Lake Range. The key species used to conduct this transect were SIHY with 56% use, ORHY at 5%, and ATCO with 6% utilization. Total use in the area was considered moderate.

KFT #12
Key forage transect #12 was located south of the powerline on the east side of the Lake Range and was conducted using SIHY, ARSP, and ATCO as the key species. Use ranged from 58% on the SIHY, to 4% on the ARSP, and 3% on ATCO. Overall utilization in this area was moderate.

KFT #13
This transect was located north of the powerline on the east side of the Lake Range and was conducted using SIHY, ORHY, and ATCO as the key species. Utilization on these species was 58% on SIHY, 18% on ORHY, and 8% on ATCO. Total use in the area was moderate.

KFT #14
The transect was located at T.29N, R.23E, S.1 and was conducted using SIHY, ORHY, and ATCO as the key species. Actual use was 42% on the SIHY, 36% on ORHY, and 14% on ATCO. Overall utilization in the area was moderate.

Wiltse and McCutcheon, November 4, 1992

KFT #15
The last transect was located on the northern end of the Lake Range, north of the powerline, and was conducted using SIHY and GRSP. Actual use on SIHY was 32%, there was not enough GRSP found in the area to complete the transect.

The mapped, barren area on the northern end of the Lake Range has a high concentration of animals due to the presence of water troughs that are the only available water source on the Lake Range.

Due to the lack of precipitation, plant and leader growth were reduced considerably this year. This lack of plant production leaves little available forage on the range, even though most utilization was considered to be slight to moderate.

There were signs of both horses and cows in the areas mapped.

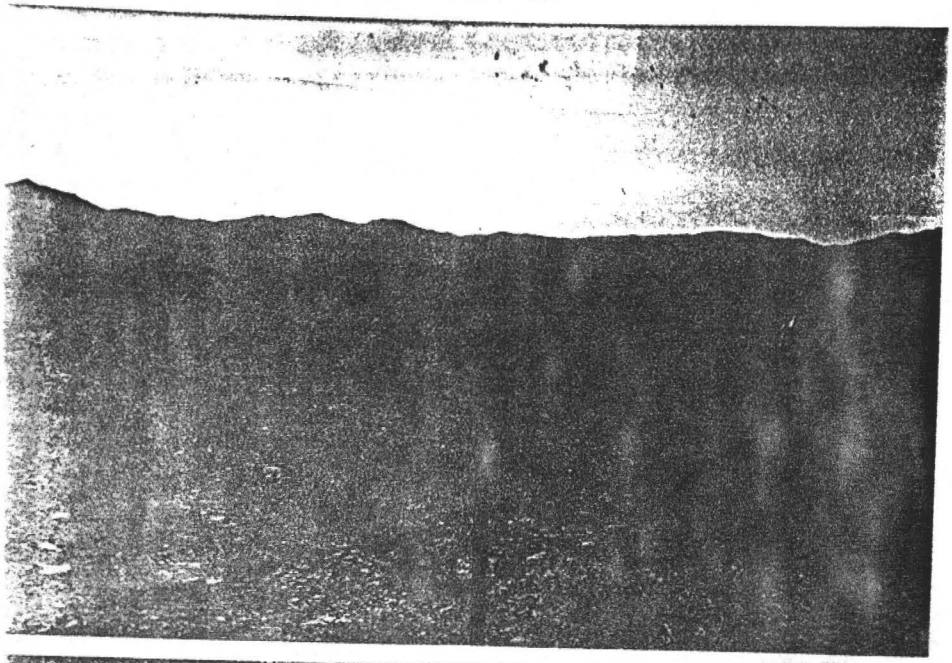
Amanda McCutcheon
11/10/92

KEY FORAGE TRANSECT #1

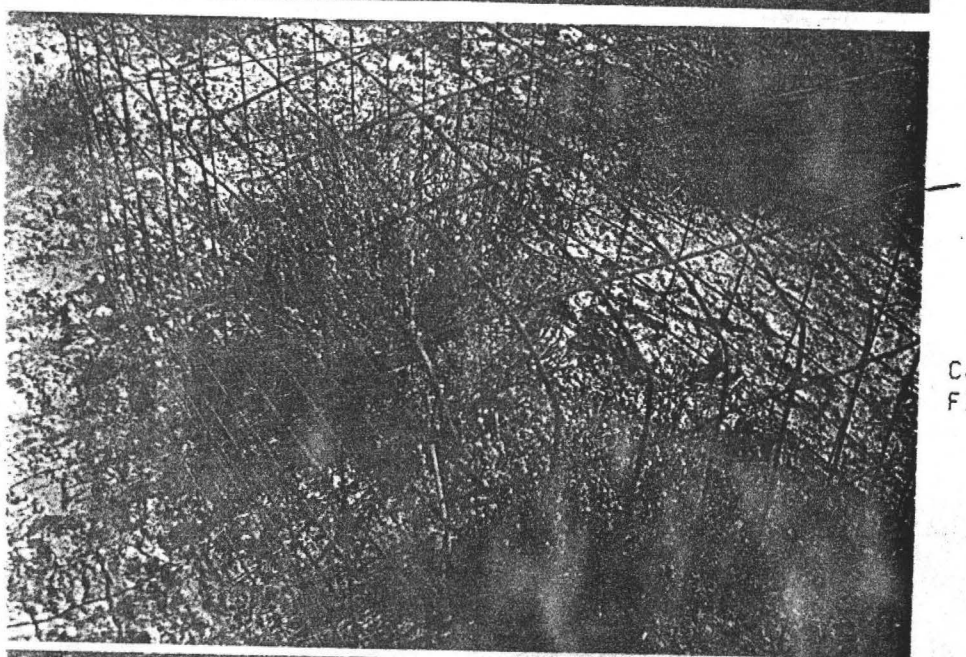
Looking south at cage from witness post in Threemile Canyon.

Threemile Canyon Cage.

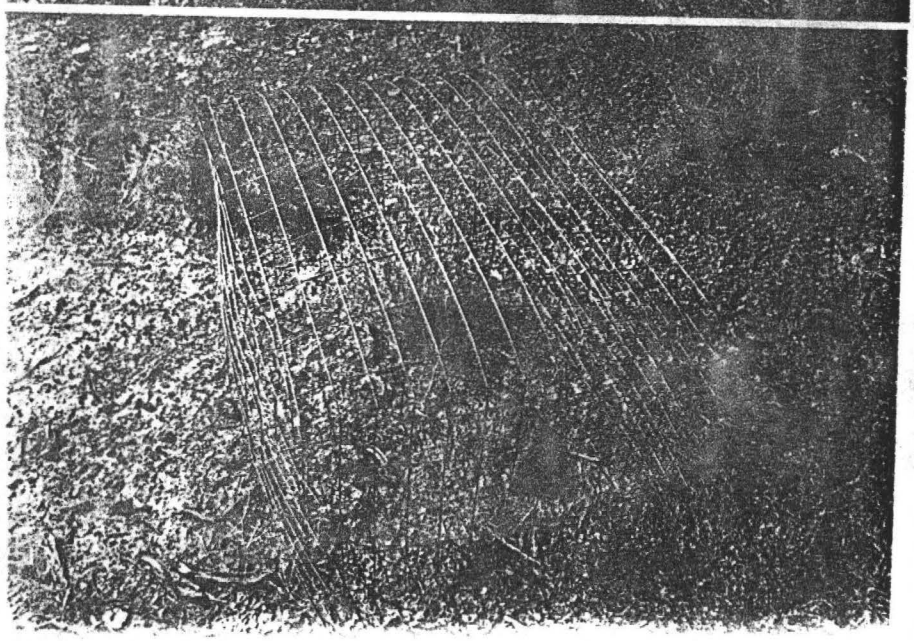
KEY FORAGE TRANSECT #2



Witness Post at cage south of White Sage Flat.

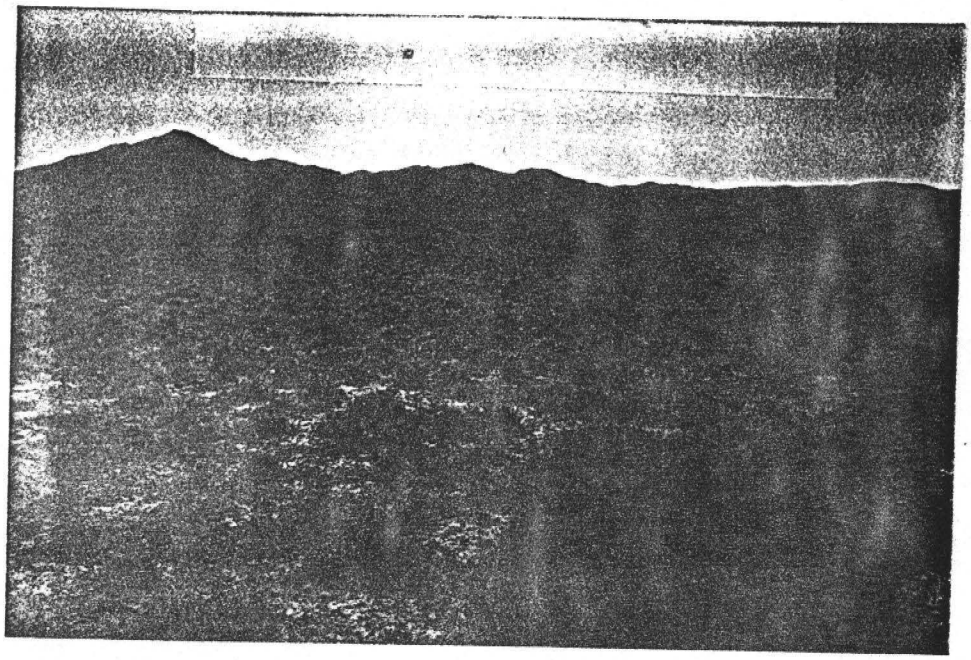


Cage #1 south of White Sage Flat.

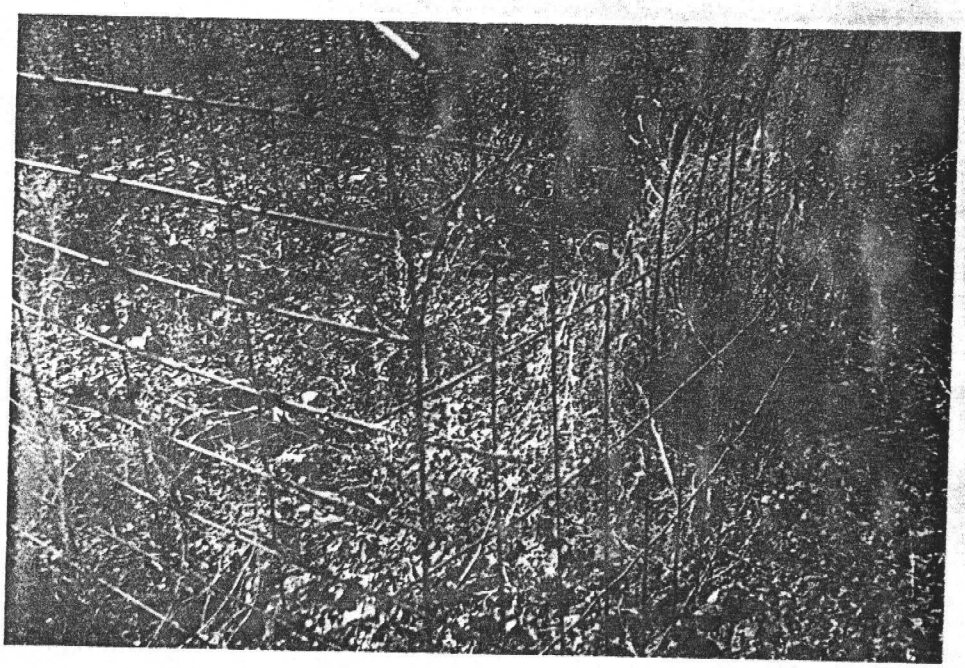


Cage #2 south of White Sage Flat.

KEY FORAGE TRANSECT #3

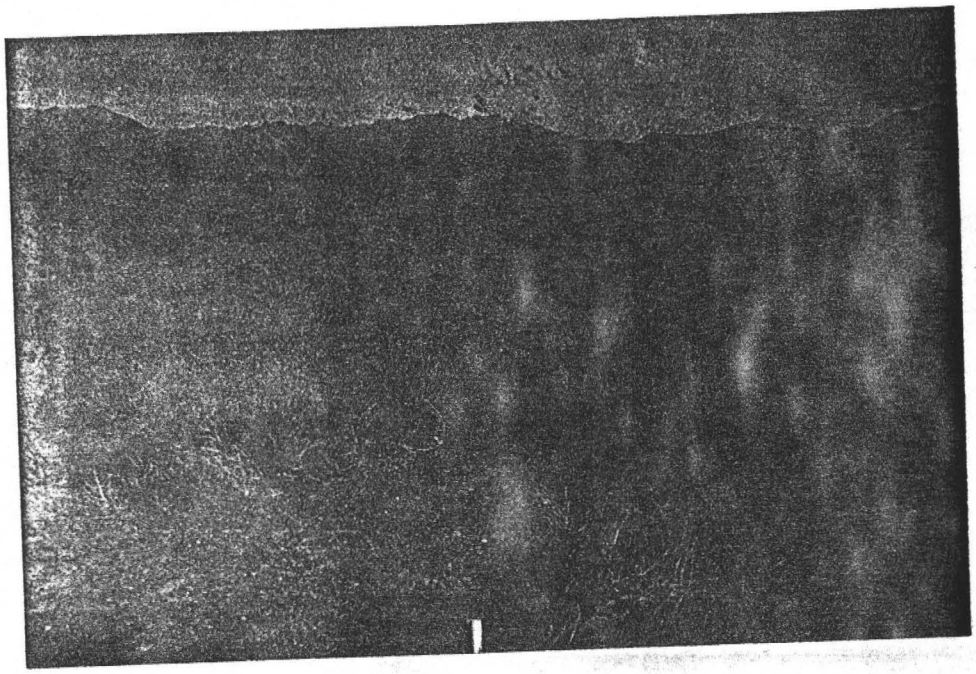


Looking at cage from witness post at White Sage Flat.

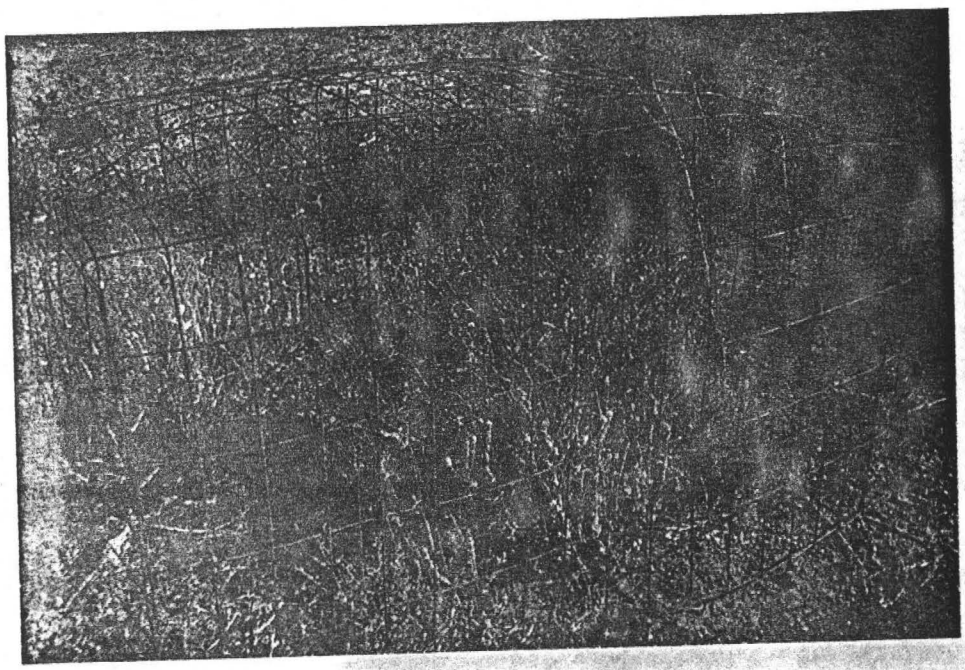


Cage at White Sage Flat.

KEY FORAGE TRANSECT #4

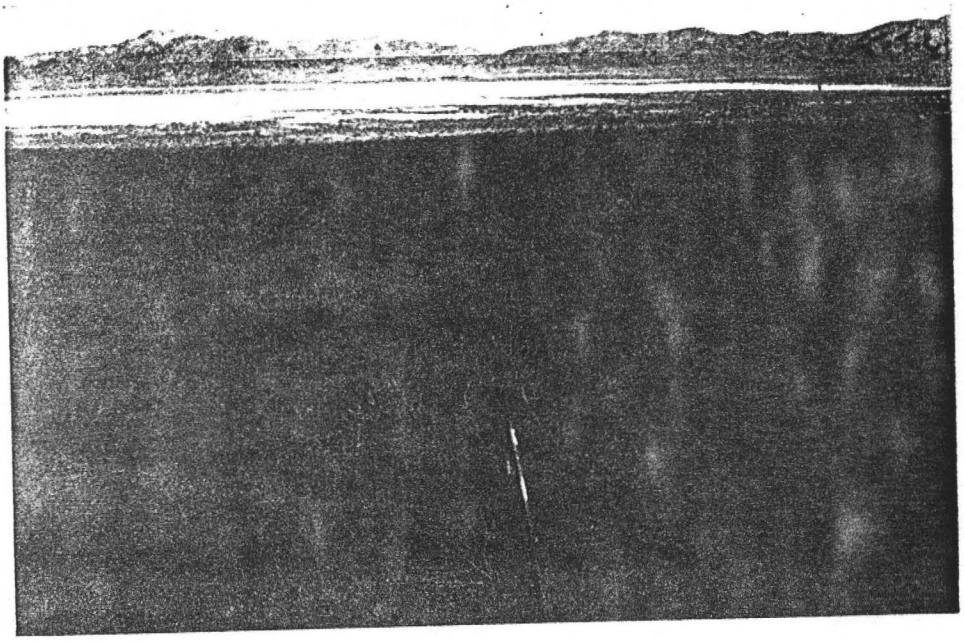


Looking at cage, below Rattlesnake, from witness post.

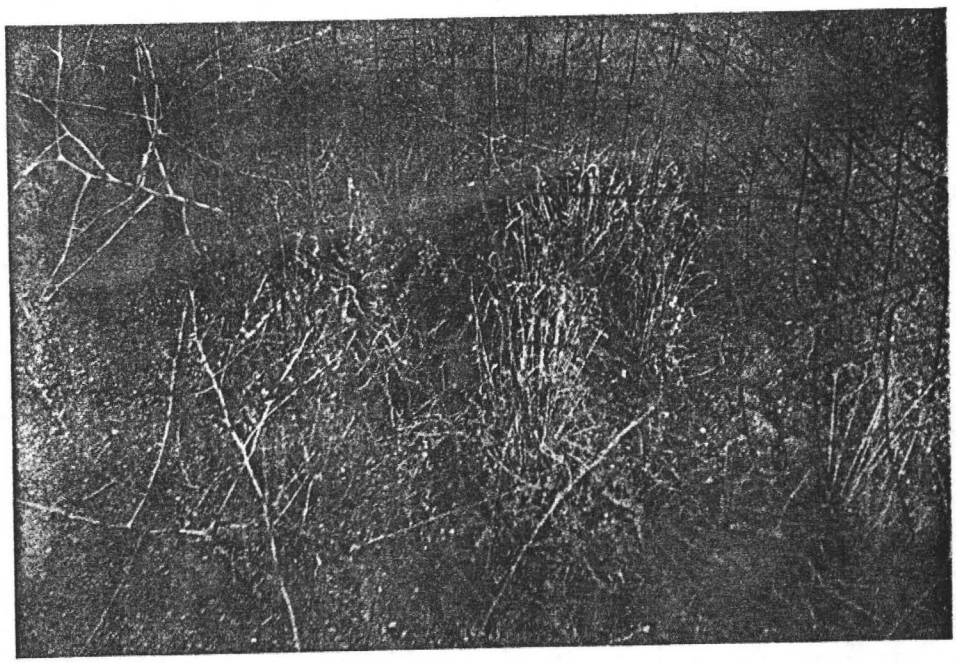


Cage below Rattlesnake.

KEY FORAGE TRANSECT #5

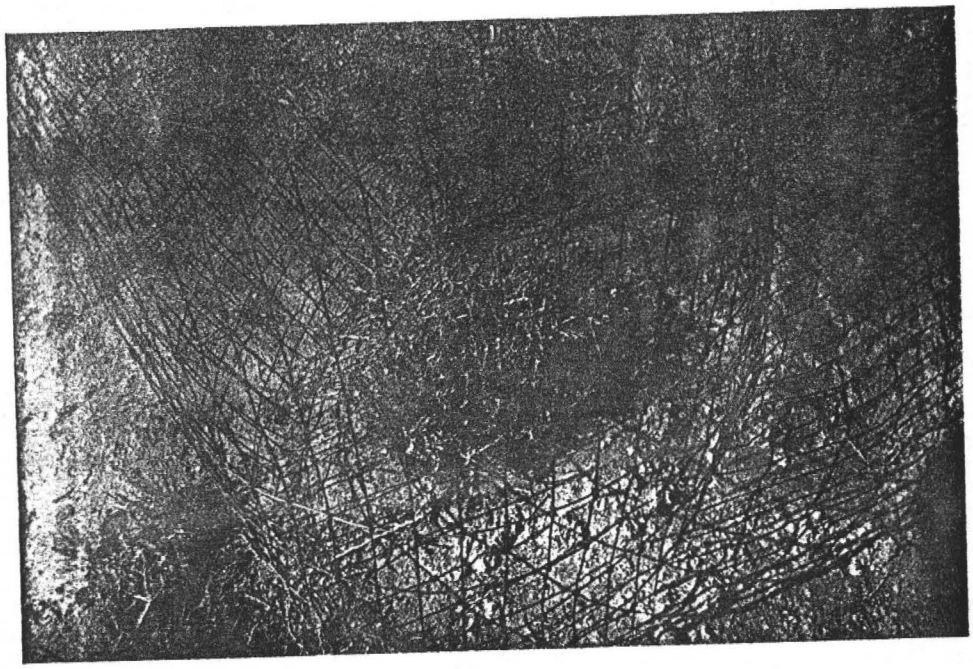


Looking at cage, north of Cottonwood, from witness post.



Cage north of Cottonwood.

KEY FORAGE TRANSECT #6



Cage north west of Lake Range below powerline.

Pict #67

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	10/5/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horses, Cows (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
SIHY, OPHY, ARSP, GRSP EPHED, TEGL, POA#, EULA, ARAR8

(7 Paces)

(14) Use Rating of Current Year's Growth	Mid-Point (x)	EULA Key Species Frequency (f)		SIHY Key Species (f)	X (x)	POA++ Key Species Frequency (f)		GRSP Key Species (f)	X (x)	ARSP Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.		1	0	0	0	0	0	0	0	1	0
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	2	20	4	40	2	20	4	40	3	30
Light (21-40%): The rangeland may be topped, skimmed, or grazed as patches. The low value herbaceous plants are unutilized and 00 to 20 percent of the number of current perennials of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			6	60	3	90	4	120		
Moderate (41-60%): The rangeland appears entirely grazed as uniformly as natural features and facilities will allow. Plants to 21 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		50		50						
Heavy (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current perennials remaining. Stands of undesirable grasses are thriving. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant shapes may be slightly broken. Nearly all available leaders are used and the terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70					1	70				
Severe (81-100%): The rangeland has a close appearance and there are indications of removal overgrazing. There is no evidence of reproduction of current perennials of low herbaceous species. Low herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 1st year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90				90						
TOTAL		10	70	10	240	10	180	10	160	10	30
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		7%		24%		18%		16%		3%	

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.

#8 1st
#10 2nd

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	10/5/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S.G	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horses, Cows (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
CHVI, ARSP, EULA, SIHY, ORHY, POSE, ATCO, GRSP

7 Paces

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY ORHY Key Species Frequency (f)	(f) X (x)	ATCO ARSP Key Species Frequency (f)	(f) X (x)	Eula Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.		∅		∅	0		∅
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current year's vigor and growth of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	10			30		20
Slight (21-40%): The rangeland may be topped, clipped, or grazed as patches. The low value herbaceous plants are utilized and 20 to 40 percent of the number of current year's available of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available browse appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	90			90		30
Moderate (41-60%): The rangeland appears entirely grazed or evidently by natural features and available will show. Plants to 21 percent of the number of current year's available of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear rather evidently utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	50					50
Severe (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost overgrazed utilized each less than 10 percent of the current year's available remaining. Plants of undesirable grasses are thriving. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	70					
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated overuse. There is no evidence of reproduction of current year's vigor of key herbaceous species. Key herbaceous forage species are excessively utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently prone	90						
TOTAL		10 220		10 ∅	10 120	10	100
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		22%	∅	∅	12%	10%	

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.

CF-T #3
#11,12

BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/5/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S.G	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horses, Cows (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
EULA, ATCO, ARSP (White Sage Flat)

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Key Species (EULA) Frequency (f)	(f) X (x)	Key Species Frequency (f)	(f) X (x)	Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current twigstalk and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	∞	10				
Moderate (21-40%): The rangeland may be topped, clipped, or grazed as patches. The key value herbaceous plants are unbrowsed and 05 to 20 percent of the number of current twigstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	□	240				
Heavy (41-60%): The rangeland appears entirely grazed or unlikely to natural features and inaccessible will also. Fifteen to 25 percent of the number of current twigstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	•	50				
Severe (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current twigstalks remaining. Shoots of unpalatable grasses are mowing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heavily and some plant shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a close appearance and there are indications of removal coverage. There is no evidence of reproduction of current twigstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken	90						
TOTAL		10	300				
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		30%					

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.

NV 4400-12 (January 1982)

KFT #4
#1,2,3

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	10/5/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horses, Cows (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
EULA, ORH4, ATCO, ARSP, SAKA

(14) Use Rating of Current Year's Growth	Mid-Point (x)	EULA Key Species Frequency (f)	EULA Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)	ARSP Key Species Frequency (f)	ARSP Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							0
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current year's shrub and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		10				40
Moderate (21-40%): The rangeland may be topped, pruned, or grazed in patches. The key value herbaceous plants are vigorous and 60 to 80 percent of the number of current year's shrub of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available browse appear grazed or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		210				120
Heavy (41-60%): The rangeland appears entirely grazed or uniformly as natural features and facilities will allow. Perhaps as 25 percent of the total no. of current year's shrub of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear grazed uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						50
Severe (61-80%): The rangeland has the appearance of trampled pasture. Key herbaceous species are closely uniformly utilized such less than 10 percent of the current year's shrub remaining. Shoots of tall perennial grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heavily and some plant shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		140				
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated overuse. There is no evidence of reproduction of current year's shrub of key herbaceous species. Low herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	360	0		10	210
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		36%		0		21%	

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.

KFT #5

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	10/5/92	McCutchaon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S.G	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horse, Cow (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
ATCO, SIHY, ARSP

(14) Use Rating of Current Year's Growth	Mid-Point (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ARSP Key Species Frequency (f)	ARSP Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.			Ø				
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be trapped or slightly used. Current year's stalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		20				10
Light-Moderate (21-30%): The rangeland may be trapped, pastured, or grazed at random. The key value herbaceous plants are ungrazed and 60 to 80 percent of the number of current year's stalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						240
Moderate (41-50%): The rangeland appears pastured, browsed or uniformly grazed and available leaders will allow. Fifteen to 25 percent of the number of current year's stalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete overuse. Key herbaceous species are almost excessively utilized with less than 10 percent of the current year's stalks remaining. Stems of herbaceous grasses are tattered. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heavily cut some plant shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a bare appearance and there are indications of removal overuse. There is no evidence of reproduction of current year's stalks of key herbaceous species. Key herbaceous forage species are excessively utilized. The remaining stubble of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90						
TOTAL		10	20			10	250
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		2%				25%	

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.

RF #6

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	10/6/92	McCutchan, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Horses, Cows (Current Years Growth)	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.
EULA, SAKA, TEGL, ATCO, SIHY, CHVI, ARSP, HAGL

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	EULA Key Species Frequency (f)	EULA Key Species (f) X (x)	ARSP Key Species Frequency (f)	ARSP Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							Ø
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current year's stalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		10				30
Slight (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are unutilized and 05 to 20 percent of the number of current year's stalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30				30		30
Moderate (41-60%): The rangeland appears entirely grazed or unevenly as natural features and facilities will allow. Fifteen to 25 percent of the number of current year's stalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		100		100		
Severe (61-80%): The rangeland has the appearance of complete overuse. Key herbaceous species are almost uniformly utilized with less than 10 percent of the current year's stalks remaining. Stands of this herbaceous grasses are thinning. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are badly used and some plant shapes may be slightly broken. Nearly all available leaders are used and the terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		490		350		
Severe (81-100%): The rangeland has a bare appearance and there are indications of repeated overuse. There is no evidence of reproduction of current year's stalks of key herbaceous species. Key herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90						
TOTAL		10	600	10	480	10	60
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		60%		48%		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.

KFT #7

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/19/92	D. Olsen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma/Gerlach	Rodeo Cek.	Stan Cressale	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Both Cow & Horse on area, Yearlings	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

T27N R28E Sec 15

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ORNY Key Species Frequency (f)	ORNY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annuals and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10					7	70
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 10 to 20 percent of the number of current annuals of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little to no use of low value plants. There is obvious evidence of insect use. The available leaders appear clipped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			1	180		
Moderate (41-60%): The rangeland appears entirely covered or uniformly so natural features and facilities will allow. Fifteen to 25 percent of the number of current annuals of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear mature uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	1	350	4	200		
Severe (61-80%): The rangeland has the appearance of complete growth. Key herbaceous species are almost completely utilized with less than 10 percent of the current annuals remaining. Insects of inconspicuous grasses are thriving. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant classes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	3	210				
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annuals of key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 1st year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	560	10	380	10	70
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		56		38		7	

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.

KFT #8

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer
Winnemucca	10/19/92	D. Duerr

(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma Gerlach	Rodeo Crk.	Stan Ceresola	Winter pasture

(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)
		Cow + Calf Horses

(11) Use Period	(12) Grazing Management System

(13) Transect Location/Key Area No.

T28N R23E Sec 34

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Slight (1-20%): The rangeland has the appearance of very slight grazing. The key herbaceous forage plants may be topped or slightly used. Current annualsand young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			7	70	4	40
Light (21-40%): The rangeland may be topped, clipped, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annualsand of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear clipped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30					7	180
Moderate (41-60%): The rangeland appears entirely covered by uniformly or natural features and facilities will allow. Fifteen to 25 percent of the number of current annualsand of key herbaceous species remain intact. No more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear intact uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	2	400				
Severe (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annualsand remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant classes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		140				
Severe (81-100%): The rangeland has a stark appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annualsand of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	540	10	70	10	220
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		54		7		22	

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.

NV 4400-12 (January 1982)

KFT #9

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/19/92	D. Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma/Gerlach	Rodeo Crk	Stan Ceresola	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		5 Cows w/ calves + Horse tracks	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
T28N R23E Sec 22

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals							
Slight (1-20%): The rangeland has the appearance of very slight grazing. The key herbaceous forage plants may be topped or slightly used. Current annualsis and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			[ ]	70	[ ]	70
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The key value herbaceous plants are scattered and 10 to 30 percent of the number of current annualsis of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is scattered evidence of insect use. The available leaders appear clipped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30				90		
Moderate (41-60%): The rangeland appears entirely covered by uniformly or natural features and facilities will allow. Fifteen to 25 percent of the number of current annualsis of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	.7	300				
Severe (61-80%): The rangeland has the appearance of complete service. Key herbaceous species are placed completely utilized with less than 10 percent of the current annualsis remaining. Plants of this removed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly browsed. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		280				
Severe (81-100%): The rangeland has a weak appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annualsis of key herbaceous species. Key herbaceous forage species are completely utilized. The remaining stumps of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some and often much, of the 2nd and 1st year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browsed.	90						
TOTAL		10	580	10	160	10	70
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58		16		7	

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.

NV 4400-12 (January 1982)

KFT #10

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/19/92	M. Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Somera/Gerlach	Rodeo Ck	Stan Peressola	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cow Sign in area	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
T28N R23E Sec 3

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Light (1-20%): The rangeland has the appearance of very slight grazing. The key herbaceous forage plants may be topped or slightly used. Current annual growth and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			0	80	1	70
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 10 to 20 percent of the number of current annual growth of key herbaceous forage plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of insect use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30				60		
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annual growth of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	7	300				
Severe (61-80%): The rangeland has the appearance of complete overuse. Key herbaceous species are almost completely utilized with less than 10 percent of the current annual growth remaining. Shoots of this current growth are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant classes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	4	280				
Severe (81-100%): The rangeland has a severe appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annual growth of key herbaceous species. Key herbaceous forage species are completely utilized. The remaining stands of preferred grasses are grazed to the soil surface. There is no evidence of terminal buds and 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browsed.	90						
TOTAL		10	580	10	140	10	70
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58		14		7	

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.

KFT #11

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/20/92	D Olsen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma Gerlach	Kopper Ck	Stan Ceresola	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cattle & Horses Season of Use 12/20	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

T 29N R 23 Sec 34

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annualgrowth and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10				50		60
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 10 to 30 percent of the number of current annualgrowth of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is scattered evidence of insect use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						
Moderate (41-60%): The rangeland appears entirely covered or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current annualgrowth of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	7	350				
Severe (61-80%): The rangeland has the appearance of complete overuse. Key herbaceous species are almost completely utilized with less than 10 percent of the current annualgrowth remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant classes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		210				
Severe (81-100%): The rangeland has a moss appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annualgrowth of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	560	10	50	10	60
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		56		5		6	

REMARKS (Use back of sheet)

* Where f = the frequency or number of observations within each class interval (f column),

KFT #12

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	06/10/92	R. Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma Gerlach	Rabbit Hole	Stan Ceresola	winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cow & Horse tracks in area	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
T29N R23E Sec. 26

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ARSI Key Species Frequency (f)	ARSI Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.				0	0	0	0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			4	40	3	30
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear grazed or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	1	30				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	4	200				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shorts of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	7	350				
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	580	10	40	10	30
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58		4		3	

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.

KFT #13

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/20/92	D. Olsen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma-Gerlach	Rosecrk	Stan Cresola	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cow & Horse trucks, Zantelopes	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
T29N R23E Sec23

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SFHY Key Species Frequency (f)	SFHY Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)	ARTR Key Species Frequency (f)	ARTR Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.					0		0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10				30		80
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		30		150		
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		200				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of thinnestemmed grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70		350				
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	580	10	180	10	80
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		58		18		8	

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.

NV 4400-12 (January 1982)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	10/20/92	D. Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
Sonoma/Gerlach	Lodeoak	Stan Penisdale	Winter pasture
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cow + Horses in Allo. 5 Cow, 5 Horses	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

T29N R23E Sec 1

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHY Key Species Frequency (f)	SIHY Key Species (f) X (x)	ORHY Key Species Frequency (f)	ORHY Key Species (f) X (x)	ATCO Key Species Frequency (f)	ATCO Key Species (f) X (x)
None (0%): The rangeland shows no evidence of use by grazing animals.					0		
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants have been topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants have been little disturbed.	10				40		50
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are unused and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		120		120		90
Moderate (41-60%): The rangeland appears entirely grazed or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50		300				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Sheets of thinnecious grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	420	10	360	10	140
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		42 -		36		14	

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.

#15

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	11/4/92	McCutcheon, Wittal	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
S.G.	Rodeo Creek	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
		Cows, Horses	
(11) Use Period	(12) Grazing Management System		
Winter			

(13) Transect Location/Key Area No.

SITH2, FEID, ATCO, ARSP, GRSP, SITH4

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SITH4 Key Species Frequency (f)	SITH4 Key Species (f) X (x)	GRSP Key Species Frequency (f)	GRSP Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalk and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	4	50				
Light (21-40%): The rangeland may be topped, skimmed, or grazed as patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	1	30	∞			
Moderate (41-60%): The rangeland appears entirely covered and uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	1	100				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of this herbaceous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	2	140				
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browse.	90						
TOTAL		10	320				
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		32 %					

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
Winnemucca District Office
705 East Fourth Street
Winnemucca, Nevada 89445

In reply refer to:

4700 (NV 26.81)

June 5, 1992

Memorandum

To: Sonoma-Gerlach Area Manager

From: Amanda McCutcheon, Range Conservationist

Subject: Use Pattern Mapping on the Fox-Lake Range HMA (NV-228)

On June 2 and 4, 1992, Pre-livestock Use Pattern Mapping was conducted on the Rodeo Creek allotment in the Fox Range. Mapping was done by traversing the area on horseback and conducting five key forage transects (KFT's). On June 2, Stan Ceresola joined Dale Owen and I to do KFT #1 and #2. Dale and I rode the rest of the area on June 4 and completed KFT #3 through #5.

Six utilization classes were used: No Apparent Use; Slight Use 1-20%; Light Use 21-40%; Moderate Use 41-60%; Heavy Use 61-80%; and Severe Use 81-100%. There were 5321 total acres mapped: 1089 acres of moderate use and 4232 acres of heavy use.

KFT #1

Key forage transect #1 was located west of Rodeo Creek and was conducted using Pose and Chvi as key species. Actual use appeared to be 60% on Pose and 3% on Chvi. Use for this area was determined to be moderate. No horses or cows were observed within the area. Water in this area is scarce, which might account for lighter use of this area than in the other mapped areas.

KFT #2

The second transect was located north of Pah-Rum Peak with Pose and Sihy being used as the key species. There was not enough Sihy found in the area to do the transect, so it was eliminated. The use on Pose appeared to be 62%. Lupine and Chvi were also utilized fairly heavily in this region. Overall use of the vegetation was heavy.

This area was criss-crossed with trails, showing it as a high use area. Horses, cows, and antelope were all observed in this area.

KFT #3

KFT #3 was located at Bull Basin. Pose and Sihy were used to conduct the transect. Utilization for Pose was 68% and was 64% for Sihy. Overall use of the area was determined to be heavy. There were no cattle observed within this area, but there were a few horses and antelope.

KFT #4

This transect was conducted just north of Bull Basin Spring. The key species were Pose and Sihy. Use in this area appeared to be moderate with 60% use on Pose and 41% on Sihy. Again, there were no cattle observed in this area, just antelope and horses.

KFT #5

The last transect was done at Juniper Flat, with Pose and Sihy being the key species. Use in this general area was 64% on Pose and 50% Sihy. Overall use appeared to be heavy. No cows were seen, but several horses and antelope were observed.

Use of the area was determined to be moderate to heavy. Many factors may be contributing to this high use. The major one being lack of precipitation for both plant growth and animal use. Most of the grasses are only two inches high and have seeded out and matured.

The cows have already gone to the higher grounds, due to these conditions, while the horses and antelope were scattered throughout the area.

KFT #1

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Winnemucca	6/2/92	McCutcheon, Owen, Ceresola	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period (Summer) Pre-livestock	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Artr, Chvi, Brte, Pose, Lupina (7paces)

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Chvi Key Species Frequency (f)	Chvi Key Species (f) X (x)	POSE Key Species Frequency (f)	POSE Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.		□					
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current unpalatable and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed at random. The low value herbaceous plants are ungrazed and 20 to 25 percent of the number of current unpalatable of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	•	30				
Moderate (41-60%): The rangeland appears entirely harvested on uniformity of natural features and facilities will allow. Fifteen to 25 percent of the number of current unpalatable of key herbaceous species remain intact. In more than 10 percent of the number of low value herbaceous forage plants are utilized. Browse plants appear rather uniformly utilized and 41 to 60 percent of the available leader growth of key browse plants has been removed.	50			⋮	250	250	
Heavy (61-80%): The rangeland has the appearance of complete overuse. Key herbaceous species are almost completely utilized with less than 10 percent of the current unpalatable remaining. Stands of this grasses are thinning. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70			⋮	350	350	
Severe (81-100%): The rangeland has a close appearance and there are indications of repeated overuse. There is no evidence of reproduction of current unpalatable of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90						
TOTAL		10	30	10	600	600	
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		3%		60%			

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.

KFT2
pic 3.4

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
Wmca	6/2/92	McCutcheon, Owen, Ceresola	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk	Stan Ceresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		
Pre-livestock summer			

(13) Transect Location/Key Area No.
Sihy, Posa, Artr, Chryso (7 paces) Lupine, Ribes, Delphin

Current (14) Use Rating of Current Year's Growth	Mid-Point (x)	Sihy Key Species Frequency (f)	Sihy Key Species (f) X (x)	Posa Key Species Frequency (f)	Posa Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.		•		•			
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	•					
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are improved and 60 to 80 percent of the number of current perennials of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	•					
Moderate (41-60%): The rangeland appears entirely grazed or uniformly or natural features and facilities will also. Fifteen to 25 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	• •		• •	200		
Severe (61-80%): The rangeland has the appearance of overuse. Key herbaceous species are almost excessively utilized with less than 10 percent of the current perennials remaining. Shoots of unpreferred grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant changes may be slightly brown. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	•		[illegible]	420		
Severe (81-100%): The rangeland has a close appearance and there are indications of removal coverage. There is no evidence of reproduction of current perennials of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90	most sihy was considered inaccessible					
TOTAL				10	620		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *				62%			

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

KFT #4

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	6/4/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk	Stan Peresola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		
Pre-livestock Summer	7 pacos		

(13) Transect Location/Key Area No.
Posa, sihy Lupin, Low sage, juniper Brte, Chvi, Colencia

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Posa Key Species Frequency (f)	Posa Key Species (f) X (x)	Sihy Key Species Frequency (f)	Sihy Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.				•	0		
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10			•	10		
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current perennials of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			• •	60		
Moderate (41-60%): The rangeland appears entirely grazed or uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	— •	250	• • • •	200		
Heavy (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current perennials remaining. Shoots of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant shapes may be slightly broken. Nearly all available leaders are used and the terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	— • •	350	• •	140		
Severe (81-100%): The rangeland has a bare appearance and there are indications of repeated coverage. There is no evidence of reproduction of current perennials of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90						
TOTAL		10	600	10	410		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		60%		41%			

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

KFT #3

Range Utilization
Key Forage Plant Method

(1) District	(2) Date	(3) Observer	
WMCA	6/4/92	McCutcheon, Owen	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek	Stan Cerasola	
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		
Pre-livestock-Summer	(7 paces)		

(13) Transect Location/Key Area No.
Artr Chv, Posa, Sihy, Danthonia?, Brte

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POSE Key Species Frequency (f)	(f) X (x)	SIHY Key Species Frequency (f)	(f) X (x)	Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.							
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current perennials and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current perennials of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear ragged or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30						
Moderate (41-60%): The rangeland appears entirely covered as unlikely as natural features and inaccessible will allow. Fifteen to 25 percent of the number of current perennials of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	• •	100	• • •	150		
Severe (61-80%): The rangeland has the appearance of complete control. Key herbaceous species are almost completely utilized with less than 10 percent of the current perennials remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are heavily and some plant shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	[ ]	490	[ ]	490		
Severe (81-100%): The rangeland has a stark appearance and there are indications of repeated coverage. There is no evidence of reproduction of current perennials of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken	90	•	90				
TOTAL		10	680	10	640		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		68%		64%			

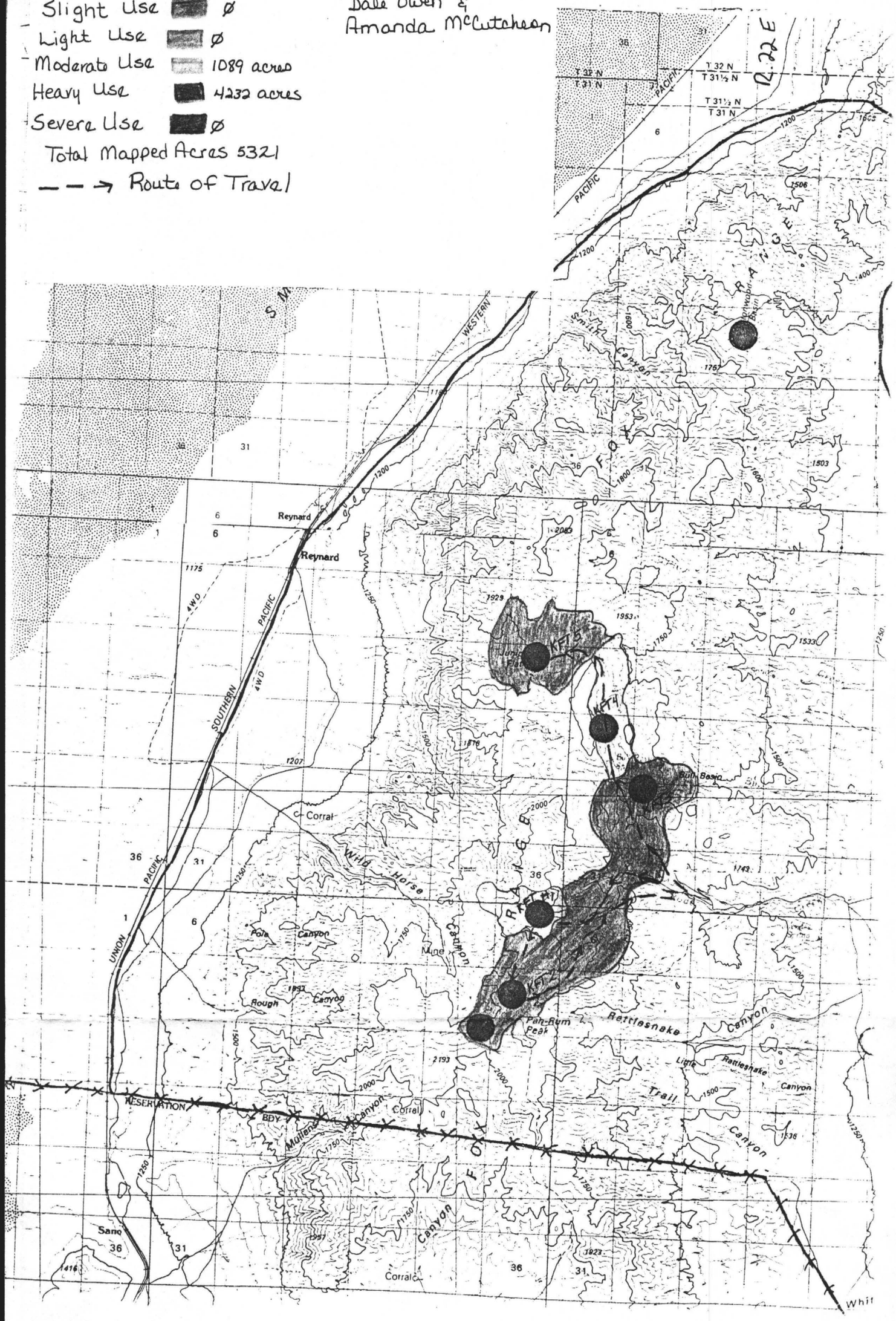
REMARKS (Use back of sheet)

* 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.

Rodeo Creek

June 2 & 4, 1992
Dale Owen &
Amanda McCutcheon

Slight Use ø
Light Use ø
Moderate Use 1089 acres
Heavy Use 4232 acres
Severe Use ø
Total Mapped Acres 5321
→ Route of Travel



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-026.82)

May 1, 1992

Memorandum

To: Sonoma-Gerlach Area Manager

From: Leigh Redick, Range Technician

Subject: Use Pattern Mapping the Fox and Lake Range HMA

From April 20-23, 1992 Amanda McCutcheon and I collected Use Pattern Mapping data for the spring range of Rodeo Creek and Pole Canyon Allotments in the Fox Range. The purpose for collecting this data was to determine the amount of wild horse use on current year's growth prior to livestock use. Six utilization classes were used to map the area: 1 - no apparent use, 2 - slight use (1-20%), 3 - light use (21-40%), 4 - moderate use (41-60%), 5 - heavy use (61-80%), and 6 - severe use (80-100%). The attached map and Key Forge Utilization forms show the utilization levels found. The weather was unseasonably warm with temperatures in the high 60's to 70's and a strong wind blowing most of the week. The Key Forage Species showing the highest utilization was used in coloring the UPM. 4710 acres of no apparent use, 10767 acres of slight use, 1962 acres of light use, 2656 acres of moderate use and 304 acres of heavy use were mapped in the Rodeo Creek Allotment. In the Pole Canyon Allotment 4860 acres of no apparent use, 4131 acres of slight use, and 1462 acres of light use were mapped.

Rodeo Creek Allotment

Key Forage Transect #1 was done about one mile north of Bull Creek on Grsp - 1%, Stco - 3%, and Arsp5 - 2%. The only Sihy and Pose that could be found were those protected by shrub cover. KFT#2 at Willow Creek showed Pose with 3% use and Sihy with 11%. Poa looks like it has had heavy use in the past. Cottonwood Basin showed moderate use on Pose (42%) and slight use on Sihy (4%). Twenty-one horses were sighted from the flats near the mouth of Cottonwood Creek to Cottonwood Basin. Transect #4 was conducted about two miles north of Cottonwood Creek. Use was: Sihy - 1%; Grsp - 3%; Epne - 5%. Ephedra has been heavily hedged from previous use. There was a lot of old

deer sign in the area.

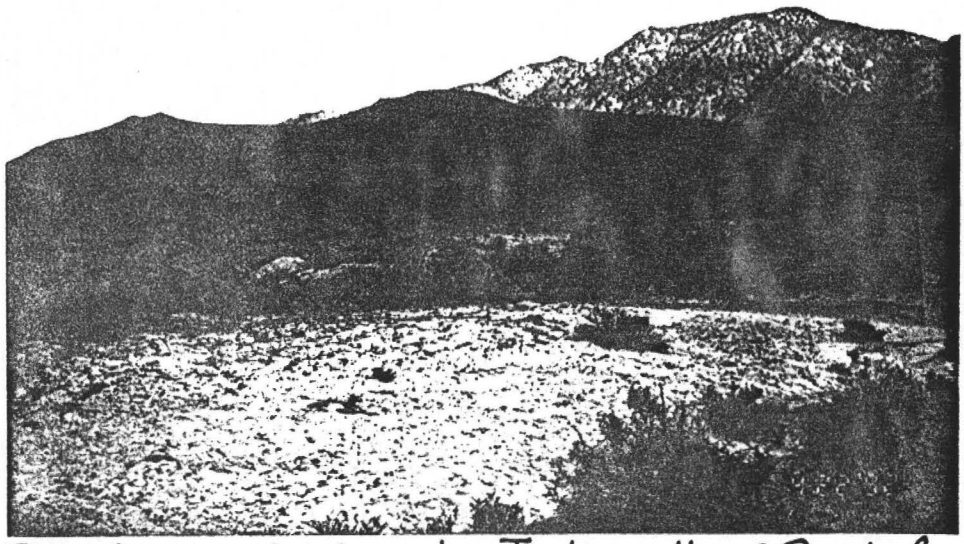
On the west side of the Fox Range one transect was conducted at the mouth of Smith Canyon. Use on Arsp5 was 4% with no apparent use on Grsp. Both species look like they have been heavily utilized in previous years. Use on Save4 and Chvi8 was heavy on specific plants but not overall. There are well developed horse trails at the mouth of the canyon leading to the high country. A utilization cage was placed here over Grsp and Arsp5. Heavy use was noted at the second major canyon north of Smith Canyon. Grass species were very scarce, being found only when protected by shrubs. Use on Epne was heavy, with some use on Save4 and Chvi8. Water was present near the mouth of the canyon, which would probably account for the high activity. Horses were observed in this area every day. Moderate use was noted near the mouth of Lost Creek. Grsp, Chvi8, and Pose (when available) had moderate to heavy use. Save4 was also moderately used in places. Horses have been observed in this location on a regular basis and six cows were using the area. The areas marked as no apparent use tended to be sand dunes or harsh rocky soils with Save4 and Atco as the main plant cover. There was also no easy access to higher country or to water from most of these locations.

Pole Canyon Allotment

Use Pattern Mapping on current and previous year's growth was also completed on the Pole Canyon Allotment. KFT#6 was at the head of Wild Horse Canyon near Pah-Rum Peak. Use on current year's growth was: Sihy - 14%; Pose - 15%; and Symph - no apparent use. Use on previous year's growth was recorded April 8 with Peggy Wiltse. Utilization was as follows: Sihy - 68%; Pose - 66%; Symph - 40%. Although there were alot of low-growing forbs, grass cover in the interspaces was sparse. There was some Feid growing under shrubs and in rocky areas. We observed four cows on the north side of the fence in the Rodeo Creek Allotment.

A new utilization cage was placed in the saddle near the head of Mullens Canyon over Sihy and Pose. Use on current year's growth was: Sihy - 6% and Pose - 40%. Use on last year's growth was: Sihy - 40% and Pose - 66%. I hiked from the head of Rough Canyon to the mouth where Amanda picked me up. Although forage was scarce horse sign and trails were prevalent on the ridgetops and along the streambed. About one mile from the mouth of the canyon sign became very scarce due to the narrow canyon, steep sideslopes, and a waterfall restricting access. This is not a recommended route. Species used for KFT #8 were Sihy, Arsp5, and Atco. Use on current year's and previous year's growth was: Sihy -13% and 38%; Arsp5 - 0% and 6%; Atco - 0% and 4% respectively.

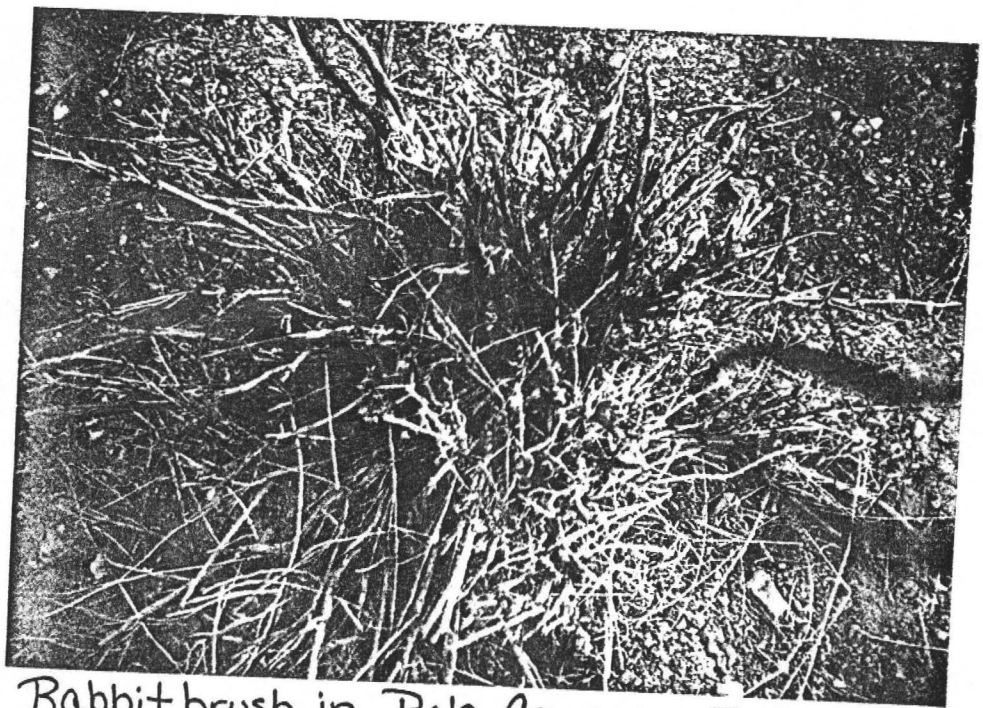
Leigh Redick



Pole Canyon Allotment - Just south of Rough Cyn.

Pole Canyon Allotment - Near Reservation Boundary

Pole Canyon Allotment - Down on flats



Rabbitbrush in Pole Canyon - Eaten down

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Range Utilization
Key Forage Plant Method

Current Year's Growth

3

(1) District	(2) Date	(3) Observer	
WMC A	4/20/92	Redick McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk	Ceresola	KFT 1
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No. 1 - ARTTSW, ATRCON GRASPI, ARTSPI TETGLA — T 20N, R. 22E SEC. 15 SE¼ NW¼

(14) Use Rating of Current Year's Growth	Mid-Point (x)	GRASPI Key Species Frequency (f)	GRASPI Key Species (f) X (x)	ATRCON Key Species Frequency (f)	ATRCON Key Species (f) X (x)	ARTSPI Key Species Frequency (f)	ARTSPI Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0		0		0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		40		30		20
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		60				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	100	10	30	10	20
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		10%		3%		2%	

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

5 Current Years Growth

(1) District	(2) Date	(3) Observer	
WNCA	4/20/92	Redick McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Roden		KFT 2
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

7 Site - ARTRCON, POASEC, STITHU, SITHYS GRASPI - heavy use on STITHU where available

T.30N. R.21W. Sec 4 NW 1/4 of SW 1/4

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POASEC Key Species Frequency (f)	POASEC Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)	SITHYS Key Species Frequency (f)	SITHYS Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	••	20			••	20
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	•••	180			•• •	90
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural fenceows and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	••	100				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Sheets of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a worn appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	300			10	110
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		30%				11%	

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

Current Years Growth

(1) District	(2) Date	(3) Observer	
WMC A	4/20/92	Redick McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk		KFT 3
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

7 trans - IRITSW, ATRCON, GRASPI, CHRVIS, JUNSCO, CREPIS, TETGLA, ARTSPI, EPHNEV - hedge

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POASEC Key Species Frequency (f)	POASEC Key Species (f) X (x)	SITHYS Key Species Frequency (f)	SITHYS Key Species (f) X (x)	GRASPI Key Species Frequency (f)	GRASPI Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0	:	0	Not Enough :	0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	•	10	:	40	:	
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	:	90				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	:	250			•	
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Sheets of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	•	70				
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom.	90						
TOTAL		10	420	10	40	5	
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		42%		4%		—	

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

lots of old deer sign

Current Year's Growth

(1) District	(2) Date	(3) Observer	
WMCA	4/20/93	Redick McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Crk		KFT 4
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.

Species - ARTSPI, ATRCON, EPHNEV, GRASPI, ARTTSW, TETGLA

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SITHYS Key Species Frequency (f)	(f) X (x)	GRASPI Key Species Frequency (f)	(f) X (x)	EPHNEV Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0		0		0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	•	10	• • •	30	• •	20
Light (21-40%): The rangeland may be topped, skinned, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30					•	30
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom.	90						
TOTAL		10	10	10	30	10	50
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		1%		3%		5%	

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

Current WORD — Smith Canyon Cage

(1) District	(2) Date	(3) Observer	
WMCA	4/23/92	Redick, MCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Rodeo Creek		KFT 5
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
SITE Photo, GRSP ARSP ATCO APTR, Eqtedr, HAGL, TEGL

5 pages

(14) Use Rating of Current Year's Growth	Mid-Point (x)	ARSP Key Species Frequency (f)	ARSP Key Species (f) X (x)	GRSP Key Species Frequency (f)	GRSP Key Species (f) X (x)	Key Species Frequency (f)	Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0	0	0	0	0		
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	•	10				
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	•	30				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of thickmentous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently browsed.	90						
TOTAL		10	40	10	0		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		4%		0			

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

Current Year Growth Gage (Old)

(1) District	(2) Date	(3) Observer	
Winnemucca	4/21/92	Redick, McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Pole Canyon		KFT 6
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		
Spring			

(13) Transect Location/Key Area No. Amal Forage Fe a - light use throughout
Artri, Erodium, Ranunculus, Ribes, Sympt, Juniper, Chryso, Lupine

(14) Use Rating of Current Year's Growth	Mid-Point (x)	Key Species (SIHI) Frequency (f)	(f) X (x)	Key Species (Pose) Frequency (f)	(f) X (x)	Key Species (Sympt) Frequency (f)	(f) X (x)
None (0%): The key species show no evidence of use by grazing animals.			3		6		
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current year's shrubs and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		20		10		
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current year's shrubs of key herbaceous species remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		120		60		
Moderate (41-60%): The rangeland appears entirely covered or unevenly so. Natural features and facilities will allow. Fifteen to 25 percent of the number of current year's shrubs of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50				50		
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current year's shrubs remaining. Shoots of this vegetation 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 shapes may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a stark appearance and there are indications of repeated coverage. There is no evidence of reproduction of current year's shrubs of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often most, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken	90						
TOTAL		10	140	10	150	10	0
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		14%		15%		0	

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

Current Years Growth — New Cage

(1) District	(2) Date	(3) Observer	
LONCF	4/21/92	McCutcheon, Redick	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Pole Canyon		KFT 7
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
-RAFI ARTR, POSE, SIHI, CHRYS, JUNIPER

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SIHI Key Species Frequency (f)	(f) X (x)	POSE Key Species Frequency (f)	(f) X (x)	Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0		0				
Light (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current annual and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10		30		20		
Light (21-30%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current annuals of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear dropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30		30		60		
Moderate (41-60%): The rangeland appears entirely grazed on uniformly as natural features and facilities will allow. Plants to 25 percent of the number of current annuals of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50				250		
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current annuals remaining. Plants of this grasses are grazing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant change may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70				70		
Severe (81-100%): The rangeland has a torn appearance and there are indications of repeated coverage. There is no evidence of reproduction of current annuals of key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broom	90						
TOTAL		10	60	10	400		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		6%		40%			

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

Previous Year's Use

(1) District	(2) Date	(3) Observer	
WMCA	4/21/97	Redick McCutcheon	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Pole Canyon		KFT 7
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No. new cage put in

> POASEC, ARTTRI, ARTARB, SYMPH, Ribes

(14) Use Rating of Current Year's Growth	Mid-Point (x)	POASEC Key Species Frequency (f)	(f) X (x)	SITHYS Key Species Frequency (f)	(f) X (x)	Key Species Frequency (f)	(f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0						
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10						
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30			6	180		
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	2	100	3	150		
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Sheets of thinspoonsome grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	8	560	1	70		
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	660	10	400		
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		66%		40%			

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

Current Years Growth

(1) District	(2) Date	(3) Observer	
WMCA	4/22/92	McCutcheon, Redick	
(4) Resource Area	(5) Allotment	(6) Operator/Allottee	(7) Field Name or No.
SG	Pole Canyon		KFT 8
(8) Vegetation Type	(9) Range Site	(10) Kind(s) & Class(s) of Grazing Animal(s)	
(11) Use Period	(12) Grazing Management System		

(13) Transect Location/Key Area No.
Brte, Arsp, Sihi, Atco, Hogl, Tenl, Chry SQ, (appears to be high use area)

(14) Use Ratio of Current Year's Growth	Mid-Point (x)	Key Species: Sihi Frequency (f)	Sihi (f) X (x)	Key Species: Atco Frequency (f)	Atco (f) X (x)	Key Species: Arsp Frequency (f)	Arsp (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.		:	0	:	0	:	0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	:	40				
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	:	90				
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50						
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Stands of thinnestem grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70						
Severe (81-100%): The rangeland has a mown appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	130	10	0	10	0
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		13%		0		0	

7 paces

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

Previous Year Growth

(1) District	(2) Date	(3) Observer	
WMCA	4/22/[illegible]	Redick McC[illegible]	
(4) Resource Area	**(5) Allotment**	**(6) Operator/Allottee**	**(7) Field Name or No.**
SG	Pole Canyon		KFT 8
(8) Vegetation Type	**(9) Range Site**	**(10) Kind(s) & Class(s) of Grazing Animal(s)**	
(11) Use Period	**(12) Grazing Management System**		

(13) Transect Location Key Area No.

7-[illegible] TITGLA, BROTEC, SITHYS, ARTRTR, ATRCO

(14) Use Rating of Current Year's Growth	Mid-Point (x)	SITHYS Key Species Frequency (f)	SITHYS Key Species (f) X (x)	ARTRTR Key Species Frequency (f)	ARTRTR Key Species (f) X (x)	ATRCO Key Species Frequency (f)	ATRCO Key Species (f) X (x)
No Use (0%): The rangeland shows no evidence of use by grazing animals.	0			[illegible]	0	[illegible]	0
Slight (1-20%): The rangeland has the appearance of very light grazing. The key herbaceous forage plants may be topped or slightly used. Current seedstalks and young plants of key herbaceous species are little disturbed. The available leaders of key browse plants are little disturbed.	10	• • •	30	• • •	30	•	10
Light (21-40%): The rangeland may be topped, skimmed, or grazed in patches. The low value herbaceous plants are ungrazed and 60 to 80 percent of the number of current seedstalks of key herbaceous plants remain intact. Most young plants of the key species are undamaged. Little or no use of low value plants. There is obvious evidence of leader use. The available leaders appear cropped or browsed in patches and 21 to 40 percent of the available leader growth of the key browse plants has been removed.	30	• •	60	•	30	•	30
Moderate (41-60%): The rangeland appears entirely covered as uniformly as natural features and facilities will allow. Fifteen to 25 percent of the number of current seedstalks of key 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 41 to 60 percent of the available leader growth of key browse plants has been removed.	50	• • •	150				
Heavy (61-80%): The rangeland has the appearance of complete search. Key herbaceous species are almost completely utilized with less than 10 percent of the current seedstalks remaining. Shoots of rhizomatous grasses are missing. More than 10 percent of the number of low value herbaceous forage plants have been utilized. The preferred browse plants are hedged and some plant clumps may be slightly broken. Nearly all available leaders are used and few terminal buds remain on key browse plants. Approximately 61 to 80 percent of the available leader growth of the key browse plants has been removed.	70	• •	140				
Severe (81-100%): The rangeland has a stark appearance and there are indications of repeated coverage. There is no evidence of reproduction of current seedstalks of key herbaceous species. Key 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 81-100% of available leader growth on the key browse plants has been removed. Some, and often much, of the 2nd and 3rd year's growth of the browse plants has been utilized. Hedging is readily apparent, and the browse plants are more frequently broken.	90						
TOTAL		10	380	10	60	10	40
Average Utilization = $\frac{\Sigma fx}{\Sigma f}$ *		38%-		6%		4%	

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.

Attachment 3

AGREEMENT FOR IMPLEMENTATION AND CHANGES IN AVAILABLE LIVESTOCK FORAGE AND LIVESTOCK GRAZING USE ADJUSTMENTS FOR THE RODEO CREEK ALLOTMENT

I. INTRODUCTION

This agreement is based on the Rodeo Creek Allotment Evaluation dated and documents the changes in existing livestock grazing practices on the Rodeo Creek allotment.

The agreed upon changes in livestock use, as documented below, are made in order to achieve the management objectives for the public lands under Bureau of Land Management control identified in the Sonoma-Gerlach land use plan, which are specifically related to authorized livestock grazing use on the Rodeo Creek allotment.

This agreement was prepared in consultation cooperation, and coordination with affected permittee, Stan Ceresola.

II. ALLOTMENT SPECIFIC OBJECTIVES AND ANALYSIS, INTERPRETATION, AND EVALUATION OF EXISTING MONITORING DATA

A. Allotment Objectives

1. Short Term

a. Utilization of key plant species in 596 acres of wetland riparian habitat shall not exceed 50% except where adjusted by an approved activity plan. (WL-1.10)

b. Total utilization of antelope bitterbrush (PUTR2) shall not exceed 50% and 40% on quaking aspen (POTR5) except where adjusted by an approved activity plan. (WL-1.7) and WL-1.9)

c. Maintain an acceptable allowable use level on key forage species 1/ that will provide a sustained yield.

1/ Key forage species whose use serves as an indicator to the degree of use of associated species; or those species which must, because of their importance, be considered in a management program.

2. Long Term

a. Improve to and maintain the condition of 596 acres of wetland riparian habitat type to good or better. (WL-1.10)

b. Protect sage grouse strutting grounds and nesting wintering habitat and improve brooding habitat by: (WL-1.11)

1) Following NDOW's guidelines for Vegetal Control Programs in Sage Grouse Habitat in Nevada.

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

c. Manage, maintain and improve public rangeland habitat condition to provide forage on a sustained yield basis, with an initial forage demand for big game of 177 AUMs for mule deer, 137 AUMs for pronghorn and 150 AUMs for bighorn sheep by:

1) Improve or maintaining Fox Range DY-1 (16,224 acres) mule deer habitat to good condition.

2) Improving or maintaining Fox Range AY-5 (38,100 acres) pronghorn habitat to good condition.

3) Improving or maintaining Fox Range BY-3 (32,530 acres) potential California bighorn habitat at 75% of optimum.

4) Improve bitterbrush from severely hedged form class to lightly hedged form class.

d. Manage, maintain and improve rangeland conditions to provide forage on a sustained yield basis with an initial stocking level of 6,462 AUMs.

e. Improve range/ecological condition 1/ from: poor to fair on 162,458 acres fair to good on 27,076 acres good to excellent on 1,934 acres.

f. Manage, maintain and improve public rangeland conditions to provide an initial level of 4,020 AUMs of forage on a sustained yield basis for 335 (AMLs) 2/ wild horses in the Fox and Lake Range Herd Use Area.

1/ The range/ecological conditions in this document are forage condition that will be replaced with ecological status condition as information becomes available. The objective will be redefined/ quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

2/ AML refer to adult horses and burros (i.e. two years or older).

g. Maintain and improve the free-roaming behavior of wild horses and burros by protecting and enhancing their home range.

h. Maintain/Improve wild horse/burro habitat by assuring free access to water.

III. AGREED UPON CHANGES IN AVAILABLE LIVESTOCK FORAGE AND/OR LIVESTOCK USE ADJUSTMENTS

A. From (Description of Existing Use)

1. Kind, Class and number of Livestock:

Cow-calf	Cattle
835 C	(05/01 - 10/31)
150 C	(11/01 - 04/30)

2. Period of Use:

03/01 - 02/28 Yearlong

3. The Allotment to be Used:

Rodeo Creek Allotment

4. The Amount of Use (AUMs):

Total Preference	9,336 (AUMs)
Active Preference	6,462
Susp. Preference	2,874

5. Percent Federal Range:

99%

6. Grazing System

Grazing management is a rest rotation grazing system under a two pasture, winter and summer use area. The period-of-use is yearlong. Grazing treatment is as follows:

Grazing Treatment	Rodeo Creek Allotment											
	5/1	6/1	7/1	8/1	9/1	10/1	11/1	12/1	1/1	2/1	3/1	4/1
Graze Fox Range (5/1-10/31) Summer Use Area 835 C							Graze east side (11/1-4/30) Winter Use Area 150 C					

The summer use area is the Fox Range on the west side. The winter use area is the east side and includes the San Emidio Desert, the southern portion of the Black Rock Desert and the Lake Range.

The majority of livestock use occurs during the late spring-summer-early fall season-of-use. During the period (05/01-10/31) 835 cattle graze in the Fox Mountain summer use area. During the winter early spring period cattle numbers drop to 150 Head for the period (11-1-4/30). Winter use occurs in the east portion of the allotment.

Active grazing preference is 6462 AUMs. Licensed use has been stable and has ranged from 5153 AUMs to 5851 over the 10 year period except in 1987 where use was 4169 AUMs. Estimated wild horse numbers for the period 1983 to 1987 have varied from 371 numbers to 787.

Based on licensed use dating back to 1981, 835 cattle were licensed during the summer period (5/01-10/31) and 150 cattle licensed during winter (11/1-4/30). The combination of cattle and wildhorse numbers alone total 1200 or more animals utilizing the summer country over the period 1983-1986. The majority of grazing use on the allotment occurs in the summer use area.

7. Wildlife

No specific wildlife population data area available for this allotment. Present estimates, however, indicate 334 AUMs demand for mule deer, 210 AUMs for pronghorn and 0 for bighorn sheep.

8. Wild horses

Population Data	
Est. July 1987	Est. July 1988
491	545

B. To (Description of Agreed Upon Changes)

1. Kind, Class, and Number of Livestock:

Cattle	cow/calf
485	C

2. Period of Use:

No change
03/01 - 02/28 Yearlong

3. The Allotment to be Used:

Rodeo Creek Allotment

4. The Amount of Use AUMs:

Total Preference	9,336
Suspended Preference	3,520
Active Preference	5,816

5. Percent Federal Range:

100%

6. Grazing System

Initiate a five year reduction in the active preference from 6,462 AUMs to 5,816 AUMs and reduce livestock numbers in the summer country. The five year reduction will be for the period (04/01/88 - 02/28/93). The 10% reduction would total 646 AUMs. The yearlong stocking rate at 10% reduction would be 485 cattle. Livestock use will then maintain 485 cattle yearlong rather than changing numbers in the summer and winter use areas. The 485 cattle would be a reduction from past use in the summer country from 835 cattle. This would increase numbers in the winter country from the historical use of approximately 150. This management change would reduce stocking level in the summer country where a reduction is needed, but would increase use in the winter country where forage can withstand more grazing pressure.

Grazing management would be a rest-rotation grazing system under a three use area system.

Maintain the past winter and summer use areas and initiate use in the spring area. Make use as follows;

Turnout will be made in the winter use area of the Rodeo Creek Allotment. The winter use area includes the eastern portion of the Rodeo Creek Allotment and that area east of the Fox Range to include the San Emidio Desert, the Lake Range and the southern portion of the Black Rock Desert.

For the period 05/01 - 05/30 cattle will utilize the spring use area which includes the foothills of the Fox Range along both the east and west sides.

On 06/01 cattle will be moved into the summer use area which includes the high country of the Fox Range and will remain on the Fox Range until 10/30.

On 11/01 cattle will be moved back to the winter use area as described above and will remain until 04/30.

Range Improvements will continue to be identified for better distribution and livestock control in all areas. Livestock will be distributed and controlled by horseback and placement of mineral supplements during the grazing period to achieve even distribution and proper utilization levels. This will reduce the concentration of animals on White Sage Flat and Rodeo Creek Canyon.

Pasture	5/1	6/1	7/1	8/1	9/1	10/1	11/1	12/1	1/1	2/1	3/1	4/1	5/1
Foothills of Fox Spring Spring Use Area	Graze 05/01 to 05/30 485 C	REST											
Fox Range Summer Use Area	REST	Graze 06/01 to 10/30 485 C					REST						
East Portion Winter Use Area	REST						Graze 11/01 to 04/30 485 C						

IV. SPECIFIC MONITORING PROGRAM

A. Utilization and actual use studies will be conducted annually to determine whether or not utilization levels on key species are exceeding proper use levels identified in the objectives.

B. Frequency and production studies will be read to evaluate trend and ecological condition.

C. An evaluation will be conducted in 5 years (1993) to analyze the changes in management described in this agreement.

V. FUTURE ADJUSTMENTS

An evaluation will be conducted in 5 years (1993) to analyze the results of the changes made in management described in this agreement and at this time a change in management and/or preference may be made.

VI. AUTHORITY

43 CFR 4110.3-3, 4130-6

VII. The agreed upon changes in available livestock forage and/or livestock use adjustments identified above are binding on any successor interest or future transforees with such modifications as approved or required by the authorized officer.

VIII. SIGNATURES

Stan Ceresola — 9/15/88 Date

Gerald Brandvold — 9/15/88 Date

Sonoma-Gerlach Resource Area Manger

Rodeo Creek Rangeland Monitoring Evaluation

I. Allotment Information

A. Rodeo Creek (0129) Permittee: Ceresola
Category (I) Priority (4)

B. Allotment Description

The allotment is located in northern Washoe County with the northern perimeter near Gerlach, Nevada.

The typical physiographic features of the allotment are the high elevation north-south trending Fox and Lake Ranges to the valley floors of the San Emidio, Black Rock and Smoke Creek deserts. The allotment is approximately 25 miles long in a north-south direction and 16 miles wide in a west-east direction.

Vegetation types in the allotment include those from the greasewood-saltbush flats to the sagebrush-Bluegrass-needlegrass vegetative types at the higher elevations.

Land Status				
Public Land		Other Land		
193,402 (Acres)	97%	5,373 (Acres)	3%	198,775

C. Livestock Use

1. Total Preference 9,336 (AUMs)
   Active Preference 6,462
   Susp. Preference 2,874

2. season-of-use Yearlong
   03/01-02/28

3. Kind and Class of Livestock Use
   Cow/calf

4. Grazing System

Grazing management is a rest rotation grazing system under a two pasture, winter and summer use area. The period-of-use is yearlong. Grazing treatment is as follows:

Grazing Treatment						Rodeo Creek Allotment					
5/1	6/1	7/1	8/1	9/1	10/1	11/1	12/1	1/1	2/1	3/1	4/1
Graze Fox Range (5/1-10/31) Summer Use Area 835 C						Graze east side (11/1-4/30) Winter Use Area 150 C					

The summer use area is the Fox Range on the west side. The winter use area is the east side and includes the San Emidio Desert, the southern portion of the Black Rock Desert and the Lake Range. There is not an AMP for the allotment.

The majority of livestock use occurs during the late spring-summer-early fall season-of-use. During the period (05/01-10/31) 835 cattle graze in the Fox Mountain summer use area. During the winter early spring period cattle numbers drop to 150 Head for the period (11-1-4/30). Winter use occurs in the east portion of the allotment.

Active grazing preference is 6462 AUMs. For the period 1978-1987 licensed use in the Rodeo Creek Allotment was consistently below active preference. Licensed use has been stable and has ranged from 5153 AUMs to 5851 over the 10 year period except in 1987 where use was 4169 AUMs. Estimated wild horse numbers for the period 1983 to 1987 have varied from 371 numbers to 787.

Based on licensed use dating back to 1981, 835 cattle were licensed during the summer period (5/01-10/31) and 150 cattle licensed during winter (11/1-4/30). The combination of cattle and wildhorse numbers alone total 1200 or more animals utilizing the summer country over the period 1983-1986. The majority of grazing use on the allotment occurs in the summer use area.

Licensed Use (1981-1988)

Total AUMs for Year	
1978/79	5851
1979/80	5851
1980/81	5257
1981/82	5257
1982/83	5153
1983/84	5851
1984/85	5851
1985/86	5851
1986/87	5010
1987/88	4169

D. Allotment Objectives

1. Short Term

a. Utilization of key plant species in 596 acres of wetland riparian habitat shall not exceed 50% except where adjusted by an approved activity plan. (WL-1.10)

b. Total utilization of antelope bitterbrush (PUTR2) shall not exceed 50% and 40% on quaking aspen (POTR5) except where adjusted by an approved activity plan. (WL-1.7) and WL-1.9)

c. Maintain an acceptable allowable use level on key forage species that will provide a sustained yield.

Key forage species whose use serves as an indicator to the degree of use of associated species; or those species which must, because of their importance, be considered in a management program.

2. Long Term

a. Improve to and maintain the condition of 596 acres of wetland riparian habitat type to good or better. (WL-1.10)

b. Protect sage grouse strutting grounds and nesting wintering habitat and improve brooding habitat by: (WL-1.11)

1) Following NDOW's guidelines for Vegetal Control Programs in Sage Grouse Habitat in Nevada.

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

c. Manage, maintain and improve public rangeland habitat condition to provide forage on a sustained yield basis, with an initial forage demand for big game of 177 AUMs for mule deer, 137 AUMs for pronghorn and 150 AUMs for bighorn sheep by:

1) Improve or maintaining Fox Range DY-1 (16,224 acres) mule deer habitat to good condition.

2) Improving or maintaining Fox Range AY-5 (38,100 acres) pronghorn habitat to good condition.

3) Improving or maintaining Fox Range BY-3 (32,530 acres) potential California bighorn habitat at 75% of optimum.

4) Improve bitterbrush from severely hedged form class to lightly hedged form class.

d. Manage, maintain and improve rangeland conditions to provide forage on a sustained yield basis with an initial stocking level of 6,462 AUMs.

e. Improve range/ecological condition 1/ from: poor to fair on 162,458 acres fair to good on 27,076 acres good to excellent on 1,934 acres.

f. Manage, maintain and improve public rangeland conditions to provide an initial level of 4,020 AUMs of forage on a sustained yield basis for 335 (AMLs) 2/ wild horses in the Fox and Lake Range Herd Use Area.

1/ The range/ecological conditions in this document are forage condition that will be replaced with ecological status condition as information becomes available. The objective will be redefined/ quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

2/ AML refer to adult horses and burros (i.e. two years or older).

g. Maintain and improve the free-roaming behavior of wild horses and burros by protecting and enhancing their home range.

h. Maintain/Improve wild horse/burro habitat by assuring free access to water.

E. Monitoring Data

1. Climatological Data

Four weather stations are available for data; Leonard Creek, Dufurrena Ponds, Dry Canyon RAWS station and Denio.

Leonard Creek station is located approximately 15 miles northeast of Soldier Meadows Ranch. Dufurrena station is located approximately 30 miles west of Denio on Sheldon Antelope range.

The Remote Automated Weather Systems (RAWS) meteorological station (Dry Canyon) is approximately nine miles north of Soldier Meadows Ranch on the west side of the Black Rock Range at an elevation of 4,900'.

The following table depicts moisture received at Leonard Creek Station for the period 1977-1987.

Leonard Creek Station

	Precipitation in Inches		Departure From Normal*	
Year	Growing Season	Annual Total	Growing Season	Annual
1977	4.33	8.23	+ .09	-1.99
1978	4.81	10.20	+ .57	- .02
1979	5.84	12.26	+1.60	+2.04
1980	3.45	8.55	- .79	-1.67
1981	4.29	11.43	+ .05	+1.21
1983	6.94	17.74	+2.70	+7.52

1984	3.00	8.50	-1.24	-1.72
1985	2.48	6.82	-1.76	-3.40
1986	4.85	9.60	+ .61	- .62

* - Normal = 10 year average = 10.22" Annual
= 4.24" Growing Season

The following chart depicts moisture received at Dry Creek (RAWS) station since July 1986 when it was established and compares readings with those at Denio, Nevada.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
1986 (RAWS)								.0	.7	-	.1	.3	1.2
1986 (Denio)				2.05	1.68	.69	.00	.08	.24				
1987 (RAWS)	.9	.6	.7	1.3	2.7	1.1	.1	.0	.4	.3	.3	.3	8.7
1987 (Denio)			1.17	1.05		2.61	.61	T					

The following chart depicts moisture received at Dufurrena Ponds for the period 1977-1985.

Dufurrena Ponds

Year	Precipitation in Inches
1977	7.35
1978	10.33
1979	11.10
1980	8.18
1981	7.19
1982	4.13
1983	11.18
1984	10.77
1985	3.53
1986	8.56
1987	

The 10 year average = 8.23 Annual

2. Utilization

Utilization data in the winter country indicates use is generally below AULs. However, moderate and heavy use has occurred in the White Sage Flat area and in Rodeo Creek Canyon area. No data is available for the Summer Use area. Based on field observation from SLS and wild horse inventory personnel moderate and heavy use has occurred in the Fox Range repeatedly over the past several years (1977-1987).

3. Trend

Trend data has been collected at two exclosure sites. The Rodeo Creek data indicates a decreasing trend for the period (1978-1981). The Rattlesnake Canyon data indicates changes are erratic being both up and down and are inconclusive for the period (1978-1981).

4. Habitat Inventory and Evaluation

a. Inventory

No baseline data has been collected since the general overview provided for the Sonoma-Gerlach Grazing EIS. The Nevada Department of Wildlife (NDOW), however, has reported in their big game investigations and hunting season recommendations the habitat continues to be in fair to poor condition. Although 35,907 acres of sage grouse habitat has been delineated in the allotment no strutting grounds or specific brood areas have been identified to the BLM.

5. Past Inventories

Sonoma-Gerlach EIS Condition and Trend

The estimated ecological range condition class as cited from the Sonoma-Gerlach EIS for the Rodeo Creek Allotment is as follows:

Range Condition Class

	Excellent		Good		Fair		Poor	
Total Acres	Acres	%	Acres	%	Acres	%	Acres	%
193,402	1,934	1%	1934	1%	27,076	14%	162,458	84%

The estimated trend as indicated from the Sonoma-Gerlach EIS is as follows:

Trend Direction

Total Acres	Upward Acres	Stable Acres	Downward Acres
193,402	0	0	193,402 (100%)

F. Management Actions

1. Wild Horse and Burros

A total of 790 head have been removed from Rodeo Creek Allotment.

Year	Animals Removed
1980	312
1986	478

Population Data (Wild Horse and Burro)

	Est July 1983 #	Est July 1984 #	Est July 1985 #	Est July 1986 #	Census June 86 #	Est 1/87 #, after gather	Est July 1987 #	Est July 1988 #
Rodeo Creek	371/1	412/1	457/1	508/1	787	442	491	545

2. Fox and Lake Range Herd Management Area (HMA) includes the Rodeo Creek and Pole Canyon Allotments.

	AML	AUMs	% HMA
Rodeo Creek	334/1	4,020	92
Pole Canyon	100	1,200	8
Total	434/1	5,220	100%

3. Change in Wildlife Populations

No specific population data are available for this allotment. Present estimates, however, indicate 334 AUMs demand for mule deer, 210 AUMs for pronghorn and 0 for bighorn sheep.

II. Management Evaluation

A. Short Term

1. Utilization of key plant species in 596 acres of wetland riparian habitat shall not exceed 50% except where adjusted by an approved activity plan. (WL-1.10)

The purpose of this objective is to determine progress toward achievement of long term goal 2b(1) and to help determine progress toward achievement of long term goal 2b(2).

SCS and wild horses inventory personnel report moderate to heavy use in the Fox Range, but no data has been gathered on the wetland riparian sites.

2. Total utilization shall not exceed 50% for antelope bitterbrush (PUTR2) and 40% on quaking aspen (POTR5) except where adjusted by an approved activity plan. (WL-1.7 and WL-1.9).

The purpose of this objective is to determine progress toward the attainment of long term goal 2b(3). Utilization on PUTR2 and POTR5 has not been determined.

3. Maintain an acceptable allowable use level on key forage species what will provide a sustained yield.

Use Pattern Mapping and utilization data are not available for the summer use country. Use Pattern Mapping and utilization data in the winter country indicates use levels are below AUL's

No baseline or trend data are available to evaluate if the objective is being achieved.

4. Improve bitterbrush from severely hedged form class to lightly hedged form class.

   A special report completed 1980 showed heavy utilization of bitterbrush throughout the allotment. No additional data has been collected.

   Heavy utilization of forage throughout the allotment could be an indication of overly high mule deer and pronghorn populations as well as livestock grazing practices and excessive wild horse and burro numbers. (Personal communication Dobel and Armentrout).

5. Manage, maintain and improve rangeland conditions to provide forage on a sustained yield basis with an initial stocking level of 6,462 AUMs.

   Trend data indicates that for the period (1978-1981) at Rodeo Creek Exclosure trend is decreasing while at Rattlesnake Canyon trend is erratic in change. Although trend data has not been collected since 1981, the grazing system has not changed and conditions are probably continuing in the same direction. Utilization data is not available to evaluate achievement of this objective.

6. Manage, maintain and improve public rangeland conditions to provide an initial level of 4,020 AUMs of forage on s sustained yield basis for 335 (AML's) 1/ wild horses in the Fox and Lake Range Herd Use Area.

   The Appropriate Management Level for the Fox and Lake Range HMA was established in July 1982. Herd numbers have been above AML since 1982, ranging from 11% to 135% above AML in the Rodeo Creek Allotment. This objective has not been met.

   A post removal census conducted after the 1986 horse removal showed the Rodeo Creek portion of the Fox and Lake Range HMA to be 107 animals above AML. However, the Pole Canyon portion of the HMA was 49 head below AML. The AML for the whole HMA after the 1986 removal was exceeded by 58 horses (13% above AML).

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

   Range improvements and other developments have not restricted the free roaming behavior of the wild horses and burros within the allotment. The objective has been met.

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

except in White Sage Flat and Rodeo Creek Canyon. Utilization data is not available to quantify the achievement of this objective.

4. Improve range/ecological condition 1/ from poor to fair on 162,450 acres and from fair to good on 27,076 acres and good to excellent on 1,934 acres.

   1/ The range/ecological conditions in this document are forage condition that will be replaced with ecological status condition as information becomes available. The objective will be redefined/quantified to obtain a particular ecological status when site potential and identified uses are combined to meet vegetative objectives.

B. Long Term

1. Improve or maintain the condition of 596 acres of wetland riparian habitat from early seral to late seral or higher. (WL-1.10)

   No baseline or trend data are available to evaluate this objective.

2. Protect sage grouse strutting grounds and nesting and wintering habitat and improve brooding habitat by: (WL-1.11)

   a. Following NDOW's guidelines for Vegetal Control Programs in Sage Grouse Habitat in Nevada.

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

      No baseline or trend data are available to evaluate achievement of this objective. Higher utilization could be a benefit to brooding areas providing the meadows are not disappearing while sagebrush canopy in nesting habitat is probably being helped by over utilization of the understory. However, higher utilization of the understory will lower nesting success.

3. Manage, maintain and improve public rangeland habitat condition to provide forage on a sustained yield basis, with an initial forage demand for big game of 177 AUMs for mule deer, 137 AUMs for pronghorn and 150 AUMs for bighorn sheep by:

   a. Improving or maintaining Fox Range DY-1 (16,224 acres) mule deer habitat to good condition.

   b. Improving or maintaining Fox Range AY-5 (38,100 acres) pronghorn habitat to good condition.

   c. Improving and maintaining Fox Range BY-3 (32,530) acres) potential California bighorn habitat at 75c% of optimum.

Wild horses and burros within the allotment have free access to all waters. The objective has been met.

III. Conclusion

A. Based on field observations it appears that the upland and wetland riparian utilization objectives are not being met.

B. Use pattern mapping on the winter range show that the objectives are being met except for White Sage Flat and Rodeo Creek Canyon.

C. Wild horse numbers are above AMLs.

IV. Recommendations

A. No recommendations can be made based on existing data. However, the livestock permittee has recognized the imbalance between summer and winter use areas and will agree to the following modifications:

1. A five year reduction in the active preference from 6,462 AUMs to 5,816 AUMs and reduce livestock numbers in the summer country. The 10% reduction would total 646 AUMs. The yearlong stocking rate at 10% reduction would be 485 cattle. Livestock use will then maintain 485 cattle yearlong rather than changing numbers in the summer and winter use areas. The 485 cattle would be a reduction from past use in the summer country from 835 cattle. This would increase numbers in the winter country from the historical use of approximately 150. This management change would reduce stocking level in the summer country where a reduction is needed, but would increase use in the winter country where forage can withstand more grazing pressure.

2. Maintain the past winter and summer use areas and initiate use in the spring area. Make use as follows;

Turnout will be made in the winter use area of the Rodeo Creek Allotment. The winter use area includes the eastern portion of the Rodeo Creek Allotment and that area east of the Fox Range to include the San Emidio Desert, the Lake Range and the southern portion of the Black Rock Desert.

For the period 05/01 - 05/30 cattle will utilize the spring use area which includes the foothills of the Fox Range along both the east and west sides.

On 06/01 cattle will be moved into the summer use area which includes the high country of the Fox Range and will remain on the Fox Range until 10/30.

On 11/01 cattle will be moved back to the winter use area as described above and will remain until 04/30.

Range Improvements will continue to be identified for better distribution and livestock control in all areas. Livestock

will be distributed and controlled by horseback and placement of mineral supplements during the grazing period to achieve even distribution and proper utilization levels. This will reduce the concentration of animals on White Sage Flat and Rodeo Creek Canyon.

3. Develop and AMP for the allotment.

4. Allow habitat types in key sage grouse brooding areas to improve to good or better and then graze to the benefit of sage grouse within the prescribed grazing schedule.

5. Remove wild horses from the HMA in the allotment to AML's.

V. Monitoring and Inventory Needs

A. Monitoring

1. Actual Use

2. Utilization/Use Pattern Mapping

3. Trend

4. Wild horse distribution and seasonal movements and population estimates.

5. Complete Habitat Suitability Index

6. Collect climate data from existing stations

7. Water quality

B. Inventory

1. Wildlife habitat condition

2. Ecological Status

3. Riparian/Wetland/Aspen Condition

4. Soil Survey

VI. General Information

A. The following documents have been reviewed for the evaluation:

1. Sonoma-Gerlach Environmental Impact Statement (1981).

2. Sonoma-Gerlach Land Use Plan/MFP III.

3. Sonoma-Gerlach RPS.

4. Sonoma-Gerlach HMA and WH&B Inventory and Population estimate records.

5. Rodeo Creek Study File.

6. Winnemucca District Coordinated Monitoring Plan.

7. Evans, Carol. 1986. Effects of Cattle Grazing on Sage Grouse Use on Meadows in the Sheldon NWR. Thesis.

8. Wildlife Habitat in Managed Rangelands - The Great Basin of Southeastern Oregon.

9. Sonoma-Gerlach RA Method for Evaluating and Monitoring Riparian Habitat in Relation to Terrestrial Needs.

10. Bighorn Sheep Habitat Monitoring Plan for Sonoma-Gerlach R.A.

11. BLM Manual Supplement 6630-Big Game Studies.

12. Armentrout & Gardetto. Habitat Suitability Rating System for California Bighorn Sheep.

B. Participants involved with this evaluation:

1. Area Manager - Gerald Brandvold

2. Supervisory Range Conservationist - Paul Jancar

3. Range Conservationist - Chris Mayer

4. Wildlife Biologist - Don Armentrout

5. Wild Horse Specialists - Tom Seley/Dick Wheeler

6. District Wildlife Biologist - Dennis Tol

7. District Range Staff Officer - Ron Kay