



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

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

4/25/95 ✓  
IN REPLY REFER TO:  
4400.3  
(NV-026.12)

April 25, 1995

Dear Interested Party:

Our next Working Group Meeting will be held May 16, 1995 at 6:00 P.M. at the Golconda School. The purpose of the meeting is to:

1. To discuss the changes made to the document from the comments received at the February 15, 1995 meeting.
2. To discuss the objectives and management actions discussed at the February 15, 1995 meeting and the follow-up meeting on April 13, 1995, with the BLM and Intermountain Range Consultants.
3. To come up with a Group Recommendation of the preferred alternative to present to the Sonoma-Gerlach Area Manager.

If you will be unable to attend this meeting, please submit your comments to the Winnemucca District Office, Sonoma-Gerlach Resource Area on or before May 16, 1995, so your comments can be discussed by the working group for the Pumpernickel Allotment.

If you have any questions, please contact Peggy Redick of my staff at (702) 623-1500.

Sincerely yours,

for Bud C. Cribley, Area Manager  
Sonoma Gerlach Resource Area

Enclosures

CC: Ms. Cathy Barcomb  
Mrs. Dawn Lappin  
Mr. Richard Heap  
Mr. Phillip Benolkin  
Mrs. Rose Strickland  
Ms. Johanna H. Wald



**PUMPERNICKEL ALLOTMENT MEETING - FEBRUARY 15, 1995**  
General Comments On The Document

1. Pg.7-Sage grouse survey: 1 flight was insufficient to determine conclusion (Address in the conclusion section)
2. Pg.16-Daubie data not compatible with ESI data.
3. Pg.19, A.1.(7)-felt this should be qualified, there is nothing attributable to management (such as livestock numbers or season of use). Probably climate factors that caused this; another contributing factor could be pre-mine, Lonetree, drift.
4. Pg.20- b(2), same comment as #2
5. Pg.22-(g) Gregg Canyon (Wilson Cr.) saying not met is out of context, the transect only 100 yds out of 2 miles and it is at a road crossing which normally funnels livestock to the creek. 4 out of 5 did meet utilization criteria.
6. Pg.21-b. Bighorn Sheep: No scientific info to say for certainty there is conflict between BH and Domestic sheep. Since the document is addressing habitat, then it should just address habitat and remove reference to the domestic sheep.
7. Pg.22-Wild horse part 2, OK.
8. Next draft refer to Insect area as Middle Pumpernickel Use Area.

Note: After we were done getting general comments on the document we spent the rest of the night working on brainstorming objectives and management actions which led to making suggestions for Technical Recommendations. Prior to breaking up for the night the group suggested that BLM continue along the same thought process and finish with the draft for the team to review and comment. This included writing DPC objectives for the various habitats. We did this objective by objective.



## Wild Horse Objective

### General Comments:

Viable population of 500 head (need to consider what the allotment can produce and support). This will allow for horses to connect with other horses.

Utilization should be no more than 55% on the grasses crowns.

Deferment of spring grazing (most of the season is during the winter season)

If you can't increase livestock should not be able to increase wild horses.

The wild horses that are now in the allotment came from a different mountain range and HMA.

Recommend removal of all horses because of damage occurring to private property (private horses/range projects)

If not removed keep horse numbers at 17 head.

IL Ranch (Agribeeff) could exclude wild horses from water since the ranch owns the water rights the horses are using.

Wild horses utilize areas outside HMA, therefore, need to be kept within HMA and of private lands.

Without physical barriers it is impossible to keep horses within HMA {Add to conclusion section of document}

"Protect" home range - "protect" is too vague, expand what it means.

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Based on the above the group came up with 2 recommendations - the preferred recommendation is #1.

#### 1. Make allotment wild horse free.

##### Rationale:

- \* Lack of sufficient yearlong habitat in the HMA.
- \* Too expensive to fence horses into the HMA.

#### 2. Use allotment as a warehouse for non-viable animals to live out their days. Keep at carrying capacity established in MUD. Could still be chance of mixing with private horses and harming them or letting them out.



## Habitat Management Plan Objective

Recommendation was to drop this as an objective since it is related more to a management action and carry it forward in that light.

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### Wildlife (Mule Deer, Bighorn Sheep, Sage Grouse)

#### General Comments:

1. With the recent increase in predation to domestic sheep, when sheep are gone wildlife is being turned to, thereby influencing wildlife numbers. Should be some provision to control predators.
2. Any range projects should take wildlife into account, such as bird ladders (escape ramps) in troughs.
3. Incorporate comments from Intermountain Consultants
4. Control poaching. If it isn't, no matter what our gains are through management and increased numbers will be lost by poaching. State in document that we identified this as a problem but don't expect a solution to come out of this process.

#### Technical Recommendation:

1. Modify the AUM objectives to reflect habitat needs using Desired Plant Communities objectives.

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### Grazing Use Areas

#### Golconda-

1. Maintain ecological conditions and have this reflective in the DPC objective.
2. Appears the existing livestock management is working, leave management as is.



Edna Mtn.-

1. A well should go on the ridge top, suggested BLM put it in.
2. Granite Wash spring needs maintained/reconstructed
3. Maintain ecological conditions and have this reflective in the DPC objective.

Buffalo Mountains-

1. Extend Brook Springs PL to the foothills of this range.
2. Some dugouts/reservoirs to catch water.
3. Halogeton growing along old drill roads, is there a way to deal with these infestations?
4. Maintain ecological conditions and have this reflective in the DPC objective. Baseline info established in '95.

North Pumpernickel-

1. How do we deal with lack of water in Brooks Spring PL when the mine closes. There could be water in the main pit that can be pumped. Lonetree should be responsible to maintain water. Felt this would be better addressed by making comments to the EIS.
2. Extend Brook Springs PL to west side of Buffalo Mtn.
3. Maintain ecological conditions and have this reflective in the DPC objective.
4. Possibly establish some new study sites, there are areas that are improving, such as winter fat sites near I-80 and east of Roger's.
5. Think of using 4/15 as a possible threshold date to start providing spring deferment on different parts of the use area.

The group thought it would be better if these comments were carried forward and the thought process used to do the same for the remaining use areas and then have the team review that product. This will include the DPC objectives



VISION STATEMENT FROM 6/24/94

*Cooperative management on the Pumpnickel Allotment which results in a sustainable, stable, rural community - including profitable resource based operations, sustainable wildlife populations, recreational opportunities, and diverse healthy watershed and range condition.*



Pumpnickel Technical Recommendations  
April 13, 1995

I. Middle Pumpnickel Valley

A. Seeding bug infested area with the appropriate species.

1. Recommended species:
  - \* Kochia prostrata
  - \* fourwing
  - \* winterfat
  - bottlebrush squirreltail
  - \* Indian ricegrass
  - \* crested wheatgrass (highcrest)
  - budsage
  - \* globemallow

2. Considerations:

- a. No grazing May through October
- b. Use fencing as a last resort. Herding ;of livestock is preferred.
- c. Use livestock impacts with mulching for seed preparation and planting.
- d. Plant in spring and/or fall.

B. Livestock using the Pumpnickel allotment after May 1 should not use the winterfat or bug infested area (after seeding).

C. Monitor trend of the winterfat area for expansion.

II. South Pumpnickel Valley

A. Kent Spring

1. The type and duration of use is unacceptable. Use is attributed to wild horses and summertime cow use.
2. Need to change pattern of use or season of use.
3. Make this area wild horse free.
4. Agribeef would be willing to seed the near uplands on the private lands once control of use is made.

B. Prescribed Burning

1. Why? Monoculture of sagebrush with a few grass species.
2. Objective:



- a. tighter plant spacings
- b. sage grouse
- c. livestock
- d. healthier water and mineral cycling
- e. edge diversity
- f. increase forb component and perennial grasses (release understory perennials)
- g. prevention /reduce likelihood of wildfire.

3. Considerations:

- a. Respondable understory of perennials
- b. Size - big enough to show response to fire.
- c. Test fire first of 40-80 acres to see how site will respond.
- d. Do we want to proceed with a seeding if no respondable understory or if no understory or if test fire doesn't give us the response that we want.
- e. Timing

C. Developing water from Garden to South Pumpnickel.

### III. Spanish Basin

A. Seeding near Wilson Creek

- 1. Look at Mid Pumpnickel Valley.
- 2. Appropriate species:
  - a. Kochia prostrata
  - b. fourwing
  - c. Indian ricegrass
  - d. crested wheatgrass (highcrest)
  - e. Wyoming sagebrush?

- 3. Rationale: Desert peach is bug infested and needs to be replaced. Planting Wyoming sagebrush may give us more options for funding sources.

### IV. Tobins

- A. Rotate summertime sheep use between the Tobins and Spanish Basin.
- B. Prescribe burn for habitat enhancement, edge affect diversity, and mosaic. The objectives would be the same as for South Pumpnickel.
- C. Russian knapweed at China Creek - Do we want to use a biological control (ie sheep at the rosette stage) or chemical control? Knapweed is presently on private land, but could easily spread onto public land.



V. Dixie Fire

- A. Seeding to similar to Mid Pumpernickel Valley.
- B. Use in the early spring by livestock for cheatgrass control.
- C. Need to develop water or haul water to more effectively use this area.
- D. Goal for this area is to decrease annuals and increase perennials.
- E. Timing of use is critical.

VI. Grazing System

A. 5 alternatives

- 1. Holistic, which would include:
  - a. planning on a yearly basis
  - b. monitoring toward objectives
  - c. control of situation - flexibility
  - d. Rewards for efforts
- 2. Specific use areas for each operator.
- 3. Everyone use all of the allotment (No specific use areas for individual operators).
- 4. Rotation of season/timing of use by use area.
- 5. Continue winter/early spring season of use with flexibility to use during the summer.

B. Questions that need to be answered

- 1. Identification of waters and use areas that will be rotated through.
- 2. Identification of waters that need to be developed and or hauled.
- 3. Rotation schedule - seasonal or yearly?
- 4. Identification of vegetational areas/zones suitable for summertime grazing.
- 5. How far does Hub move cows with dudes? How far apart do waters need to be apart? How often are dudes at the ranch? What is the main timing of the dudes?



## VII. Riparian Monitoring

Will include the following: lentic functionality and greenline of the entire riparian length to determine baseline. Quantifiable objectives and monitoring will be set up after the baseline data is collected.



I. INTRODUCTION

- A. Allotment Name Pumpernickel  
Allotment Number 00116
- B. Permittee(s) Agri Beef Co.  
Rock Creek Ranches  
Roger Johnson  
Arnold Ginsberg
- C. Evaluation Period 1989 - 1993
- D. Selective Management Category C  
Priority 4
- E. Allotment Description

		Land Status			
	Public Land Acres		Other Land Acres	Total Acres	
	124,934	85%	21,475	15%	146,409

II. INITIAL STOCKING RATE

A. Livestock Use:

Permittee	Livestock		Grazing Period		% PL	Active	Preference	
	Number	Kind	Begin	End			Suspended	Total
Agri Beef CO.	4555	S	03/01	06/30	83	6801	1017	7818
	4555	S	10/01	02/28				
Rock Creek RA.	212	C	03/01	05/08	97	1209	113	1322
	212	C	11/11	02/28				
Roger Johnson	120	C	03/01	05/08	100	825	125	950
	120	C	10/12	02/28				
Arnold Ginsberg	57	C	03/01	09/30	100	582	90	672
	57	C	12/01	02/28				

B. Wildlife Use:

1. Reasonable Numbers (from Sonoma- Gerlach MFP-III - 1982)

Mule Deer - (Odocoileus hemionus) 222 AUMs  
Big Horn Sheep - (Ovis canadensis nelsoni) 28 AUMs

2. Key or Critical Management Areas within the allotment.

C. Wild Horse Use:

The 1982 Sonoma-Gerlach MFP-III established an initial stocking level for wild horses in the Pumpernickel Allotment of:



	Wild Horses	
	<u>Number</u>	<u>AUMs</u>
Sonoma Range HA*	0	0
Tobin Range HMA**	17	204

\* 16 % of the Sonoma Range Herd Area (HA) is contained within the Pumpernickel Allotment. The HA is made up of checkerboard lands.

\*\* 4% of the Tobin Range Herd Management Area (HMA) is contained within the Pumpernickel Allotment. The number of horses shown above is for that part of the HMA within the Allotment.

### III. ALLOTMENT OBJECTIVES

No activity plans have been written for the Pumpernickel Allotment. The only objectives that currently exist are the Long Term Land Use Plan objectives that provide the direction of the management. These objectives can also be found in the Rangeland Program Summary (RPS) Update 1992.

#### A. Range - long term

1. Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis with an initial stocking level of 9,437 AUMs.
2. Maintain an acceptable allowable use level on key forage species that will provide a sustained yield.
3. Improve range/ecological condition from fair to good on 15,491 acres and from good to excellent on 950 acres.

#### B. Wildlife - long term

1. 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 222 AUMs for mule deer and 28 AUMs for bighorn sheep, by:
 

Improving or maintaining mule deer habitats in Edna Mountain DT-5, Buffalo Mountain DY-6, Tobin Range DY-4 and DS-4 and Sonoma Range DS-5 and DW-1.
2. Protect sage grouse strutting and nesting habitats and improve brooding habitat.
3. Wildlife habitat management objectives for vegetation utilization shall be as follows except where adjusted by an approved HMP, AMP, and HMAP.
  - a. Terrestrial: will not exceed levels established in the Sonoma Gerlach EIS Table 1-3 for key species.
  - b. Wetland Riparian: shall not exceed 50% for key species.
4. Develop a Habitat Management Plan (HMP) for the Tobin Range WHA-T-\* in cooperation with NV-060.

#### C. Wild Horse - long term



1. Manage, maintain and improve public rangeland conditions to provide for an initial stocking level of 204 AUMs of forage on a sustained yield basis for 17 wild horses in that part of the Tobin Range HMA contained within the Pumpnickel Allotment. (WH&B 1.1)
2. Remove wild horses from checkerboard land HA's unless a cooperative agreement providing for the retention and protection of wild horses is consummated with the affected land owner(s). (WH&B 1.3)
3. Maintain and improve the free-roaming behavior of wild horses by:
  - a. protecting their home range
  - b. assuring free access to water



IV. MANAGEMENT EVALUATION

Summary of Studies Data

A. Actual Use

1. Livestock

Table #1. Livestock Actual Use from Licensed Use.

Permittee	Grazing Year	Livestock		Grazing Period		% PL	AUMs
		Number	Kind	Begin	End		
Agri Beef CO.	1989	3000	S	11/04	11/04	83	16
		6000	S	11/05	12/04	83	982
		7500	S	12/05	01/04	83	1269
		7500	S	01/05	01/20	83	655
		6000	S	01/21	01/31	83	360
		6725	S	02/01	02/01	83	37
		7450	S	02/02	02/02	83	41
		8150	S	02/03	02/05	83	134
		6000	S	02/06	02/28	83	753
		<b>Total</b>					
Rock Creek RA.		208	C	03/01	05/08	97	458
		208	C	11/11	02/28	97	730
<b>Total</b>							<b>1188</b>
Roger Johnson		120	C	11/18	02/28	100	406
<b>Total</b>							<b>406</b>
Arnold Ginsberg							
<b>Total</b>							
<b>Allotment Total</b>							<b>5841</b>
Agri Beef CO.	1990	1500	S	03/01	03/07	83	57
		1050	S	03/01	03/09	83	52
		2150	S	03/04	03/08	83	59
		700	S	04/16	06/30	83	290
		1600	S	11/13	11/15	83	26
		1600	S	11/20	11/20	83	9
		3200	S	11/21	11/21	83	18
		4500	S	11/22	11/22	83	25
		6300	S	11/23	11/30	83	275
		6700	S	12/01	12/15	83	549
		9300	S	12/16	12/17	83	102
		7800	S	12/18	01/04	83	766
		4600	S	01/05	02/28	83	1381
		<b>Total</b>					
Rock Creek RA.		208	C	03/01	05/08	97	458
		208	C	11/11	02/28	97	730
<b>Total</b>							<b>1188</b>
Roger Johnson		85	C	03/01	04/30	100	170
		35	C	03/06	04/30	100	64
		120	C	05/01	05/08	100	32
		120	C	10/11	02/28	100	512



					<b>Total</b>	<b>780</b>
Arnold Ginsberg	57	C	07/01	09/30	100	172
	57	C	12/01	02/28	100	169
					<b>Total</b>	<b>341</b>
					<b>Allotment Total</b>	<b>5918</b>

Agri Beef CO.	1991					
	4600	S	03/01	03/15	83	377
	4600	S	03/16	03/22	83	176
	4500	S	03/23	04/15	83	590
	3250	S	04/16	05/31	83	816
	1500	S	05/02	05/31	83	246
	4750	S	06/01	06/15	83	389
	3250	S	06/16	06/30	83	266
	3000	S	11/09	11/30	83	360
	3000	S	12/01	12/03	83	49
	4500	S	12/04	12/04	83	25
	6000	S	12/05	12/06	83	66
	7500	S	12/07	12/07	83	41
	9000	S	12/08	12/17	83	491
	10500	S	12/18	12/31	83	802
	10500	S	01/01	01/14	83	802
7500	S	01/15	02/07	83	1179	
				<b>Total</b>	<b>6675</b>	

Rock Creek RA.	208	C	03/01	05/08	97	458
	208	C	11/11	02/29	97	736
					<b>Total</b>	<b>1194</b>

Roger Johnson	120	C	03/01	05/08	100	272
	120	C	10/13	02/29	100	552
					<b>Total</b>	<b>824</b>

Arnold Ginsberg	57	C	03/01	09/30	100	401
	57	C	12/01	02/29	100	171
					<b>Total</b>	<b>572</b>

					<b>Allotment Total</b>	<b>9265</b>
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Agri Beef CO.	1992					
	1500	S	03/01	03/03	83	25
	3850	S	03/04	03/04	83	21
	5500	S	03/05	03/05	83	30
	7000	S	03/06	03/06	83	38
	8500	S	03/07	03/07	83	46
	10500	S	03/08	03/13	83	344
	5000	S	03/14	04/30	83	1310
	3000	S	05/01	06/05	83	590
	5000	S	06/06	06/30	83	682
	500	S	07/01	09/30	83	251
	4500	S	10/23	12/31	83	1719
	4500	S	10/24	12/12	83	1228
	3975	S	12/13	12/13	83	22
	3450	S	12/14	12/14	83	19
	2925	S	12/15	12/31	83	271
	3730	S	01/01	01/10	83	204
					<b>Total</b>	<b>6800</b>

Rock Creek RA.	208	C	03/01	05/08	97	458
	100	C	11/15	01/13	97	191



						<b>Total</b>	<b>649</b>
Roger Johnson		120	C	03/01	05/08	100	272
		120	C	09/07	01/14	100	513
						<b>Total</b>	<b>785</b>
Arnold Ginsberg		57	C	03/01	09/30	100	401
		57	C	12/01	01/08	100	73
		45	C	02/15	02/28	100	21
						<b>Total</b>	<b>495</b>
						<b>Allotment Total</b>	<b>8729</b>
Agri Beef CO.	1993	1400	S	03/04	03/06	83	23
		6350	S	03/07	03/15	83	312
		4500	S	03/16	04/30	83	1130
		3200	S	05/01	06/30	83	1065
		500	S	07/01	07/31	83	85
		4000	S	12/12	12/31	83	437
		3750	S	12/22	01/02	83	246
		4000	S	01/01	01/02	83	44
		658	S	12/28	12/28	83	4
		1316	S	12/29	12/29	83	7
		1974	S	12/30	01/02	83	43
		9750	S	01/03	01/17	83	798
		12150	S	01/18	01/29	83	796
		10275	S	01/30	01/31	83	112
		1250	S	02/01	02/28	83	191
						<b>Total</b>	<b>5293</b>
Rock Creek RA.		100	C	03/01	05/08	97	220
		100	C	11/11	02/28	97	351
		112	C	11/19	02/28	97	364
						<b>Total</b>	<b>935</b>
Roger Johnson		120	C	03/01	04/03	100	134
		120	C	10/12	02/28	100	552
						<b>Total</b>	<b>686</b>
Arnold Ginsberg		57	C	03/01	09/30	100	401
		57	C	12/01	02/28	100	169
						<b>Total</b>	<b>570</b>
						<b>Allotment Total</b>	<b>7484</b>

#### EVALUATION OF TABLE #1

The actual use has been stable for Rock Creek Ranch, Roger Johnson, and Arnold Ginsberg throughout the evaluation period. Agri Beef's actual use has fluctuated from 3609 AUMs in 1990 to 6800 in 1992.

#### 2. Wildlife

These data provided by Philip Benolkin, NDOW wildlife biologist.



a. Mule Deer

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**Table #2 Mule Deer Trend and Population Estimate and Use**  
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<u>ALLOTMENT</u>	<u>YEAR</u>	<u>Deer Population</u>		<u>Mule Deer Ratios Fawns/100 Adults</u>	
		<u>Estimate</u>	<u>AUMs</u>	<u>Spring</u>	<u>Fall</u>
Pumpnickel (046 Hunt Unit)	1989	40	120	ND 1/	54.0
	1990	75	225	59.0	ND
	1991	75	225	ND	57.5
	1992	87	261	23.3	34.9
	1993	79	237	25.0	21.0

1/ No Data

=====  
Evaluation of Table #2

These data indicates an increasing population of mule deer during the evaluation period. These data however also indicate a significant decrease in the number of fawns per 100 adults for the evaluation period. Spring and fall fawn ratios less than 35 per 100 adults indicates a declining deer herd especially over a long period of time. The adult deer population estimate indicates a more of a stable deer population, however this is only an estimate and is not indicative of the recruitment data and the weather and habitat variables may affect the final estimate.

b. Sage Grouse

Sage grouse strutting ground survey by helicopter in 1992 by NDOW.

<u>Number of Male Sage Grouse</u>	<u>Location</u>
1	Tobin Range-T32N, R40E, Section 27, NW,SW

Evaluation of sage grouse data

This one male sage grouse at this one strutting ground indicates a non-existent sage grouse population.

3. Wild Horse

The 1991 and 1992 population estimates and AUM demand are from census data collected in August 1991, and an aerial distribution flight conducted September 1992. The 1993 population estimate and AUM demand is based on an 11 % increase of the 1992 population estimate.

=====  
**Table #3 Wild Horse Population Estimate and AUM Demand in the Pumpnickel Allotment**  
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<u>Year</u>	<u>Population - head</u>	<u>AUM's</u>
1989	ND/	ND/
1990	ND/	ND/



1991	27	324
1992	42	504
1993	47	564

ND/ No Data

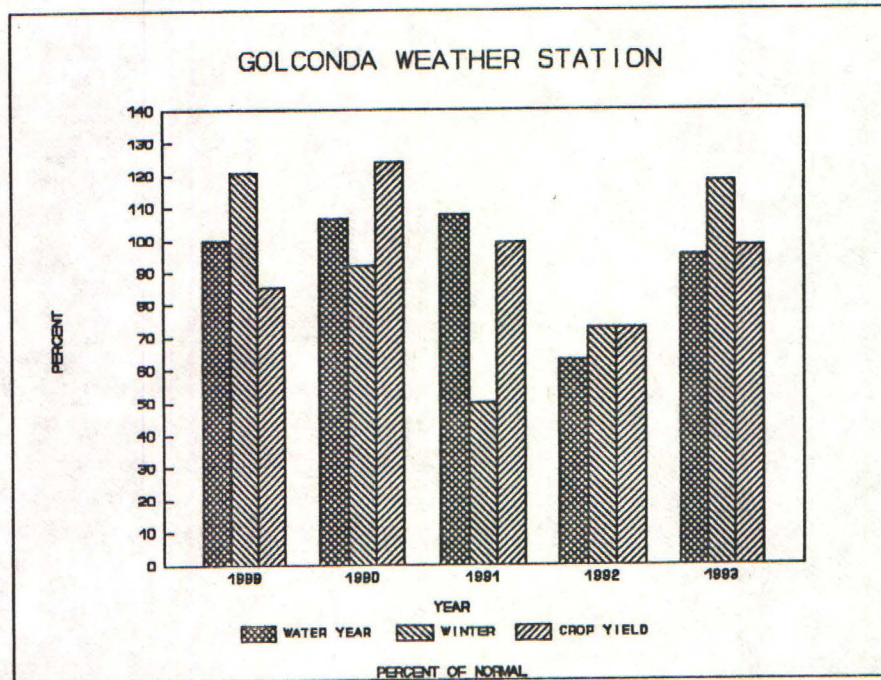
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Evaluation of Table #3

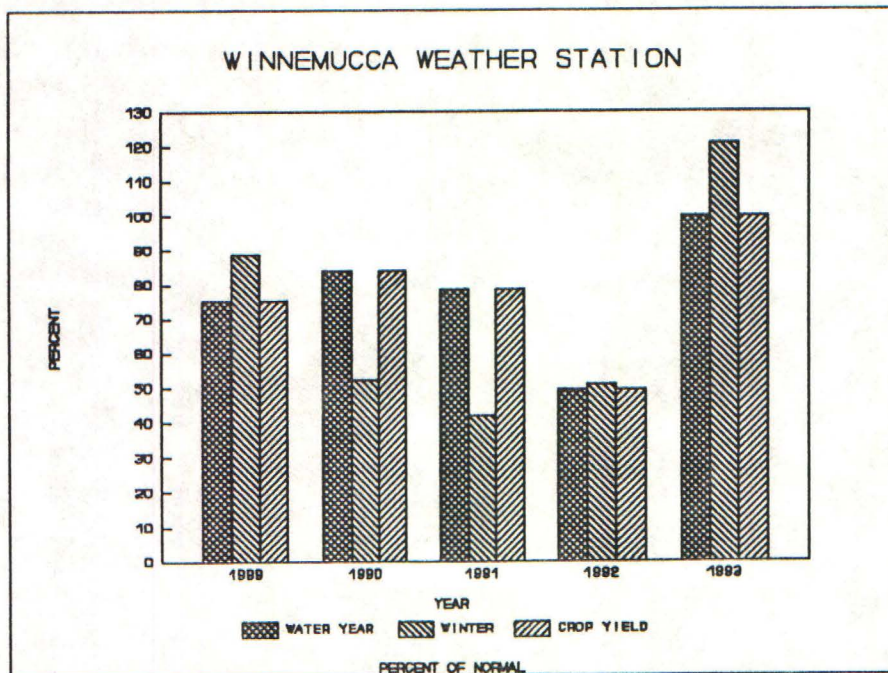
Prior to Roger Johnson's report of horses in the Smelser Pass area in December 1990, there had been no known horses within the Pumpernickel Allotment since November 1986. Actual use has been increasing each year since 1991.

B. Climate

The following two figures illustrate the percent of normal precipitation for the water year (October - September); winter precipitation (November - February); and the crop yield (September - June) recorded at the Golconda and Winnemucca NOAA weather stations from 1989 through 1993.







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Figures 1 and 2

The Golconda weather station has been at normal or close to normal every year except for in 1992. The Winnemucca weather station has been below normal every year except for in 1993. Although these two weather stations show different precipitation patterns, both stations depict the precipitation patterns of the Pumpnickel Allotment because parts of this allotment have received normal precipitation where as other parts of it have not.

c. Utilization

1. Upland Utilization

a. July 25, 1986 South end of Allotment:

Good stand of perennials with no use observed on the loamy 24-5 ecological site. A good stand of Thurbers needlegrass was observed.

b. October 15-17, 1988

Three use classes were used to map the allotment: Light Use (0-40%); Moderate Use (41-60%); and Heavy Use (61-100%). Light use was prevalent throughout the allotment. Moderate use was found in the Dixie Fire Area, along the fenced private lands, and near Lone Tree Mine. Heavy use was found from just south of Kent Spring north to just above Ragan Creek Ranch along Ragan Creek itself.

c. May 5,6,7, 1992 No apparent use - 11,884 acres (68%), No apparent use (Dixie Fire Area) - 3774 acres (21%), Slight use - 1415 (8%), Light use - 327 acres



(2%), Moderate use - 0 acres (0%), Heavy use - 153 acres (1%), and Severe use - 0 acres (0%).

Only the Tobin Mountains, South Pumpnickel Valley, and Dixie Fire area were mapped during the evaluation period. In the Tobin Mountain Area, slight use occurred northeast of China Creek and in Garden Canyon. No apparent use was found in the South Pumpnickel Area except for two areas. The area around Kent Springs had heavy use and the area along the boundary fence between Goldbanks and Pumpnickel Allotments had light use. No apparent use was mapped within the Dixie Fire area which is made up primarily of annual species.

## 2. Riparian Utilization

### a. Data found from July 25, 1986

#### 1. Garden Creek:

Light use along the road. Meadows showed old signs of punching about two years old by cattle, but are healing very well. Signs of sheep prevalent, but little evidence of forage use. Heavy sheep and horse (probably domestic) near sheep corral near head of creek.

#### 2. China Creek:

Very light use was observed. Riparian was in excellent condition.

#### 3. Kent Spring:

Extreme cattle use was observed. Creek has a 15 foot cutbank and cattle have been trailing down the creek, so there is no vegetation on creek. Severe use goes directly into light use with a very little moderate zone. Moderate zone forms where Smelser road bisects Pumpnickel Road.

#### 4. Manganese Spring:

The spring was dry and no use was observed in the area.

#### 5. Ragan Creek between two reservoirs:

Cattle use was heavy. Hoof damage from extensive use. Wet areas heavily punched.

#### 6. Heavy cattle use on dry stream bed and vicinity. Moderate use about 100 yards on side of streambed on bottlebrush squirreltail.

### b. 11/18/93



1. Wilson Creek
  - Nevada bluegrass - 70%
  - Sedge - 11%
  - Horsetail - 6%
  - Willow - 2%
  - Wild Rose - 46%
  
2. Spanish Basin
  - Crested Wheatgrass - 0%
  - Basin wild rye - 0%
  - Sedge - 0%

D. Trend

Trend was determined in the Pumpernickel Allotment by reconditioning the allotment utilizing Ecological Site Inventory (ESI) to indicate whether the rangeland is moving toward or away from the potential natural community. In order to better describe the condition and trend of the Pumpernickel Allotment, the allotment was divided into eight different areas. The areas will be referred to as Golconda, Edna Mountains, Buffalo Mountains, North Pumpernickel Valley, South Pumpernickel Valley, Spanish Basin, Dixie Fire, and the Tobins.

The Golconda area lies between the Edna Mountains, Rock Creek and the Diamond S Allotment Boundaries. The area is dominated by Ecological Sites 024XY002 loamy 5-8" and 024XY005 loamy 8-10", which are generally in mid seral condition. Two transects were done on this area on the 024XY002 loamy 5-8" sites indicating a static to upward trend. Budsage increased in percent composition by weight. Shadscale, the dominate species on this site at the lower seral conditions, decreased in percent composition by weight.

The Edna Mountains area includes the Edna Mountains. The area is dominated by ecological site 024XY030 shallow calcareous loam 8-10" with 024XY005 loamy 8-10", 024XY020 droughty loam 8-10", 024XY021 loamy slope 12-14" and 024XY028 south slope 8-12" sites usually occurring in the draws. The area is generally in mid seral condition. One transect was done on a 024XY030 site indicating an upward trend. Black sagebrush decreased by percent composition by weight with small increases in bottlebrush squirreltail, and sandbergs bluegrass, and Thurbers needlegrass.

The Buffalo Mountains area includes the west side of the Buffalo Mountains. The area is dominated by ecological site 024XY002 loamy 5-8" with less amounts of 024XY030 shallow calcareous loam 8-10" and 024XY031 shallow calcareous loam 10-14". The 024XY002 site is in late seral condition and the 024XY030 and 024XY031 sites were generally in mid seral condition. No trend transects or re-conditioning transects were completed in this area.

The North Pumpernickel Valley area includes the valley between the Edna Mountains and the Buffalo Mountains from Interstate 80 south to Pumpernickel Valley Reservoir. The area is dominated by 024XY002 loamy 5-8" in the valley with a less amount of 024XY005 loamy 8-10" on the piedmont slopes. The 024XY002 site is mostly in late seral condition with some acreage in early, mid, and potential. Three re-conditioning transects were conducted on the North Pumpernickel Valley Area. One showed a static trend and the



other two showed a downward trend. On the two sites that showed a downward trend, the shadscale increased by percent composition by weight and budsage decreased by percent composition by weight. The grass species were static. The 024XY005 loamy 8-10" sites were generally in mid seral condition. No trend transects were done on a 024XY005 loamy 8-10" in this area.

The South Pumpernickel Valley area lies on the valley floor between the Sonomas and the Tobins south of Pumpernickel Reservoir. The area is dominated by ecological site 024XY005 loamy 8-10" with a less amount of 024XY020 droughty loam 8-10". The area is generally in mid seral condition with the 024XY020 droughty loam 8-10" coming out as late seral. A re-conditioning transect was conducted on the 024XY005 site and showed an upward trend. The Indian ricegrass increased in percent composition by weight and the Wyoming big sagebrush decreased in percent composition by weight.

The Spanish Basin area includes the Sonoma Range portion of the allotment. The area is dominated by ecological site 024XY028 south slope 8-12", 024XY027 claypan 12-16", and 024XY021 loamy slope 12-14". The 024XY028 south slope 8-12" and 024XY021 loamy slope 12-14" sites were generally in mid seral condition and the 024XY027 claypan 12-16" was generally in late seral condition. One re-conditioning transect was completed on a 024XY021 loamy slope 12-14" site. The transect showed an upward trend. Idaho fescue, basin wildrye, and Wyoming big sagebrush increased by percent composition by weight. Sandbergs bluegrass and rabbitbrush decreased by percent composition by weight. A second transect was conducted on a 024XY028 south slope 8-12" site. The transect indicated an upward trend. Thurbers needlegrass and basin wildrye increased by percent composition by weight. Wyoming big sagebrush, rabbitbrush, and sandbergs bluegrass decreased by percent composition by weight.

The Dixie Fire includes the south end of the Buffalo Mountains and the north end of the Tobins that burned in 1985. The Dixie Fire is dominantly on the fan piedmonts and mountains of granite and siliceous rocks. The elevations for the fan piedmonts range from 5000-5600 feet and the mountains range from 5500 to 7000 feet. 38,278 acres burned in the Pumpernickel, North Buffalo, and South Buffalo Allotments. This portion of the Pumpernickel Allotment was closed from livestock use from January 29, 1986 to February 21, 1989. At that time, it was determined that the primary goals of the fire closure were accomplished. No recent trend studies has been done on this area.

The Tobins is that portion of the Tobin Mountains that lie within the Pumpernickel Allotment that did not burn in 1985. The area is dominated by ecological sites 024XY030 shallow calcareous loam 8-10" site and 024XY031 shallow calcareous loam 10-14" with less amounts of 024XY005 loamy 8-10" and 024XY021 loamy slope 12-14", which are generally in mid seral condition. No trend transects were done in this area during the evaluation period.

#### E. Ecological Site Inventory

An ecological status inventory was completed during the 1978 field season. The following lists the acres and percentage by seral stage for the allotment.



<u>Seral Stage</u>	<u>Acres</u>	<u>Percent</u>
Early	963	1%
Mid	62886	45%
Late	61689	44%
Potential	13674	10%

The following paragraphs describe the plant community dynamics of the prevalent ecological sites within the Pumpernickel Allotment.

Ecological Site 024XY002

Ecological Site 024XY002 loamy 5-8" p.z. occurs on low hills, fan piedmonts, alluvial flats on all aspects. Elevations are 4000 to 6000 feet. The plant community is dominated by shadscale, budsage, and Indian ricegrass. The potential vegetative composition is about 25% grasses, 5% forbs, and 70% shrubs. Where management results in abusive use by livestock, shadscale increases in density while Indian ricegrass and bud sagebrush compositions are reduced. With further site degradation, shadscale may become dominant to the extent of a nearly pure stand. Cheatgrass, halogeton and tansy mustard are species likely to invade this site. Ecological Site 024XY002 comprises 37% of the Pumpernickel Allotment. 5% of this site is at the potential natural community, 79% is in late seral condition, and 16% of this site is in mid seral condition. The sites that are at potential have a good mixture of shadscale, budsage, and bottlebrush squirreltail. The areas that are in late seral condition also have a good mixture of shadscale and budsage with a less amount of bottlebrush squirreltail and a small amount of cheatgrass. The areas that are in mid seral are shadscale dominated sites that also have cheatgrass and halogeton present. The areas that are in early seral condition are cheatgrass dominated sites.

Ecological Site 024XY005

Ecological Site 024XY005 loamy 8-10" p.z. occurs on lower mountains, hills, and piedmont slopes of all exposures. Elevations are 5000 to 6500 feet. The plant community is dominated by Thurbers needlegrass and Wyoming sagebrush. The potential vegetative composition is 55% grasses, 5% forbs, and 40% shrubs. Where management results in abusive use by livestock, Thurbers needlegrass and bluebunch wheatgrass decrease and are replaced by bluegrasses and bottlebrush squirreltail as the dominant grasses in the understory. Cheatgrass and other annuals will begin to dominate the understory as conditions deteriorate. Wyoming big sagebrush and downy rabbitbrush increase in the overstory and become the dominant vegetation on this site. Where site degradation has been fire induced, broom snakeweed may comprise 30-50 percent of the total annual yield. Ecological Site 024XY005 comprises 15% of the Pumpernickel Allotment. 6% of the site is in late seral condition and 94% of the site is mid seral condition. Both the areas that are in late and mid seral conditions are dominated by big sagebrush. The difference in condition is that the late seral site has more diversity in the remaining composition by weight .

Ecological Site 024XY009



The Ecological Site 024XY009 Saline Meadow 6-10" p.z. occurs on nearly level floodplains and inset fans. Elevations are from 4000 to 5500 feet. The plant community is dominated by alkali sacaton, with lesser amounts of alkali muhly. Potential vegetative composition is 85% grasses and grass-like plants and 15% forbs. Where management results in abusive use by livestock, "woody plants" often increase, especially rabbitbrush species. Inland saltgrass and Baltic rush increase and become the main understory species. Fivehook bassia, annual mustards, foxtail barley and other annual forbs and grasses are species likely to invade this site. Ecological Site 024XY009 comprises less than 1% of the Pumpernickel Allotment. 100% of this site is in early seral condition. This site consists of 60% baltic rush and at potential baltic rush should only comprise 2% of the total weight of vegetation.

#### Ecological Site 029XY030

Ecological Site 028XY030 shallow calcareous loam 8-10" p.z. is found on summits and sideslopes of piedmont slopes, hills, and lower mountains on all exposures. Elevations are 500 to 6500 feet. The plant community is dominated by black sagebrush, Thurbers needlegrass, and Indian ricegrass. The potential vegetative composition is 50% grasses, 5% forbs, and 45% shrubs. Where management results in abusive use by livestock, Indian ricegrass and Thurbers needlegrass decrease as Sandberg bluegrass and bottlebrush squirreltail increase in the understory. The density of black sagebrush, rabbitbrush, shadscale, and horsebrush increase and become the dominant overstory vegetation. Abusive grazing by sheep will reduce black sagebrush in the plant community. Cheatgrass, Russian thistle, and halogeton are species most likely to invade this site. Ecological Site 024XY030 comprises 10% of the Pumpernickel Allotment. 16% of the site is in late seral condition and 84% of the site is in mid seral condition. The areas that are in late seral are dominated by black sagebrush with the other shrubs presents the shrubs equal 85-90% of the composition by weight. The mid seral sites are dominated also by black sagebrush which makes up 77% of the total composition by weight.

#### F. Wildlife Habitat

##### 1. Mule Deer

Wildlife habitat evaluation for the Sonoma Range Wildlife Habitat Area was collected in 1990. Five parameters are considered when evaluating the habitat suitability and they are: browse vigor, forage quality, vertical cover, disturbance or interference, and water distribution.

The Sonoma Range (DS-5) includes 57,389 acres located at the higher portions of the mountain range. The Sonoma Range DS-5 has an overall habitat suitability of 75 or good rating; where Good ranges from 61 to 80. See Table #4 for a summary of the individual parameters.

Sonoma Range (DY-1) includes 97,311 acres at the sides and lower portions of the mountain range. The Sonoma Range DY-1 has an overall habitat suitability of 61 or Good; where Good ranges from 61 to 80. See Table #4 for a summary of the individual parameters.



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**Table #4** *Summary of the individual Mule Deer Habitat Suitability parameters for the Sonoma Range DS-5 and DW-1 listed from limiting to least limiting.*

<u>Parameters</u>	<u>Mule Deer Use Area</u>		<u>Optimum Rating</u>
	<u>DS-5</u>	<u>DW-1</u>	
Forage Quality Rating	4.5	3.6	17.0
Vertical Cover Rating	9.2	8.7	17.0
Disturbance or Interference	14.8	14.4	18.0
Water Distribution Rating	16.0	14.4	16.0
Browse Vigor Rating	16.0	12.0	16.0

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**Table #4A** *1990 Mule Deer Habitat Condition Ratings for the Transects that Lie Within the Pumpernickel Allotment.*

<u>Use Area</u>	<u>Transect</u>	<u>Habitat Condition Rating</u>
DS-5	6	57 - Fair
DS-5	30	63 - Good
DS-5	32	75 - Good
DW-1	16	59 - Fair
DW-1	21	53 - Fair

=====  
 The forage quality rating is the most limiting parameter for the Sonoma Range for both DS-5 and DW-1.

2. Bighorn Sheep

At this time there is no occupied bighorn sheep habitat. Bighorn Sheep populations are limited now by the domestic sheep grazing within the allotment. If any potential restocking of bighorn sheep were to occur all domestic sheep/ bighorn sheep conflicts would have to be resolved first. At that time the limiting factor would be water distribution for all three use areas.

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**Table #6** *Bighorn Sheep Optimum Carrying Capacity and Habitat Suitability Rating (HSR)*

<u>Optimum Carrying</u>	<u>PERCENT OF OPTIMUM</u>	
	<u>With Domestic</u>	<u>Without Domestic</u>



<u>Use Area</u>	<u>Capacity</u>	<u>Sheep</u>	<u>Sheep</u>
BS-3	3	0	69
BW-2	4	0	49
BY-1	38	0	38

G. Water Inventory

The water inventory conducted in 1978-1986 found 44 perennial springs, 12 intermittent springs, 3 perennial seeps, 19 intermittent seeps, 1 pond, 2 perennial reservoirs, 1 intermittent reservoir, and 1 intermittent well. One well and one pipeline have been added to the Pumpnickel Allotment since 1986. Streams were not inventoried during this inventory. The focus was on springs and seeps.

H. Riparian Habitat

No functionality has been conducted on the riparian habitat within the Pumpnickel Allotment, but on the July 28, 1994 field tour the following riparian areas were identified: Wilson Creek, Spanish Basin, China Creek, Garden Canyon, Kent Springs, and Brooks Spring.

I. Wild Horse Distribution

The following table lists the flight date, number of horses observed and the type of aircraft that were used to collect distribution data on horses in or near the Tobin Range HMA.

Table #7 Wild Horse Distribution

<u>Date</u>	<u>Number Observed</u>	<u>Aircraft Type</u>
3/69	0	Fixed Wing
9/74	0	Super Cub
6/77	0	Super Cub
8/80	14 <u>1/</u>	Bell 47
10/86	0	Bell 47
8/89	0	Shrike Aero Commander
8/91	27	Bell 47G4 Soloy
2/92	29	Cessna 210
5/92	34	Maule MX-5
9/92	42 <u>2/</u>	Maule MX-5

1/ In Tobin Range HMA, on the western boundary north of China Creek.

2/ 9 head of the 42 horses observed were in the Tobin Range HMA on the western boundary north of China Creek.

Evaluation of Table #4

There were no wild horses found in that portion of the Tobin Range HMA that is contained within the Pumpnickel Allotment until August 1980. Prior to the total removal of wild horses from the Sonoma Range HA in October/November 1986, a helicopter census of the Tobin Range HMA did not find any horses in or near that part of the HMA contained within the allotment. With the exception of



August 1980 and September 1992, all of the horses observed in the allotment have been in the Sonoma Range HA which shares a common boundary with the Tobin Range HMA from Smelser Pass south to the allotment boundary fence at Panther Canyon.

The primary area of use by wild horses is in the Sonoma Range HA with only occasional use in the Tobin Range HMA along the common boundary. The attached map outlines the area of use that has been observed since 1991. During distribution flights horses have been found on the lower slopes and hills from China Creek north to the Smelser Pass area in the Sonoma Range HA. Field observations indicate the horses are watering primarily on private lands along China Creek and north of Kent Spring, then trailing back to the lower slopes and foot hills north of China Creek during late spring, summer and fall. During the winter months the animals have been reported using an area on the southern end of Buffalo Mountain approximately two miles north of Smelser Pass, as well as the lower slopes and foothills between Smelser Pass and China Creek. Wild horses have been observed on fenced private land along Ragan Creek and on the flats at the mouth of Garden Canyon.

J. Wild Horse Removal Data

October/November 1986	442 head	Sonoma Range HA
May 1992	4 head	Pumpnickel Reservoir

In conformance with the Sonoma-Gerlach MFP-III, wild horse and burro decision WH&B 1.3, all wild horses were removed from the Sonoma Range HA. The number of horses shown above is the total number of horse removed from the Sonoma Range HA. It is not known if any of the horses removed in 1986 came from the Pumpnickel Allotment. Removal records do not indicate the number of animals removed by allotment, however a census conducted in June 1985 did not find any horses in the Pumpnickel Allotment portion of the Sonoma Range HA.

In May 1992, Tom Filbin of Agri-Beef reported that four wild horses had broken through a fence around their private lands at Pumpnickel Reservoir, driving approximately 25 head of brood mares onto federal lands. Following an on site inspection of the domestic and wild horses, the 4 studs were declared problem animals and removed from Agri-Beef's fenced private lands.

V. CONCLUSIONS

A. Range - long term

1. Manage, maintain, and improve public rangeland conditions to provide forage on a sustained yield basis with an initial stocking level of 9,437 AUMs.

This objective has been met in:

- (1) the South Pumpnickel Area because utilization has been slight and the trend is upward.
- (2) the Tobin Mountains area because the utilization has been slight to not apparent in this area.
- (3) the Edna Mountain area because the trend is up.
- (4) the Golconda area because the trend is static to upward.
- (5) the Spanish Basin area except for the burn areas because utilization has been within the proper



levels and trend is upward.

This objective has not been met in:

- (6) the Dixie Fire area, the insect kill areas, or the burn on the Sonomas because these areas consist mostly of annual species that are not produced on a sustained yield basis due to the fact that annual production is dependent on the amount and timing of annual precipitation.
- (7) in the North Pumpernickel Area because the trend is static to downward. Climatical factors as well as pre-mining drift of livestock from the North Buffalo Allotment could be possible reasons for the static to downward trend.

This objective is unknown for the Buffalo Mountains area because no trend or utilization has been done in this area.

Actual use has varied from 5841 AUMs to 9265 AUMs due to the variations in the sheep operation.

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

a. This objective has been met in:

- (1) the South Pumpernickel Area because utilization has been slight and the trend is upward.
- (2) the Tobin Mountains area because the utilization has been slight to not apparent in this area.
- (3) the Edna Mountain area because the trend is up.
- (4) the Golconda area because the trend is static to upward.
- (5) the Spanish Basin area except for the burn areas because utilization has been within the proper levels and trend is upward.

b. This objective has not been met in:

- (1) the Dixie Fire area, the insect kill areas, or the burn on the Sonomas because these areas consist mostly of annual species that are not produced on a sustained yield basis due to the fact that annual production is dependent on the amount and timing of annual precipitation.
- (2) in the North Pumpernickel Area because the trend is downward. Climatical factors as well as pre-mining drift of livestock from the North Buffalo Allotment could be possible reasons for the static to downward trend.

c. This objective is unknown for the Buffalo Mountains area because no trend or utilization has been done in this area.

3. Improve range/ecological condition from fair to good on 15,491 acres and from good to excellent on 950 acres.

Location of acreages from the objective is unknown. The 1978 Ecological Site Inventory shows the following acreages



of ecological condition for the Pumpernickel Allotment:

Poor	963	1%
Fair	62886	45%
Good	61689	44%
Excellent	13674	10%

The trend for the allotment is as follows:

- a. Golconda Area has a static to upward trend.
- b. North Pumpernickel Valley has a static to downward trend.
- c. Edna Mountains has an upward trend.
- d. Buffalo Mountains is unknown.
- e. South Pumpernickel Valley has an upward trend.
- f. Spanish Basin has an upward trend.
- g. Dixie Fire is unknown.
- h. Tobin Mountains has an upward to static trend based on professional judgement of the area.

B. Wildlife - long term

1. 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 222 AUMs for mule deer and 28 AUMs for bighorn sheep, by:

Improving or maintaining mule deer habitats in Edna Mountain DT-5, Buffalo Mountain DY-6, Tobin Range DY-4 and DS-4 and Sonoma Range DS-5 and DW-1.

a. Mule Deer

Unknown for the Edna Mountains, the Buffalo Mountains, and the Tobin Mountains. The Sonoma Range as a whole is in good condition with the limiting factor being forage quality. The mule deer forage quality rating for the Sonoma Range portion of Pumpernickel allotment has been compared using the ESI data (1978) and field data collected in 1990. The DS-5 (Deer Summer) use area had no significant change in forage quality rating. The minor numerical increase in change in one transect may be due to the potential variation which may be expected using two different inventorying methods.

The DW-1 (Deer Winter) use area had no numerical changes in habitat suitability between data collected in 1978 and 1990. Therefore, the mule deer habitat remained overall static from 1978 and 1990.

b. Bighorn Sheep

No bighorn sheep have been reintroduced onto the allotment. The habitat suitability rating is at 69% of optimum on the summer range, the winter range is at 49% of optimum, and the yearlong range is at 38% of optimum. The limiting factor is water distribution.

2. Protect sage grouse strutting and nesting habitats and improve brooding habitat.



Met because the area is in a late seral stage, utilization has been slight to light, and no vegetal manipulation has occurred in this area. Only one known site has been identified in the Pumpnickel allotment for sage grouse. At this site only one male sage grouse was seen. Potential bird displacement. Lack of specific monitoring data to determine trend.

3. Wildlife habitat management objectives for vegetation utilization shall be as follows except where adjusted by an approved HMP, AMP, and HMAP.
  - a. Terrestrial: will not exceed levels established in the Sonoma Gerlach EIS Table 1-3 for key species.
  - b. Wetland Riparian: shall not exceed 50% for key species.
    1. Uplands- same answer as Range #2.
    2. Wetland Riparian
      - (a) Garden Creek  
Met, except for where the sheep corrals are located.
      - (b) Kent Spring  
Not Met from the reservoir to Kent Spring. Met below Kent Spring and the reservoir. Use has been made by cows, sheep, and wild horses.
      - (c) China Creek  
Met, Use Pattern Mapping indicates that China Creek is meeting its use limit.
      - (d) Manganese Spring  
Is on private land. However, the trough is dry and no apparent use has been observed.
      - (e) Ragan Creek  
Is only a seasonal run-off wash.
      - (f) Granite Wash Spring  
Needs to be reconstructed.
      - (g) Gregg Canyon/Wilson Creek  
Not met on Nevada bluegrass in 1993 on the 100 yards of the two mile stream that was monitored. It was met on the following species that were monitored along the 100 yard transect: sedge, horsetail, willow, and wild rose. Met in 1994 (Field Trip).
      - (h) Spanish Basin



Met in 1993 and 1994.

(i) Brooks Spring

Currently the spring is dry and water is being piped to a nearby location.

(j) Sulphur Spring

No data.

4. Develop a Habitat Management Plan (HMP) for the Tobin Range WHA-T-\* in cooperation with NV-060.

Not Met. Has not been initiated.

C. Wild Horse - long term

1. Manage, maintain and improve public rangeland conditions to provide for an initial stocking level of 204 AUM's of forage on a sustained yield basis for 17 wild horses in that part of the Tobin Range HMA contained within the Pumpernickel Allotment. (WH&B 1.1)

Not Met. Sufficient forage within the HMA is available, but the horses are utilizing the Sonoma Herd Area and other areas outside the HMA (Dixie Fire Area) more than the areas within the HMA boundary.

2. Remove wild horses from checkerboard land HA's unless a cooperative agreement providing for the retention and protection of wild horses is consummated with the affected land owner(s). (WH&B 1.3)

Not Met. Wild horses are still utilizing the Sonoma Herd Area.

3. Maintain and improve the free-roaming behavior of wild horses by:

a. protecting their home range

Met. No fences. Wild horses still have free movement. No actions to impede the movement of wild horses

b. assuring free access to water

Met. Water is available to wild horses both on private and public lands.

VI. RECOMMENDATIONS

K. Technical Recommendations

1. Carrying Capacity

Insufficient utilization data to base any changes in the authorized use by livestock within the allotment, either



upward or downward.

2. Grazing System

See inserts for alternatives that have been discussed up to this point.

L. Range Improvements

See inserts for alternatives that have been discussed up to this point.

M. Allotment Objectives

1. Short Term

2. Long Term

3. Desired Plant Community Objectives

See inserts for alternatives that have been discussed up to this point.

N. Wildlife Monitoring

See inserts for alternatives that have been discussed up to this point.

O. Wild Horse Monitoring

See inserts for alternatives that have been discussed up to this point.

P. Set Schedule for Next Evaluation