2/7/96

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Winnemucca District Office
705 East 4th Street
Winnemucca, Nevada 89445

In Reply Refer To:
(NV-026.12)
4400.3

February 7, 1996

Dear Interested Party:

Enclosed is a second draft of the Pumpernickel Allotment evaluation. After receiving comments from all of the interested parties, the BLM's interdisciplinary team recommended adding another wild horse alternative. A meeting will be held at 6:30 p.m. at the Golconda School in Golconda, Nevada, on February 27, 1996 to discuss this new alternative with the Pumpernickel Working Group.

Please review the Draft document and provide comments by February 27, 1996. I strongly encourage you to come and participate in the process.

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

Sincerely yours,

Richard E Adams, Acting

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

Enclosure

CC: Ms. Cathy Barcomb
Mrs. Dawn Lappin
Mr. Craig Downer
Ms Cindy DeWeese
Ms. Ann Kerstin
Mr. Richard Heap
Mr. Phillip Benolkin
Mrs. Rose Strickland
Ms. Johanna H. Wald
Rock Creek Ranch
Mr. Jim Jeffress

Mr. Bob Schweigertt
Mr. Arnold Ginsberg
Mr. Richard Hubbard
Mr. Tom Filbin
Mr. Robert Rebholtz
Ms. Tommie Cline Martin
Mr. Roger Johnson

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

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.

No critical wildlife areas have been identified within the allotment, however, the following mule deer habitat has been identified: Edna Mountain DY-5; Buffalo Mountains DY-6; Tobin Range DY-4 and DS-4; and Sonoma Range DS-5 and DW-1.

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	
	Number	AUMs
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 direction for 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 Pumpernickel 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 Number	Kind	Grazing Period Begin	End	% PL	AUMs
	1989						
Agri Beef CO.		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
						Total	**4247**
Rock Creek RA.		208	C	03/01	05/08	97	458
		208	C	11/11	02/28	97	730
						Total	**1188**
Roger Johnson		120	C	11/18	02/28	100	406
						Total	**406**
Arnold Ginsberg							
						Total	
						Allotment Total	**5841**
	1990						
Agri Beef CO.		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
						Total	**3609**
Rock Creek RA.		208	C	03/01	05/08	97	458
		208	C	11/11	02/28	97	730
						Total	**1188**
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
						Total	**780**
Arnold Ginsberg		57	C	07/01	09/30	100	172
		57	C	12/01	02/28	100	169
						Total	**341**
						Allotment Total	**5918**
	1991						
Agri Beef CO.		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
						Total	**6675**
Rock Creek RA.		208	C	03/01	05/08	97	458
		208	C	11/11	02/29	97	736
						Total	1194
Roger Johnson		120	C	03/01	05/08	100	272
		120	C	10/13	02/29	100	552
						Total	**824**
Arnold Ginsberg		57	C	03/01	09/30	100	401
		57	C	12/01	02/29	100	171
						Total	**572**
						Allotment Total	**9265**
	1992						
Agri Beef CO.		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
						Total	**6800**

Rock Creek RA.		208	C	03/01	05/08	97	458
		100	C	11/15	01/13	97	191
						Total	**649**
Roger Johnson		120	C	03/01	05/08	100	272
		120	C	09/07	01/14	100	513
						Total	**785**
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
						Total	**495**
						Allotment Total	**8729**
	1993						
Agri Beef CO.		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
						Total	**5293**
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
						Total	**935**
Roger Johnson		120	C	03/01	04/03	100	134
		120	C	10/12	02/28	100	552
						Total	**686**
Arnold Ginsberg		57	C	03/01	09/30	100	401
		57	C	12/01	02/28	100	169
						Total	**570**
						Allotment Total	**7484**

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

Table #2 Mule Deer Population and Trend Estimate and Use on the Sonoma Range

ALLOTMENT	YEAR	Deer Population Estimate	AUMs	Mule Deer Ratios Fawns/100 Adults Spring	Fall
Pumpernickel (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 on the Sonoma Range. Our objective is to have an initial forage demand for mule deer of 222 AUMs and that has been exceeded in every year except in 1989. 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, over a long period of time, may indicate a declining deer herd. 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.

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

Evaluation of Sage Grouse Data

During the 1992 survey, one male sage grouse was seen on a strutting ground. A follow up survey may be necessary to determine viability and trend of this 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 Pumpernickel Allotment

Year	Population - head	AUM's
1989	ND/	ND/
1990	ND/	ND/
1991	27	324
1992	42	504
1993	47	564

ND/ No Data

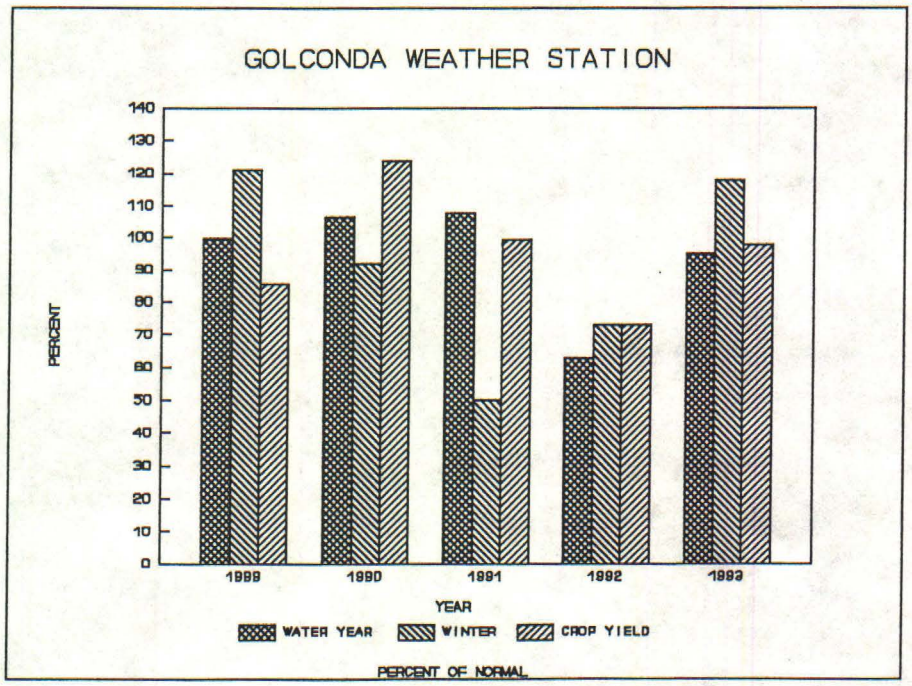
==========

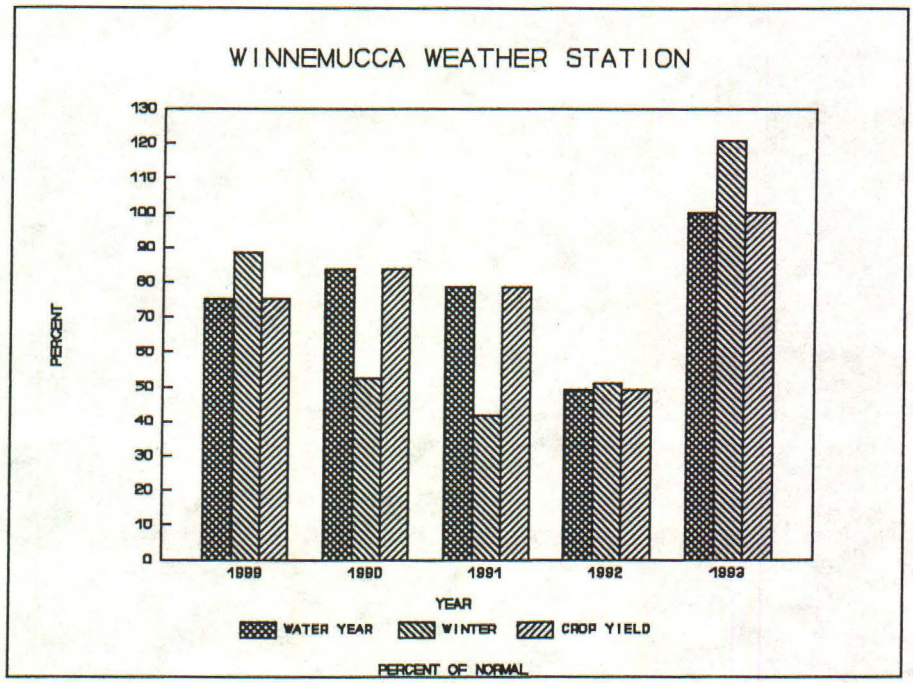
Evaluation of Table #3

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.





Evaluation of 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 Pumpernickel 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 (South Pumpernickel Valley):

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 Pumpernickel 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 Pumpernickel Area except for two areas. The area around Kent Springs had heavy use and the area along the boundary fence between Goldbanks and Pumpernickel Allotments had light use. No apparent use was mapped within the Dixie Fire area which is primarily 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. The severe use zone goes from Kent Spring to the reservoir, which is about half a mile downstream from Kent Spring. A moderate zone forms where Smelser road bisects Pumpernickel Road.

4. Manganese Spring:

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

5. Ragan Creek between Pumpernickel Reservoir and the smaller reservoir between Pumpernickel Reservoir and Kent Springs:

Cattle use was heavy. Hoof damage from

extensive use. Wet areas heavily punched. This area is approximately 1.7 miles long.

6. Heavy cattle use on dry stream bed and vicinity along the southern base of the Buffalo Mountains. The heavy use was 3.8 miles in length. 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 reinventoring the condition of 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 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, which indicated an upward trend. Black sagebrush decreased by percent composition by weight with small increases in bottlebrush squirreltail, 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 at the potential natural community. 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 condition 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 conditio;n. 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. The majority of the burn within the allotment was not seeded. No recent trend studies have 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. A complete inventory has not been done since the 1978 inventory, so there is no comparison of changes in acreage by seral stage. The following lists the acres and percentage by seral stage for the allotment.

Seral Stage	Acres	Percent
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 024XY030

Ecological Site 024XY030 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.

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

	Mule Deer Use Area		
Parameters	**DS-5**	**DW-1**	**Optimum Rating**
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

Table #5 ***1990 Mule Deer Habitat Condition Ratings for the Sonoma Range DS-5 and DY-1 Transects that Lie Within the Pumpernickel Allotment.***

Use Area	Transect	Habitat Condition Rating
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.

Introductions are prohibited by LUP policy in areas and allotments in which domestic sheep are permitted as is the case with this allotment. At that time the limiting factor would be water distribution for all three use areas.

==========

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

Use Area	Optimum Carrying Capacity	Percent of Optimum
BS-3	3	69
BW-2	4	49
BY-1	38	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 Pumpernickel 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 Pumpernickel 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 adjacent to the Pumpernickel Allotment.

Table 7. Wild Horse Distribution

Date	Tobin Range HMA - within Pumpernickel Allotment	Tobin Range HMA - adjacent to Pumpernickel Allotment	Sonoma Range HA - within Pumpernickel Allotment	Sonoma Range HA - adjacent to Pumpernickel Allotment	Aircraft
3/69	0	0	0	0	Fixed Wing
9/74	0	9	10	42	Super Cub
12/74	NF	NF	2	7	Bell 47
9/76	NF	NF	1	18	Super Cub
6/77	0	0	10	10	Super Cub
3/79	0	0	13*	0	Unknown
8/80	14	0	0	14	Bell 47
6/85	NF	NF	0	0	Bell 47
10/86	0	0	NF	NF	Bell 47
8/89	0	0	0	0	Aero Commander
8/91	0	0	27	NF	Bell 47 Soloy
2/92	0	0	29	NF	Cessna 210
5/92	0	0	34	NF	Maule MX-5
7/92	0	0	30	NF	Maule MX-5
9/92	9	0	33	NF	Maule MX-5

NF - not flown
* Outside HA, near Pumpernickel Reservoir

Evaluation of Table #7

Four fixed wing flights conducted from 1969 to 1979 found no wild horses in the Tobin Range HMA that is contained within the Pumpernickel Allotment. In 1974 there were 9 horses found on China Mountain in the South Buffalo Allotment along the Pumpernickel /South Buffalo Allotment boundary which may have made use in the allotment. During this time period wild horses were found in the Sonoma Range HA in and adjacent to the allotment in the Spanish Basin/Gregg Canyon/ Pumpernickel Reservoir area as shown on map 2, Wild Horse Distribution to 1979.

In 1980 there were 14 wild horses found within the Tobin Range HMA contained in the Pumpernickel Allotment, along the western HMA boundary north of Garden Creek. There were no horses found in the Tobin Range HMA adjacent to the allotment. In the Sonoma Range HA there were 7 wild horses found in the allotment at Gregg Canyon, and 7 wild horses in the Clear Creek Allotment along the Pumpernickel/Clear Creek Allotment boundary. 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 Pumpernickel Allotment.

During the evaluation period, the primary area of use by wild horses has been in the Sonoma Range HA (Dixie Fire area) with only occasional use in the Tobin Range HMA along the common boundary from Smelser Pass to Panther Canyon. The area used by wild horses during the evaluation period is shown on map 3. 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 foothills 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 also been observed on fenced private land along Ragan Creek and on the flats at the mouth of Garden Canyon. During the winters of 93/94 and 94/95 wild horses have been reported using an area south of Sheep Ranch Canyon in the Clear Creek Allotment, Sonoma Range HA.

With the exception of August 1980 and September 1992 when horses were found in the HMA along the common boundary between the Sonoma Range HA and Tobin Range HMA, all of the wild horses observed in the allotment have been in the Sonoma Range HA.

J. Wild Horse Removal Data

October/November 1986	442 head	Sonoma Range HA
May 1992	4 head	Pumpernickel 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 Pumpernickel 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 Pumpernickel 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 Pumpernickel 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 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.

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. Present Condition of Ecological Site 024XY002, which is 79% in good condition and 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. No utilization data is available for this area.

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 no utilization data is available, but because the trend is downward this objective has not been met. 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 current (1991) condition ratings conducted within the allotment show DS-5 as having 2 transects with good habitat condition ratings and 1 with a fair habitat condition rating. For DW-1, the current transects within the allotment show two fair habitat condition ratings.

b. Bighorn Sheep

No bighorn sheep have been reintroduced onto the allotment because LUP policy prohibits the reintroduction of bighorn sheep into areas permitted to sheep operators. 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 Pumpernickel allotment for sage grouse. At this site only one male sage grouse was seen. Potential bird displacement. The inventory was a one point in time, one day survey and lacks sufficient 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 in the immediate vicinity of the sheep corrals.

(b) Kent Spring

Not Met from the reservoir to Kent Spring (approximately a 1/2 mile). 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. (Has been reconstructed since this was first written.)

(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 as a result of mine dewatering and water is being piped from the mine to a reservoir near Brooks Spring.

(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 is available, use pattern mapping indicates slight use and the trend is static to

upward within the HMA, however during the evaluation period the horses have almost exclusively used the Sonoma Herd Area and other areas outside the HMA (Dixie Fire Area) with the exception of observations in August 1980 and September 1992. The Sonoma Herd Area shares a common boundary with the Tobin Range HMA from Smelser Pass south to the allotment boundary fence at Panther Canyon.

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. A cooperative agreement has not been consummated with the private land owners within the Sonoma Herd Area contained within the Pumpernickel Allotment. Private landholders have requested the removal of wild horses off of private land and water sources. Wild horses from within the allotment however are still utilizing the Sonoma Herd Area almost exclusively over the Tobin HMA.

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

a. protecting their home range

Met. Wild horses still have free movement within the allotment. No actions (ie fences) have been taken to impede the movement of wild horses within the allotment.

b. assuring free access to water

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

VI. RECOMMENDATIONS

A. Technical Recommendations

1. Carrying Capacity

It has been determined through the analysis of the monitoring data (the limited use pattern mapping data, riparian utilization, trend, ecologic condition, and wildlife habitat conditions) and field observations that the current number of livestock and wild horses are not causing resource damage within the allotment. Based on the above statement, the technical recommendation for carrying capacity is to continue with the number, kind and class of livestock, and season of use that currently exists on the Pumpernickel Allotment.

2. Grazing System

FROM:

The Pumpernickel Allotment has been for the most part a winter/early spring allotment with a low number of cattle during the summer and rams during the summers of the 93 and

94. It is a C allotment run in common without an intensive grazing system.

TO:

2a through 2c are the stepping stones in the process that the group has taken to arrive at the technical recommendation, 2d, for the proposed grazing system.

a. Use Areas Considerations When Selecting a Grazing System

(1) Golconda

Appears the existing livestock management is working, leave management as is.

(2) Edna Mountains

Appears the existing livestock management is working, leave management as is.

(3) North Pumpernickel

Use 4/15 as a possible threshold date to start providing spring deferment on the budsage sites within the use area.

(4) Buffalo Mountains

Develop water in this area, so it can better be utilized by cattle.

(5) Middle Pumpernickel

Livestock using the Pumpernickel Allotment should not use the winterfat or bug infested areas from May 1 to October 1 after the seeding is completed to allow for the establishment of the seeding.

(6) Spanish Basin

Rotate summertime sheep use between the Tobins and Spanish Basin. Need drift fences to keep livestock from drifting into the Clear Creek Allotment.

(7) Dixie Fire

Use in the early spring by livestock to attempt to control cheatgrass. Timing may be variable and is critical to affective cheatgrass control.

(8) South Pumpernickel

Currently is receiving slight to no apparent use except for on private land around Kent Spring.

(9) Tobins

Rotate summertime sheep use between the Tobins

and Spanish Basin.

b. Five Grazing 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.

c. Individual Operators Proposals for Grazing

Continue with a winter/early spring grazing system for the allotment, with provisions for use by cattle and sheep after such time by rotating areas of use from year to year. The following is the way that the operators propose to graze the Pumpernickel Allotment:

(1) Agri Beef -

Agri Beef Company sheep generally are staged and the rams put in with the ewes on private lands before entering the Pumpernickel Allotment. This often results in delayed entry, but it is critical to the operation to maintain the full season of use authorization in the allotment, especially in the event that the private hay fields are unavailable. Sheep enter in bands of 1800 to 2500 head, usually over a period of several days.

One band is moved to the southern end and essentially only trailed to other BLM grazing allotments in the winter use period. Eventually this band is brought back into the allotment in the spring, where it is staged with the other bands to move onto permits in the Battle Mountain District and Mountain City Forest Service District.

Two bands are generally moved to the western foothills of the allotment. The east-side bands may also use the North Buffalo and Copper Canyon Allotments, Battle Mountain District, as weather and feed conditions permit in January and February, and we attempt not to use the same areas at the same time of year each year, even though it is dormant season grazing.

The movement of bands is dependent on weather

and upon Agri Beef's attempt to keep them in areas of lower cattle use (which are generally areas of less perennial water availability). Light snows enable the sheep to use higher elevations in the foothills, using snow for watering needs. Heavier snows force the sheep into lower elevations. Very heavy snows require removal of the sheep from the allotment and feeding on private lands. Dry conditions in some years require use of existing developed and undeveloped seasonal and perennial waters. Wetter conditions allow greater dispersion, because of snow, snow melt waters, ephemeral runoff, and greater succulence of the forage (which results in lower demand of water sources).

Because of the environmental factors which dictate our use of the allotment by sheep, any artificially designed movement, rotation, etc. would likely fail.

Sheep are moved off the allotment in late April and May, except for the ram band (500 or fewer), which summers in the allotment under herder supervision. The past few years we have been rotating summertime use of this band between Spanish Basin and the China Creek/Garden Creek areas, with one of the areas being rested each year. We prefer to continue this use and this rotation.

(2) Rock Creek Ranch -

Turnout on the Edna Mountains first beginning after the first of November. Move cows in lots of 10 to 15 from the Ednas to Sulphur Spring and Brooks Spring. If the snow falls, then move the cows to Golconda Summit and Smelser seeding. In the late spring utilize Garden Creek and China Creek Area. Utilization of Middle Pumpernickel may accrue immediately, or after turnout prior to coming home around the first of May. Movement of livestock is dependent on winter weather conditions.

(3) Roger Johnson _

Continue with winter grazing (October through first week of May). Rotate cows between Gregg/Wilson Canyon, mid Pumpernickel Valley, and other areas throughout the allotment depending on where or how everyone else is operating through planning on a yearly basis.

(4) Arnold Ginsberg -

Rotate cows between the Dixie Fire Area, China Creek, and Kent Springs (South Pumpernickel).

d. Proposed Grazing System

(1) Common to All Operators

(a) Planning on a yearly basis.

A meeting will be held with all interested publics to discuss previous years monitoring to determine if changes need to be made.

(b) No specific use areas for individual operators.

(c) Rotation of season/timing of use by use area.

(d) Continue winter/early spring season of use with flexibility to use based on field observations during the summer.

(e) Golconda, Edna Mountains, and North Pumpernickel to be used during the fall/winter/spring seasons attempting to keep livestock off of the budsage sites after April 15.

(f) Use Dixie Fire area as appropriate for all users early in the spring to make use of cheatgrass in order to reduce competition with perennial grasses. The grazing period will vary year to year depending on climatic conditions.

(g) No livestock grazing use in Mid Pumpernickel from May 8 to September 30 after seeding is completed on the bug infested area. No grazing on the winterfat area from May 8 to September 30 to allow for the area to grow.

(h) In the North Buffalo and South Pumpernickel use areas, water availability is limiting use except for some sheep use when snow is available. Until permanent water is developed, hauling water in the interim would be alternative. Then these two areas could be rotated with other use areas.

(2) Agri Beef

(a) Agri Beef's numbers of sheep and dates may vary from 10/01 through 6/30 while the ewes are on the allotment, as long as they stay within their permitted amount of use. From 7/1 through 9/30 up to 500 rams may use the allotment rotating their use on a yearly basis between Spanish Basin and the Tobins under herder supervision.

(b) A pre-turnout tour will be conducted with a representative of Agri Beef and the BLM prior to authorizing grazing use.

(3) Rock Creek Ranch

Turnout on the Edna Mountains first beginning in early November. Move cows in groups of 10 to 15 from the Ednas to Sulphur Spring and Brooks Spring. If it snows, then move the cows to Golconda Summit and Smelser seeding. In the late spring utilize Garden Creek and China Creek Areas. Mid Pumpernickel Valley may be used any time until May 8. Movement of livestock is dependent on winter weather conditions.

(4) Roger Johnson

Continue with winter grazing (October through first week of May) with the flexibility to use Spanish Basin, South Pumpernickel, or the Tobins during the summer months based on field observations. Rotate cows between Gregg/Wilson Canyon, Mid Pumpernickel Valley, and other areas throughout the allotment depending on where or how everyone else is operating through planning on a yearly basis.

(5) Arnold Ginsberg

Rotate cows between the Dixie Fire Area, China Creek, and Kent Springs (South Pumpernickel) from 3/1 through 9/30 and 12/1 through 2/28.

3. Wild Horses

a. Remove all wild horses from the Sonoma Range HA, and establish an appropriate management level of 0 horses for the Tobin Range HMA contained within the Pumpernickel Allotment.

Rationale: Removal of all wild horses from the Sonoma Range HA would be in conformance with the Sonoma-Gerlach MFP-III decision WH/B 1.3 which states, "Remove wild horses from checkerboard land HA's unless a cooperative agreement providing for the retention and protection of wild horses is consulated with the affected land owner(s)".

Distribution data indicates that wild horses in the allotment are residents of the Sonoma HA, that occasionally use a small area of the Tobin Range HMA on the western boundary. The primary area of use for horses within the allotment during the evaluation period is in the 1985 Dixie Fire which is dominated by annual species, which cannot be managed on a sustained yield basis or thriving natural ecological balance.

Selection of this alternative would require amending the Sonoma-Gerlach MFP-III decision WH/B 1.1 to manage for 0 wild

horses in that area of the Tobin Range HMA contained within the Pumpernickel Allotment.

b. Amend the Sonoma-Gerlach MFP-III to add 17,805 acres in the Pumpernickel Allotment to the Tobin Range HMA as shown on map 4, and establish an appropriate management level of 17 wild horses for the Tobin Range HMA contained within the Pumpernickel Allotment.

Rationale: Establishment of an initial AML of 17 wild horses would be consistent with the technical recommendation for carrying capacity which continues the same level of use for livestock that was outlined in the Sonoma-Gerlach MFP-III (RM 1.1). Distribution data collected during the evaluation period indicates that the HMA boundary should be adjusted to include an additional 17,805 acres into the HMA in order to provide the amount of habitat necessary to maintain wild horses in the allotment on a yearlong basis.

Selection of this alternative would require amending the Sonoma-Gerlach MFP-III decision WH/B 1.1 to reflect the change in the HMA boundary and number of acres contained within the HMA.

c. Amend the Sonoma-Gerlach MFP-III to add 17,805 acres in the Pumpernickel Allotment to the Tobin Range HMA as shown on map 4, and establish an appropriate management level for the Tobin Range HMA contained within the Pumpernickel Allotment as shown below:

	Wild Horses	
Herd Management Area	75% of AML to AML	AUM's
Tobin Range	35 to 47	420 to 564

Rationale: Limited use pattern mapping and trend data indicate that wild horses are not negatively impacting habitat in their current area of use. Establishment of an AML of 47 wild horses would be consistent with the technical recommendation for carrying capacity which continues the existing level of use for livestock. Distribution data collected during the evaluation period indicates that the HMA boundary should be adjusted to include an additional 17,805 acres into the HMA in order to provide the amount of habitat necessary to maintain wild horses in the allotment on a yearlong basis.

Selection of this alternative would require amending the Sonoma-Gerlach MFP-III decision WH/B 1.1 to reflect the change in the HMA boundary and number of acres contained within the HMA.

d. Remove wild horses in accordance with current BLM policy (9 and younger) and establish a non-reproductive herd.

Rationale: This type o;f herd would provide an area to relocate horses from sactuaries which are being closed, or to relocate horses which exceed existing age criteria from other herd areas.

B. Range Improvements

The following is a list of range improvements identified and prioritized by the Pumpernickel Working Group:

1. Trough replaced at Rye Grass Spring.

2. Increase trough storage space at Sulphur Spring.

3. Extend and add tank to Brooks Spring Pipeline.

4. Seal Reservoir above Kent Spring and Powerline Reservoir.

5. Seedings at Mid Pumpernickel bug infested area and south facing slope adjacent to Wilson Creek. (The bug infested area burned during the summer of 1995.)

6. Build 3-4 drift fences between Pumpernickel and Clear Creek Allotments.

7. Develop water at Iron Pint either a well or pipeline.

8. Construct dirt tanks for Buffalo and Edna Mountains (possibly develop spring in Ednas T.35N., R.40E., Section 31).

9. Prescribe burn in South Pumpernickel and Tobins with a test site at Mustang Corrals.

10. Develop pipeline from Garden Creek into South Pumpernickel.

11. Seeding Dixie Fire Area.

12. Look for possible water developments within the Tobin HMA for wild horses and livestock.

C. Allotment Objectives

1. Short Term

a) Combine Range #2 and Wildlife #3a to read:

Utilization of key plant species in upland habitats shall not exceed 50% except where adjusted by an approved activity plan.

b) Requantify Wildlife #3b to read:

Total utilization of key plant species in riparian habitat shall not exceed 50% except where adjusted ba an approved activity plan. The following riparian habitats have bee identified as riparian habitat to

monitor:

(1) Wilson Creek
(2) Spanish Basin
(3) Kent Spring
(4) Garden Creek
(5) China Creek
(6) Brooks Spring
(7) Sulphur Spring
(8) Granite Wash Spring

2. Long Term

a. Range

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.

Continue this objective.

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

Combine with Wildlife #1 and Wild Horse #1 to a desired plant community objective.

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.

Maintain first portion of the objective, but combine the second portion (mule deer habitat condition) with Range #3 and Wild Horse #1 into a desired plant community objective because the limiting factor for the mule deer habitat on the Sonoma Range is forage quality and can best be addressed through a desired plant community objective. Habitat condition ratings should be completed on the Edna Mountains, Buffalo Mountains, and the Tobin Range to determine their limiting factors and recommendations made to address their limiting factors.

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

Rewrite as a desired plant community objective because this a vegetative issue that is best addressed as a desired plant community objective.

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 Pumpernickel 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)

Maintain as written.

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

a. protecting their home range

b. assuring free access to water

Maintain as written.

3. Desired Plant Community Objectives

a. Golconda

Maintain the ecological condition in the loamy 5-8" (024XY002) and Loamy 8-10" (024XY005) ecological sites, in mid seral or better condition.

b. Edna Mountains

Maintain the ecological condition in the Shallow Calcareous Loam 8-10" (024XY032) range site, in mid seral condition or better.

c. North Pumpernickel Valley

(1) Maintain the ecological condition in the loamy 5-8" (024XY002) ecological site, in mid seral or better condition.

(2) Improve the trend in the Loamy 5-8" ecological site from static to downward to static or upward.

(3) Determine current condition of Brooks Spring Meadow using ecological site 024XY009 and then write a desired plant community objective to reflect the desired condition of the meadow.

d. Buffalo Mountains

Maintain the ecological condition in the loamy 5-8"

(024XY002) ecological site, in mid seral or better condition.

e. Mid Pumpernickel

(1) Maintain the ecological condition in the loamy 5-8" (024XY002) and Loamy 8-10" (024XY005) ecological sites, in mid seral or better condition.

(2) Improve the productivity of the bug-infested area by seeding of desirable grass and shrub species adapted to the ecological site.

(3) Maintain or improve the size of the area dominated by winterfat, in approximately section 11, T33N., R.40E., and maintain the frequency of occurrence of winterfat, within statistical levels of confidence, as determine by frequency monitoring to be established in 1995.

f. Spanish Basin

(1) Maintain the late seral ecological condition in Claypan 12-16" (024XY027) ecological site.

(2) Maintain or improve the mid seral ecological condition of South Slope 8-12" (024XY028) and Loamy Slope 12-14" (024XY021) ecological sites.

(3) Riparian Habitat

To have 75% of the stream reaches within the Pumpernickel Allotment in proper functioning condition by 1997. Once ecological site inventory information is available, then use the site guide to write desired plant community objectives.

(4) Improve the productivity of the burned south facing slope adjacent to Wilson Creek in Gregg Canyon by seeding of desirable grass and shrub species adapted to the ecological site.

g. Dixie Fire

Decrease the percent composition by weight of annuals, and increase the percent species composition by weight of perennial species, by seeding of the burn area with desirable species adapted to the ecological site.

h. South Pumpernickel

(1) Maintain the late seral ecological condition in the Droughty Loam 8-10" (024XY020) ecological site.

(2) Maintain the ecological condition in the Loamy 8-10" (024XY005) ecological site in mid seral condition or better.

(3) Improve the productivity of grasses and forbs in dense brush areas (south of powerline) in the Loamy 8-10" ecological site, through controlled burning.

(4) Riparian Habitat

To have 75% of the stream reaches within the Pumpernickel Allotment in proper functioning condition by 1997. Once ecological site inventory information is available, then use the site guide to write desired plant community objectives.

i. Tobins

(1) Maintain or improve the mid seral ecological condition in the Shallow Calcareous Loam 8-10" (024XY030) and the Shallow Calcareous Loam 10-14" (024XY031) ecological sites.

(2) Improve the productivity of grasses and forbs in dense brush areas (south of powerline) in the Loamy 8-10" ecological site, through controlled burning.

(3) Riparian Habitat

To have 75% of the stream reaches within the Pumpernickel Allotment in proper functioning condition by 1997. Once ecological site inventory information is available, then use the site guide to write desired plant community objectives.

D. Wildlife Monitoring

Complete habitat condition ratings for the Edna Mountains, Buffalo Mountains, and the Tobins during the same time period as establishment of desired plant community objectives.

E. Wild Horse Monitoring

Wild horse monitoring is dependent on which alternative is selected. If the AML is determined to be zero, then no wild horse monitoring is required. If the AML is left at 17 until monitoring data can be used to determine the carrying capacity, then a helicopter census would be completed every 3 years and distribution flights flown in the winter and summer as funding permits.

F. Rangeland Monitoring

1. Winterfat site
2. Riparian baseline condition
3. Frequency studies on bug infested rehad areas
4. Periodic condition transects, use frequency to determine when to recondition.
5. Recondition sites where not already completed (Buffalo Mountains, Dixie Fire, and the Tobins)

G. Set Schedule for Next Evaluation

The monitoring information will be analyzed in five years from issuance of the Final Multiple Use Decision and a re-evaluation will be conducted at that time.

PUMPERNICKEL ALLOTMENT USE AREAS Map #1

Golconda

Edna Mtns

North Pumpernickel

Buffalo Mtns

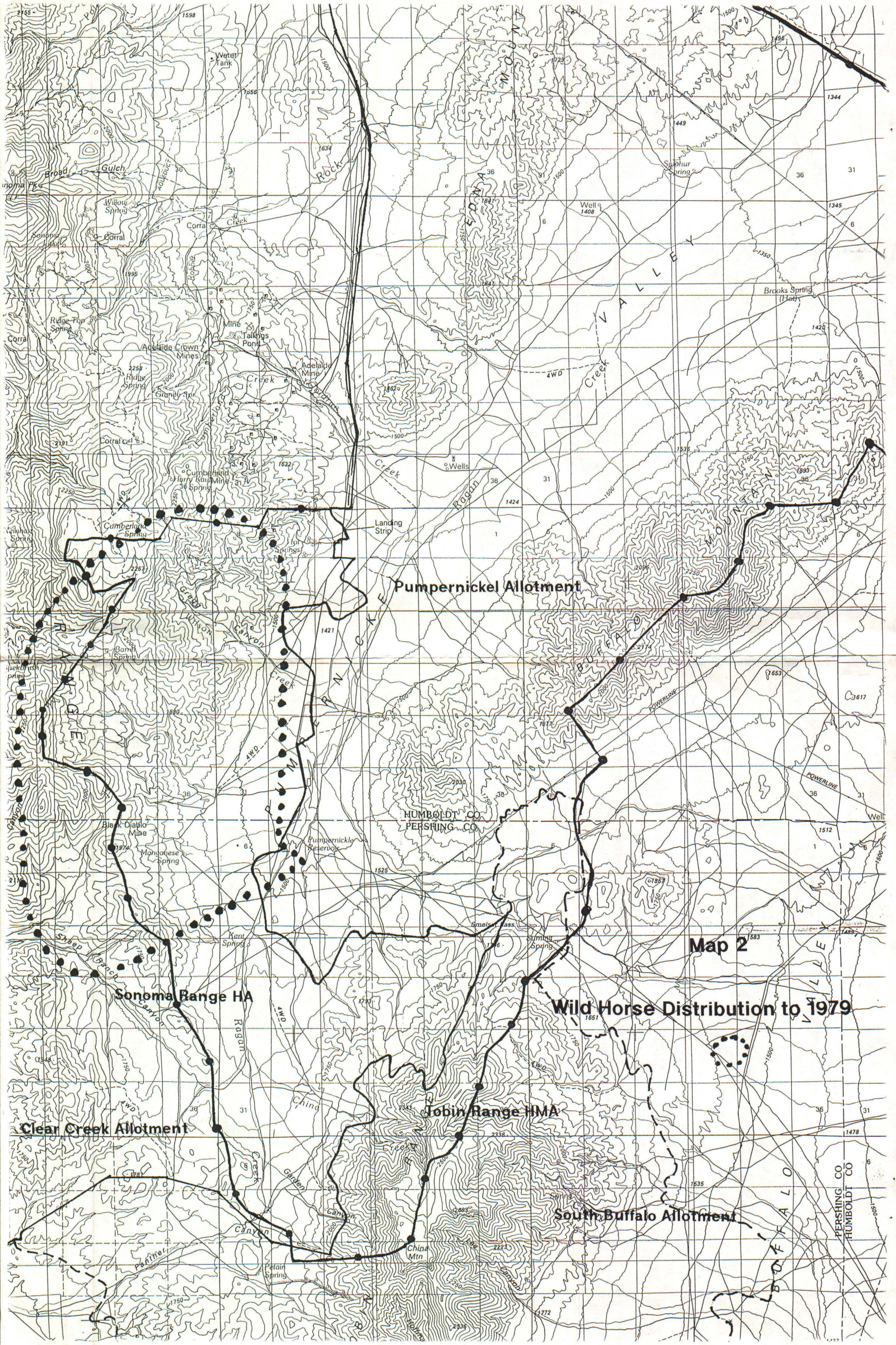
Mid Pumpernickel

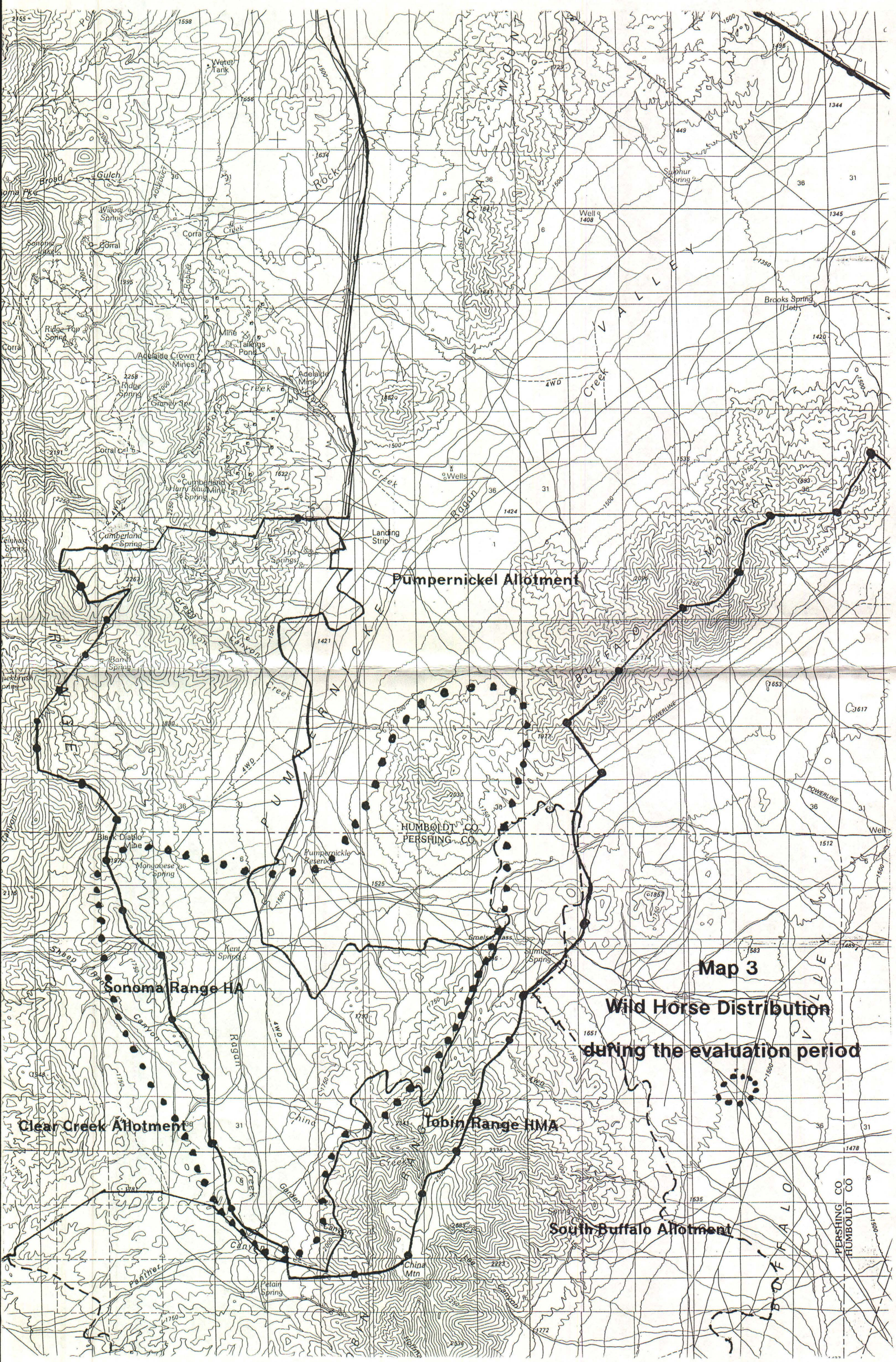
Sonoma

Dixie Fire

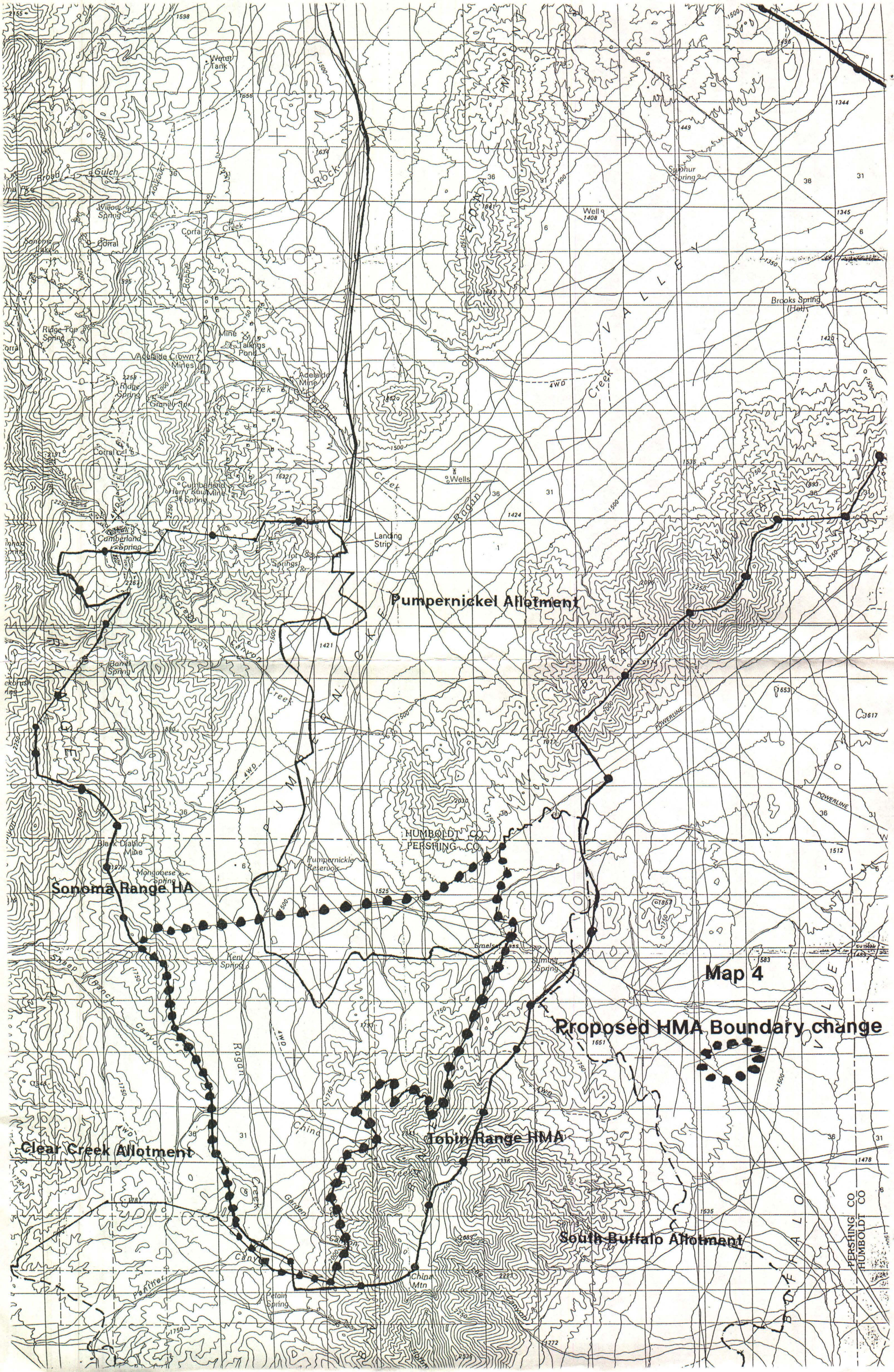
South Pumpernickel

Tobins


Pumpernickel Allotment
Map 2
Wild Horse Distribution to 1979
Sonoma Range HA
Clear Creek Allotment
Tobin Range HMA
South Buffalo Allotment
HUMBOLDT CO
PERSHING CO
Water Tank
Broad Gulch
Willow Spring
Corral
Sonoma Lake
Ridge Top Spring
Adelaide Crown Mines
Adelaide Mine
Talkings Pond
Granite Spr
Cumberland Spring
Harry Kaufman Mine
Landing Strip
Wells
Sulphur Spring
Brooks Spring (Hot)
Well
Barrel Spring
Blank Diablo Mine
Manganese Spring
Pumpernickle Reservoir
Kent Spring
Petain Spring
China Mtn
Stimmell Spring
Garden Canyon
Panther Canyon
Sheep Ranch Canyon
Rock Creek
Ragan Creek
Watson Canyon
Aqueduct
POWERLINE
4WD
SONOMA MOUNTAIN
BUFFALO MOUNTAIN
BUFFALO VALLEY
SONOMA RANGE



Map 3
Wild Horse Distribution
during the evaluation period
Pumpernickel Allotment
Sonoma Range HA
Clear Creek Allotment
Tobin Range HMA
South Buffalo Allotment
HUMBOLDT CO
PERSHING CO
PERSHING CO
HUMBOLDT CO
EDNA MOUNTAIN
PUMPERNICKEL VALLEY
BUFFALO MOUNTAIN
BUFFALO VALLEY
Creek VALLEY
RANGE
Water Tank
Broad Gulch
AQUEDUCT
Willow Spring
Corral
Creek
Sonoma Lake
Rock
Robber
Ridge Top Spring
Mine
Tailings Pond
Adelaide Crown Mines
Adelaide Mine
Ridge Spring
Granite Spr
Cumberland
Cumberland Mine
Harry Kaul Spring
Sulphur Spring
Well
Brooks Spring (Hot)
4WD
Wells
Ragan
Landing Strip
Hot Springs
Cumberland Spring
Gregg
Wilson
Canyon
Barrel Spring
POWERLINE
Black Diablo Mine
Manganese Spring
Pumpernickle Reservoir
Smelser Pass
Summit Spring
Kent Spring
Sheep
Canyon
Ragan
China
Garden
Canyon
Panther
Petain Spring
China Mtn
Canyon


Map 4
Proposed HMA Boundary change
Pumpernickel Allotment
Sonoma Range HA
Tobin Range HMA
Clear Creek Allotment
South Buffalo Allotment
HUMBOLDT CO
PERSHING CO
PERSHING CO
HUMBOLDT CO
Water Tank
Broad Gulch
Willow Spring
Corral
Creek
Sonoma Lake
Ridge Top Spring
Adelaide Crown Mines
Mine
Tailings Pond
Adelaide Mine
Ridge Spring
Granite Spr
Cumberland Spring
Landing Strip
Hot Springs
Barrel Spring
Black Diablo Mine
Manganese Spring
Pumpernickle Reservoir
Kent Spring
Smelser Pass
Summit Spring
China Mtn
Pelain Spring
Sulphur Spring
Well
Brooks Spring (Hot)
Wells
POWERLINE
4WD
AQUEDUCT
Rock
Sheep Branch Canyon
Ragan
China
Garden
Canyon
Panther
V A L L E Y
B U F F A L O

BOB MILLER
Governor

STATE OF NEVADA

CATHERINE BARCOMB
Executive Director

2/14/96

COMMISSION FOR THE PRESERVATION OF WILD HORSES

255 W. Moana Lane
Suite 207A
Reno, Nevada 89509
(702) 688-2626

February 14, 1996

Mr. Bud Cribley
Sonoma-Gerlach Resource Area
Bureau of Land Management
705 East 4th Street
Winnemucca, Nevada 89445

Subject: Pumpernickel Allotment Evaluation

Dear Mr. Cribley:

The Commission for the Preservation of Wild Horses has reviewed the draft allotment evaluation for the Pumpernickel Allotment. Data suggest that wild horses are not causing or contributing to resource damage on this allotment.

We encourage the District to seek a cooperative agreement with the affected permittee to better manage this herd.

Thank you for your consultation.

Sincerely,

Catherine Barcomb

CATHERINE BARCOMB
Executive Director