3/10/89

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

ELY DISTRICT OFFICE
Star Route 5, Box 1
Ely, Nevada, 89301

TAKE PRIDE IN AMERICA

commission/wlhoa response

IN REPLY REFER TO:
6700
(NV-047)

MAY 10 1989

Wild Horse Organized Assistance
P.O. Box 555
Reno, Nevada 89504

Dear Reader:

Enclosed for your review and comment is the draft Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan (HMP). The plan guides management on 817,656 acres within the Egan Resource Area of the Ely BLM District.

If you have any questions please feel free to contact Mike Perkins, area biologist of my staff, at (702) 289-4865. Please mail your written comments to the District so that we might receive them by June 9, 1989.

Thank you for your concern with management of wildlife habitat on the public lands.

Sincerely,

Gene L. Drais

Gene L. Drais, Manager
Egan Resource Area

1 Enclosure
1. Buck, Bald, Maverick & Diamond Mtns. HMP (63 pp)

5/1989

DRAFT

Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan

WHA-N4-1
WHA-N4-19
WHA-N4-5
WHA-N4-9
WHA-N4-17
WHA-N4-24

May 1989
Bureau of Land Management
Ely District Office
Ely, Nevada

Abstract

This Habitat Management Plan (HMP) was originally written in 1980 and is being revised to address mule deer (both resident and migratory), pronghorn antelope (two proposed augmentations and a reintroduction), and upland game species as priority species. The plan area is located in northwest White Pine County, Nevada, and is approximately 817,656 acres (See Figure 1).

Objectives include: (1) Improve or maintain all wildlife habitats within the HMP area; (2) Increase forage for mule deer, both resident and migratory animals; (3) Provide pronghorn antelope reliable water sources and increased forage availability to insure success of the proposed augmentations and reintroduction; (4) Provide for sage grouse and other upland game birds by protection of meadow habitat/and other crucial habitats; (5) Assist the Nevada Department of Wildlife (NDOW) with a proposed reintroduction of the peregrine falcon; (6) and protect habitats of T/E and candidate species.

Objectives will be met by improving existing forage, making underutilized forage available, developing water sources and protecting selected meadow riparian habitat in special areas.

The main goals of this plan are to manage the mountain brush vegetation type to good or better condition, supply ample forage for resident and migratory mule deer, and provide sufficient water and forage for antelope augmentations and the Long Valley reintroduction.

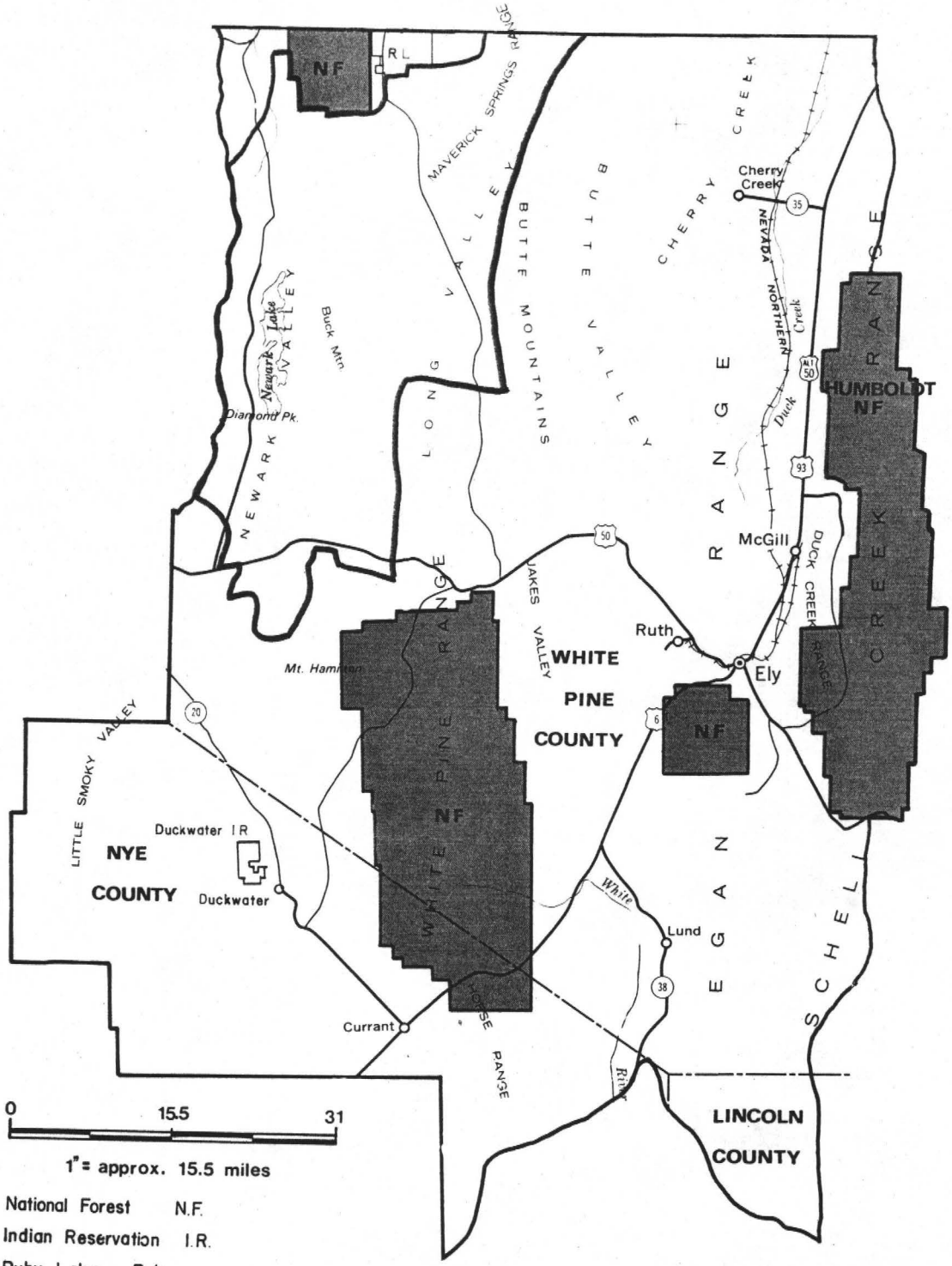
This HMP is written assuming a 15-year period of implementation. Some population responses may not occur for 15 to 20 years. The cost of implementation is $60,000 $\pm$ in 1989 dollars.

NDOW has been closely involved in the revision of this plan. People from 19 wild horse groups or associations, as well as private or concerned citizens and the Sierra Club, have been contacted. The permittees using the plan area have been contacted about the plan revision. Mining companies in the plan area have been contacted and involved in the revision of the plan.

Ely District Bureau of Land Management (BLM) personnel have worked closely to design allotment management plans (AMP's) and a wild horse herd management area plan (HMAP) that will be critical in the success of the HMP.

Table of Contents

Figures



EGAN R.A.

ELY DISTRICT

BUREAU OF LAND MANAGEMENT
U. S. DEPARTMENT OF THE INTERIOR

Figure 1. Location Map

Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan Area

Form 6780–1
(July 1981)
(formerly 6620–1)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CHECKLIST FOR PREPARATION AND REVIEW OF HABITAT MANAGEMENT PLANS

State: Nevada

District: Ely - NV-040

Resource Area: Egan NV - 047

HMP Name and Number: Buck, Bald, Maverick and Diamond Mtns. 1,19,5,9,17, 24

HMP Prepared by: Michael W. Perkins

REVIEW CHECKLIST		SURNAME	DATE
1. Master Memorandum of Understanding, Sikes Act Agreement and/or Supplemental with State Agency.			Supplemental #6 11/5/75
2. Preliminary meeting(s) with State Agency *(or other appropriate cooperators)* to jointly discuss HMP objectives.			9-16-87
3. Endangered Species Act Compliance completed by			
4. Review by District/Resource Area Specialists			
Range	Paul / ~~Bill~~ WOULD LIKE FINAL REVIEW AFTER COMMENTS ARE DISCUSSED		12/17/87
Wild Horse and Burro	Bob		12/23/87
Hydrologist	Mark		1/20/88
Forestry	Harry SEPARATE SHEET ATTACHED	M Barber	1/8/88
Fisheries/Botanist/Wildlife Biologist	Mark		1/6/88
Lands	Ron see attached	M Barber	1/8/88
Minerals	Paul Hinkle - can I have a final review?		01/8/88
Recreation	Shaaron		01-13-88
Wilderness/ACEC	"		12/30/87
Cultural	Sarah		12/30/87
Visual	Shaaron		12/29/87
Environmental Coordinator *(reviews EAs)*	Jate		12/30/87
Support *(Chief of Operations/Fire Management)*	Hal		1/29/88
Others			
5. Reviewed by Area Manager		GLD	4-7-88
6. Reviewed by Chief of Resource Management	on white 3X5 sheets within document	RTO	4/4/88
7. Draft HMP and EA reviewed by State Agency authorized officer *(or other cooperators)*.		NDOW Elko Steve Foree	10/11/88
8. Final review *(if appropriate)* by State Director			
9. Reviewed and approved by District Manager			
10. Approved by State Agency authorized officer			

Remarks

* U.S. Government Printing Office: 1981-780-779/692 Reg 8

I. Introduction

A. Reasons for Preparation

The original Habitat Management Plan (HMP) for the Buck, Bald, and Maverick Mountains was written in 1980. The HMP is being revised for many reasons. This revision includes the Diamond Mountains (See Figure 1). Allotment Management Plans (AMPs) are being written or revised for the Warm Springs, Cold Creek and Newark Allotments. The western side of the Cold Creek and Newark allotments include the Diamond Mountains to the Eureka County Line. The Strawberry allotment was included to keep the Diamond Mountain portion of the HMP area contiguous.

There are two resident deer herds within the HMP area. The Diamond Mountain herd (NDOW Management Area 14), which includes only the east side of the Diamond Mountains, numbers approximately 2200 animals (Dale Elliot, NDOW, personal communication, 1988) and resident deer from the Buck, Bald and Maverick Mountains (NDOW Management Area 10) which numbers approximately 800 animals (Steve Foree, NDOW, personal communication, 1988).

One of the primary reasons this HMP is being developed is because of the importance of the area for wintering deer of the Ruby Mountain mule deer herd. The possibility exists that, in winters where snow depths force migrating deer to the south, as many as 20,000 to 24,000 deer can be expected in the Buck, Bald and Maverick Mountains area (see location map, figure 1). Both the resident deer populations have been declining for two consecutive years due to recent declines in winter precipitation.

There are two wild horse herd management areas (HMA's) which overlap the HMP area (see Figure 2). The Buck and Bald HMA lies north of U.S. Highway 50. The Buck and Bald horse herd numbers are approximately 1,021 animals (March 1989 census). However, a number of horses were censused in heavy pinyon-juniper cover and it is assumed upto several hundred horses were missed on the census. Up until recently, wild horse round-ups in the Buck and Bald HMA were stopped due to the appeal by a wild horse advocacy group. A full force and effect decision by the Interior Board of Land Appeals has lifted the stay on doing the round-up and another gather is planned for July 1989. The June 1987 census of 1,081 horses will be used to determine the numbers of horses to be removed. Only a small portion of the Monte Cristo wild horse herd is included in the HMP area south of U.S. Highway 50. This herd was censused in March 1989, with a count of 392 horses.

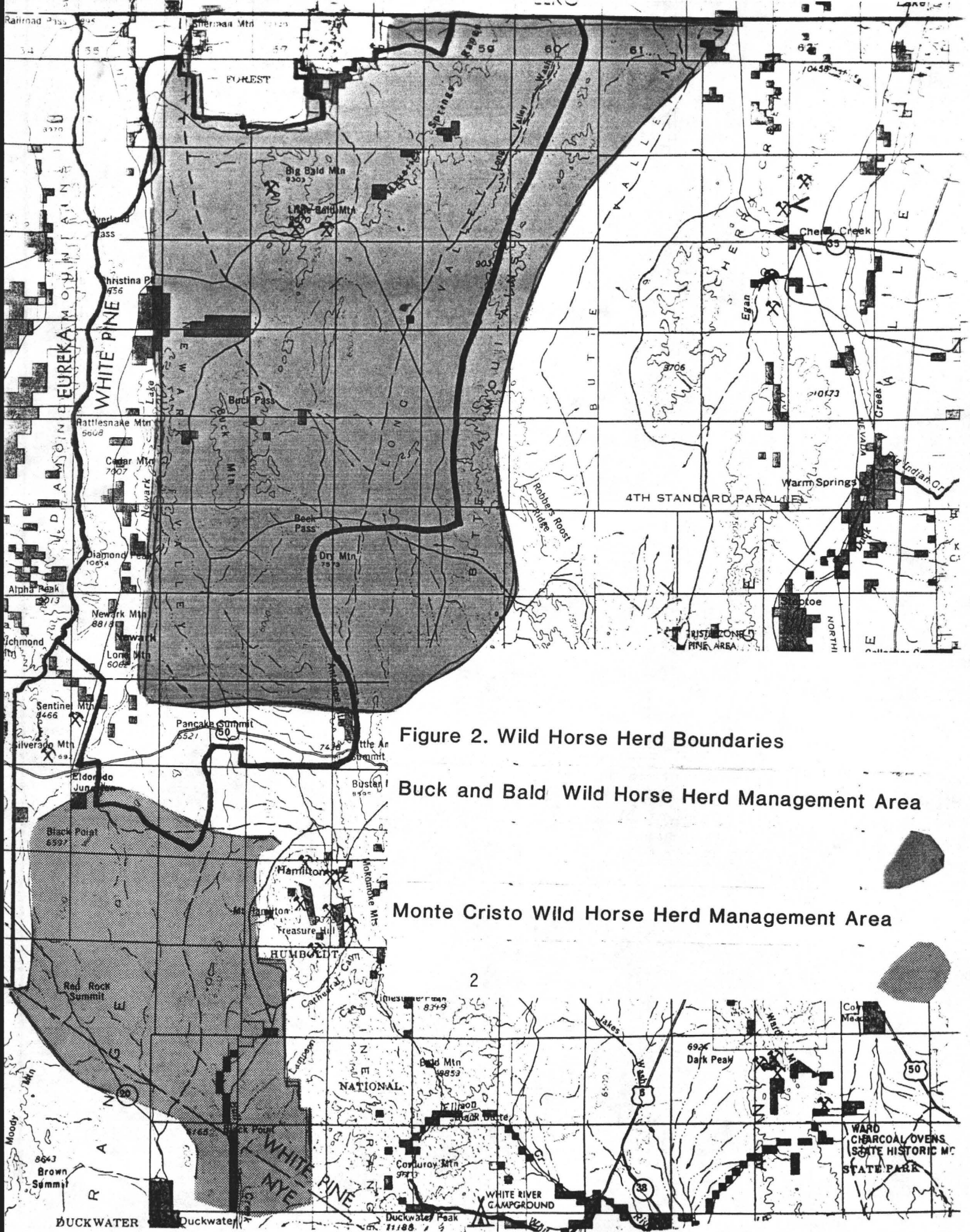


Figure 2. Wild Horse Herd Boundaries

Buck and Bald Wild Horse Herd Management Area

Monte Cristo Wild Horse Herd Management Area

A wild horse gather was scheduled for September 1988 in the Monte Cristo horse management area to bring horse numbers to their AML (Appropriate Management Level). However, due to an appeal from a horse preservation group, the gather is delayed until there is resolution of the appeal by the Interior Board of Land Appeals. At this time there is no prediction as to when the gather will be held. There is a wild horse herd area named the Diamond Hills South located on the east side of the Diamond Mountains in the Railroad Pass allotment. This herd is not in the HMP area.

The period of use on the crucial mule deer winter range (cattle summer range) is April 16 through October 15 on Buck and Bald Mountains. Numbers of cattle vary. The breakdown of numbers is as follows: April 16 through June 15, 1,750 cattle; June 16 to July 15, 1,500 cattle; July 16 to September 15, 1,250 cattle; and September 16 to October 15, 750 cattle. Summer use occurs within the mountain brush zone and use on browse species has been heavy to severe in the past. (Utilization records maintained at Ely BLM District Office.) In the past, when wintering mule deer arrive in the plan area, little or no browse was available for them. Lack of available browse has been implicated in the high mortality experienced in the fawn segment of the deer population.

There are presently four active open-pit gold mines within the plan area. (See Figure 3 for area impacted by mining.) Satellite exploration accompanies each of these projects; competitor exploration is also intense. Two other companies have verbally proposed open pit mines. Another project area is undergoing intensive drilling for grade and reserve delineation.

B. Ecosystem Description

The core of the Buck, Bald, Maverick and Diamond Mountains HMP area is located within White Pine County, Nevada, and within the Ely BLM District's Egan Resource Area (see location map). It is bounded on the west by the Shoshone/Eureka Resource Area of the Battle Mountain BLM District; on the north by the White Pine - Elko County line; on the east by the Medicine Butte, Dry Mountain, and Moorman Ranch grazing allotments; and on the south by the Duckwater grazing allotment. This plan will include the Warm Springs, Fort Ruby, Cold Creek, Ruby Valley, Horse Haven, Maverick Springs, Newark, and Strawberry grazing allotments. (See Figure 4)

Because of their unrestricted movement, the herd boundaries of wild foraging animals can extend out of the plan area. Deer and wild horse herd areas extend out of the plan area north into the Elko BLM District

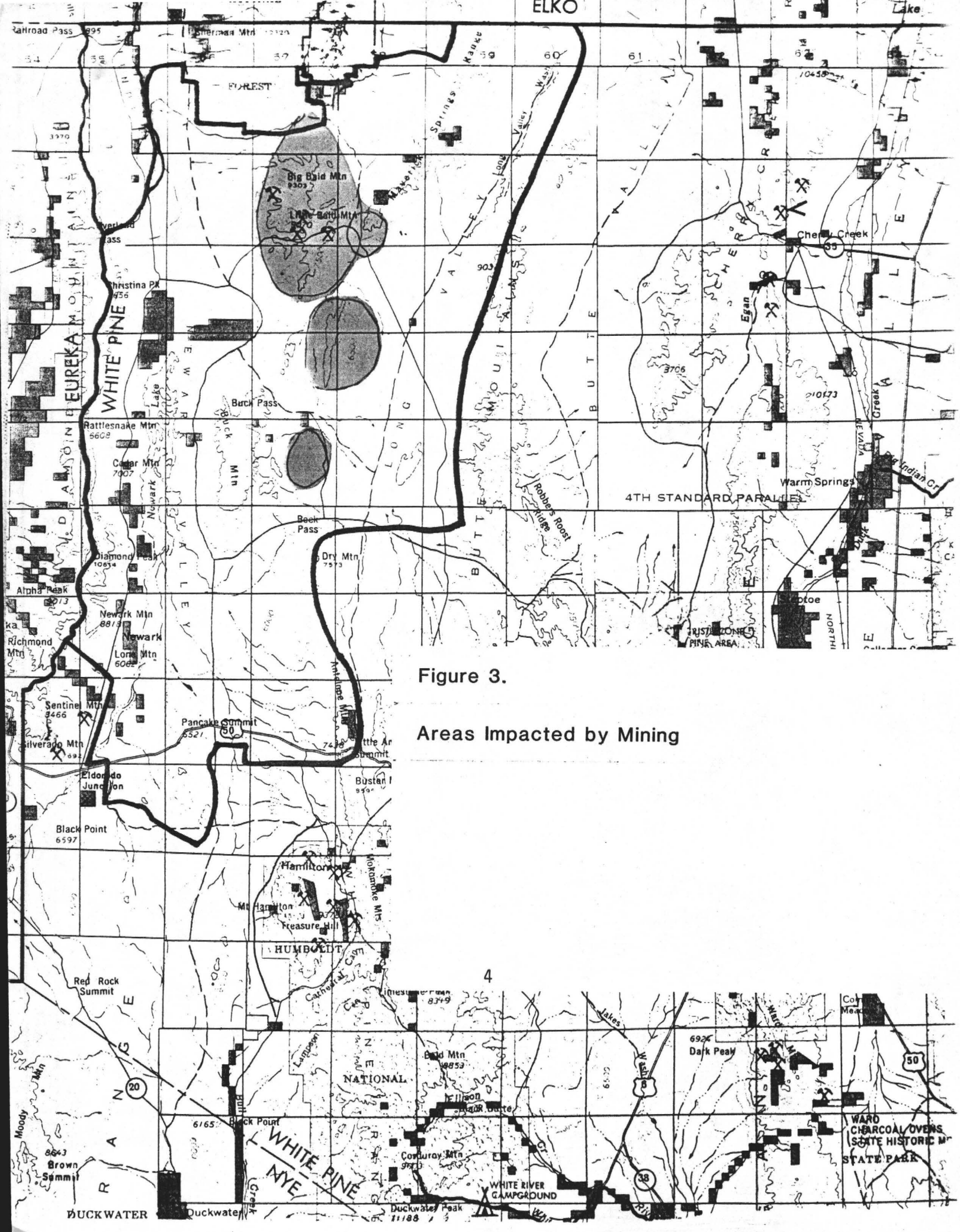


Figure 3.

Areas Impacted by Mining

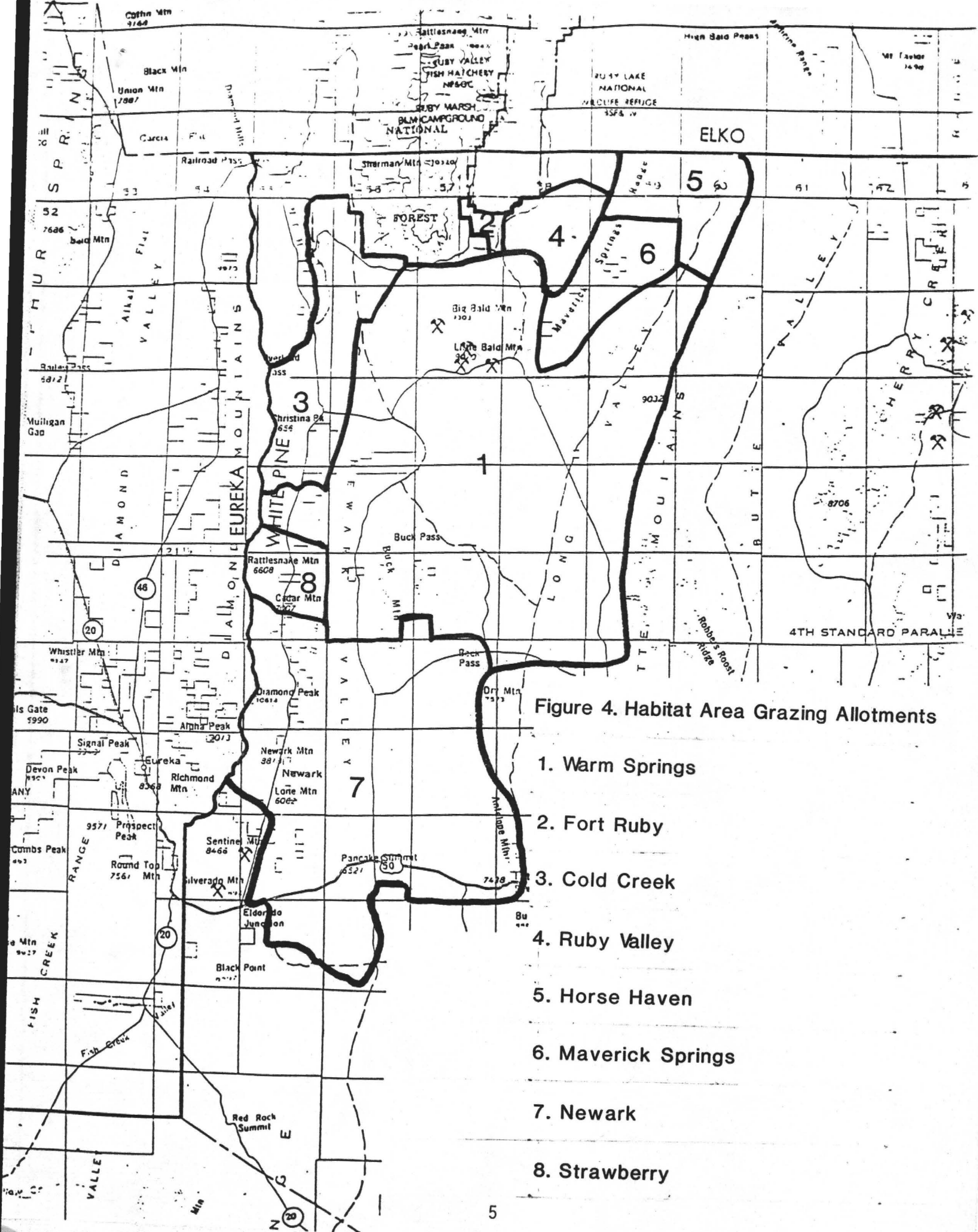


Figure 4. Habitat Area Grazing Allotments

1. Warm Springs
2. Fort Ruby
3. Cold Creek
4. Ruby Valley
5. Horse Haven
6. Maverick Springs
7. Newark
8. Strawberry

and the Ruby Mountain Ranger District of the Humbolt National Forest. Herd areas extend south into allotments not considered by this plan. No projects or detailed planning will be made in the Elko District.

Riparian areas within the HMP area range from being in fairly pristine condition to being in extremely poor, deteriorated condition. Conflicts stem not only from trampling but from apparent overutilization of mesic vegetation by domestic stock and wild horses which has resulted in ecological degradation of the sites. Rating was done by visual inspection. Future monitoring studies and subsequent evaluations will assertain the degree and cause of riparian degradation. Specific areas are addressed in the riparian section of this document and the Newark, Cold Creek, and Warm Springs AMP's.

Trampling by large ungulates of meadow vegetation and springheads reduces the quality of water and the quantity of waterflow and allows rabbitbrush and sage to invade the meadow. Invasion of pinyon and juniper trees also extensively uses water and reduces meadow size.

Page 202, Appendix 9 of the Egan Draft RMP gives the allotment, stream name, and riparian condition (as determined in 1981-82 surveys) for all streams in the plan area. These areas are listed under Zone 1. Huntington Creek is not within the plan area.

The following springs (Figure 5) have conflicts associated with them:

Woodchuck Spring - (T. 21 N., R. 57 E., sec. 4)
Cherry Spring - (T. 24 N., R. 57 E., sec. 26)

The riparian areas which should be associated with these springs are almost non-existent. Horses and cattle use have reduced these areas to mudholes.

Cottonwood Spring - (T. 22 N., R. 57 E., sec. 30)

This area has the same problems as Woodchuck Spring. Also in a deteriorated condition are the several acres of aspen associated with this mesic site. Aspen regeneration is all but non-existent in this spring/meadow complex.

Seven unnamed springs (T. 21 N., R. 56 E.,
secs. 15 and 22)

Same conflicts as identified above for Woodchuck and Cottonwood Springs.

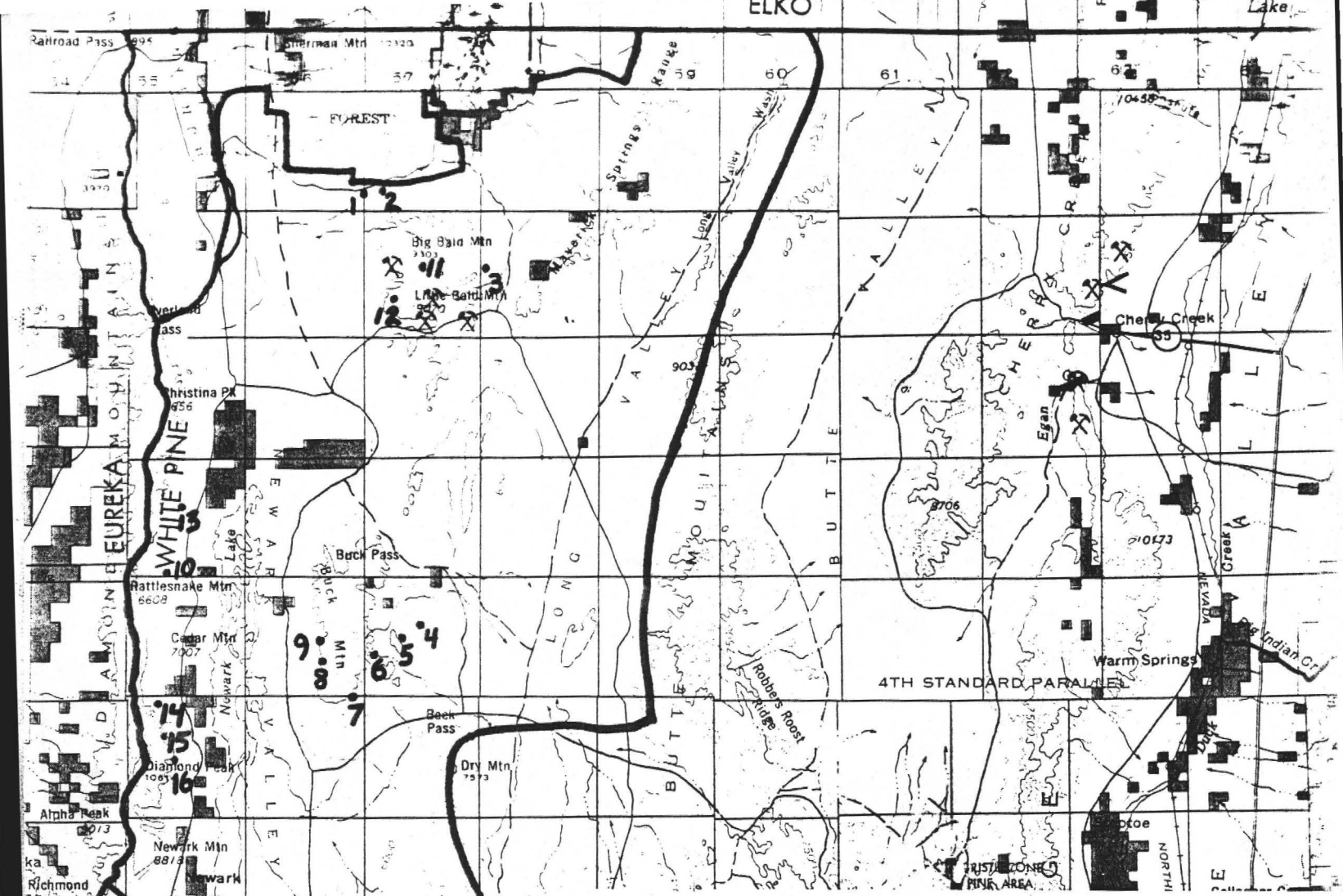


Figure 5. Springs with Conflicts

1. Cracker Johnson #1
2. Cracker Johnson #2
3. Cherry Spring
4. Woodchuck
5. Little Willow
6. Moore
7. Rock
8. Springs
9. Springs
10. Fairy Dell
11. Mill
12. Bourne Tunnell
13. Handy
14. Mau Spring
15. Robinson Springs
16. Water Canyon (Diamonds)

2 Cracker Johnson Springs - (T. 25 N., R. 56 E., sec. 31)

These two springs south of Overland Pass are in a deteriorated condition. Mesic meadows associated with these two springs are non-existent.

The following is a list of springs having reduced waterflow problems because of trampling a loss of riparian vegetation and the degraded condition of the spring sites. (See Figure 5 for location).

Name	Township	Range	Section
Mill Spring	24 N	57 E	17 SW
Spring	24 N	57 E	21 NE
Bourne Tunnel Spring	24 N	57 E	33 NW
Rock Spring	21 N	56 E	25 SE
Little Willow Spring	21 N	55 E	8 NW
Fairy Dell	22 N	55 E	32 SW
Handy Spring	22 N	55 E	9 NE
Mau Spring and associated riparian area	21 N	55 E	32 SE
Robinson Springs	20 N	55 E	5 SE
Water Canyon (Diamond Mtns.)	19 N	55 E	31 SE

1. Climate

The climate throughout the area is variable and dependent primarily on elevation. As elevation increases, precipitation increases and temperature decreases. Elevations range from 5,580 feet (1921 M) near the valley floor to 10,603 feet (3235 M) on Diamond Peak in the Diamond Mountains.

Average annual precipitation is estimated to range from 10 to 15 inches (25.4 to 38.1 cm). The precipitation at Ruby Lake, Nevada, (elevation 6,340 feet), averaged 12.5 inches (31.7 cm) for a 34-year period ending in 1974. Precipitation is received yearlong as snow or rain. Localized thundershowers are common in the summer and the first snow flurries normally occur by early November. Heavy snowstorms may occur from December to March with accumulated snows dissipated by early May. This pattern represents average conditions and variations often occur.

Daytime temperatures of 70 to 90 °F. (22 to 32 °C.) are common in the summer, while winter lows range from 5 to 15 °F. (-14 to -10 °C.). Yearly temperature extremes are 98 °F. (37 °C.) and -15 °F. (-32 °C.).

2. Topography

Topography of the area varies from flat valley bottoms at the extreme southern end of Ruby Valley to steep mountainous terrain at higher elevations. The majority of the area is bounded by foothills rising up from the valleys which grade into the steeper mountains.

High elevation benches and basins are not uncommon, although they are not extensive in size.

3. Geology and Soils

The habitat area lies within the Basin and Range Physiographic Province, a region characterized by long sub-parallel, north trending mountain ranges separated by broad alluvial valleys. The Buck, Bald, Maverick and Diamond mountains are generally composed of Paleozoic sedimentary rocks, principally marine limestone and shale. Other clastic rocks, fresh water limestone, rhyolitic pyroclastic rocks, basaltic lavas, and granitic intrusions also occur.

The oldest rock formation exposed is the Cambrian Dundenberg Shale which is overlain by a normal regional sequence of limestones, dolomites, and shales of Ordovician through Triassic age. Also, outcrops of Tertiary sediments, volcanics, and jasperoids appear. In the valleys on each side of Buck and Bald Mountains, the Paleozoic formations are overlain by Quaternary alluvium.

Two soil orders are represented in the habitat area, aridisols are found on the uplands and mollisols in Ruby Valley. Aridisols are low in organic matter and have shallow soil depth 4-20 inches, 10-50 cm. Mollisols are recent alluvial soils characterized by a rich organic layer and surface horizons high in bases.

An Order 3 Soils Survey was completed in the Newark Valley Allotment (Buck and Bald Area); condition mapping was then initiated in 1986 and summarized by acres of ecological status for specific range sites. Of the 210,292 acres of public range in the Newark Allotment, 41 percent of the range is in the

late seral, 41 percent is in mid seral, 4 percent is in early seral condition, and 14 percent is unclassified.

Approximately 305,000 acres have been mapped on the Warm Springs Allotment. There are almost 8,000 acres of rock outcrop. The ecological status of the remaining acres is: 5 percent in early seral stage, 63 percent in mid seral stage (mountain brush), 31 percent in late seral stage, and 1 percent in potential natural community (PNC). In addition, there are over 50,000 acres that are unclassified.

There has been no work done on Cold Creek or Strawberry Allotments; this amounts to 90,589 acres.

4. Other Land Uses

a. Oil and Gas Exploration

Despite the reduction in geophysical and "wildcat" exploration observed in the Egan Resource Area (RA) in the past few years, Long and Newark Valleys continue to be the objects of steady, exploration activity.

Both valleys have, with very limited exception, been identified as lands prospectively valuable for oil and gas ("Lands prospectively Valuable for Oil and Gas" map, Nevada, U.S.G.S. Conservation Division, Western Region; March 1983 revision). There has been a total of five "wildcat" oil wells drilled in the HMP area and two proposed for the summer of 1989.

b. Minerals

Since 1979, with the initiation of mining operations at BP Minerals Alligator Ridge, the Buck and Bald area has experienced intense mineral exploration, most of which has successfully climaxed in mining and production of microscopic gold via open-pit technologies and cyanide dissolution (e.g., Placer's Bald Mountain Mine, New Dynasty's Little Bald Mountain Mine, and Silver State Mining Corp's White Pine Project). All currently operating mines are dedicated to the expansion of recoverable reserves.

c. Recreational Uses

Hunting for mule deer is the primary recreational use of the habitat area. Other game species available to the hunter, in limited quantities, are sage grouse, chukar, mourning doves, cottontail rabbits, blue grouse, mountain lion and waterfowl.

There are seven perennial streams in the habitat area. The seven streams are Cold Creek, Connors, Deadman, Old Deadman, Pinto, Sadler* and Water Canyon*. (Refer to Appendix 9, page 202, of the Egan RMP for Riparian Habitat condition). Three of these streams, Cold Creek, Pinto Creek and Water Canyon (Diamond Mtns.) support sport fisheries. Cold Creek and Warm Springs reservoirs also support fisheries. Cold Creek reservoir is on private and public land while Warm Springs reservoir is completely on private land.

* not previously surveyed

Camping, rockhounding, and non-consumptive wildlife use are other recreational opportunities available; however, there is little documentation as to the extent of their use. Road access into the area is generally good with very few places inaccessible during the late spring, summer, and fall. Access is generally limited to major all weather roads during the winter and early spring, and during isolated cloudbursts.

Other recreational and/or commercial activities include woodcutting, post/pole cutting, and collecting of pine nuts.

d. Livestock Grazing

Livestock grazing occurs year-round in the HMP area. A description of cattle use on the crucial deer winter range is given in the Reasons for Preparation Section of this document. There are five bands of sheep (approximately 8,800 animals) that trail south through the HMP area to their respective winter ranges. These same five bands trail north through the HMP area in the spring each year to summer range.

e. Agricultural

In 1985, the Bureau of Land Management issued classification decisions proposing to classify approximately 1,960 acres in Newark Valley as suitable for development under the Desert Land Act and Carey Act.

5. Vegetation

Big sagebrush, black sagebrush, and shadscale are the major vegetative components of the low bench areas. Valley bottoms consist of white sage (winterfat) as well as greasewood, rabbitbrush, and playa. As elevation increases, juniper is found in varying densities in the sagebrush type. The most widespread type, pinyon pine-juniper-big sage-bitterbrush, is found throughout the mid-elevations. Shrub communities having a mixture of big sage, bitterbrush, serviceberry, mountain mahogany, and snowberry with an understory of grasses (cheatgrass, bluebunch wheatgrass, and Sandberg bluegrass) are found in the higher elevations.

In isolated pockets, generally near water sources, small stands of willow, aspen, wild rose, and chokecherry are found. These areas are not common, but do provide important wildlife habitat where they occur.

6. Cultural Resources

The habitat area encompasses both significant historic and prehistoric sites. The Pony Express Trail (1860-61) passes through the northern end of the planning area. Numerous historic sites relating to early mining and ranching industries are also common.

The Sunshine Locality National Register District, an area of paleoindian sites, covers 34,560 acres in Long Valley. Activities within this area are subject to review and consultation procedures authorized in Section 106 of the National Historic Preservation Act.

The habitat of the high country is a sensitive cultural area with a high number of late prehistoric and archaic age sites in the vicinity.

7. Wilderness

The habitat area contains no wilderness study areas or designated wilderness area. The closest area under wilderness consideration is the Ruby Mountain area to the north which has been recommended as wilderness by the Humboldt National Forest.

8. Visual Resources

A visual resource management inventory has not been finalized for the habitat management plan area. Preliminary inventories indicate that most of the subject area is within either a Class III or IV visual resource management area although some of the higher elevation areas, especially around Buck and Bald Mountain, were highly scenic.

9. Water Resources

There are seven perennial streams within the HMP area. Of the seven, three have fisheries. (Refer to Appendix 9, page 202, of the Egan Draft RMP for Riparian Habitat condition.) Other water courses are intermittent and generally associated with runoff from snowmelt or thunderstorms. (Refer to the Ely District water sampling contract for water quality). All water except runoff originates from springs (mostly perennial) which are generally well distributed throughout the area. Mooney Basin and Alligator Ridge are devoid of perennial water sources. Several wells provide additional water.

10. Threatened, Endangered and Candidate Species

The endangered bald eagle winters (November through May) in the plan area. The endangered peregrine falcon may be observed in any month of the year in the area. Several recent sightings have been documented. NDOW has identified Water Canyon in the Diamond Mountains (Newark Allotment), and Christina Peak (Diamond Mountains, Cold Creek Allotment) as possible future hacking locations for the peregrine falcon.

Category 2 species represent a list of species which are being considered for listing as endangered or threatened species. These species include the ferruginous hawk, the Newark Valley tui chub, the long-billed curlew, the white faced ibis and the snowy plover. The Newark Valley tui chub and ferruginous hawk are discussed later in this document. The white faced ibis and long-billed curlew both are believed to nest in the plan area.

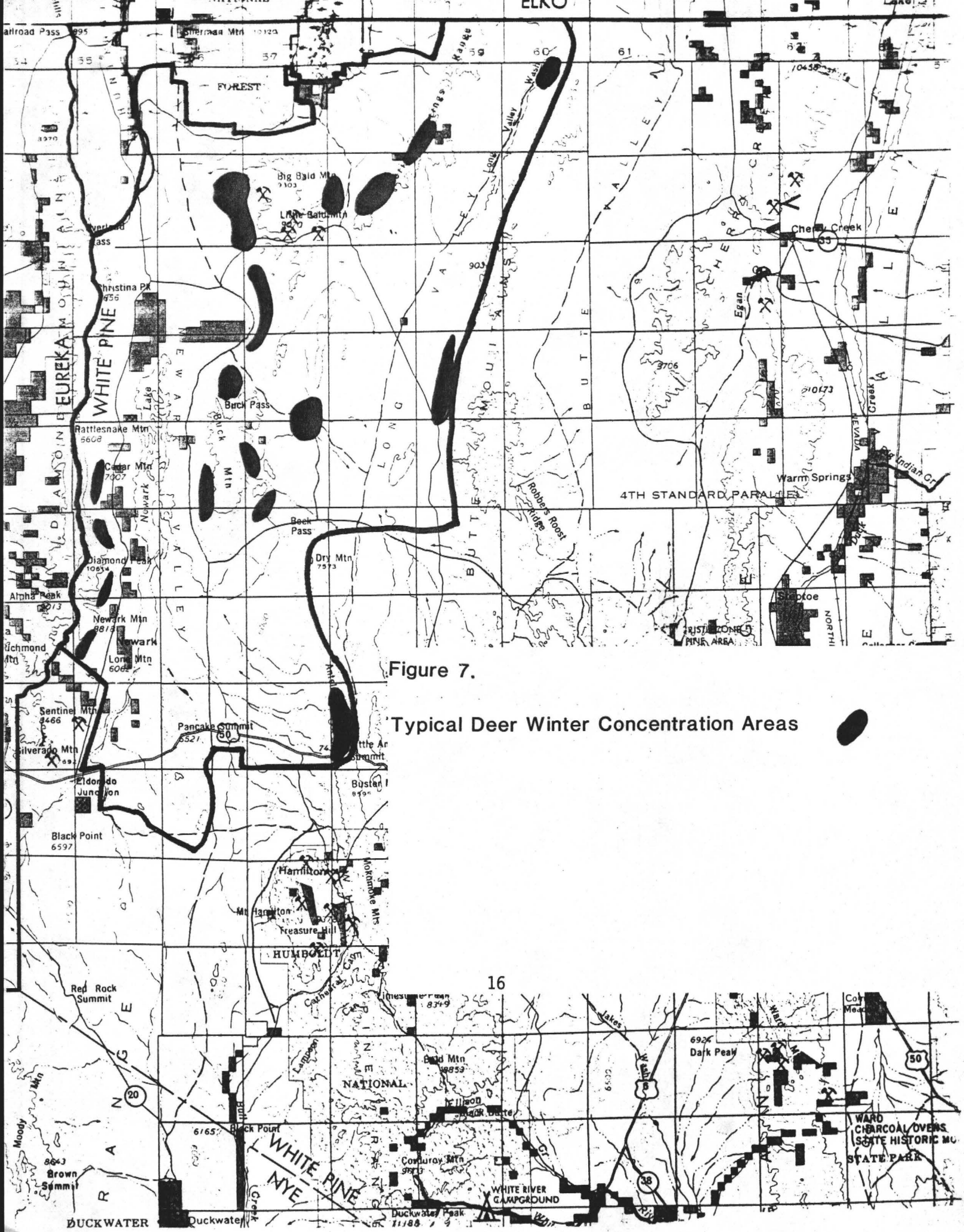


Figure 7.

Typical Deer Winter Concentration Areas

The nesting occurs on private lands and possible foraging for invertebrates occurs on BLM administered lands in the plan area. The snowy plover has been documented on the Newark Lake playa and is believed to nest on the playa.

Only one state listed plant species is known to occur within the HMP area. The species, Lassen-desert-parsley, Lomatium ravenii occurs in Bourne Canyon above the New Dynasty gold mine (T. 24 N., R. 57 E., sec. 34).

11. Fauna - General

a. Mule Deer

Mule deer resident numbers (Figure 6) are presently experiencing population declines due to two consecutive dry winters which leads to spring and summer conditions lacking ample forbs and grasses. Winter deer use (Figure 7) of the area is contingent on the amount of snowfall received to the north in the Ruby Mountains. About 20,000 to 24,000 mule deer can be expected in the plan area in most winters.

Mule deer use higher elevation zones in the summer months, the sagebrush/mountain brush zone in the winter and generally yearlong, and the pinyon-juniper ecosystem yearlong. Forbs, grasses, and succulent shrubs are major summer foods. Browse species (bitterbrush, black sage, cliffrose, big sage, serviceberry, snowberry) and cured forbs comprise most of the winter diet.

b. Pronghorn Antelope

Presently only a remnant population of pronghorn antelope are found in the plan area. A small resident population (6 to 10 animals) utilizes the Newark Allotment (Figure 8). A small population exists in the White Pine County portion of Ruby Valley. NDOW recently augmented the Ruby Valley herd with 48 animals in January 1988. An augmentation to the existing Newark Valley population is also planned in the future. In June 1988, a guzzler was installed in South Ruby Valley to improve water distribution in the area.

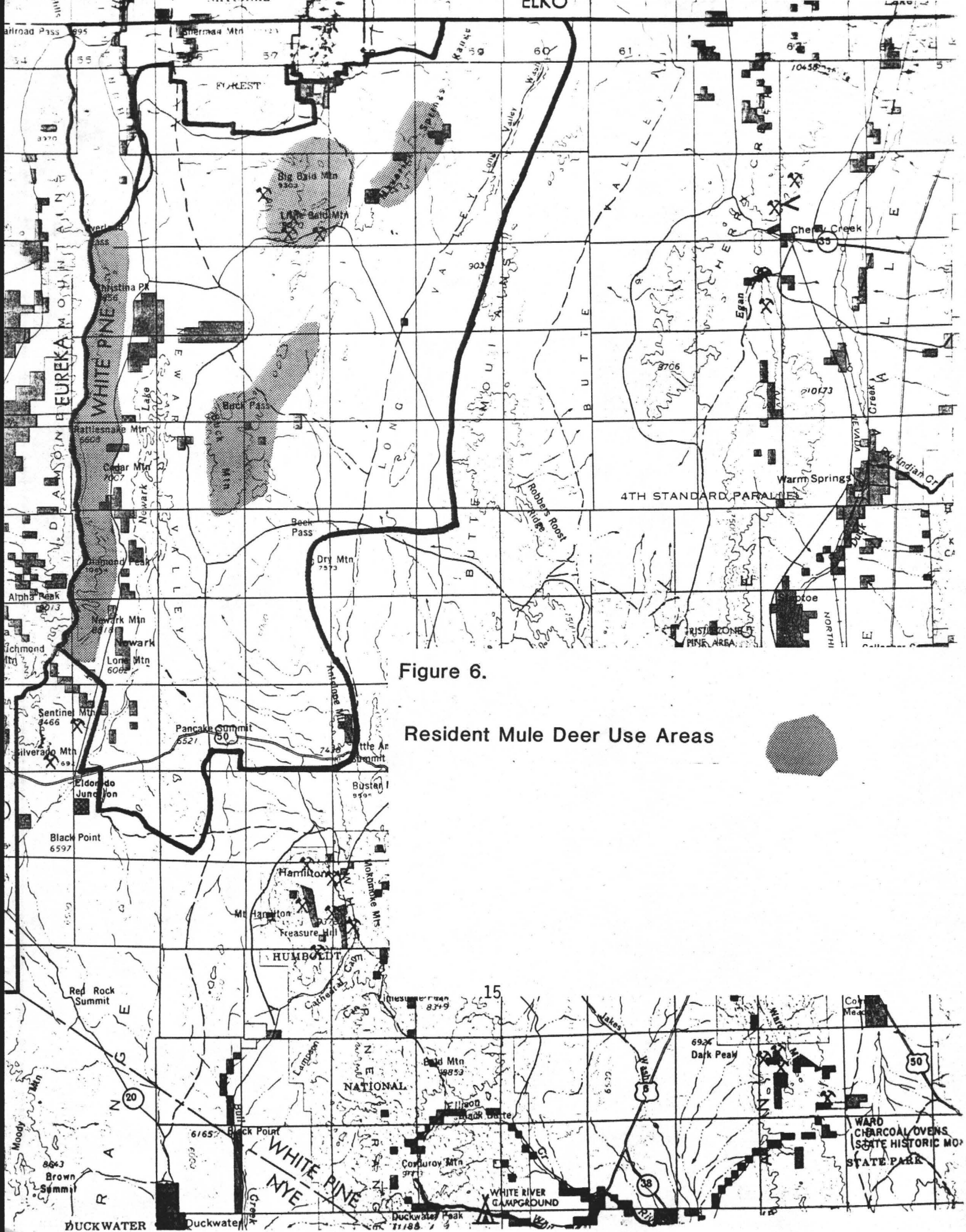


Figure 6.

Resident Mule Deer Use Areas

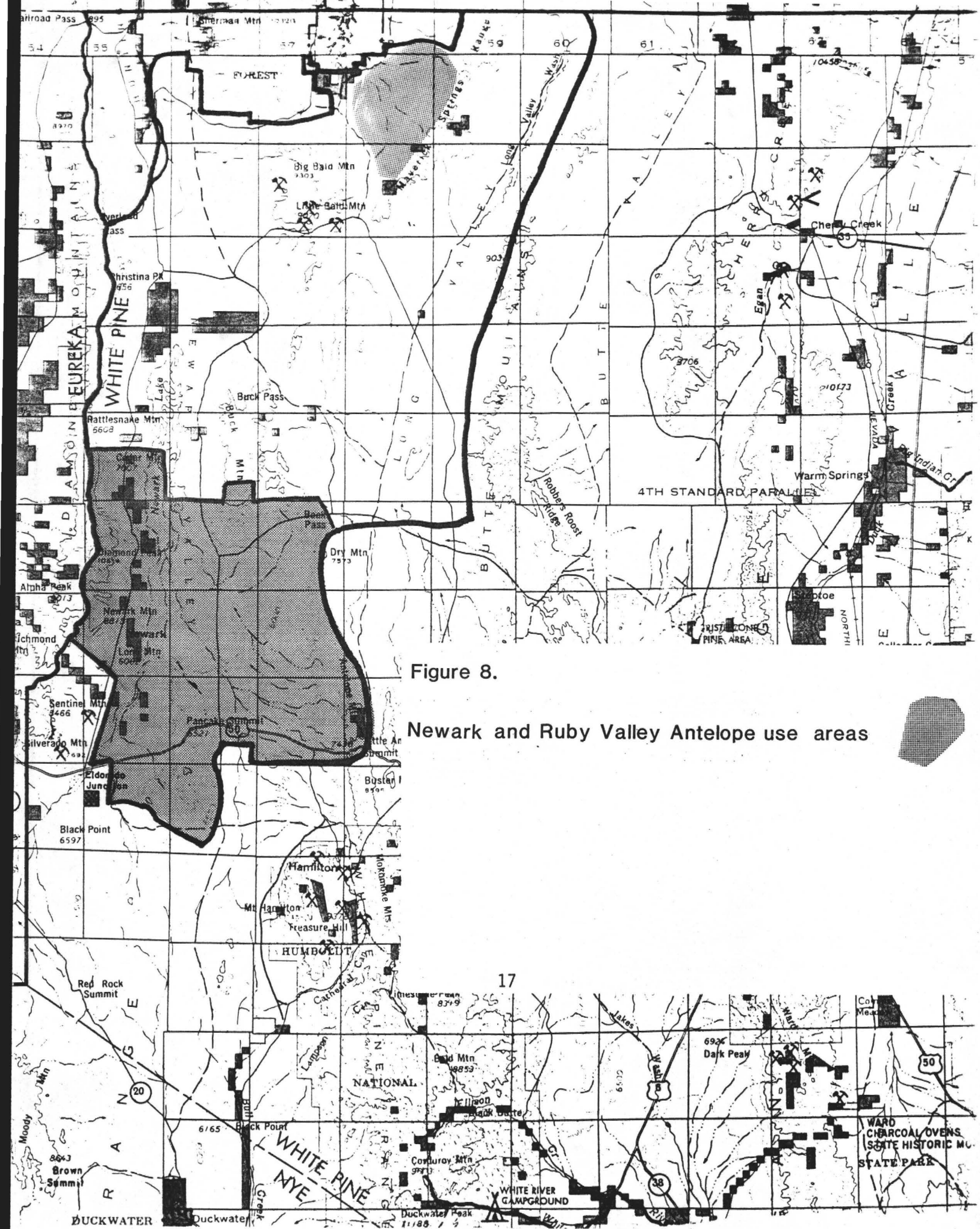


Figure 8.

Newark and Ruby Valley Antelope use areas

c. Mountain Lions

Mountain lion numbers are a reflection of the mule deer numbers. A few inhabit the plan area yearlong. Lions are generally found in the rocky, high reaches of the mountains. Their preferred food is mule deer, but nearly anything from rodents to wild horses are eaten by mountain lions.

d. Sage grouse

Sage grouse concentrations in the plan area are significant. Fifteen leks (strutting grounds) and several principal brooding and winter areas have been identified to date (Figure 9). Historically populations have declined. "Back in the 1930's, sage grouse were very numerous with flocks of over 300 birds observed often." (James Bennett, concerned citizen, 1985, personal communication.)

Populations declined in recent years. In the short-term, populations are stable to slightly increasing (NDOW, 1984).

Diet for these grouse consists of protein-rich insects (especially for young chicks), forbs, green grasses, and sage leaves.

All identified present use areas for sage grouse are crucial habitat (BLM, 1979). Historic use areas, strutting grounds, and riparian meadows are of special importance.

The ideal sage grouse habitat to be managed for as described by Klebenow is as follows:

- transition zones between vegetation types should be maximized.
- 21 percent shrub cover of 2 feet average height around the wet meadow habitat should be maintained in a mosaic.
- effective cover heights for the meadow should range from 2.8 inches to 6.4 inches (effective cover is the highest visual increment on a measuring rod covered by 50 percent vegetation). Effective cover should not go below 2 inches.

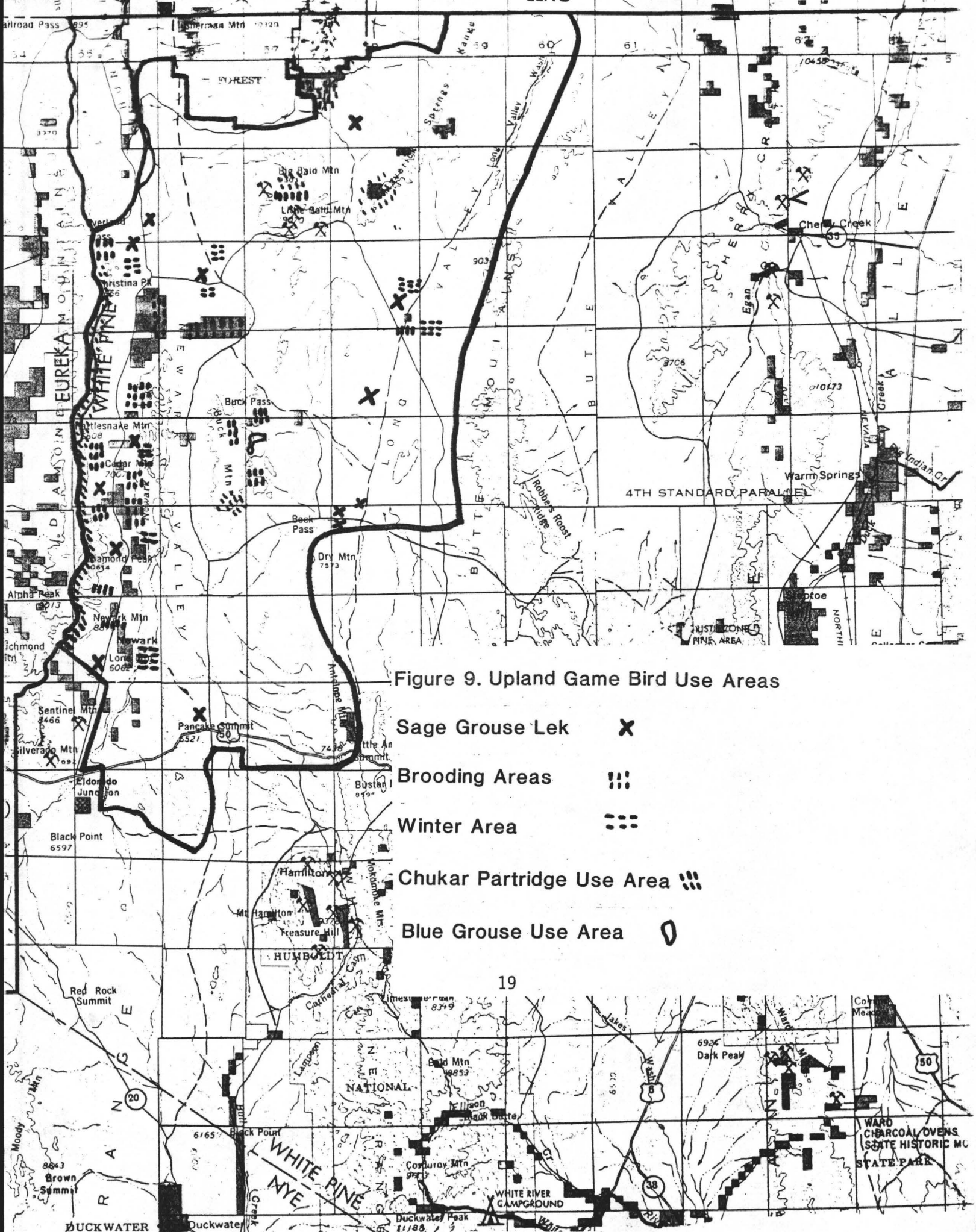


Figure 9. Upland Game Bird Use Areas

Sage Grouse Lek

Brooding Areas

Winter Area

Chukar Partridge Use Area

Blue Grouse Use Area

- grazing should be at least light (30 percent ±) on the meadow area and should not exceed moderate use (60 percent ±) but should coincide with that use needed to achieve ideal effective cover. (Klebenow, 1981.) Key use areas for sage grouse within the habitat area for brooding are generally meadows in deteriorated/degraded conditions. A maximum allowable utilization level on meadows within the habitat area will be that of 55%.

It was found that sage grouse avoided both bare ground and gullies to obtain water, and also avoid dense grass stands. Controlled grazing is recommended to prevent grass from becoming too dense and rank.

In the Egan Record of Decision (ROD) page 31 No. 8, Standard Operating Procedure (SOP) refers to sage grouse and restrictions placed on activities in and around known use areas.

Time of day and/or time of year restrictions will be utilized in those areas where construction activities are in the immediate vicinity or would cross sage grouse strutting, nesting, and wintering grounds; critical mule deer and pronghorn antelope winter range; or antelope kidding areas. The restrictions are listed below.

Restrictions:

a. Sage grouse strutting grounds: From March 1 to May 15 -- 2 hours before dawn until 10 a.m.

b. Sage grouse nesting grounds: Late May to mid-June.

c. Sage grouse wintering grounds: November 1 to March 31.

d Critical mule deer and antelope winter range: November 1 to March 31.

e. Critical pronghorn antelope kidding areas: May 1 to June 30.

Environmental analyses, including categorical exclusions, will be conducted prior to implementing any HMP's, or carrying out any specific projects (fences, spring developments, seedings, etc.).

e. Other Upland Game Birds

Blue grouse populations have remained fairly stable at moderate to high levels within the state (NDOW, 1984). Fir buds and needles comprise 50 percent of the blue grouse diet. Other pine, forbs, grasses, and insects comprise the remainder of the diet. Mixed conifer and white fir areas are key blue grouse habitat as mesic meadows and upland dry meadows for brooding birds. Mixed conifer and white fir habitats are important winter areas (Figure 9).

Chukar partridge (Figure 9) population levels have been reduced recently due to climatic conditions but can rise when conditions allow good hatching success. Chukar live in areas of rock outcroppings and scattered brush around perennial water sources. These birds eat seeds and leaves of annual and perennial grasses and forbs as well as insects when available.

Hungarian partridge also inhabit the plan area but in low population levels. These birds are tied to agricultural areas in Newark Valley. Adult birds have been observed in Long Valley.

f. Raptors

A wide variety of raptors, (eagles, hawks, falcons, and owls) exist in the plan area. Some birds winter in the area, some nest and summer, and some species are present yearlong.

The highest nesting densities of the ferruginous hawk in the resource area are located within the plan area. A total of 21 occupied nests were located in a nesting study conducted by Lindsey and Perkins in 1981 and 1982. Presently, nest concentrations are on the east side of Long and Newark Valleys which correspond to ideal nesting habitat, a southeast exposure in juniper stringers with a white sage vegetation type within 2 miles (Perkins, Lindsey, 1983) (Figure 10).

A 1980 helicopter raptor survey of the plan area found 10 different nesting species. One of the highest nesting densities of the prairie falcon in the Ely BLM District was located in the Diamond Mountains, Newark Allotment (Figure 10).

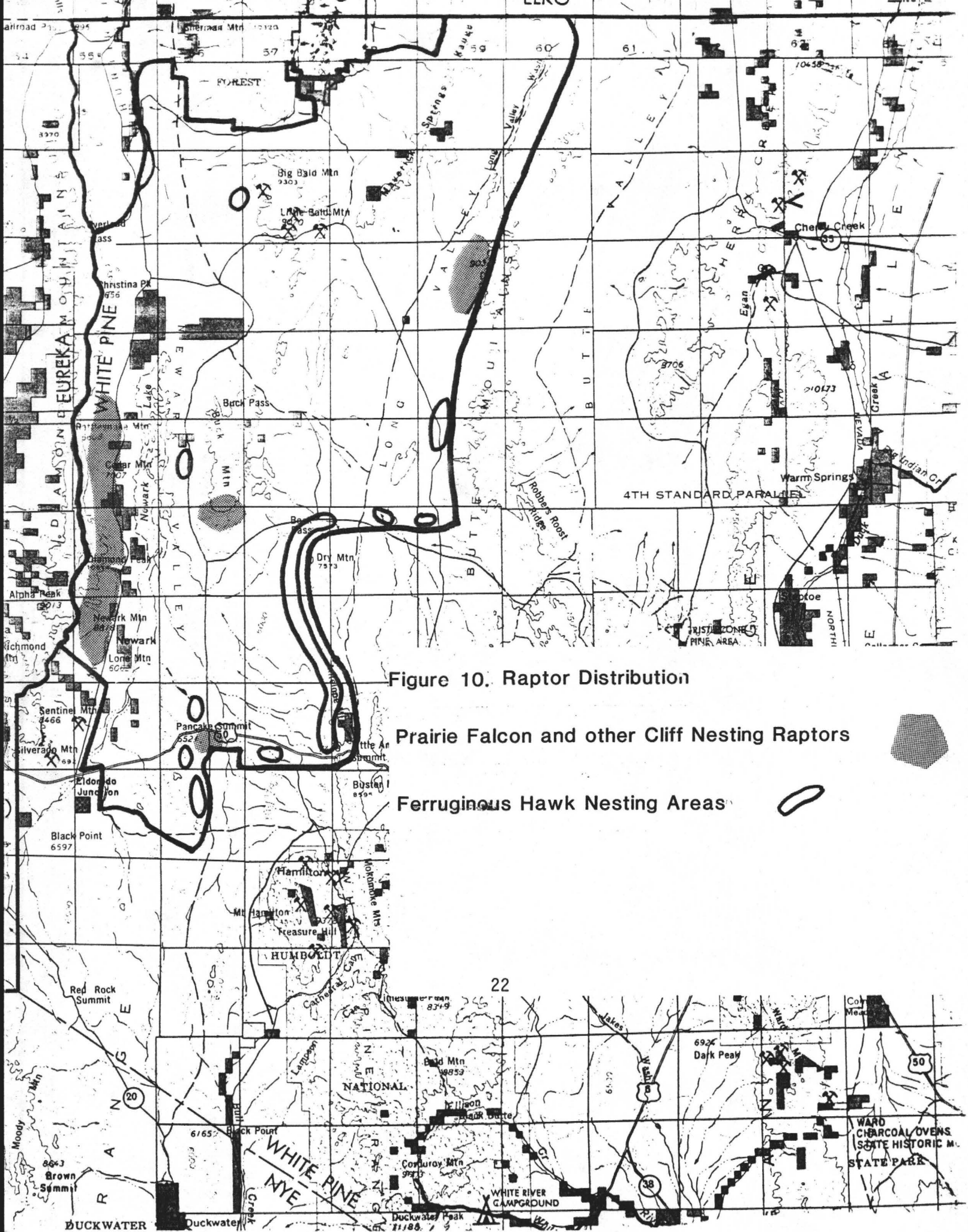


Figure 10. Raptor Distribution

Prairie Falcon and other Cliff Nesting Raptors

Ferruginous Hawk Nesting Areas

Several nest sites for Cooper's Hawk, red-tailed hawk, and golden eagles are known in the area. Nesting habitat includes aspen, cottonwood, rock ledges, and juniper trees. Diets for these birds include small mammals, passerine bird species, and carrion.

Bald eagles, (federally endangered) winter in the plan area mostly in Newark Valley. As many as seven different birds have been observed in Newark Valley on the same day. A potential bald eagle roost was located on Cedar Mountain in the Newark Allotment. Three immature bald eagles were observed leaving the mountain ledges early in the morning in January 1984.

The endangered peregrine falcon has been observed in the plan area on several occasions in the past few years. This bird may be observed in any month of the year. Foraging areas for the peregrine falcon include private and BLM administered marsh/wetland habitats within the HMP area.

g. Furbearers - General

Bobcats are common in the plan area, living mostly on the benchland, but do venture into valley bottoms when prey is available. When these areas are adjacent to water, bobcat concentrations can be high (Anderson, 1982). This makes parts of the plan area very good bobcat habitat. Preferred forage for these animals are rodents, birds, rabbits, and occasionally, young big game animals.

Coyotes are very common to the plan area. These animals can be found at all elevations. Coyotes can be as dense as one per square mile in some areas (Taylor, 1982). Preferred forage for coyotes are rodents and rabbits generally. Domestic sheep in sheep herd areas will also be eaten. Young game animals are occasionally taken.

A moderate population of kit fox and gray fox are also located in the plan area. Rodents comprise the major part of these foxes' diet.

h. Newark Valley Tui Chub

The habitat condition of Newark Valley tui chub in east Newark Valley is stable. The fish is a Candidate Category 2 species and a state listed

sensitive species since 1981. The chub is located at the following site:

T. 20 N., R. 55 E., sec. 22, SESE. A possible chub transplant site is located at a spring in T. 22 N., R. 56 E., sec. 21, NWNW. The chub is endemic to additional sites on private lands.

i. Other Wildlife

Cyclic populations of jackrabbits, mountain and desert cottontail rabbits, and pygmy rabbits inhabit the plan area.

Numerous other species of birds, mammals, reptiles, and amphibians occur in the plan area.

j. Wild Horses

For a description and write up of wild horses within the plan area see the "Reasons for Preparation" section of this document.

k. Livestock

For a description of livestock see the "Reasons for Preparation" and "Land Uses" sections of this document.

12. Flora - Riparian Areas

"The riparian habitat is the most productive and possibly the most sensitive of North American habitats and should be managed accordingly" (Johnson et al, 1977). Up to 79 percent of the wildlife species in the plan area depend on these areas for water, food, cover, nesting, breeding, or other activity (Johnson, et al, 1977).

The list of riparian species of vegetation are the main species of concern in the plan area (see Appendix A). Not all of the species listed occur at every riparian area.

Mesic meadow protection fences have been constructed in eight areas within the plan area. There are 12 acres of meadow protection within four fenced exclosures in Orchard Canyon on Buck Mountain. There are two springhead/meadow protection fences also located on Buck Mountain at Rock Spring and Mud Spring. One mesic meadow/spring protection fence is located on Bald Mountain at Cracker Johnson Spring. Cold Creek Spring and channel have been fenced and the fenced

a seeded. Two of these springhead/meadow protection fences are in need of repair, Rock Spring and Cracker Johnson Spring.

Placer Dome U.S. Inc., Bald Mountain Mine, is constructing two riparian exclosures. One is in Water Canyon where Bald Mountain will fence three acres of mesic meadow. The other is located at Cherry Spring where Bald Mountain will fence six to seven acres of riparian and associated upland habitat.

There are approximately 13,170 acres of BLM administered riparian vegetation within the plan area. See appendix D for acreage by allotment of aspen, wet meadow, dry meadow and other riparian within the plan area. In addition, there is about 17,000 acres of privately owned riparian vegetation in the plan area.

C. Relevant Constraints

This plan is being prepared in accordance with BLM Manual 6780 - Habitat Management Plans (12-23-81). Other guidance includes the Egan Resource Area Management Plan (approved 2-3-87). See Appendix B for a list of laws and acts pertaining to and applicable to the Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan area.

D. Sikes Act Authority

In accordance with Supplement 6 (dated 11/5/75) the Master Memorandum of Understanding between the NDOW and the BLM, Nevada State Office, the HMP meets the requirements for implementation under the Sikes Act.

II. Land Status

The Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan area consists of 817,656 acres in parts of eight allotments. Table 1 shows land ownership within the Wildlife Habitat Area.

Table 1

Land Status	Acres
Public land (BLM)	798,827
Private	18,749
State of Nevada	80
	817,656

Private acreage is only approximate. No management objectives will be directed at private lands.

III. Management Objectives - General

The general wildlife objectives center on managing vegetation, specifically mountain brush types, for increased vigor of the vegetation. Wildlife decisions from the Egan Record of Decision consist of:

A. Short-Term (0-5 years)

1. Habitat will be managed for "reasonable numbers" of wildlife species as determined by the Nevada Department of Wildlife.

2. Reintroductions of big game species will be accomplished in cooperation with the Nevada Department of Wildlife, where such reintroductions would not conflict with existing uses and if sufficient forage is available.

3. Habitat management plans will be completed on all wildlife habitat areas within the resource area.

B. Long-Term (6-20 years)

1. Forage will be provided for "reasonable numbers" of big game as determined by the Nevada Department of Wildlife.

2. Additional habitat management plans will be prepared in the long term.

The following decisions were carried forward from the past Cherry Creek MFP and are found in the Egan Record of Decision (ROD).

3. Develop additional water sources as necessary to approach the optimum condition for each species in areas where it occurs according to the following chart:

Species	Optimum Distance Between Waters
Chukar	1 mile
Elk	less than 3 miles
Antelope	1 to 3 miles
Mule Deer	less than 2 miles
Hungarian Partridge	(1 at each site)

In many instances, it is neither practical nor desirable to develop water in accordance with optimum distance objectives.

4. In blue grouse habitat, manage stands of white fir or aspen for the desired seral stage for blue grouse.

5. In vegetation manipulation projects, leave standing dead trees for perches or nesting sites where practical, following constraints for perches for raptors in sage grouse strutting areas.

6. Adjust powerline routes where they intersect strutting grounds to prevent line of sight visibility by raptors.

7. Insure that all new powerlines are built and existing powerlines are modified to eliminate raptor electrocutions.

C. Additional objectives to be addressed by this HMP include:

1. Supply ample forage for both resident and migratory mule deer within the management area and minimize livestock impacts to mule deer winter range.

2. Provide sufficient forage and water to allow augmentation of pronghorn antelope by NDOW into Ruby and Newark Valleys. Augmentation and eventual numbers will be addressed in a site release description to be completed prior to release and will be compatible with all other range users.

3. Protect upland game species (sage grouse, blue grouse, pygmy and cottontail rabbits, Hungarian and Chukar partridge) nesting, brooding, and wintering habitats. See planned actions on page 37.

4. Minimize all detrimental impacts on 15 sage grouse leks, nesting, brooding, and winter habitats. See planned actions on page 36.

5. Protect raptor nesting sites of 21 ferruginous hawks, 5 Cooper's hawks, 4 great horned owls, 10 golden eagles, 16 prairie falcons, 13 kestrels, 9 red-tailed hawks, 3 short-eared owls, and 3 Long-eared owls located to date. Protect additional sites as found. Also provide for and protect habitat for raptor prey species.

6. Protect habitat of the Newark Valley tui chub at Warm Spring locations on public lands.

7. Provide sufficient water and riparian vegetation within the plan area for brooding upland game birds, mule deer, and mule deer fawning areas.

8. Manage 5,909 acres of riparian and aspen areas for a late seral stage. Improve riparian and wetlands to good or better condition where monitoring studies show deterioration.

9. Support NDOW's peregrine falcon releases in the Diamond Mountains.

See Appendix E for a listing of riparian/wildlife objectives by allotment from the Egan Rangeland Program Summary.

D. The following is a list of plant species which are addressed specifically to benefit a primary wildlife foraging animal in a specific season:

Mountain big sage	deer winter
Sandberg bluegrass	deer spring/summer
Forbs	all wildlife yearlong
Bluebunch wheatgrass	deer spring/summer
Serviceberry	upland game birds/deer yearlong
Snowberry	upland game birds/deer yearlong
Bud sage	antelope yearlong
Shadscale	antelope yearlong/deer winter
Saltbrush	antelope yearlong/deer winter
Bitterbrush	deer fall/winter
Chokecherry	upland game
Black sagebrush	deer fall/winter;antelope yearlong
Riparian species	all wildlife yearlong

Many other forage species are utilized by wildlife which inhabit the plan area. These species will also benefit from objectives set forth in this plan.

The area-wide specific objectives are aimed at protecting or improving habitats that occur throughout the plan area. These habitats are used by a variety of wildlife.

E. HMP - Specific Management Objectives

1. Following is a list of areas by legal description that utilization of bitterbrush and other browse species shall not exceed 25% of current years growth by September 30. This objective will insure adequate forage availability for wintering mule deer.

Short Term

Area	Legal Location
Overland Pass	T. 25 N. R. 57 E.
Big Bald Mountain/West	T. 24 N. R. 57 E.
Water Canyon/Bald Mountain	T. 24 N. R. 57 E.
Mahoney Canyon	T. 24 N. R. 58 E.
Cherry Springs Area	T. 24 N. R. 58 E.
Mooney Basin	T. 23 N. R. 58 E.
Buck Pass	T. 22 N. R. 57 E.
Orchard Canyon	T. 22 N. R. 56 E.
Rock Springs	T. 21 N. R. 57 E.
Little Willow Spring Area	T. 21 N. R. 57 E.
Willow Spring Area	T. 21 N. R. 57 E.

Long Term

Frequency, cover, condition, trend and phenology studies (see Appendix C for legal location) have been established in identified key areas within the HMP area. These studies have been established in accordance with BLM manual 6630. These studies will eventually determine the habitat condition rating.

2. Utilization levels will not exceed 55% of current years growth on perennial grasses and grasslike species (POA's, Sedges, carex, ELCI) along stream riparian areas and mesic meadows by November 1 on the following key locations:*

Short Term

Area	Legal location
Cottonwood Canyon/Buck Mountain	T. 22 N., R. 57 E., sec. 30
Robinson Springs	T. 20 N., R. 55 E., sec. 5
Mau Creek	T. 21 N., R. 55 E., sec. 32
Fairy Dell Spring	T. 22 N., R. 55 E., sec. 32
Corta Spring	T. 24 N., R. 55 E., sec. 33
Handy Spring	T. 22 N., R. 55 E., sec. 9
Water Canyon/Bald Mountain	T. 24 N., R. 57 E., sec. 20
Mud Spring	T. 22 N., R. 57 E., sec. 32
Orchard Canyon	T. 22 N., R. 56 E., sec. 36
Little Willow Spring Area	T. 21 N., R. 56 E., sec. 6
Rock Spring	T. 21 N., R. 56 E., sec. 36
Old Deadman Creek	T. 21 N., R. 56 E., sec. 9
Deadman Creek	T. 21 N., R. 56 E., sec. 16
Pinto Creek	T. 19 N., R. 55 E., sec. 35,36
Conners Creek	T. 24 N., R. 55 E., sec. 14
Sadler	T. 20 N., R. 55 E., sec. 33
Water Canyon (Diamonds)	T. 20 N., R. 55 E., sec. 31

*The above listed areas are key areas representative of conflicts from past and present use by livestock and/or wild horses.

Long Term

Long term management objectives are to be measured by methods listed in BLM manual 6630 and manual 6671.

3. Utilization levels will not exceed 45% of current years growth on riparian shrub species (willows, choke cherry, etc..) and utilization levels on riparian associated tree species (cottonwood, aspen) will not exceed 25% of current years growth by November 1. This will provide for adequate regeneration of these species to achieve 60 stems per acre over 6 feet in height.

Short Term*

Area	Legals Location
Cottonwood Canyon/Buck Mountain	T. 22 N., R. 57 E., sec. 30
Robinson Springs	T. 20 N., R. 55 E., sec. 5
Fairy Dell Spring	T. 22 N., R. 55 E., sec. 32
Orchard Canyon	T. 22 N., R. 56 E., sec. 36
West Buck Mountain	T. 21 N., R. 56 E., sec. 27

*The above listed areas are key areas representative of conflicts from past and present use by livestock and/or wild horses.

Long Term

Long term management objectives are to be measured by standards listed in BLM manual 6630 and manual 6671.

Short Term

4. On Water Canyon, Sadler, Cold Creek, and Deadman Creeks limit utilization on streamside riparian vegetation according to the following table (choose the lowest category based on the existing percent optimum for either bank cover or bank stability from BLM Manual 6671).

Category	% Optimum	Allowable Use Levels
Poor-Fair	0-60%	0-20%
Good	61-80%	30-50%
Excellent	81-100%	*

*As listed in Nevada Rangeland Monitoring Handbook by plant species and season of use.

Cold Creek was last measured in 1981 and found to be in excellent condition. However, since then, unauthorized disturbance has occurred and reduced the stream to a lower category. Pinto, Deadman and Old Deadman Creeks are in poor condition while Water Canyon and Sadler Creek are in the fair category.

Long Term

BLM Manuals 6630 and 6671 along with established monitoring studies will determine the habitat condition rating within the HMP area. Streams will be managed for good or better overall habitat condition.

5. At the following white sage vegetation type locations, utilization will not exceed 55% of current years growth by April 30th in order to maintain ferruginous hawk nesting territory integrity and to provide adequate forage for ferruginous hawk prey species.

Short Term

Area	Legal Location
South Dry Mountain - W	T. 18 N., R. 57 E., sec. 7
Middle Dry Mountain - W	T. 19 N., R. 57 E., sec. 7
North Dry Mountain - W	T. 20 N., R. 57 E., sec. 19
South Buck Mountain	T. 20 N., R. 56 E., sec. 36
McBrides Sheep Well Area	T. 21 N., R. 58 E., sec. 25
North Dry Mountain - E	T. 20 N., R. 58 E., sec. 27
Shallow Well Area (W. Long Valley)	T. 21 N., R. 57 E., sec. 8

Long Term

Long term management objectives are to be measured by methods listed in BLM Manual 6630.

6. Manage the following key sage grouse areas for big sagebrush for late mid seral stage with at least 25% sagebrush cover.

Short Term

Area	Legals Location
Ratto Ranch	T. 19 N., R. 55 E., sec. 3
Beck Pass	T. 20 N., R. 57 E., sec. 11
Mouth Bourne Canyon	T. 23 N., R. 56 E., sec. 10
Long Valley Slough	T. 23 N., R. 58 E., sec. 26
Fairy Dell Area	T. 21 N., R. 55 E., sec. 5
Robinson Springs Area	T. 20 N., R. 55 E., sec. 8

Long Term

Long term management objectives are to be measured by standards form BLM Manual 6630.

7. Short Term

Pronghorn antelope augmentation into Newark Valley can proceed when animals become available to the NDOW. A release of 50-75 animals will take place north of Highway 50 in the Buck Mountain area with eventual desirable numbers of antelope to be 200-250 animals (Steve Foree, NDOW, personal communication, 1988). Utilization of antelope key forage species will not exceed 45% of current years growth prior to or after the augmentation takes place.

Long Term

Once the pronghorn population reaches the desired level of animals, monitoring developed in conformance with the 6630 manual will determine antelope habitat condition rating which will determine if more or less animals can be supported by the available habitat.

8. Short Term

A pronghorn antelope reintroduction of 50-75 animals into Long Valley with desirable numbers to be 200-250 animals (Steve Foree, NDOW, personal communication, 1988) can take place after desired water availability and antelope habitat is suitable for reintroduction.

Long Term

Pronghorn antelope habitat condition rating will be determined at the following locations with a goal to maintain or improve the habitat to 70% of optimum by 2002. Habitat rating will be determined by manual 6630.

Area	Legal Location
South Long Valley	T. 20 N., R. 58 E., sec. 1
Middle Long Valley	T. 21 N., R. 58 E., sec. 1
Long Valley Slough Area	T. 23 N., R. 58 E., sec. 23
North Long Valley Wash	T. 23 N., R. 59 E., sec. 4

9. Short Term and Long Term

Expand and improve chukar partridge habitat in the following locations. Increase chukar partridge brood counts (in good nesting years) from the present 1 to 2 to 5 broods.

Area	Legal Location
Newark Allotment	T. 20 N., R. 56 E., sec. 10
Horse Haven Allotment	T. 24 N., R. 58 E., sec. 24

10. Short Term and Long Term

Protect and maintain the following location as a possible Bald Eagle Roost Site.

Area	Legal Location
Cedar Mountain/ Newark Allotment	T. 21 N., R. 55 E., sec. 21

11. Short Term and Long Term

Support NDOW and Fish and Wildlife Service attempts at future reintroduction of peregrine falcons in the following locations.

Area	Legal Location
Cold Creek Allotment/ Christiana Peak	T. 23 N., R. 55 E., sec. 16
Newark Allotment/ Water Canyon	T. 19 N., R. 55 E., sec. 4

Also oppose any chemical use on public lands which could adversely effect prey species of peregrine falcons (mostly passerines and water birds).

12. Short Term

Provide 600± acres of additional forage in the early mid seral stage for wintering mule deer on the west side of Alligator Ridge. Increase the present 1% of bitterbrush in the closed canopy Pinyon-juniper area to 10-12% per range site #2830 book (D-28) by aerial seeding the area once it is chained. Provide water for mule deer.

Long Term

Determine percent of optimum habitat condition for mule deer that the chaining has provided for by 2002. Manual 6630 will be utilized.

IV. Planned Actions

This section lists specific actions which will achieve the management objectives as well as the HMP specific objectives. Grazing systems to be presented in allotment management plans (AMP's) within the plan area or waters developed for livestock will also benefit wildlife.

A. Mule Deer

Planned Actions

One of the management objectives in the Warm Springs, Cold Creek, and Newark AMP's will be to limit combined utilization (livestock and wildlife) of key browse species to 45 percent. This will provide for vigorous browse communities. The level of 45 percent combined use is to ensure viable communities of plants, not how much deer need over the winter.

Proposed projects to enhance mule deer winter range are as follows:

1. Establish a greenwood cut area south of Overland Pass. The area is located at T. 25 N., R. 57 E. and is 1,000 ± acres in size. By doing this, the overstory of pinyon-juniper will be removed and the remaining browse will be released allowing seed production and seedling establishment.

2. Approximately 600± acres of additional forage will be provided for wintering mule deer by double chaining an area on the west side of Alligator Ridge in T. 22 N., R. 57 E. The area will be chained one way, aerial seeded, then chained back the other way to cover the seed. The area will be temporarily fenced (up to 3 or 4 growing seasons) to reduce utilization of the planted species until they are established.

   There are also an additional four areas with conversion potential including reseeding to increase mule deer winter forage. The four areas are Martin Basin, northwest Bald Mountain, east Buck Mountain, and additional acreage in Bourne Canyon. Total acreage of all four areas combined is approximately 2,300 acres.

3. Develop guzzlers for mule deer (Figure 11). These guzzlers would provide for better utilization of forage.

   The legal descriptions for the location of the guzzlers are as follows:

   Mooney Basin - T. 23 N., R. 57 E., sec. 12, NE.

   Martin Basin - T. 23 N., R. 57 E., sec. 16. This guzzler was installed in FY 1988.

   Alligator Ridge - T. 22 N., R. 57 E., sec. 12

   Diamond Mountains - T. 22 N., R. 55 E., secs. 20, 29, 16, 9

   Other locations may be jointly located by BLM/NDOW biologists.

   Nongame and upland game will use all the guzzlers at various times during the year.

4. Riparian area protection projects (springhead riparian fencing, stream riparian fencing, mesic meadow exclosures) will also benefit mule deer. (See Riparian Section of this document.) Fences will be established as needed and agreed to by interested parties where over utilization is a problem.

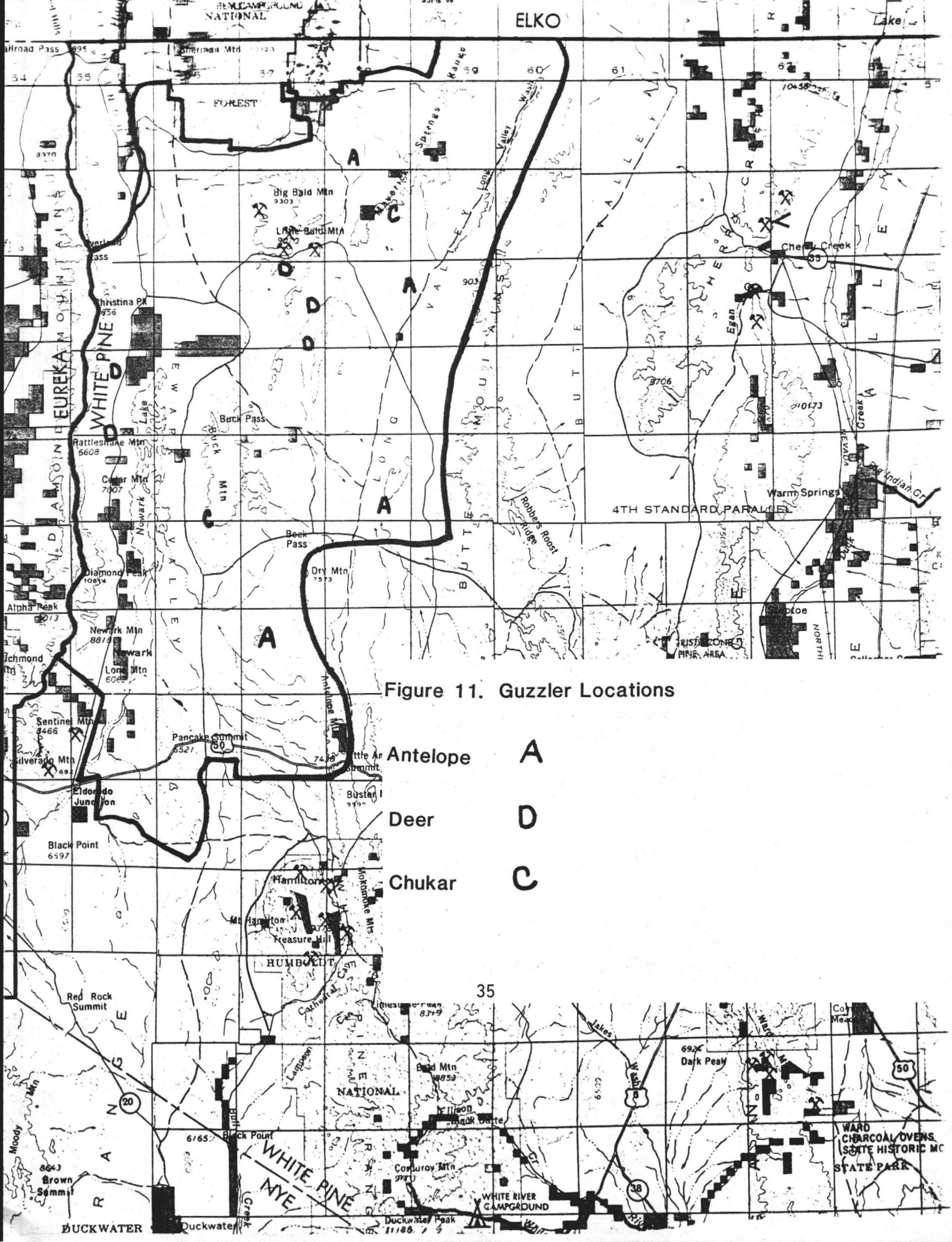


Figure 11. Guzzler Locations

Antelope A

Deer D

Chukar C

B. Pronghorn Antelope

Planned Actions

1. A habitat management plan is required for a reintroduction of a species to take place. This plan will complete this requirement for the Long Valley portion of the area, pending NDOW implementation, and if studies indicate sufficient forage is available.

2. An antelope guzzler was installed in T. 19 N., R. 57 E., sec. 16, SE in the Ruby Valley Allotment in south Ruby Valley in June 1988. This guzzler will increase water distribution in South Ruby Valley and assist the augmentation to be successful. Additional guzzlers are planned for installation in Newark Valley at T. 25 N., R. 58 E., sec. 3, NW, and Long Valley at T. 21 N., R. 58 E., sec. 27 and T. 23 N., R. 58 E., sec. 23 (Figure 11).

   Newark Valley is well watered except for the central and eastern portions. Water developments planned in the HMP as well as the Newark and Warm Springs AMP's will bring water into water free areas of the plan area. These developments will benefit antelope. Antelope drinkers will be installed on any pipelines developed.

C. Sage Grouse

Planned Actions

Management of livestock grazing in the plan area will be addressed in the Newark, Warm Springs and Cold Creek AMP's. Vegetation management for sage grouse will be correlated with HMP objective #6 to assure proper seral stage at key areas.

Additional planned actions to benefit sage grouse:

1. At present there are few seismic exploration requests for this area. In future requests which conflict with known sage grouse use areas, standard stipulations to protect sage grouse will be added.

   These include avoiding the 2 mile strutting, nesting, brooding area until after the use season, and working between the hours of 8:00 a.m. to 4:00 p.m. Another stipulation may be to have seismic companies make only one pass through the area. These will apply from March 1 to May 15.

2. Future troughs (if not a closed system) along pipelines should be constructed so a small flow (0.1

gal./hr.) goes over the trough to a pipe which flows into an overflow pond.

3. Maintenance of habitat required to support and perpetuate the nongame birds and mammal species outlined in this document and the AMP's will occur and will benefit all wildlife species.

4. Utilization studies will be conducted yearly on all meadows to determine if land use objectives are being met. Utilization on meadows should not exceed 55 percent of current year's growth by November 1 annually.

5. On all vegetation manipulation projects, adherence to the Western States Sage Grouse Guidelines will take place.

6. Annual inventories for sage grouse leks and winter areas will be conducted as needed.

D. Other Upland Game Birds, Blue Grouse, Hungarian and Chukar Partridge

Planned Actions

The following actions would benefit blue grouse, chukar, and Hungarian Partridge.

1. No cutting will be allowed of non-pinyon conifers, aspen and mahogany within the plan area. These trees provide winter habitat as well as forage for blue grouse.

2. Proposed mesic riparian protection fences in the AMP's and this HMP as well as spring developments will benefit all these upland game birds.

3. Maintenance and improvement of mixed vegetation ecosystems (1/3 grasses, 1/3 forbs, 1/3 shrubs) will benefit upland game birds.

4. Develop small/upland game guzzlers at the following locations.

   S.W. Buck Mtn - T. 20 N., R. 56 E., sec. 10
   Maverick Mtns. - T. 24 N., R. 58 E., sec. 13

E. Raptors

Planned Actions

1. Known nest sites will be protected from physical destruction and during the nesting season, a one-half mile buffer zone will be observed by all activities for all raptor species.

2. If commercial cutting is to occur in an area of a known accipiter nest site, a 20-acre buffer zone will be requested.

3. Before any vegetation conversion occurs in a pinyon-juniper vegetation type, all stringers will be examined for ferruginous hawk nesting activity. If any nest is found, a one-half mile buffer zone will be observed.

4. The AMP's for Warm Springs and Newark Allotments will include actions (rest rotation, deferred systems) for rehabilitation of winterfat areas. These actions will benefit all raptors, especially the ferruginous hawk. Winterfat areas are habitat for the Townsend ground squirrel which is one of the ferruginous hawk's prey species. All actions will conform with HMP objective #5 for ferruginous hawk habitat improvement.

F. Other Game and Non-game Species

Planned Actions

Install some means of escape for small mammals, birds, and other wildlife to all existing and future watering facilities in the plan area. Escape ramps will consist of bird ladders, bolt on boards floating in the trough, rock piles, and or wire mesh. This is a standard operating procedure in the Egan ROD, page 31 no. 7. Development and installation of guzzlers will benefit other game and non-game species.

G. Threatened and Endangered and Candidate Species

Planned Actions

There are several possible issues affecting threatened and endangered species within the plan area. One issue is that of seismic activity in the vicinity of occupied ferruginous hawk nest sites, and or the physical destruction of the nest itself. NDOW plans on two possible hacking sites for the endangered peregrine falcon in the Diamond Mountains within the Newark and Cold Creek Allotments. The BLM will support these hacking sites via a Section 7 consultation with the Fish and Wildlife Service (FWS) regarding any future action which may effect this endangered species.

The issues identified for the ferruginous hawk are provided for under the standard operating procedures (SOP's) outlined in the Egan ROD pages 30 thru 31.

Spraying on public lands for grasshopper control or other pests could impact prey species for peregrine falcons. A

formal Section 7 consultation would be required once peregrine falcons are reintroduced. Should a negative opinion be issued, the project would be changed or halted.

H. Newark Valley Tui Chub

Planned Actions

Continue current grazing practices as there are no documented problems with current levels of grazing. NDOW presently has no monitoring program for the Tui Chub in Newark Valley. They are interested in the status of the Tui Chub and may conduct population inventories at some future date.

1. Preserve spring sources in present condition, avoid water being diverted for other uses.

2. Restrict seismic activity in the vicinity of known populations.

I. Riparian Areas

Planned Actions

The following actions would improve the identified springs and riparian areas and would benefit all wildlife as well as livestock.

1. Remove pinyon and juniper as well as brush species that have invaded meadow areas.

2. Fence springheads and associated mesic riparian areas and pipe water out for livestock and horses. This will increase water quantity and quality as well as provide mesic riparian for all species of wildlife. Water will be left at the source on all spring developments. This will maintain mesic vegetation and provide water to those animals/species dependent upon that water source.

3. Riparian area protection will be provided on the specific areas (Figure 12) listed below in priority order:

1)	Water Canyon (Bald Mountain)	T. 24 N., R. 57 E., sec. 20
2)	Cherry Spring	T. 24 N., R. 57 E., sec. 26
3)	Cottonwood Canyon (Aspen mesic meadow protection)	T. 22 N., R. 57 E., sec. 30
4)	Woodchuck Spring	T. 21 N., R. 57 E., sec. 4
5)	Little Willow Spring	T. 21 N., R. 57 E., sec. 6
6)	Deadman and Old Deadman Creeks	T. 21 N., R. 56 E., secs. 9,10,16,22

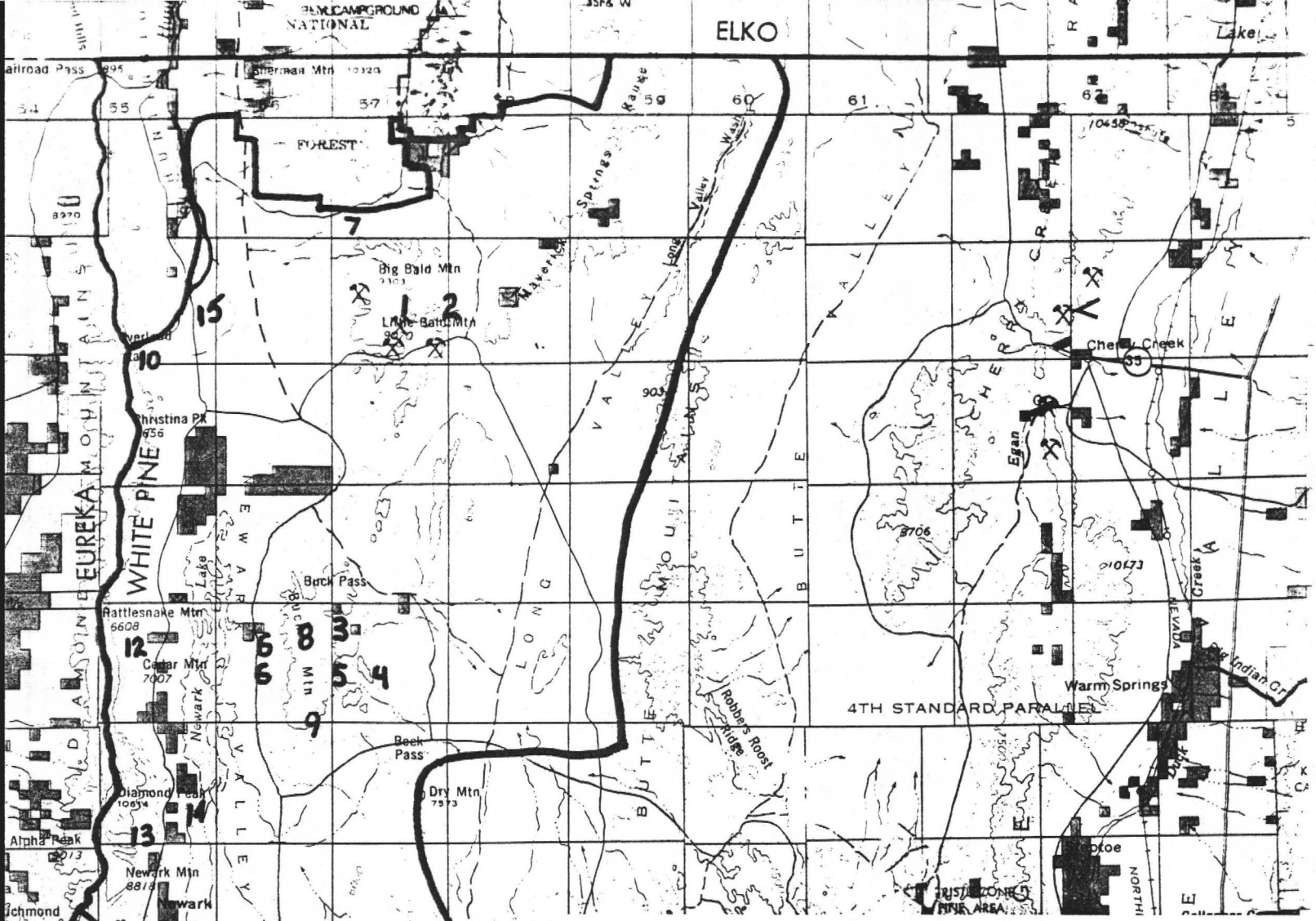


Figure 12. Riparian Protection Projects

1. Water Canyon (Bald Mountain)
2. Cherry Spring
3. Cottonwood Spring
4. Woodchuck Spring
5. Little Willow Spring
6. Deadman and Old Deadman Creeks
7. Cracker Johnson Springs
8. Moore Spring
9. Rock Spring
10. Corta Spring
11. Pinto Creek
12. Fairy Dell
13. Water Canyon (Diamond Mountains)
14. Sadler Creek
15. Connors Creek

7)	Cracker Johnson Springs	T. 25 N., R. 57 E., sec. 31
8)	Moore Spring	T. 22 N., R. 56 E., sec. 36
9)	Rock Spring	T. 21 N., R. 56 E., sec. 36
10)	Corta Spring	T. 24 N., R. 55 E., sec. 28
11)	Pinto Creek	T. 19 N., R. 55 E., secs. 35,36
12)	Fairy Dell	T. 22 N., R. 55 E., sec. 32
13)	Water Canyon (Diamond Mountains)	T. 20 N., R. 55 E., sec. 31

These projects should improve riparian areas to good or better condition.

V. Evaluations and Monitoring

Several studies have been established on key areas (outlined by and in conjunction with NDOW) within the plan area (see Appendix C). Appendix C displays present status/trend of 14 deer winter range/summer range studies. These studies were established in coordination with the area range conservationist as well as the district wild horse specialist and the NDOW. Several studies put in for livestock also will be used to monitor deer summer range, winter range, and antelope yearlong range.

The studies outlined below are designed to monitor the progress of specific management objectives developed for the management areas in this plan. These studies are to be done in accordance with 6630 Big Game Studies Manual and the Nevada Rangeland Monitoring Task Force Guidelines (NRMTFG). Key areas and species were selected through consultation with NDOW, interdisciplinary agreement, and current literature on preferred wildlife forage.

Utilization is being read on key areas within the plan area identified by NDOW. If new key areas are developed by implementation of AMP's or this HMP, utilization will be read on these new key areas, also. Utilization is read in the fall prior to migrating deer arrival and in the spring after deer have departed. The key forage plant method will be used along with 6630 Manual.

Estimated actual use by wildlife will be determined by NDOW yearly aerial survey counts.

Frequency and production information will be obtained using the Quadrat Frequency Transect and the SCS double sampling weighted estimate transect methods described in the NRMTFG. Density will be measured as the number of plants per acre based on the actual number of plants within fixed sample plots. Information from these studies will be used to determine ecological condition and trend. In addition, baseline and potential density and production are used to establish specific resource objectives. These are written in terms of the number of plants per acre and pounds per acre of key species on key areas and will be monitored in that manner.

Wildlife studies will also include specialized studies for big game such as vegetation height and browse condition and age.

Four rain gauges, located in a grid pattern across the HMP area with weather stations from the United States Geological Survey (USGS) and the National Weather Service (NWS), are being read monthly as accessibility permits to record precipitation over the plan area. Temperature information is obtained for the region from the NWS. Precipitation data from the active heap leach gold mines is also available.

Evaluations of these studies will include a specialized summary for rating mule deer habitat and antelope habitat.

Frequency, production, and density studies will be used to determine trend toward or away from the desired seral stage for management rather than in terms of ecological climax. Riparian monitoring will be conducted as outlined in the Ely District Riparian Handbook. Utilization, actual use, and climate information will be used to determine the apparent causes for trend direction. As long as trend is in a positive direction toward achieving resource objectives, no changes in management will occur. If trend is static or already at the desired objective, downward or moving away from the management objectives, changes may be made in management of livestock, wild horses, and wildlife. Adjustments will be made based also on supporting utilization, actual use, climate, and other data which compliment the trend studies. These changes will come in the form of stocking levels, seasons of use, and other management actions after actual use, utilization, and climatic data have been analyzed. After successive management changes, 3-5 years of additional study will be allowed to determine if the situation has been corrected.

The following schedule outlines what seasons monitoring and evaluation studies will be done, what year, and the workmonths involved. Costs are shown per one study.

A. <u>Pronghorn Antelope - winter - key (after augmentation takes place).</u>

1. Utilization/Biologist/F-Sp yearly/1WM/$2400
2. Frequency/Trend Biologist/SU-F every 3-5/1WM/$2400
3. Composition
4. Phenology
5. Cover
6. Condition
7. Density/Study Specialist/1988/.1WM/$400
8. Concentrations/NDOW/W-Su/ /
9. Soil Survey/Soil Scientist/1988/.1WM/$400

B. Mule Deer - winter

1. Utilization/Biologist/F-Sp yearly/.5WM/$1200
2. Browse Condition/Biologist/F yearly/.5WM/$1200
3. Concentrations/NDOW/yearly
4. Density/Study Specialist/TBD

C. Mule Deer - summer

1. Utilization
2. Concentrations/NDOW/yearly
3. Density/Study Specialist/TBD

D. Mule Deer - yearlong

1. Utilization
2. Density/Study Specialist/TBD

E. Upland Game Birds

1. Strutting Ground Survey/NDOW-Biologist/Sp./.1WM/$400
2. Brood Surveys/NDOW-Biologist/Sp-Su

F. Riparian

1. Utilization/Biologist/Sp-F/.1Wm/$100
2. Density/Study Specialist/TBD

VI. Habitat Management Plan Progress Report

This report displays objectives, planned actions, and evaluations and monitoring techniques used to measure success of the objectives and planned actions.

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
1. Provide habitat for reasonable numbers of wildlife as determined by the Nevada Department of Wildlife.		1. Grazing systems developed in the Cold Creek, Warm Springs, and Newark AMP's limiting combined use (livestock/wildlife) on browse to 45% of current years growth and use on grasses and forbs to 55% of current years growth will insure sufficient forage for mule deer and antelope. 2. Projects planned and underway to enhance mule deer winter range, see page 33 of this document.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office:1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
		3. Riparian area protection, also see page 39 of this document. 4. Guzzler(s) proposed for mule deer.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
2. Augmentations/ possible reintroduction of big game species will be accomplished in cooperation with the NDOW; where such reintroductions would not conflict with existing uses and if sufficient forage is available.		1. A habitat management plan is required for a reintroduction of a species to take place. This HMP will complete the requirement for the Long Valley portion of the plan area. 2. Habitat studies will be developed in Long Valley to determine antelope habitat condition rating. 3. Two antelope guzzlers will be installed in Long Valley to develop additional water for antelope.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
3. Provide sufficient water and forage for antelope augmentation(s) in Newark and Ruby Valleys.		1. Grazing systems developed in the Newark, Cold Creek, and Warm Springs AMP's will limit use to proper use levels (Perennial grasses & forbs 55%, shrubs 45%) for yearlong use. 2. Guzzler(s) proposed for antelope in Newark Valley and Ruby Valleys will provide additional water for antelope.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office:1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
4. Protect upland game species (sage grouse, blue grouse, pygmy and cottontail rabbits, Hungarian and chukar partridge) nesting, brooding, and wintering habitats.		1. Grazing systems in Newark, Cold Creek, and Warm Springs AMP's will enhance and limit utilization to proper use levels for yearlong use. P. grasses & forbs 55% and shrubs 45%. 2. Riparian area protection projects planned will also protect certain habitats in special life cycle areas for these species. Page 39 of this document and Egan ROD SOP's pages 30, 31 and 32.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
		3. Continue sage grouse lek inventories as well as inventories for additional sage grouse winter areas. 4. Install chukar guzzlers to provide water in otherwise excellent chukar habitat in the following areas: Newark Allotment and Horse Haven Allotment.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office:1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
5. Protect raptor nesting habitat and raptor prey species habitat.		1. Grazing systems in Newark, Cold Creek, and Warm Springs AMP's will enhance white sage areas by limiting utilization to 55%. White sage areas are habitat for raptor prey species. 2. Egan ROD SOP's pages 30, 31 and 32 pertain to these species.			

50

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office:1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
6. Protect habitat of the Newark Valley Tui Chub.		1. Grazing systems to be developed in the Warm Springs AMP will enhance and protect habitat of this species by reducing or maintaining current levels of grazing.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
7. Manage 13,170 acres of riparian and aspen areas for a late seral stage. Improve riparian and wetlands to good or better condition.		1. Egan ROD SOP's pages 37 and 38 provides for springhead/mesic meadow protection practices. 2. Riparian area protection projects (page 39 of this document) will improve riparian areas within the HMP area. 3. Grazing systems developed in the Cold Creek, Newark, and Warm Springs AMP's will limit use on riparian areas to proper use levels, 55% of current years growth on p. grasses and grasslike species, 45% on shrubs and 25% on riparian tree species.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-761-

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
8. Support NDOW's peregrine falcon releases in the Diamond Mountains.		1. Egan ROD SOP's page 30 covers this objective. 2. Monitor peregrine feeding areas on public lands.			
9. Protect and maintain Cedar Mountain in the Newark Allotment as a potential Bald eagle roost site.		1. Monitor the possible roost site to determine if any bald eagles are roosting on the ledges of Cedar Mountain.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

Form 6780–2
(July 1981)
(formerly 6620–3)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

OBJECTIVES	DATE COMPLETED	PLANNED ACTIONS	DATE COMPLETED	EVALUATION/MONITORING	DATE COMPLETED
10. Provide 600± acres of additional forage in the early mid seral stage for wintering mule deer on the west side of Alligator Ridge, Increase the present 1% of bitterbrush in the closed canopy Pinyon-juniper area to 10-12% per range site #2830 by aerial seeding the area once it is chained. Provide water for mule deer.		1. Grazing systems developed in the Cold Creek, Warm Springs, and Newark AMP's limiting combined use (livestock/wildlife) on browse to 45% of current years growth and use on grasses and forbs to 55% of current years growth will insure sufficient forage for mule deer and antelope. 2. Projects planned and underway to enhance mule deer winter range, see page 33 of this document.			

INSTRUCTIONS

1. List specific HMP objectives as developed from RMP/MFP planning documents or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled evaluation/monitoring study(s) planned to evaluate accomplishments.
4. Enter completion date for each objective, action, or evaluation/monitoring study as accomplished.

* U.S. Government Printing Office: 1981-780-780/693 Reg 8

VII. Coordination with Other BLM Programs, Agencies, and Organizations

A. Other BLM Programs

This HMP is being prepared in conjunction with three AMP's. By doing so, grazing systems and projects will be closely coordinated to insure success of this HMP. A District Fire Management Plan is currently being developed. The HMP is being coordinated with this plan. The HMP is also being developed in coordination with the Buck and Bald Wild Horse HMAP.

This HMP is being prepared jointly with other BLM programs, (recreation, lands (disposals), soils, water, air, and watershed.)

B. Other Agencies and Organizations

NDOW has been closely involved with the development and generation of this plan. BLM personnel from the Ely and Elko District have closely coordinated. Coordination efforts with Placer Dome U.S. Inc., Kennecott Communication Corp., and New Dynasty Mining companies has been undertaken and will continue. The U.S Forest Service (USFS) and FWS have been notified and their input solicited.

Development of AMP's had rancher input in order for a successful AMP effort.

Members of 19 Wild Horse Associations and groups have been contacted.

VIII. Wildlife Economics

The following is a list of the planned wildlife projects with a cost estimate based on recent construction costs:

Project		Cost Estimate
1.	Deer Waters (4 Guzzlers)	$12,000
2.	Meadow Rehabilitation (Corta Spring)	$ 1,700
3.	Meadow Rehabilitation (Fairy Dell) Fence	$ 1,700
4.	Pinto Creek Protection Fence	$ 4,000
5.	Redevelopment of Woodchuck Spring	$ 3,500
6.	Fence 3 Aspen Areas on Buck Mountain $2,000 x 3 =	$ 6,000
7.	Water Canyon Meadow Rehabilitation Fence	$ 2,600
8.	Cherry Spring redevelopment/ Fence	$ 4,000
9.	Rock Spring redevelopment	$ 4,000
10.	Antelope Waters (4) (Guzzlers)	$12,000
11.	Chukar Guzzlers (2)	$ 2,000
12.	Fence Deadman and Old Deadman creeks	$12,000
13.	Fence areas on Sadler, Water Canyon (Diamonds) and Connors Creek $4,000 x 3 =	$12,000

Many of the AMP and HMAP planned actions must be partially or completely implemented before wildlife specific projects can be successful.

Placement of small mammal and bird escape ramps will be done in conjunction with other field activities. The cost per ramp is $50.

Development of other springs listed in the riparian section should be done as possible, especially if they are located near springs listed in the priority list. These will cost $2,025 each.

IX. Public Affairs

Several special interest groups are extremely interested in the plan area, including horse groups. NDOW is interested because the area involves two deer herd management areas as well as two proposed antelope herd units. Several permittees have been contacted and their input solicited and incorporated into the document. Mining companies in the area are working closely with the Egan Area geologist on reclamation of past disturbed areas and mitigation of proposed actions.

X. Costs and Funding

The costs of implementation are anticipated to be expended over the next 10 years. Sikes Act funding is not a realistic possibility. Most funding will be done through BLM's 8100 and 4351 monies.

XI. Concurrence and Approval

This HMP is recommended and approved as written as follows:

Prepared by:

Michael W. Perkins Egan Area Biologist Ely BLM District	Date

Recommended by:

Gene L. Drais, Manager Egan Resource Area Ely BLM District	Date

Approved by:

Kenneth G. Walker District Manager Ely BLM District	Date

Concurrence by:

Larry Barngrover Regional Supervisor, Region II Nevada Department of Wildlife	Date

XII. Appendix Index

Appendix A

Riparian species important to management in the Buck, Bald, Maverick, and Diamond Mountains Management Plan area, Nevada.

Rushes	*Juncus* sp.
Phlox	*Phlox* sp.
Yarrow	*Yarrow* sp.
Dandelion	*Taraxacum* sp.
Clover	*Trifolium*
Columbine	*Aquilegia*
Watercress	*Rorippa* sp.
Rose	*Rosa* sp.
Willow	*Salix* sp.
Buttercup	*Ranunculaceae* family
Nettles	*Urtica* sp.
Violets	*Viola* sp.
Mints	*Mentha* sp.
Bluegrass	*Poa* sp.
Sedges	*Carex* sp.
Longleaf cottonwood	*Populus* sp.
Elderberry	*Sambucus coerula*
Quaking aspen	*Populus tremuloides*
Green ash	*Fraxinus* sp.
River Birch	*Betula* sp.
Chokecherry	*Prunus* sp.
Balsam	*Balsamorhiza sagittata*
Monkeyflower	*Mimulus guttatus*
Onion	*Alluim* sp.

Appendix B

The following laws and acts pertain to and are applicable to the Buck, Bald, Maverick Habitat Management Plan:

1. Clear Air Act Amendments, P.L. 95-95, 91 Stat. 685, 42 USC 7401.

2. Federal Water Pollution Control Act Amendment, P.L. 92-500, 86 Stat. 816, 33 USC 1251, 1972 U.S. Code and Ad New 3668.

3. Salinity Control Act, P.O. 87-483, 76 Stat. 102, 43 USC 615.

4. Toxic Substances Act, P.O. 94-469, 90 Stat. 2003, 15 USC 2601, 1976. U.S. Code Cong. and .

5. Safe Drinking Water Act, P.O. 93-523, 88 Stat. 1661, 42 USC 3004.

6. Resource Recovery Act, P.L. 91-512, 48 Stat. 1227, 42 USC 3251.

7. Fish and Wildlife Coordination Act. P.L. 85-624, 72 Stat. 563, 16 USC 661, 1958 U.S. Code Cong and Ad. News 3446, 1965 U.S. Code Cong. and Ad. News 1864.

8. Endangered Species Act, P.O. 93-205, 87 Stat. 889, 16 USC 1531, 1973 U.S. Code Cong. Ad. News 2989.

9. Bald and Golden Eagle Act, P.L. 92-535, 86 Stat. 106A, 16 USC 668, 1959, U.S. Code Cong. and Ad. News 1675, 1972 U.S. Code Cong. and Ad. News 4285.

10. Federal Land Policy and Management Act, P.L. 94-579, 90 Stat. 2743, 43 USC 7101. 1976.

11. Mining Regulations 3809.

12. 43 CFR 8352.6(b) Established designated area-policy.

13. Wild and Free Roaming Horse and Burro Act of 1971, P.L. 92-195, 85 Stat. 649, 16 U.S.C. 1331-1340.

14. 43 CFR 4100.0-1 1983 revision Grazing.

15. State of Nevada Endangered Species Act.

16. 43 CFR 2070 Designation of Areas and Sites.

17. 43 CFR Part 4700 WIld Free-Roaming Horse and Burro Protection, Management and Control.

18. Endangered Species Act 1973 as amended.

Appendix C

Big game monitoring studies in the Buck, Bald, Maverick and Diamond Mountains HMP Area.

	Name	Location	Allotment	Date Established	Date Reread	Tend
1.	Little Willow Spring	T21N,R56E,sec.1,NWSE	Warm Springs	06-04-82	06-26-86	Static to up
2.	Mav. Spr. Native	T24N,R58E,sec.22,SE	Mav. Springs	08-23-83	07-01-86	upward
3.	Mav. Spr. Burn	T24N,R58E,sec.23,SW	Mav. Springs	08-23-83	07-01-86	upward
4.	Water Canyon	T24N,R57E,sec.20,NE	Warm Springs	09-14-82	07-02-86	Down
5.	Cyn.north of MB Summit Rd	T23N,R57E,sec.21	Warm Springs	07-21-83	07-08-86	Static to down
6.	Gravel Pit Well	T22N,R59E,sec.23,NWNE	Warm Springs	06-05-85	--	New study
7.	Beck Pass	T20N,R57E,sec.8,SW	Newark	09-14-82	08-26-86	upward
8.	Buck Mountain	T21N,R56E,sec.11,SE	Warm Springs	06-25-87	--	New study
9.	Canover Canyon	T23N,R55E,sec..33,NESE	Cold Creek	07-27-83	06-18-87	Static
10.	Mahoney Canyon	T24N,R57E,sec.12,SESW	Warm Springs	09-03-86	--	New study
11.	Mooney Basin Well	T23N,R57E,sec.13,SESW	Warm Springs	08-26-80	08-24-85	upward
12.	Moore Springs	T21N,R56E,sec.1,SENW	Warm Spring	07-26-83	05-27-86	Static to down
13.	Beck Spring	T20N,R56E,sec.1,SE	Newark	10-10-79	07-11-84	upward
14.	Buck Station	T22N,R56E,sec.22,SE	Warm Springs	07-08-86	--	New study

Appendix D

Categories of Riparian Vegetation by Allotment. Buck, Bald, Maverick and Diamond Mountains HMP Area.

Allotment #	Wet Meadow	Dry Meadow	Other/ Aspen	Riparian	Total
Cold Creek (0603)	236	150	1248	62	1696
Ft. Ruby (0605)	320	-	-	-	320
Warm Springs (0606)	2492	920	1872	115	5399
Strawberry (0607)	750	180	2030	24	2984
Newark (608)	550	-	2028	164	2742
Ruby Valley (619)	-	-	-	-	0
Horse Haven (620)	-	-	-	5	5
Maverick Springs(0621)	-	-	-	24	24
Total	4348	1250	7178	394	13,170

Appendix E

Riparian/Wildlife objectives listed in the
Egan Rangeland Program Summary

Allotment	Riparian and Wildlife Objectives
Newark	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 1,123 AUM's, antelope 139 AUM's.
	Maintain or improve mule deer yearlong habitat to good or better condition.
	Improve and maintain habitat condition of meadows and riparian areas from fair to good or better condition for mule deer and upland game.
	Protect sage grouse breeding compleses.
	Protect ferruginous hawk nest sites.
	Potential antelope reintroduction area.
	Improve 3.5 miles of stream riparian from poor/fair to good or better condition.
Strawberry	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 1,360 AUM's, antelope 15 AUM's.
	Maintain or improve mule deer yearlong habitat to good or better condition.
	Improve and maintain habitat condition of meadows and riparian areas from fair to good or better condition for pronghorn antelope, mule deer, and upland game.
	Protect sage grouse breeding complexes.
	Potential antelope reintroduction area.
Fort Ruby	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 80 AUM's.
	Maintain or improve mule deer yearlong habitat to good or better condition.
	Protect sage grouse breeding complexes.
	Potential antelope augmentation area.

Allotment	Riparian and Wildlife Objectives
Warm Springs	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 10,159 AUM's, antelope 125 AUM's.
	Improve mule deer yearlong habitat from poor/fair to good or better condition.
	Improve and maintain habitat condition of meadows and riparian areas from poor to good or better condition for mule deer and upland game.
	Establish browse utilization levels on this crucial deer winter range of 295,000 acres at a maximum of 45 percent of current years growth.
	Protect sage grouse breeding complexes.
	Protect ferruginous hawk nest sites.
	Potential antelope reintroduction area.
	Improve 3.0 miles of stream riparian habitat condition from poor/fair to good or better.
Maverick Springs	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 1,164 AUM's, antelope 16 AUM's.
	Maintain mule deer yearlong habitat in a good or better condition.
	Maintain habitat condition of meadows and riparian areas in a good or better condition for mule deer and upland game.
	Protect ferruginous hawk nest sites.
	Protect sage grouse breeding complexes.
	Antelope augmentation area.

Allotment	Riparian and Wildlife Objectives
Horse Haven	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 540 AUM's, antelope 12 AUM's. Maintain mule deer yearlong habitat in a good or better condition. Protect sage grouse breeding complexes. Antelope reintroduction area. Maintain habitat condition of meadows and riparian areas in a good or better condition for mule deer, antelope, and upland game.
Cold Creek	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 810 AUM's, antelope 22 AUM's. Maintain or improve mule deer yearlong habitat in a good or better condition. Maintain habitat condition of meadows and riparian areas in a good or better condition for mule deer and upland game. Protect sage grouse breeding complexes. Protect ferruginous hawk nest sites. Potential antelope reintroduction area. Maintain or improve 9.25 miles of stream riparian habitat condition to good or better.
Ruby Valley	Manage rangeland habitat and forage condition to support reasonable numbers of wildlife, as follows: deer 120 AUM's, antelope 202 AUM's. Maintain mule deer yearlong habitat in a good or better condition. Protect sage grouse breeding complexes. Improve and maintain habitat condition of meadows and riparian areas from fair to a good or better condition for mule deer and upland game. Antelope augmentation area.

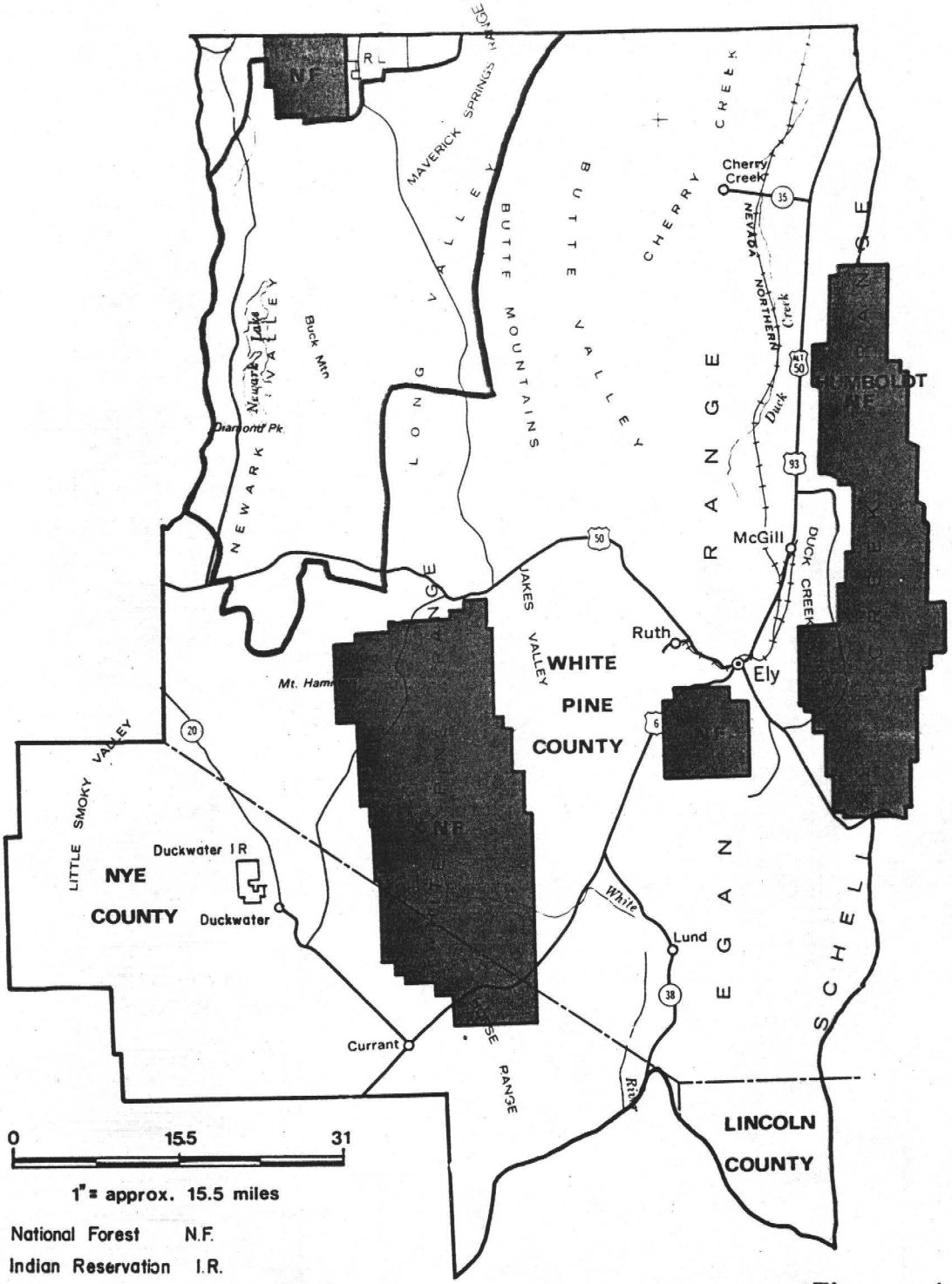
DRAFT

BUCK, BALD, MAVERICK AND DIAMOND MOUNTAINS HABITAT MANAGEMENT PLAN ENVIRONMENTAL ASSESSMENT

NV-040-9-7

Michael W. Perkins
5-16-89

Ely District
Bureau of Land Management
Ely, Nevada



EGAN R.A.

ELY DISTRICT
BUREAU OF LAND MANAGEMENT
U. S. DEPARTMENT OF THE INTERIOR

Figure 1. Location Map

Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan Area

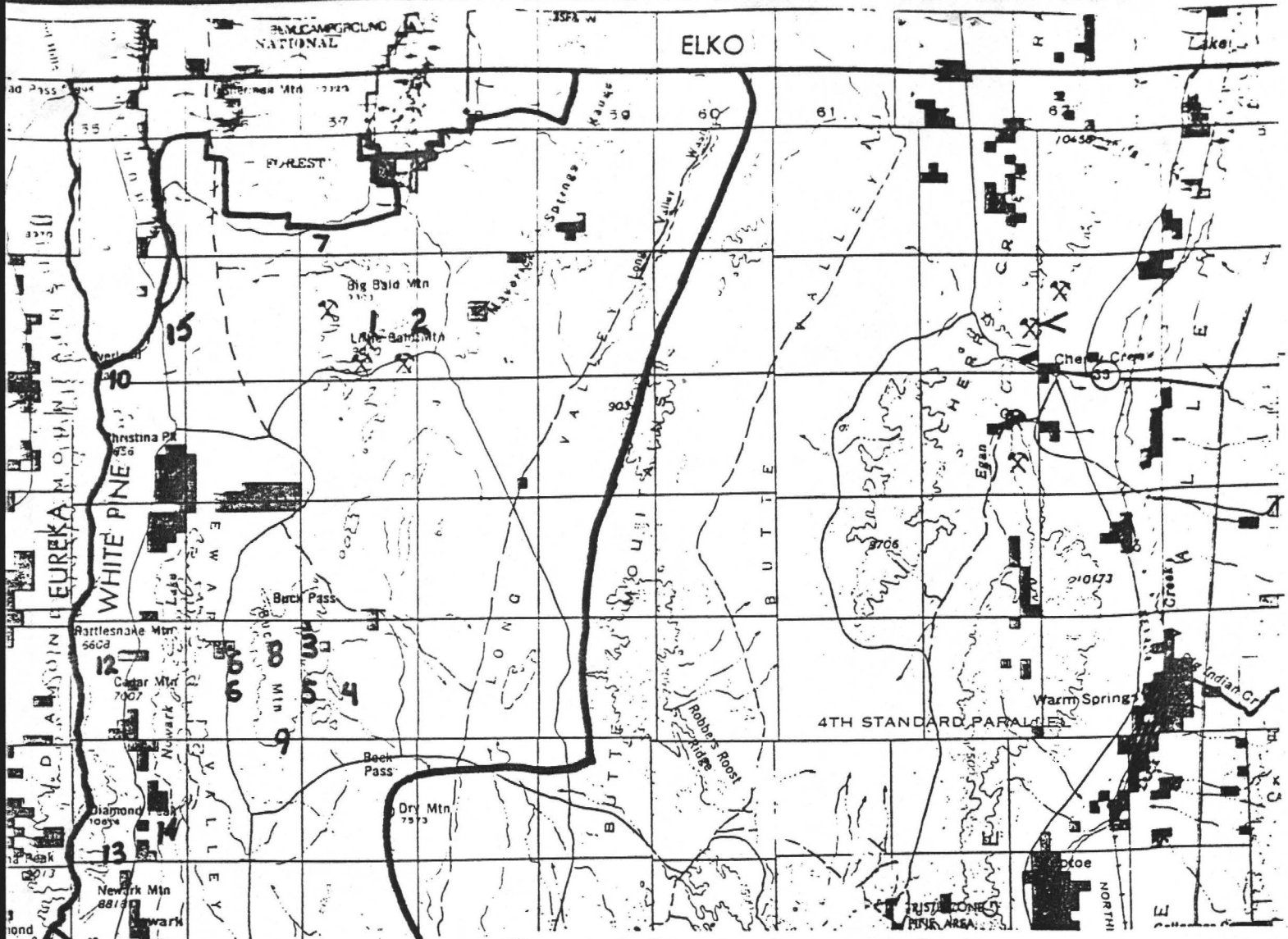


Figure 2. Riparian Protection Projects

1. Water Canyon (Bald Mountain)
2. Cherry Spring
3. Cottonwood Spring
4. Woodchuck Spring
5. Little Willow Spring
6. Deadman and Old Deadman Creeks
7. Cracker Johnson Springs
8. Moore Spring
9. Rock Spring
10. Corta Spring
11. Pinto Creek
12. Fairy Dell
13. Water Canyon (Diamond Mountains)
14. Sadler Creek
15. Connors Creek

DR/FONSI
for the
Buck, Bald, Maverick and Diamond Mountains
Habitat Management Plan
EA No. NV-040-9-7

Decision: I have reviewed the Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan Environmental Assessment. The Environmental Assessment is technically adequate and consideration has been given to all resource values and I concur with my staff's assessment. I therefore approve of the Proposed Action to implement the Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan with mitigation as proposed. The mitigating measures as specified in the Environmental Assessment will serve as the stipulations for the Proposed Action. The alternatives not selected for analysis consisted of a different mix of riparian protection projects and upland improvement projects as well as different monitoring locations. Monitoring will be conducted as specified in the habitat management plan.

Rationale: The Buck, Bald, Maverick, and Diamond Mountains Habitat Management Plan is being prepared as a result of decisions in the Egan Record of Decision finalized February 3, 1983. The plan will result in management of 817,656 acres of public lands and wetlands in the habitat plan area. This is in accordance with BLM Manual 6780 - Habitat Management Plans and 6740 Wetland-Riparian Area Protection Management (Oct. 1, 1979) as well as Executive Order 11990, Protection of Wetlands (May 24, 1977).

FONSI: Based on the Environmental Assessment there will not be a significant impact to the human environment as a result of implementing the Proposed Action. Therefore, an environmental impact statement is not required.

Rationale: All actions described in the habitat management plan and analyzed in this environmental assessment are mitigated. Therefore, there should not be any significant impacts to the existing environment.

_____ _____

Gene L. Drais, Manager Date
Egan Resource Area

I. Background Information

This EA analyzes the impacts of management objectives and planned actions of the draft Buck, Bald, Maverick and Diamond Mountains Habitat Management Plan (HMP).

This habitat management plan was originally written in 1980 and is being revised to address mule deer (both resident and migratory), pronghorn antelope (two proposed augmentations and a reintroduction), plus upland game bird species as priority species. The plan area is located in northwest White Pine County, Nevada, and is approximately 817,656 acres (see Figure 1).

Management objectives consist of: (1) Improve or maintain all wildlife habitats within the HMP area; (2) Increase forage for mule deer, both resident and migratory animals; (3) Provide pronghorn antelope reliable water sources and increased forage availability to insure success of the proposed augmentations and reintroduction; (4) Provide for sage grouse and other upland game birds by protection of meadow habitat/and other crucial habitats; (5) Assist the Nevada Department of Wildlife with a proposed reintroduction of the peregrine falcon; and (6) protect habitats of T/E and candidate species.

Planned actions include improving existing forage, making under-utilized forage available, developing water sources and protecting selected meadow riparian habitat in special areas.

II. Purpose and Need

The primary reason this HMP is being revised is because of the importance of the area for wintering deer of the Ruby Mountain Mule deer herd. The possibility exists that, in winters where snow depths force migrating deer to the south, as many as 20,000 to 24,000 deer can be expected in the Buck, Bald, and Maverick Mountains area (see location map, figure 1).

The HMP area also presently has four active heap leach gold mines. Along with these gold mines is the exploration associated with the mines. This directly relates to a loss of habitat for all wildlife species.

In the past and present there is over-utilization of key browse species and riparian areas due to livestock and wild horses. The plan is being written to protect crucial habitats of pronghorn antelope, sage grouse, hungarian and chukar partridge, Newark Valley tui chub, ferruginous hawk and other raptors; and to provide for future reintroductions of the endangered peregrine falcon.

III. Relationship to Planning

The proposed management objectives and planned actions of this HMP are in conformance with the Egan Resource Area RMP-Record of Decision which was signed in February 1987. These actions are consistent with other Federal, state and county plans including The Policy Plan for the Management of Nevada's Wildlife through 1990. This draft HMP is also consistent with the White Pine County Plan for Public Lands developed in compliance with Nevada Senate Bill 40 in 1985. It does not conflict with any county or state land use or zoning decisions or recommendations.

IV. Major Issues

Conflicts among ungulates for available forage within the habitat area (especially with four active heap leach gold mines and their associated exploration, which has lessened the areas capability of maintaining ungulates from the increasing loss of habitat) is the primary issue. Other issues consist of degradation of riparian areas and habitat suitability to allow for a pronghorn antelope reintroduction.

V. Description of Proposed Action and Alternatives

The following specific management objectives and planned actions constitute the proposed action to be analyzed in this environmental assessment.

A. Specific management objective

1. Following is a list of areas by legal description where utilization of bitterbrush and other browse species shall not exceed 25% of current years growth by September 30th. This objective will insure adequate forage availability for winter mule deer.

Area	Legal Location
Overland Pass	T. 25 N. R. 57 E.
Big Bald Mountain/West	T. 24 N. R. 57 E.
Water Canyon/Bald Mountain	T. 24 N. R. 57 E.
Mahoney Canyon	T. 24 N. R. 58 E.
Cherry Springs Area	T. 24 N. R. 58 E.
Mooney Basin	T. 23 N. R. 58 E.
Buck Pass	T. 22 N. R. 57 E.
Orchard Canyon	T. 22 N. R. 56 E.
Rock Springs	T. 21 N. R. 57 E.
Little Willow Spring Area	T. 21 N. R. 57 E.
Willow Spring Area	T. 21 N. R. 57 E.

2. Utilization levels on perennial grasses and grasslike species (POA's, Sedges, carex, ELCI) along stream riparian areas and mesic meadows will not exceed 55% of current years growth by November 1st on the following key locations:*

Area	Legal location
Cottonwood Canyon/Buck Mountain	T. 22 N., R. 57 E., sec. 30
Robinson Springs	T. 20 N., R. 55 E., sec. 5
Mau Creek	T. 21 N., R. 55 E., sec. 32
Fairy Dell Spring	T. 22 N., R. 55 E., sec. 32
Corta Spring	T. 24 N., R. 55 E., sec. 33
Handy Spring	T. 22 N., R. 55 E., sec. 9
Water Canyon/Bald Mountain	T. 24 N., R. 57 E., sec. 20
Mud Spring	T. 22 N., R. 57 E., sec. 32
Orchard Canyon	T. 22 N., R. 56 E., sec. 36
Little Willow Spring Area	T. 21 N., R. 56 E., sec. 6
Rock Spring	T. 21 N., R. 56 E., sec. 36
Old Deadman Creek	T. 21 N., R. 56 E., sec. 9
Deadman Creek	T. 21 N., R. 56 E., sec. 16
Pinto Creek	T. 19 N., R. 55 E., sec. 35,36
Conners Creek	T. 24 N., R. 55 E., sec. 14
Sadler	T. 20 N., R. 55 E., sec. 33
Water Canyon (Diamonds)	T. 20 N., R. 55 E., sec. 31

*The above listed areas are key areas representative of conflicts from past and present use by livestock and/or wild horses.

3. Utilization levels will not exceed 45% of current years growth on riparian shrub species (willows, chokecherry, etc..) and utilization levels on riparian associated tree species (cottonwood, aspen) will not exceed 25% of current years growth by November 1st. This will provide for adequate regeneration of these species to achieve 60 stems per acre over 6 feet in height.

Area	Legals Location
Cottonwood Canyon/Buck Mountain	T. 22 N., R. 57 E., sec. 30
Robinson Springs	T. 20 N., R. 55 E., sec. 5
Fairy Dell Spring	T. 22 N., R. 55 E., sec. 32
Orchard Canyon	T. 22 N., R. 56 E., sec. 36
West Buck Mountain	T. 21 N., R. 56 E., sec. 27

*The above listed areas are key areas representative of conflicts from past and present use by livestock and/or wild horses.

4. On Pinto, Water Canyon, Cold Creek, and Deadman Creeks, limit utilization on streamside riparian vegetation according to the following table (choose the lowest category based on the existing percent optimum for either bank cover or bank stability from BLM Manual 6671).

Category	% Optimum	Allowable Use Levels
Poor-Fair	0-60%	0-20%
Good	61-80%	30-50%
Excellent	81-100%	*

*As listed in Nevada Rangeland Monitoring Handbook by plant species and season of use.

Pinto, Deadman and Old Deadman creeks are in the poor-fair category. Water Canyon and Sadler creeks are in the good category and Cold creek is in the excellent category. A riparian exclosure has been constructed on Cold Creek.

5. At the following winterfat vegetation type locations, utilization will not exceed 55% of the previous years growth by April 30th in order to maintain ferruginous hawk nesting territory integrity and to provide adequate forage for ferruginous hawk prey species.

Area	Legal Location
South Dry Mountain - West	T. 18 N., R. 57 E., sec. 7
Middle Dry Mountain - West	T. 19 N., R. 57 E., sec. 7
North Dry Mountain - West	T. 20 N., R. 57 E., sec. 19
South Buck Mountain	T. 20 N., R. 56 E., sec. 36
McBrides Sheep Well Area	T. 21 N., R. 58 E., sec. 25
North Dry Mountain - East	T. 20 N., R. 58 E., sec. 27
Shallow Well Area (W. Long Valley)	T. 21 N., R. 57 E., sec. 8

6. Manage the following key sage grouse areas for big sagebrush for late mid seral stage with at least 25% sagebrush cover.

Area	Legals Location
Ratto Ranch	T. 19 N., R. 55 E., sec. 3
Beck Pass	T. 20 N., R. 57 E., sec. 11
Mouth Bourne Canyon	T. 23 N., R. 56 E., sec. 10
Long Valley Slough	T. 23 N., R. 58 E., sec. 26
Fairy Dell Area	T. 21 N., R. 55 E., sec. 5
Robinson Springs Area	T. 20 N., R. 55 E., sec. 8

7. Pronghorn antelope augmentation into Newark Valley can proceed when animals become available to the Nevada Department of Wildlife. A release of 50-75 animals will take place north of Highway 50 in the Buck Mountain area with eventual desirable numbers of antelope to be 200-250 animals (Steve Foree, NDOW, personal communication, 1988). Utilization of antelope key forage species will not exceed 45% of current years growth prior to or after the augmentation takes place.

8. A pronghorn antelope reintroduction of 50-75 animals into Long Valley with desirable numbers to be 200-250 animals (Steve Foree, NDOW, personal communication, 1988) can take place

after desired water availability and antelope habitat is suitable for reintroduction.

9. Expand and improve chukar partridge habitat in the following locations. Increase chukar partridge brood counts (in good nesting years) from the present 1 to 2, to 5 broods.

Area	Legal Location
Newark Allotment	T. 20 N., R. 56 E., sec. 10
Horse Haven Allotment	T. 24 N., R. 58 E., sec. 24

10. Protect and maintain the following location as a possible Bald Eagle Roost Site.

Area	Legal Location
Cedar Mountain/ Strawberry Allotment	T. 21 N., R. 55 E., sec. 21

11. Support NDOW and Fish and Wildlife Service attempts at future reintroduction of peregrine falcons in the following locations.

Area	Legal Location
Cold Creek Allotment/ Christina Peak	T. 23 N., R. 55 E., sec. 16
Newark Allotment/ Water Canyon	T. 19 N., R. 55 E., sec. 4

Also oppose any chemical use on public lands (within a 2 mile radius) which could adversely effect prey species of peregrine falcons (mostly passerines and water birds).

12. Provide 600± acres of additional forage in the early mid seral stage for wintering mule deer on the west side of Alligator Ridge. Increase the present 1% of bitterbrush in the closed canopy Pinyon-juniper area to 10-12% per range site 028BY030NV book (D-28) by aerial seeding the area once it is chained. Possibly, the Nevada Department of Wildlife may use Nevada Department of Forestry crews to plant bitterbrush seedlings. Provide water for mule deer.

B. Planned Actions

1. Establish a greenwood cutting area south of Overland Pass. The area is located at T. 25 N., R. 57 E., is 1,000 $^{+}$ acres in size. By doing this, the overstory of pinyon-juniper will be removed and the remaining browse will be released allowing seed production and seedling establishment.

2. Approximately 600± acres of additional forage will be provided for wintering mule deer by double chaining an area on the west side of Alligator Ridge in T. 22 N., R. 57 E. The area will be chained one way, aerial seeded, then chained back the other way to cover the seed.

   The area will be temporarily fenced (up to 3 or 4 growing seasons) to reduce utilization of the planted species until they are established.

3. Develop guzzlers for mule deer (Figure 10). These guzzlers should provide for better utilization of forage.

   The legal descriptions for the guzzler locations are as follows:

   Mooney Basin - T. 23 N., R. 57 E., sec. 13, NW.
   Martin Basin - T. 23 N., R. 57 E., sec. 16. This guzzler was installed in FY 1988.
   Alligator Ridge - T. 22 N., R. 57 E., sec. 12
   Diamond Mountains - T. 22 N., R. 55 E., secs. 20, 29, 16, 9
   Other locations may be jointly located by BLM/NDOW biologists, if there is a documented need.

4. A habitat management plan is required for a reintroduction of a species to take place. This plan will complete this requirement for the Long Valley portion of the area, pending Nevada Department of Wildlife implementation, and if studies indicate sufficient forage is available.

5. An antelope guzzler was installed in T. 19 N., R. 57 E., sec. 16, SE in the Ruby Valley Allotment in south Ruby Valley in June 1988. This guzzler will increase water distribution in South Ruby Valley and assist the augmentation to be successful. Additional guzzlers are planned for installation in Newark Valley at T. 25 N., R. 58 E., sec. 3, NW; and Long Valley at T. 21 N., R. 58 E., sec. 27 and T. 23 N., R. 58 E., sec. 23 (Figure 10).

   Newark Valley is well watered except for the central and eastern portions. Water developments planned in the HMP as well as the Newark and Warm Springs AMP's will bring water into water free areas of the plan area. These developments will benefit antelope. Antelope drinkers will be installed on any pipelines developed.

6. At present there are few seismic exploration requests for this area. If future requests conflict with known sage grouse use areas, standard stipulations to protect sage grouse will be added.

   These include avoiding the 2-mile strutting, nesting, and brooding area until after the use season, and working between the hours of 8:00 a.m. to 4:00 p.m. Another stipulation may be to have seismic companies make only one pass through the area. These will apply from March 1 to May 15.

7. Future troughs (if not a closed system) along pipelines should be constructed so a small flow (0.1 gal./hr.) goes over the trough to a pipe which flows into an overflow pond.

8. Maintenance of habitat required to support and perpetuate the nongame bird and mammal species outlined in this document, HMAP and the AMP's will occur and will benefit all wildlife species.

9. Utilization studies will be conducted yearly on all meadows to determine if land use objectives are being met. Utilization on meadows should not exceed 55 percent of the current year's growth by November 1st annually.

10. On all vegetation manipulation projects, adherence to the Western States Sage Grouse Guidelines will take place.

11. Annual inventories for sage grouse leks and winter areas will be conducted as needed.

12. No cutting will be allowed of white fir, aspen and mahogany within the plan area. These trees provide winter habitat as well as forage for blue grouse.

13. Proposed mesic riparian protection fences in the AMP's, HMAP, and this HMP as well as spring developments will benefit all these upland game birds.

14. Maintenance and improvement of mixed vegetation ecosystems (1/3 grasses, 1/3 forbs, 1/3 shrubs) will benefit upland game birds.

15. Develop small/upland game guzzlers at the following locations:

S.W. Buck Mtn - T. 20 N., R. 56 E., sec. 10
Maverick Mtns. - T. 24 N., R. 58 E., sec. 13

16. Known nest sites will be protected from physical destruction, and during the nesting season a one-half mile buffer zone will be observed by all activities for all raptor species.

17. If commercial cutting is to occur in an area of a known accipiter nest site, a 20-acre buffer zone will be requested.

18. Before any vegetation conversion occurs in a pinyon-juniper vegetation type, all stringers will be examined for ferruginous hawk nesting activity. If any nest is found, a one-half mile buffer zone will be observed.

19. The AMP's for Warm Springs and Newark Allotments will include actions (rest rotation, deferred systems) for stabilization, maintenance and/or rehabilitation of winterfat areas. These actions will benefit all raptors, especially the ferruginous hawk. Winterfat areas are habitat for the Townsend ground squirrel which is one of the ferruginous hawk's prey species.

Newark Valley tui chub

1. Preserve spring sources of the Newark Valley tui chub in present condition, avoid water being diverted for other uses.

2. Restrict seismic activity in the vicinity of known populations of the Newark Valley tui chub.

Riparian

1. Remove pinyon and juniper as well as brush species that have invaded meadow areas.

2. Fence springheads and associated mesic riparian areas and pipe water out for livestock and wild horses. This will increase water quantity and quality as well as provide mesic riparian for all species of wildlife. Water will be left at the source on all spring developments. This will maintain mesic vegetation and provide water to those animals/species dependent upon that water source.

3. Riparian area protection will be provided on the specific areas (Figure 2) listed below in priority order:

1)	Water Canyon (Bald Mountain)	T. 24 N., R. 57 E., sec. 20
2)	Cherry Spring	T. 24 N., R. 57 E., sec. 26
3)	Cottonwood Canyon (Aspen mesic meadow protection)	T. 22 N., R. 57 E., sec. 30
4)	Woodchuck Spring	T. 21 N., R. 57 E., sec. 4
5)	Little Willow Spring	T. 21 N., R. 57 E., sec. 6
6)	Deadman and Old Deadman Creeks	T. 21 N., R. 56 E., secs. 9,10,16,22
7)	Cracker Johnson Springs	T. 25 N., R. 57 E., sec. 31
8)	Moore Spring	T. 22 N., R. 56 E., sec. 36
9)	Rock Spring	T. 21 N., R. 56 E., sec. 36
10)	Corta Spring	T. 24 N., R. 55 E., sec. 28
11)	Pinto Creek	T. 19 N., R. 55 E., secs. 35,36
12)	Fairy Dell	T. 22 N., R. 55 E., sec. 32
13)	Water Canyon (Diamond Mountains)	T. 20 N., R. 55 E., sec. 31

Applicable Standard Operating Procedures

Standard operating procedures will be the same as listed in the Egan Resource Area - ROD signed February 1983. Pages 30-32, 1-9. Also, Pages 28-29, 1 and 2 (needed for WH&B).

VI. Description of Alternatives

Alternatives

Other alternatives were considered but rejected during HMP scoping. Different riparian protection methods and other monitoring procedures were considered.

No Action

Basically, everything continues to slide down the tube at the current rate. The area would continue under present policies and management direction.

VII. Description of the Affected Environment

For a description of the HMP area affected environment see pages 4 thru 15 of the Buck, Bald, Maverick and Diamond Mountain HMP.

VIII. Environmental Consequences

A. Proposed Action

There will not be any impacts from the proposed action to the following resources: flood plains, prime or unique farmlands, wild and scenic rivers,T/E plants, wilderness values and areas of critical environmental concern.

Threatened or Endangered Animals

The endangered bald eagle winters (November through May) in the plan area. The endangered peregrine falcon may be observed in any month of the year in the area. Several recent sightings have been documented. The Nevada Department of Wildlife (NDOW) has identified Water Canyon in the Diamond Mountains (Newark Allotment), and Christina Peak (Diamond Mountains, Cold Creek Allotment) as possible future hacking location(s) for the peregrine falcon.

There should be no impacts to the endangered bald eagle. There will be a positive impact to the peregrine falcon upon being released into the environment in hopes of establishing a resident breeding population. There could be an impact to private and public lands within a 2 mile radius of an active peregrine eyrie for this would limit spraying for insect control, i.e. grasshoppers. Riparian protection projects will indirectly benefit peregrine falcons by improving nesting habitat of water bird species which are prey for the peregrine falcon.

A section 7 consultation with FWS would have to be completed prior to any action. In recent years, no applications for spraying for insect control has been received for any area in the habitat area. Category II species (candidates for listing) which will have no expected impacts are the snowy plover, long-billed curlew, and white-faced ibis.

In 1982 there were 24 documented occupied ferruginous hawk (candidate II species) nest sites within the plan area. In 1988 there was 13 occupied nest sites in the plan area. There are several possible reasons for this decline. Increased human activity from the mining community, geothermal and geophysical exploration, increased recreation activities which accompany the increased population growth of this area of Nevada are implicated.

The Townsend ground squirrel is tied to white sage vegetation types as their principal habitat in this area of Nevada. Over-utilization of white sage vegetation types, which reduces forage availability for the ground squirrels has also been implicated in the decline of nesting pairs of the ferruginous hawks. Objectives to limit the utilization level of white sage to conform with Nevada Rangeland Monitoring Task Force guidelines should benefit nesting ferruginous hawks and their prey.

The Newark Valley tui chub is a candidate II species. It has been identified in one location on public land. Monitoring efforts should insure survival of the chub. There are no current conflicts and long term positive impacts are expected to occur.

Wetlands and Riparian Areas

See management objective 2 and 3 of this plan as well as planned actions 1, 2, and 3 (Figure 2) for legal descriptions of areas to be monitored and protection projects. Monitoring of 22 sites including stream, mesic and dry meadow, aspen, cottonwood and other riparian sites for utilization values will lead to adjustments in livestock grazing practices that should benefit riparian habitat conditions.

Improved riparian habitat condition will have the following benefits: increased livestock, wild horse, and wildlife forage; improved watershed, increased water quality and quantity, improved upland game bird brooding habitat, improved mule deer fawning areas, reduced sediment loads in waters, and cooler waters for improved fisheries.

There may be a negative impact to grazing by a reduction in numbers, change in season of use or use areas in order to meet riparian utilization objectives. There will be exclusion of livestock and wild horses from some riparian areas due to riparian area protection projects.

Visual Resource Management

There should be a positive impact to the visual resource with an improvement in riparian and all habitat types within the plan area.

There will be impacts to visual resources from fencing and vegetation conversions. Projects will introduce new lines and forms into the landscape. Since this is an interim Class III visual area no significant impacts are expected.

Social and Economic Values

Riparian improvements will benefit consumptive and non-consumptive wildlife users: Short term negative impacts to livestock permittees could occur due to changes in seasons of use or use areas and/or reduction in numbers to meet riparian and upland habitat objectives. There could be impacts to the mining industry. These include delays with proposed new exploration activities due to occupied ferruginous hawk nest sites and or sage grouse restrictions. There could be impacts to seismic companies because of sage grouse or ferruginous hawk restrictions.

Cultural, Historical and Paleontological Values

Impacts to cultural, historical and paleontological values will be addressed and mitigated or project abandoned on a case by case basis.

Standard operating procedures as outlined in the Egan ROD will result in no impacts to cultural resources.

Water (Drinking/Ground/Quality)

Mesic riparian projects will increase water quality, quantity, and storage capacity due to elimination of livestock and wild horse trampling and increased mesic vegetation. At all spring developments water will be left at the source and water will be made available outside the fence for livestock and wild horses. All BLM water right requirements for water developments will be adhered to.

Air Quality

There may be a temporary deterioration of air quality due to vegetation conversions or other ground disturbance projects. This is not a significant impact and far less than impacts presently involved with the active mining operations in the area.

Wild horses and Burros

There are two wild horse herd management areas (HMA's) which overlap the HMP area. The Buck and Bald HMA lies north of U.S. Highway 50. The Buck and Bald horse herd numbers approximately 1,081 animals (June 1987 census). A March 1989 census shows 1,012 wild horses in the HMA; but it is felt that many horses were missed on this count since the horses were observed mainly in the P-J areas of the benches. Tree cover adversely affected the count. Only a small portion of the Monte Cristo wild horse herd is included in the HMP area south of U.S. Highway 50. This herd was censused in March 1989, with a count of 392 horses.

Short term riparian protection projects will negatively impact horses by restricting their access to certain areas. Long term impacts will be beneficial due to increased water quality and quantity. Vegetation conversion projects will be temporarily fenced to allow establishment of the planted species and this will restrict wild horse access. But once the fences are removed horses will have access to quality forage and this is a beneficial impact.

Other Resources

Wildlife

Mule deer may be entangled in riparian protection fences. Fences will be constructed to BLM standards. Pronghorn antelope will have beneficial impacts by being reintroduced into a native habitat. Riparian protection projects will benefit the following species:

blue grouse	chukar partridge
mule deer	Sage grouse
Coopers hawk	Hungarian partridge
Goshawk	and various other game
pronghorn antelope	and non-game species.

Mule deer will have increased forage availability after the establishment of newly seeded species following vegetation conversion projects. Reduced utilization levels on browse species required by wintering mule deer will also be a beneficial impact.

Livestock

Negative impacts to livestock will result from the following:

1. Reduced access to riparian areas.
2. Reduced access to vegetation conversion areas until established.
3. Utilization objectives on riparian and upland vegetation may result in change in seasons of use, use areas and/or reduction in cattle numbers (reduced preference).

Beneficial long term impacts:

1. Increased water quality and quantity of mesic riparian areas.
2. Increased forage availability in vegetation conversion areas.
3. Increased vegetation availability within certain riparian protection projects.
4. Increased vigor and production of upland vegetation.

B. No Action

Beneficial impacts outlined under the proposed action would not occur including benefits to riparian/riparian habitat improvement benefits to wildlife.

Long term benefits to livestock and wild horses would not occur.

Short term detrimental impacts to wild horses, livestock and livestock permittees would not occur.

IX. Proposed Mitigating Measures

Water will always be made available outside springhead/riparian protection fences. Grazing systems developed in Allotment Management Plans (AMPS) in the habitat area (Warm Springs, Newark, Cold Creek) should assist in mitigation of short term identified negative impacts to livestock and livestock permittees.

X. Suggested Monitoring

Refer to monitoring and evaluation section of HMP on page 41. Riparian exclosures will be inspected prior to cattle turnout, during the cattle use period and after to determined if riparian vegetation recovery is taking place. Photos will be taken prior to construction and periodically after construction of each riparian protection project. This will insure a photo documentary of riparian vegetation recovery. By periodic inspection of riparian exclosures it can be determined that water is available outside the exclosure.

XI. Consultation and Coordination

A. Intensity of Public Interest

Due to the presence of four active heap leach gold mines, high intensity oil and gas exploration, presence of winter range for the largest deer herd within the confines of the state and a large wild horse population, this area attracts much public interest. The area continues to attract interest from development and protection orientated groups and individuals. The area also receives grazing by domestic livestock year around.

B. Record of Persons, Groups, and Agencies Contacted

Nevada Department of Wildlife
Placer Dome, U.S., Inc.
Kennecott Communication Inc.
New Dynasty Mines
USMX, White Pine Project
U.D. Dept. of Agriculture
Forest Service
Mr. John Inman, Humboldt Forest Supervisor
Ms. Deborah Allard
American Bashkir Curly Register
American Horse Protection Association
American Humane Association
American Mustang and Burro Registry
American Wild Mustang and Burro Foundation
Animal Protection Institute of America
Commission for the Preservation of Wild Horses and Burros
Craig C. Downer
L.I.F.E Foundation
Fund for Animals
Russell Ranches
United Dress Beef
Humane Society of Southern Nevada
International Society for the Protection of Wild Horses and Burros

Mr. Donald Molde
Tina Nappe
National Mustang Association, Inc.
National Wild Horse Association
Wild Horse and Burro Committee for
National Academy of Science
Wild Horse Organized Assistance
Nevada Federation of Animal Protection Organizations
Nevada Humane Society
Ms. Amanda Rush
Save the Mustangs
Ms. Nan Sherwood
U.S. Fish and Wildlife Service
U.S. Humane Society
Mr. John Walker, Clearinghouse Coordinator
White Pine County Commissioners
White Pine Sportsmen
United States Wild Horse and Burro Foundation

C. Internal District Review

William Lindsey	Range
Kathy Lindsey	T&E Plants
Mark Barber	T&E Animals/Riparian/Wildlife
Terry Dailey	Overall Guidance
Jacob Rajala	Environmental Coordinator
Harry Rhea	Forestry Management
Cris Ann Bybee	Watershed
Hal Bybee	Operations
Robert Brown	Wild Horses and Burros
Brian Amme	Cultural Resources
Shaaron Netherton	VRM/Recreation/Wilderness
Fred Fisher	Operations

6/21/89

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

ELY DISTRICT OFFICE
Star Route 5, Box 1
Ely, Nevada, 89301

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
4700
(NV-043)

JUN 21 1989

Dear Reader:

This letter is to inform you of our intention to gather approximately 381 wild horses from the Buck and Bald Herd Management Area (HMA) starting July 24, 1989. We are conducting this gather to reduce the Buck and Bald herd from the current inventoried population of 1,081 down to 700 animals in order to restore the range to a thriving natural ecological balance and to prevent further deterioration of the range.

This gather was originally proposed for completion last year as part of the Ely/Elko District Wild Horse Gather. You were given the opportunity to review the Removal Plan for Ely/Elko District Wild Horse Gather and the associated Environmental Assessment No. NV-040-8-15 at that time. Since the proposal to gather 381 horses from Buck and Bald remains the same as in these documents, and only the gather date has changed, the 1988 removal plan and environmental assessment remain valid documents and new ones will not be prepared.

The 1988 Ely/Elko District Wild Horse Gather did not occur; it was stopped by an appeal to the Interior Board of Land Appeals (IBLA). Since that time, IBLA has upheld this appeal with a decision affecting all HMA's involved in the gather, except for the Buck and Bald HMA.

IBLA issued a full force and effect decision for BLM to continue with the removal of horses from the Buck and Bald HMA. This decision stated that the removal of wild horses from Buck and Bald is necessary because resource damage is occurring or the threat of resource damage is significant enough to warrant the immediate removal of wild horses.

We are, therefore, proceeding with the action to remove approximately 381 excess wild horses from the Buck and Bald HMA to comply with the IBLA full force and effect decision. No horses will be removed from the other HMA's involved in the Ely/Elko District Wild Horse Gather proposal at this time. The IBLA decision stated that BLM would not remove horses from these remaining HMA's (Butte, Monte Cristo, Diamond Hills South,

Maverick-Medicine, and Cherry Springs) until a determination is made that removal is necessary to restore the range to a thriving natural ecological balance and prevent a deterioration of the range.

If you have any questions, please direct them to Bob Brown, Ely District Wild Horse Specialist. We appreciate your interest and involvement in the Ely District's wild horse program.

Sincerely,

Kenneth G. Walker

Kenneth G. Walker
District Manager

6/23/89

WHOA
Wild Horse Organized Assistance, Inc.
Post Office Box 555
Reno, Nevada 89504
702-851-4817

June 23, 1989

Bureau of Land Management
Department of the Interior
Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

Dear Mr. Drais:

Thank you for the receipt of the Draft Buck and Bald/Maverick, and Diamond Mountain Habitat Management Plans. Despite the tardiness we do submit comments for consideration.

I believe another interested party received the other half on of the Draft, as I have the following:

page 1..rec'd two
page 2..missing
page 3..rec'd two
page 4..missing
page 5..rec'd two
page 6..missing
page 7..rec'd two
page 8..missing
page 9..rec'd two
page 10..missing
page 11..rec'd two
page 12..missing
page 13..rec'd two
map..figure 6..rec'd two
map..figure 7..missing
map..figure 8..rec'd two

skips to page 18
page 20-21 normal
page 22..missing
page 23-30 normal
page 31..rec'd two
page 32-65 normal.

I was hoping that there would be a similar distribution map of wild horses to see what the overlap was. However, based on what I read, WHOA supports the HMP and believes the objectives will benefit all range users. The HMP gave seasons of use for

livestock, but not wild horses. If memory serves me correctly BLM and livestock permittees, during the Buck and Bald agreement told me that horses concentrated in Long Valley. Although wild horses are scheduled for reduction I noticed that you stated that grazing systems would be designed for livetock.

During previous negotiations in Buck and Bald we led to believe that introductions in Buck and Bald were contingent upon forage avaliability. Is this still true?

What is the condition of the range and vegetation in the Diamond Hills?

Thank you again for your consideration.

Most sincerely,

Dawn Y. Lappin

Dawn Y. Lappin (Mrs.)
Director

cc: Board

~~Bobbi~~ Gene Drais

Thank you very much for your the receipt of the draft Buck & Bald, Maverick and Diamond Mountains habitat management plans. Despite the tardiness, getting caught up after a bad year, we do submit comments for consideration.

To the extent possible WHOA ~~generally~~ supports the objectives as outlined as being beneficial to all uses. WHOA was an ~~original~~ signer on ~~Monte Cristo to Bullion~~ the Buck & Bald agreement. Although the HMP gave reasons 2 use for livestock, there is no indication of the where the concentration 2 horses are in relationship to the habitat mgt plan. If memory serves me correctly BLM said summer horse use was heavy in Long Valley ie. reason for agreement.

leave in

Although horse numbers ~~were~~ ~~don~~ are scheduled for reduction, only seasonal ~~adjustment appeared for livestock~~ grazing systems were mentioned for livestock

~~If wild horses are reduced on~~

Previous negotiations in Long Valley were predicated on the availability of forage, is still the plan?

What is the condition of the range & vegetation in the Diamond Hills?

pg 1 - recieved two
pg 2 - missing
pg 3 - recievedtwo
pg 4 - missing
pg 5 two
pg 6 - missing
pg 7 - two
pg 8 - missing
9 - two
pg 10 - missing
pg 11 - two
pg 12 - missing
pg 13 - two
map - figure 6 - two   no figure 7
map - " 8 - two
Skips to pg 18
Map figure 9 one
pg 20-21 normal
pg 23 - 30 normal
pg 31 - two
32-65 normal

pg 3. last para talks about boundaries of wild foraging animals and ends in mid sentence with no subsequent page to determine what information the writer is trying to impart.

~~A map of concentration~~

HMA { Monte Cristo
Buck + Bald

B & B

Michael Perkins, wildlife biologist

Livestock

April 16 - June 15 - 1750 cattle
June 16 - July 15 - 1500 cattle
July 16 - Sept 15 - 1250 cattle
Sept 16 - Oct 15 - 750 cattle
} 6 mo.

1021 WH 3/89
1081 WH 6/87
} B & B

3/89 392 Monte Cristo

Browse not available for winter

trail - sheep 8800 animals

Mountain lions

5/31/89

BOB MILLER
Acting Governor

STATE OF NEVADA

TERRI JAY
Executive Director

COMMISSIONERS

Deloyd Satterthwaite, *Chairman*
Spanish Ranch
Tuscarora, Nevada 89834

Dawn Lappin
15640 Sylvester Road
Reno, Nevada 89511

Michael Kirk, D.V.M.
P.O. Box 5896
Reno, Nevada 89513

COMMISSION FOR THE PRESERVATION OF WILD HORSES
Stewart Facility
Capitol Complex
Carson City, Nevada 89710
(702) 885-5589

May 31, 1989

Gene L. Drais, Area Manager
Egan Resource Area
Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

I am in receipt of your letter dated May 10, 1989, regarding the Buck, Bald, Maverick, and Diamond Mountains Habitat Management Plan.

I appreciate the opportunity to comment on the document.

I understand the importance of the riparian exclosures and as long as water is made available to the wild horses through pipes and troughs, I have no objection.

It appears as though the other proposed actions in the plan would have no deleterious effects on the wild horses and may in fact improve the habitat for the wild horses.

The Commission would be interested in providing funding for water development projects planned in the HMP that would not only benefit the wild horses, but also the wildlife and other multiple users.

Please contact us if you would like us to forward a grant application to you or if you need more information. Thank you for your time.

Sincerely,

Terri Jay

TERRI JAY
Executive Director

TJ/cb