9/7/77

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(N-047)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Ely District Office
Star Route 5, Box 1
Ely, Nevada 89301

September 7, 1977

Mrs. Dawn Y. Lappin
Wild Horse Organized Assistance
P.O. Box 555
Reno, Nevada 89504

Dear Mrs. Lappin:

Enclosed is a completed copy of the Monte Cristo Wild and Free-Roaming Horse Management Plan. The final plan is a result of comments provided by many different interests and the field tour of the Monte Cristo area conducted on October 14, 1976. There has been considerable interest from many organizations and private individuals in the development of the Monte Cristo Plan. This interest and the comments from the individuals involved have been a great aid in developing a workable plan.

It is our intention to start full implementation of the Monte Cristo Management Plan during fiscal year 78. Included in the implementation of the plan will be the removal of excess number of horses as prescribed by the plan; however, horse reductions will be dependent on the availability of funds.

If you have any further questions or concerns about the Monte Cristo Management Plan, we would again appreciate your comments.

Sincerely yours,

W. Steve Sherman, Manager
Egan Resource Area

Enclosure

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

MONTE CRISTO

WILD & FREE ROAMING HORSES
MANAGEMENT PLAN

WHITE PINE RANGER DISTRICT
HUMBOLDT NATIONAL FOREST

EGAN RESOURCE AREA
ELY DISTRICT - BLM

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I. BACKGROUND INFORMATION

A. Location and Area

The Monte Cristo Herd Management Area is located in White Pine and Nye Counties, Nevada, approximately 30 air miles west of Ely, Nevada. The herd management area lies on the west slopes and foothills of the White Pine Range and extends into the east side of the Bull Creek drainage in Railroad Valley and the southern end of Newark Valley. General topography consists of alluvial fans, valley bottoms, foothills, canyons and steep ridges. (See General location Map).

Map number 1 shows the herd management area (BLM) and/or wild horse territory (USFS) which is the boundary where wild horses were found at the time of passage of the Wild Horse Act (PL 92-195). Map #1 also shows land status, allotment boundaries, watering places, and existing range improvements in the area.

Acreage tabulations are as follows:

Land Status	Acres	Percent
National Resource Lands (NRL)	155,330	68
National Forest	71,680	31
Private	1,930	1
	228,940	100%

B. Resource Data

1. Vegetative Types

Six vegetative types occur within the area. Pinyon-juniper, sagebrush, and salt desert shrub types provide the majority of the acreage, while grass, including crested wheatgrass seedings, timber, and mountain shrubs make up the remainder.

TYPE	ACRES	PERCENT
Salt desert shrub	42,760	19
Sagebrush	111,393	48
Pinyon-juniper	61,190	27
Grass	5,255	2
Timber	2,140	1
Mountain shrub	2,363	1
Barren	3,839	2
	228,940	100%

Studies show present range condition to be generally poor with a downward trend occurring. Condition and trend acreages are as follows:

CONDITION	ACRES	PERCENT
Good	5,870	3
Fair	50,360	22
Poor	172,710	75
TREND		
Upward	0	0
Stable	81,794	36
Downward	147,146	64

2. Soils

Soils in the area are generally shallow (less than 20 inches) with coarse to medium textured loamy surfaces. They are light colored, moderately to strongly alkaline, and moderately permeable. They have low water holding capacities and are moderately to severely susceptible to erosion.

Erosion on the lower slopes is relatively slight whereas at higher elevations the erosion is greater due primarily to the steepness of slope and slow permeability of the soil.

The majority of the erosion in the area occurs during spring runoff and summer thunderstorms. Through the years numerous gullies and washes have been formed by erosion which still continues in the area.

3. Animals

a. Wildlife (see map #3)

Yearlong range for antelope and mule deer exists in the area. Five crucial winter areas for mule deer have been identified by the Nevada Department of Fish and Game. Although there are normally few deer wintering here, these areas are crucial during severe winters when normal winter range is limited.

Habitat for chukar partridge and sage grouse is known to exist in valleys and suitable mountain brush habitat from Bull Creek springs through the northern part of the area.

Actual antelope numbers are not known, however, observations made in 1976 indicate approximately 35 head inhabit the area. There is no estimated number for deer, small game, and non-game species.

No endangered species are known to exist in the area.

b. Livestock (see map #1)

There are eight established allotments and two proposed allotments in the area. Livestock grazing in the area occurs from both sheep and cattle.

Grazing occurs primarily during fall, winter and spring on NRL allotments, and during summer on the National Forest allotments. Presently (1977) there are 7,714 animal unit months, (AUMs) within the area, 7,197 on BLM administered land and 517 on National Forest land. Livestock numbers will be adjusted as allotment management plans are developed.

An AUM, or animal unit month, is the amount of feed or forage required by one mature cow, or its equivalent, for a period of one month.

Non-use is a temporary lack of exercise of grazing privileges. Suspended non-use cannot be utilized until it has been determined that doing so will not damage the resource base, while preferred non-use is a voluntary action by the permittee and can be activated at any time during the grazing season.

AUMs of use, AUMs of non-use, and total AUMs by allotment are as follows:

Allotment	AUM's of Use	Suspended and Preferred Non-use	Total AUM's
National Forest			
*Treasure Hill	415	0	415
*Black Rock	102	0	102
Total	517	0	517
NRL			
*Newark Valley	483 Cattle	696	1179
South Pancake	526 Sheep	628	1154
*Moorman Ranch	106 Cattle	104	210
Six Mile	No current use	955	955
Monte Cristo	377 Cattle	0	377
*Duckwater	2239 Cattle	1083	3322
Total	3731	3464	7197

*This is not total AUM's in the allotment but rather only the portion within the wild horse area.

C. Wild Horses

1. Population History

Horses have always been a part of the range scene in the area, at least since contemporary livestock use began. The present wild horse populations stem primarily from domestic stock used in past ranching and mining operations. Due to the natural tendency

of these animals to go wild, many horses escaped and many of these were never retrieved. As the populations of these animals increased, periodic efforts were made by ranchers and government agencies to control populations and to remove unauthorized animals.

The number of horses licensed in the Monte Cristo area has varied over the years. The only recent license for horse use was allowed to Karl Bradshaw for five head on NRL. This license was discontinued in 1974 because the licensed horses created conflicts with efficient management of the wild and free roaming horses. No horses were claimed during the claiming period provided for subsequent to the passage of the Wild and Free Roaming Horse and Burro Act.

2. Present Situation

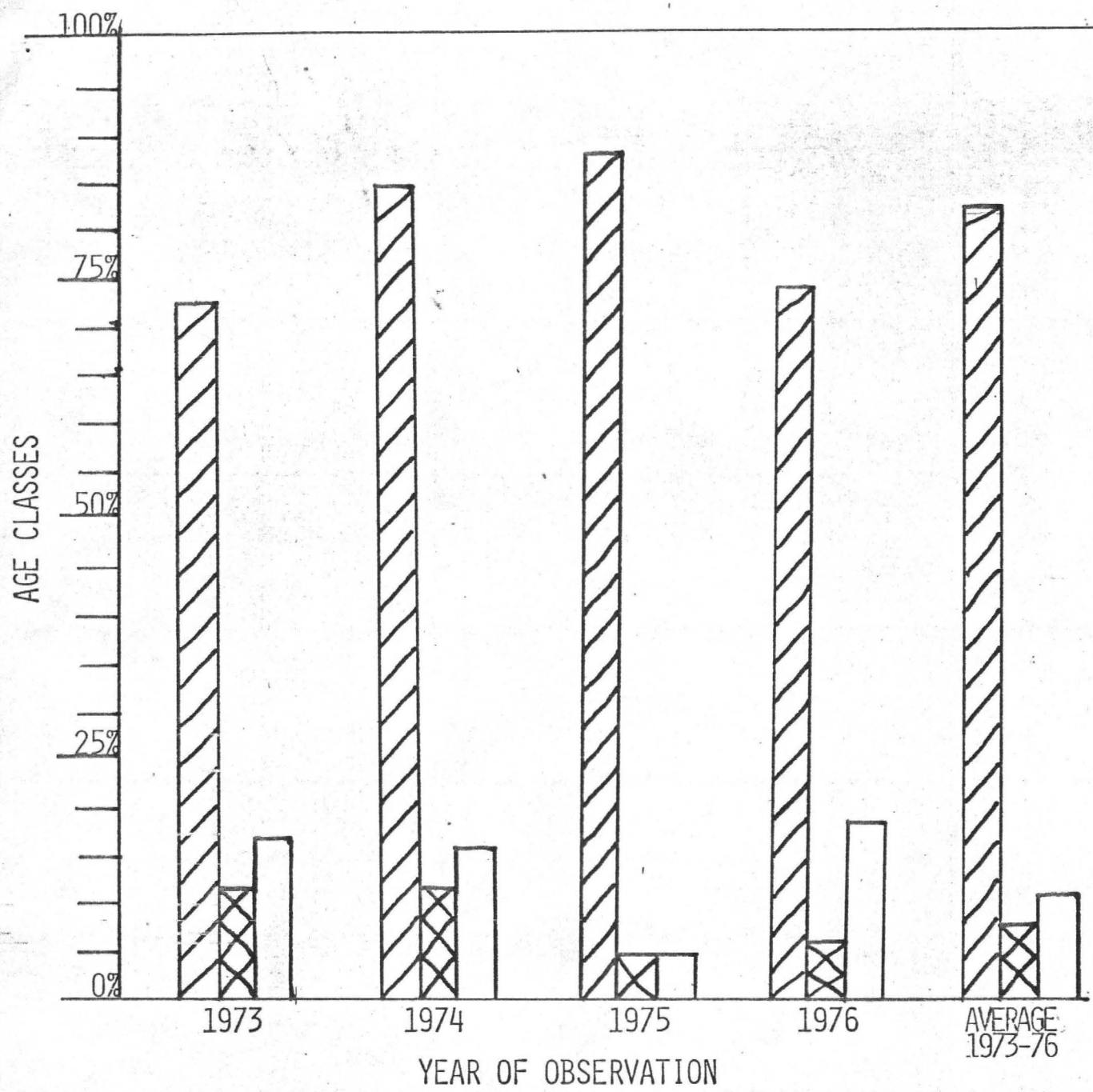
a. Numbers

With the passage of the Wild and Free Roaming Horse and Burro Act, a need was established for inventory data on wild horses. No inventories were present prior to or when the act was passed in 1971. Estimates based on subsequent inventory data places the number in the vicinity of 72 horses.

The first aerial inventory was not completed until January and February of 1973. A second aerial survey by helicopter was completed in March, 1975. The results of these inventories are as follows:

Year	Adults	Yearlings	Young	Unclassified	Total	AUMs
1973	61	5	11	11	88	1056
1975	127	7	7	0	141	1692

TABLE 1



ADULTS

YEARLINGS

YOUNG

BECAUSE OF THE DIFFICULTY OF IDENTIFYING YEARLINGS, THE ACCURACY OF THIS AGE CLASS IS SUBJECT TO SOME QUESTION.

In the fall of 1974 a census was made by time lapse camera and on the ground inventory. This data was in agreement with the spring 1975 aerial inventory data.

The large increase between the 1973 and 1975 inventories is not believed to be entirely the result of a reproductive increase, but rather better methods of inventory and/or animals immigrating into the area.

Inventories have not been detailed enough to determine exact ages, productivity, sex ratios, or mortality. This information may be determined by future studies. Table I shows age classes observed between 1973-1976.

b. Colors

The southern portion of the wild horse area has predominately bays, red roans, and sorrels. The northern section of the area contains pintos, blacks, whites and buckskins.

c. Condition

Most animals appear to be in fair or good condition. Occasionally animals in poor condition were found intermixed with animals in fair or good condition.

Possible reasons for animals in poor condition could be the result of inbreeding, old age, sickness, parasites, or in the case of mares a result of nursing a foal. Limited forage, especially during critical times of the year, also accounts for poor condition.

The adult horses observed during inventories range in size from 700 pounds to 1000 pounds. The horses less than 1000 pounds are usually younger (3-5 years old). These horses

are considered larger than the average wild and free roaming horse.

d. Forage

The majority of forage utilization by horses occurs in the salt desert shrub, sagebrush and grass types. Concentrations of animals occur in these types. The three types receive considerable pressure year-round with the primary use occuring on winterfat (Seratoides lanata). Associated native grasses used are Indian ricegrass (Oryzopsis hymenoides), squirreltail (Sitanion hystrix), needleandthread (Stipa comata), galleta (Hilaria jamesii), and Sandberg bluegrass (Poa secunda).

Although no fecal analysis have been conducted in the Monte Cristo area, they have been taken in the Sand Springs area on NRL administered lands 12 miles west. Vegetative types in the Sand Springs area are almost identical to those in the Monte Cristo area and tabulated results can be used to help analyze forage preference in Monte Cristo. Results of the analysis are shown in Table II.

Pinyon-juniper covers 27 percent of the herd area and provides retreat cover, but little or no forage value. Studies have classified the majority of the P-J unsuitable for horse grazing.

Forage for horses, livestock, and wildlife is provided by 71 percent of the herd management area, resulting in a heavy concentration of animals in many areas where forage occurs.

TABLE II

Percentage of forage categories in the diets of wild horses determined by the microhistological analysis of feces technique (400 fields at 100 x were examined per sample) Ely District, Nevada

	Horses				
	Spring	Summer	Fall	Winter	Composite
Three awn (Aristida)					
Blue grama (bouteloua gracilis)		1.38	.06		1.89
Cheatgrass Bromus tectorum)	2.03				
Sedge (Carex)	1.12	.16			.24
Wild rye (Elymus)	9.16	.51	.28		.40
Galleta (Hilaria Jamesii)	2.88	41.40	5.26	8.55	22.18
Indian ricegrass (Oryzops hymenoides)	14.30	10.52	1.76	2.64	10.96
Squirrel tail (Sitanion hystrix)	12.26	1.04	1.24	.87	1.14
Dropseed (Sprobolus)	.58	1.69	.89	.74	7.34
Needlegrass (Stipa)	47.65	5.36	2.46	5.99	30.75
Unknown grass	.16			.49	.49
Wheatgrass Agropyron)					
Sagebrush (Artemisia)	.24				
Saltbrush (Atriplex)		.31	1.73	7.68	1.64
Balsam root (Balsamorhiza)					
Rubber rabbitbrush (Chrysothamnus nauseosus)					
Douglas rabbitbrush (Chrysothamnus viscidiflorus)					
Tansy Mustard (Descurania)	.32			.49	
Morman Tea (Ephedra)					
Wall flower (Erysimum)				.12	
Wright buckwheat (Eriogonum wrightii)					
Winterfat (Eurotia lanata)	8.03	7.29	86.90	70.45	22.82
Halogeton (Halogeton glomeratus)	.32				
Spiny Hopsage (Grayia spinosa)					
Juniper (Juniperus Utahensis)					
Opuntia					
Phlox (Phlox hoodii)	.39			.25	.24
Greasewood (Sarcobatus vermiculatus)	.16				
Russian thistle (Salsola Kali)				.12	
Nightshade (Solanum)					
Globe Mallow (Spaeralcea coccinia)					
Seed					.08
Unknown Chenopod		.08			.16
Unknown Composite (Artemisia type)					
Unknown Composite	.32				
Unknown Forb		.27	.22	1.24	.08
Unknown Legume	.08			.37	
Moss					

e. Water (See Map #1)

All but two perennial springs are on public land. Emigrant Spring (T. 17 N. R. 57 E. Sec. 34) and Rock Spring (T. 17 N. R. 58 E. Sec. 30) are on private land. Water rights were filed on Birch Spring by Forsgren Ranches, Inc., Box Spring by F. C. Vanover, Vanover Spring by A. C. Florio, and Mustang Spring by Burke and Yvonne Peterson. No others are on record for any springs in the area.

f. Seasonal Use

Fall, winter and spring use occurs primarily at the lower elevations. The horses tend to move up on the benches and higher elevations during the summer months.

g. Home Ranges (See Map #2)

Four home ranges have been identified in the area, Emigrant Spring, Green Springs, Lampson Spring, and Bull Creek.

Generally movement of horses is confined to each home range, however, movement does occasionally occur between home ranges.

Each home range contains forage escape cover and water. Extensive trail systems are evident throughout the area, linking water to areas of preferred grazing and escape cover.

C. Coordination

1. Relationship to Other Resource Uses and Resource Conflicts

a. Wild Horse - Wildlife

At the present time, deer numbers are low. Five crucial wintering areas are located within the boundaries of the wild horse area as shown on Map #3. Although crucial deer areas are within the wild horse area boundary, the deer

use the rough rocky cliff rose (Cowania sp.) areas, while the horses use the more gentle rock free areas.

In 1974 25 head of antelope were sighted near Silver Spring. In 1976 an estimated 50 head were counted near Bull Creek reservoir. The Nevada Department of Fish and Game flew the area in late 1976 and counted 35 head of antelope near Bull Creek reservoir.

A time lapse camera was used in 1974 to inventory the wild horse population. No antelope appeared on film, which indicates antelope are not closely tied to the water sources used by horses.

The area is northeast of a designated antelope hunting area. This potential conflict should be closely observed on a yearly basis by U. S. Forest Service, Bureau of Land Management and Nevada Department of Fish and Game personnel.

b. Wild Horse - Livestock (See Map #2)

A specific area of concern is located between Lampson Canyon and Broom Canyon along the National Forest and Bureau of Land Management boundary.

The present range condition is poor in lower Lampson Canyon because of the heavy utilization made by horses and some cattle. The forage was utilized between 71% - 90% in 1975-1976. Horses caused 90% of this heavy impact with cows only contributing 10%. A fence which separates lower and upper Lampson Canyon may prevent the horses from moving up the canyon and thus causing the heavy impact on the lower end of Lampson Canyon.

In upper Lampson Canyon the amount of utilization by horses and cows is completely reversed to what occurs in lower Lampson Canyon. Cows caused 65% of the utilization whereas horses only caused 35% of the utilization. In 1975-1976 the forage in Lampson Canyon seeding was utilized 71 - 95% by both horses and cattle.

The bench area between Birch Spring and Broom Canyon is used yearlong as the primary grazing area for the horses. The present range condition in this area is poor and utilization studies show forage use by horses and cattle to be very heavy. Forage utilization was between 70 - 80 percent during the 1975 grazing season, according to studies made in March 1976. Horses caused 78% of this utilization while cattle use resulted in 22 percent.

Horses and livestock in Emigrant Spring home range are in direct conflict for available forage. The low horse numbers (15 - 25) are not causing a significant impact upon the range. If however, the numbers should increase above 30 head, the livestock conflict could be serious.

In order to resolve these conflicts, coordination will be necessary between the Bureau of Land Management, U.S. Forest Service, and the livestock operators in the area.

c. Interagency Cooperation - U.S. Forest Service - Bureau of Land Management

The White Pine Ranger district and Egan Resource Area will coordinate the overall management of the Monte Cristo Area by conducting joint inventories and studies, and formulating management techniques to maintain and control the wild horses in the area. As part of this cooperative management program both agencies will jointly cooperate and coordinate information with the Nevada Department of Fish and Game, area ranchers, and wild horse interest groups concerning management goals and decisions.

D. Existing Projects

Data on existing land treatments and range improvements is shown on Map #1.

Existing fences have some effect on the movement of wild horses, but due to their presence in the area for many years, the horses are adjusted to them and no severe detrimental effects occur to the horses.

II. Objectives

A. Habitat

1. Forage

In order to determine the optimum number of horses to be maintained in the area, a maximum use of the forage species should be 30% in natural concentration areas. The possibility exists of spraying sagebrush in upper Lampson Canyon to increase forage production for both horses and cattle.

2. Cover

Any burning or chaining of pinyon-juniper within the wild horse territory will be designed to assure adequate cover is left

for horses. Pinyon-juniper serves as escape cover, loafing areas and protection from severe temperatures and winds. In the event of a chaining or controlled burn, at least 30 percent of the pinyon-juniper will be maintained in its existing state.

3. Water

Water will be maintained in its present state or improved. In the event private water is fenced or made unavailable, alternate waters will be developed.

B. Wild and Free Roaming Horses

The overall objective is to manage, protect, and control wild free roaming horses. Management will occur under Multiple Use principles in order to maintain the horses in the Monte Cristo area where they existed in 1971.

The main objective of the Wild and Free Roaming Horse and Burro Act was for protection of these animals against capture, branding, harrasment, or death. This law will be enforced to its fullest extent.

1. Animal Numbers

Tentative wild horse numbers on the Monte Cristo Wild Horse Area will be maintained at an average of 96 head. This is based on proper use studies conducted on the natural horse concentration areas. Total numbers on the entire area will not be allowed to increase above 120 head or be decreased below 72 head. This allows for a 25% fluctuation of the average numbers. (See rationale for individual home range.)

From observations the Monte Cristo Wild Horse Area has 4 home ranges. These are the Emigrant Spring, Green Spring, Lampson Spring, and Bull Creek home ranges. Specific objectives for these home ranges are:

Emigrant Spring Home Range (See Map #2)

The March 1975 helicopter count indicated 18 head of horses using this home range. This number does not pose a serious grazing problem with livestock or wildlife nor does it create a resource problem. To reduce this number much lower may not leave a viable herd and inbreeding would likely occur. It is therefore proposed to maintain this range with an average of 18 head of horses.

Green Springs Home Range (See Map #2)

Twenty-seven head of horses are using this home range as indicated by the March 1975 helicopter count. No resource problems nor serious grazing problems have been observed between livestock, wildlife and wild horses. It is proposed to maintain this range with an average of 27 head of horses.

Lampson Spring Home Range (See Map #2)

There are approximately 15 head of horses using this home range. Utilization studies indicate the Lampson seeding has a forage overuse problem which is due primarily to cattle use. Cattle are closely tied to the seeding whereas horses range out from the seeding and utilize the grass in draws and hills up to two miles from Lampson Spring. Key forage species are crested wheatgrass and bluebunch wheatgrass. Proper use on

these species is 50%. Horses will be allowed to use up to 30% in their natural concentration area (Lampson seeding). This will allow for an average of 19 horses. Cattle grazing in this area is in a rotation system.

Bull Creek Home Range (See Map #2)

The most recent aerial inventory by helicopter (March 1975) of the Bull Creek home range shows 90 horses inhabiting the area. Proper use on these species (white sage and perennial grass is 30%). Horses will be allowed to use up to a total of 20% of the annual forage production in the wild horse concentration areas. On this basis utilization studies indicate an average of 31 horses will be allowed within the Bull Creek home range. Inadvertent livestock use is recognized in the Bull Creek wild horse concentration area and 5% forage utilization is allowed. Five percent forage utilization by wildlife is also recognized. This use is primarily mule deer and antelope. A management system will be developed to control livestock use in the area.

Utilization studies have been done for two years of grazing in each home range (1975 and 1976). After the initial studies, utilization studies will be done periodically to confirm grazing impact and if studies indicate, the numbers of horses will be adjusted according to the degree of forage utilization and/or conflicts with wildlife. Studies will also be conducted on the grazing impact of livestock in all home ranges, and livestock numbers will be adjusted according to degree of forage utilization.

2. Sex Ratio

In 1974 a small random survey was made in this area. The survey showed 57% males and 43% females. With this ratio, the herd increased approximately 7% per year. This ratio seems satisfactory to maintain the herd at its present rate. Through selective removal, the sex ratio will be maintained at approximately 50 - 60% males and 50 - 40% females.

3. Disposal of Animals

Where the authorized officers of the U. S. Forest Service or Bureau of Land Management find it necessary to remove excess animals, and they determine it is not practical to relocate them on public land or capture and remove them for public maintenance, they may destroy such animals in the most humane manner possible.

Any severely injured or seriously sick animals will be destroyed immediately in the most humane manner possible as an act of mercy.

4. Wild Free-Roaming Behavior

Horses will be allowed to maintain their free-roaming behavior. Any fences to be constructed will be designed and located so that they do not significantly obstruct or impede movement of horses.

C. Other Resources

1. Wildlife

Maintain and manage wild horse numbers to avoid conflicts with wildlife requirements.

2. Livestock

Presently (1976) 4,248 AUMs of livestock use is licensed in this area (3,731 Aums - BLM, and 517 AUMs - USFS). Livestock numbers will be adjusted as allotment management plans are developed. Livestock management facilities must take into consideration horse movements, and use patterns, in order to maintain their free-roaming behavior.

3. Recreation

Presently very few people see or are aware of the wild horses in this area. Public awareness and understanding of wild horse management will be provided for by erecting an information sign in the Hamilton area, and at the junction of State Highway 20 and Bull Creek road.

III. MANAGEMENT METHODS

A. Population Reduction

Due to varying topography and habitat conditions within each designated home range, methods of capture and horse removal will vary as follows:

Emigrant Spring, Lampson Spring, and Green Spring home ranges.

Due to numerous water sources and non restrictive topography, water and wing trapping do not appear feasible. Therefore, excess animals will be removed in the most humane manner possible.

Bull Creek Home Range

Water trapping will be used to capture and select excess horses for disposal. Traps will be located at Birch and Vanover Springs. During trapping operations horses will be kept away from other springs in the area. The Nevada Department of Fish and Game will be consulted

in this regard. The use of the helicopters in gathering the horses will be evaluated. In the event these efforts fail, the excess animals will be removed in the most humane manner possible. This alternative will only be considered after one full month of effort has been expended in attempting to capture the animals.

Upon capture, excess horses will be removed to a central holding facility and cared for until such time as they can be relocated to suitable areas where horses exist, or turned over to the public under a cooperative maintenance program.

If no suitable areas are available to justify relocation and public demand for the horses is not present, the horses will be disposed of in a humane manner under the provisions of Federal and State laws.

B. Population Maintenance

The desired number of horses will be maintained according to the systems outlined above. In addition, the feasibility of sterilization to control population increases will be explored after the initial reductions. If it becomes necessary to capture additional animals to control population increases, this will be accomplished by adopting out the young animals and leaving the older ones on the range. This method will be used provided it is feasible and maintains a proper age structure. It is more humane to adopt out the young horses and they will adjust better to captivity.

IV. MANAGEMENT FACILITIES AND EQUIPMENT

Initial facilities and equipment needed:

Facility and/or Equipment	Units	Materials	Labor	Total Cost
Corral with chute	2	$3,000 ea.	$3,000 ea.	$12,000
Transportation of horses from trap to holding facilities		Contract		3,000
20 hrs. bulldozer work to upgrade road and construct reservoirs for water trap	1		700	700
Fence other springs to be unavailable to horses during trapping operations	5	150 ea.	150 ea.	1,500
Develop water for trap	2	1,000	1,000	4,000
Veterinarian Cost			500	500
Administrative Cost			4,000	4,000
TOTAL		$4,150	$9,350	$25,700

V. STUDIES AND EVALUATION

A. Habitat

1. Utilization Mapping

The purpose for utilization mapping is to determine the impact on the range from all grazing animals. In order to determine the total utilization during the forage year, these studies should be made in the spring prior to green up. The forage use intensity is color coded on a detailed map. The following are the use intensity classes.

Use Intensity Class	Forage Utilization	Use Class Symbol	Color Code
Negligible	0-10%	N	White
Light	11-30%	L	Blue
Moderate	31-50%	M	Green
Heavy	51-70%	H	Yellow
Very Heavy	71 and over	V	Red

2. Fecal Transects

Transects will be conducted annually in conjunction with utilization studies. Results of the studies will determine the percentage of horse, livestock, and wildlife use occuring.

The ratio of droppings of wild horses, livestock and big game is determined by:

Horse - 8 droppings/day

Cattle - 12 droppings/day

Sheep - 13 droppings/day

Big Game - 13 droppings/day

3. Range Environmental Analysis (USFS) and Intergrated Resource Studies (BLM) is used to determine range condition and trend, watershed condition, vegetative types, and other habitat factors in the herd management area.

B. Animal

Management studies will be conducted as follows:

1. Productivity and Survival

Productivity and survival will be determined by making a representative count of adults, yearlings, and current year colts. This will be done during July annually.

This information will be used to determine population trend.

2. Marked Horses

Three horses have been immobilized by use of Cap-Chur gun and a colored collar placed on the animal. The location of the marked horse and description of associated horses will

be recorded when observed in order to document movement patterns, and band interactions.

3. Wild Horse Census

a. Aircraft - When funds are available an aerial count will be made. Best results for this count are obtained when the aircraft flies systematically in an east-west grid pattern throughout the entire area.

b. Time Lapse Movie Camera (See Map #2) - In the event aircraft cannot be obtained, a reasonably accurate census may be obtained with a time lapse camera. The time lapse movie camera was used in 1974 and has proven to be a valuable tool for inventorying horse numbers.

Starting in June, the movie camera should be set at Silver Spring (# 1) for one week and then move the camera in a northerly direction every week at springs (2) through 12.

This procedure should be systematically used periodically, approximately every three years, on a continuing basis, as criteria for determining population trend.

4. Sterilization

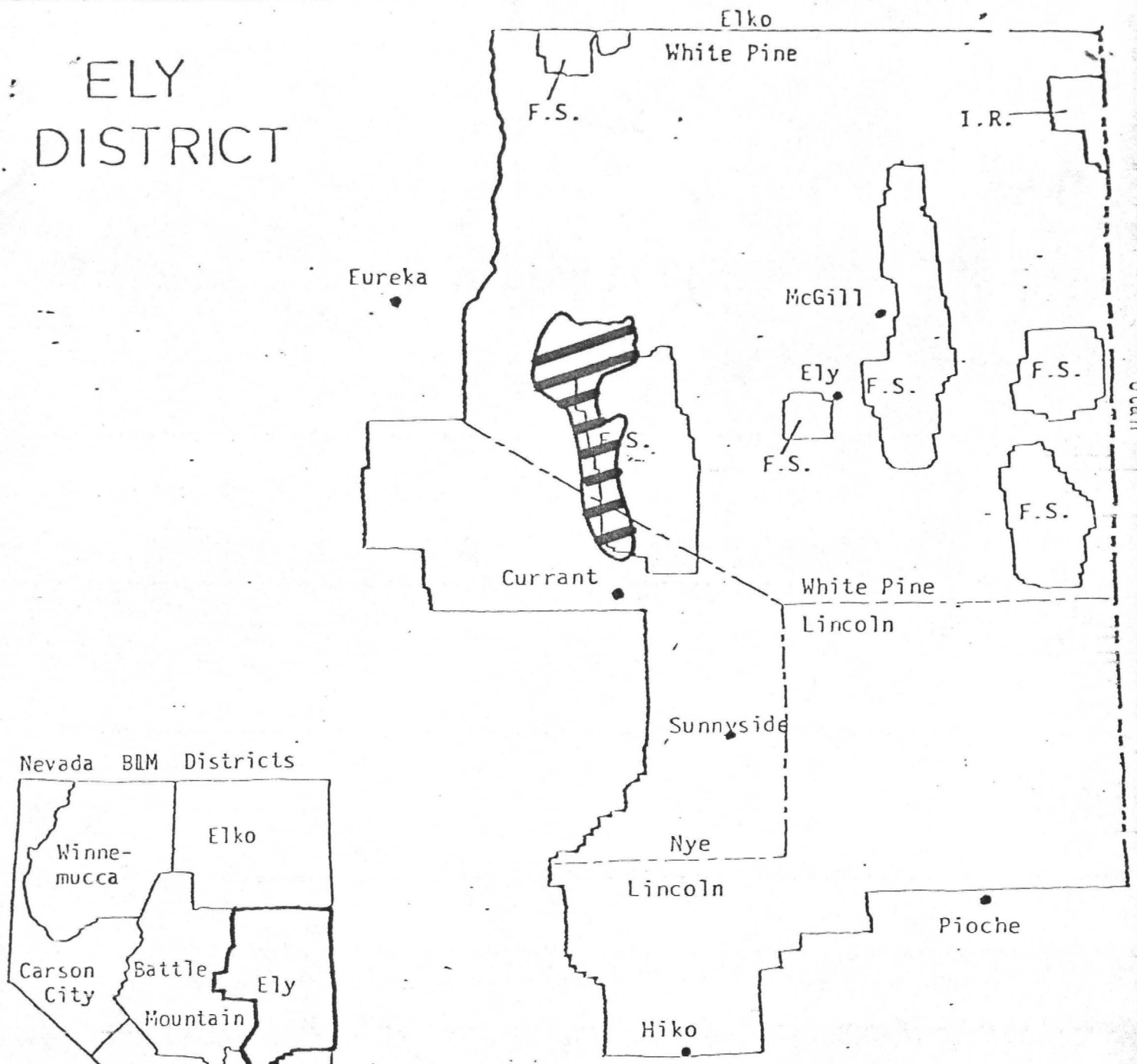
Six to 10 harem stallions will be sterilized using various techniques. These animals will be observed to determine their behavior characteristics. Their harems will be observed to determine the effect of the sterilization on band reproduction. If this study proves the method to be feasible, it will be used as a tool to control reproduction rate in the herd unit.

VI. ANNUAL REVIEW

A joint review of this plan will be conducted annually by the District Ranger and Wild Horse Specialist of the White Pine Ranger District (USFS), and the Area Manager and Wild Horse Specialist of the Egan Resource Area (BLM). The wild horse situation will be a topic for discussion at the annual interagency wildlife meeting.

This plan may be modified if data from public input, resource studies, plus experience gained in plan operation indicate that changes are desirable.

ELY DISTRICT



LEGEND

Ely District Boundary

County Boundary

Monte Cristo Herd Unit

Humboldt National Forest

SIGNATURES

PREPARED BY:

Mark E. Lawrence, Jr., Range Conservationist (BLM)
Ely District — Date: May 20, 1977

Gary A. Lebsack, Wild Horse Specialist (BLM)
Egan Resource Area — Date: May 20, 1977

Kenneth G. Timothy, Wildlife Biologist (USFS) — Date: 7/1/77

Recommended by:

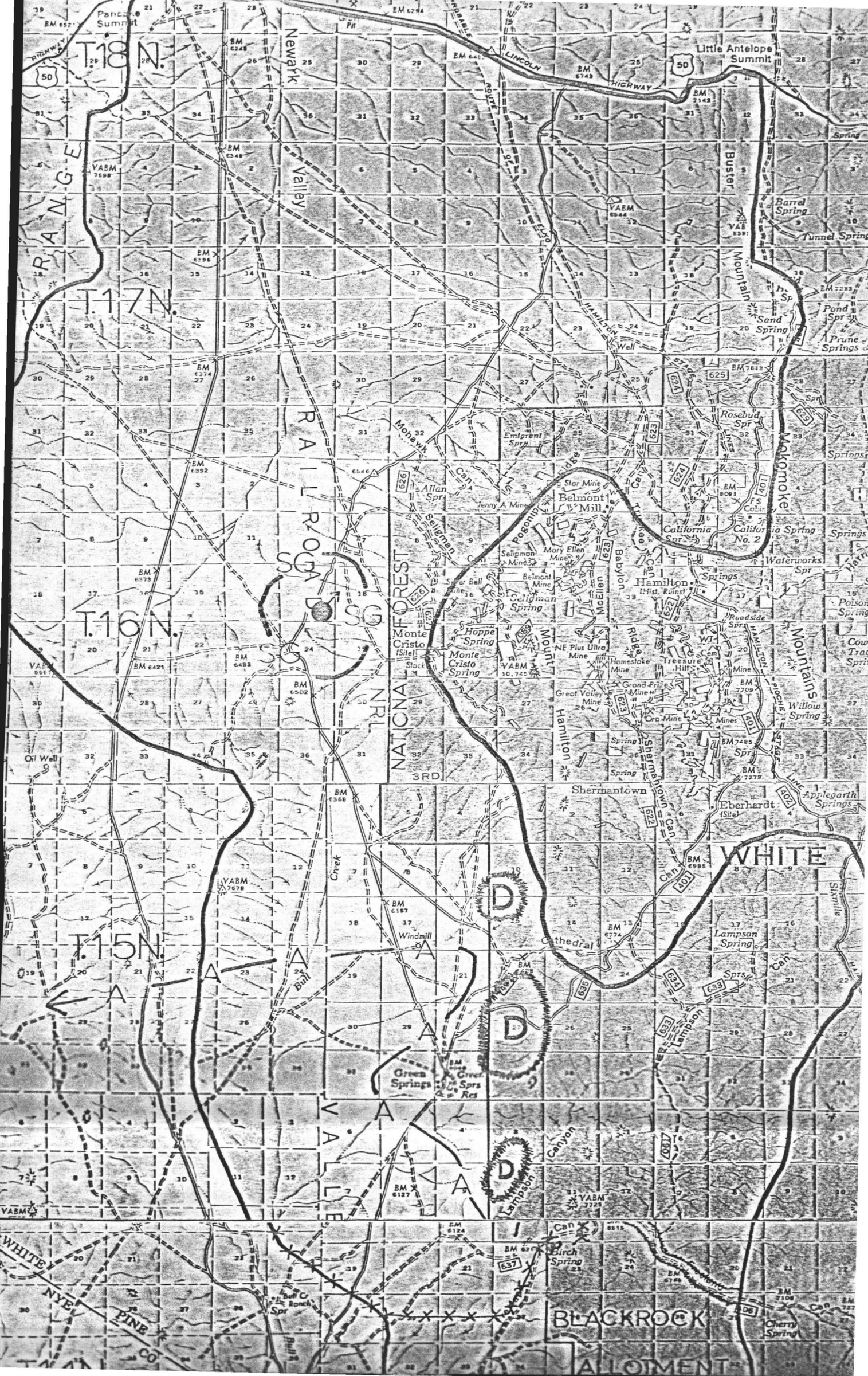
W. Steve Sherman, Area Manager
Egan Resource Area — Date: 5/25/77

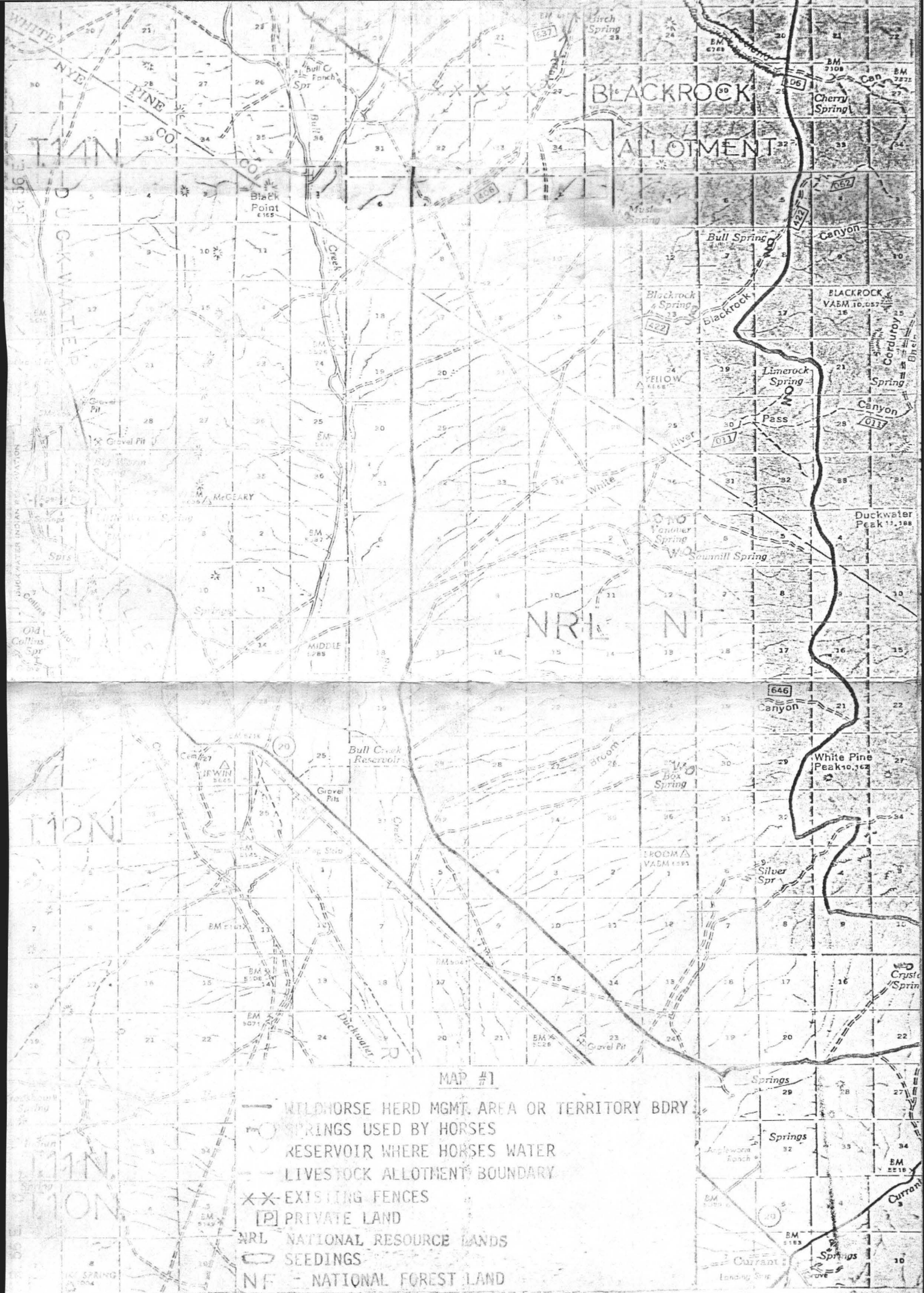
Garth E. Baxter, District Ranger
White Pine Ranger District — Date: 7/1/77

Approved by:

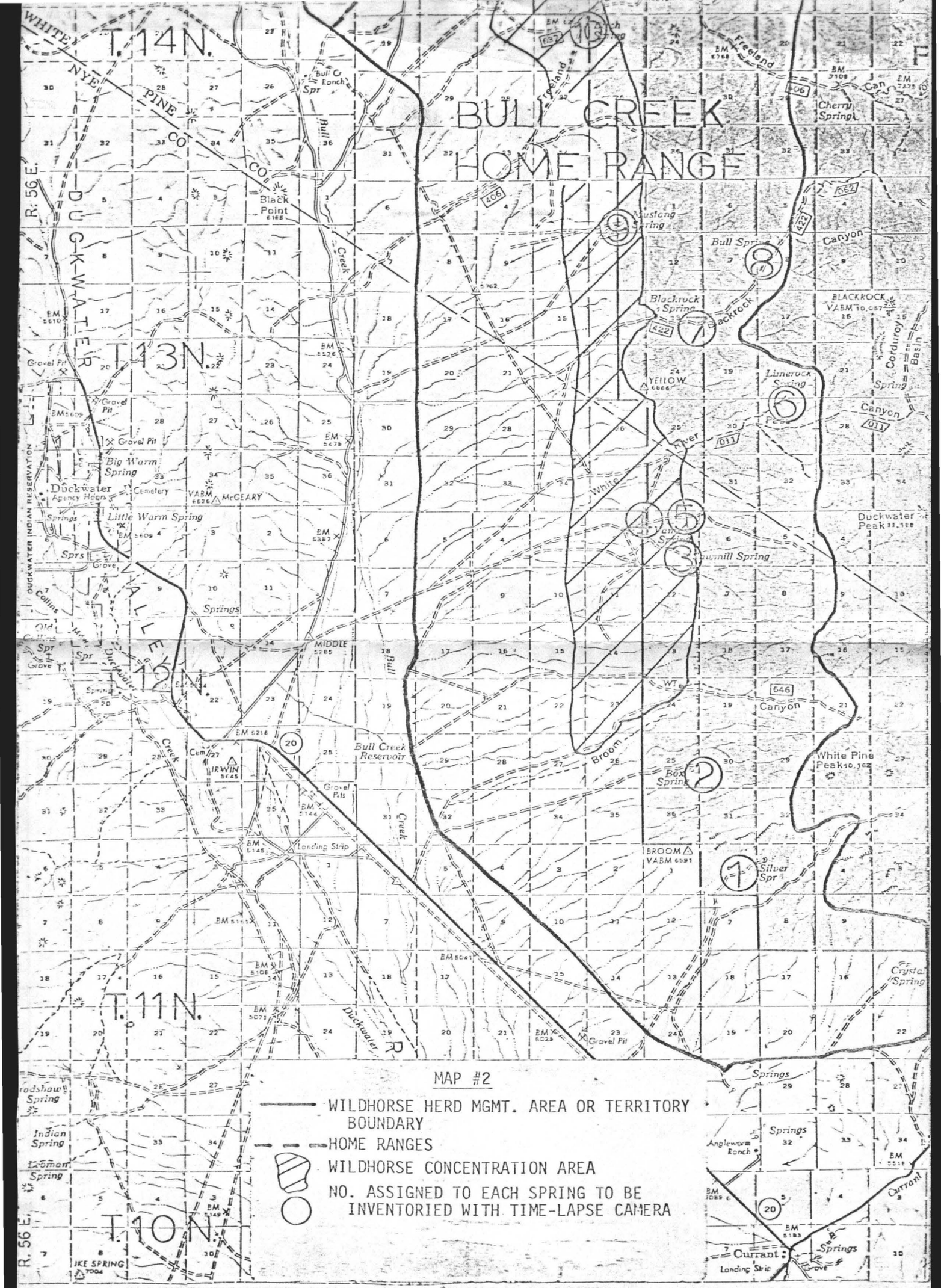
Neil B. McCleery, District Manager
Ely District (BLM) — Date: 7/6/77

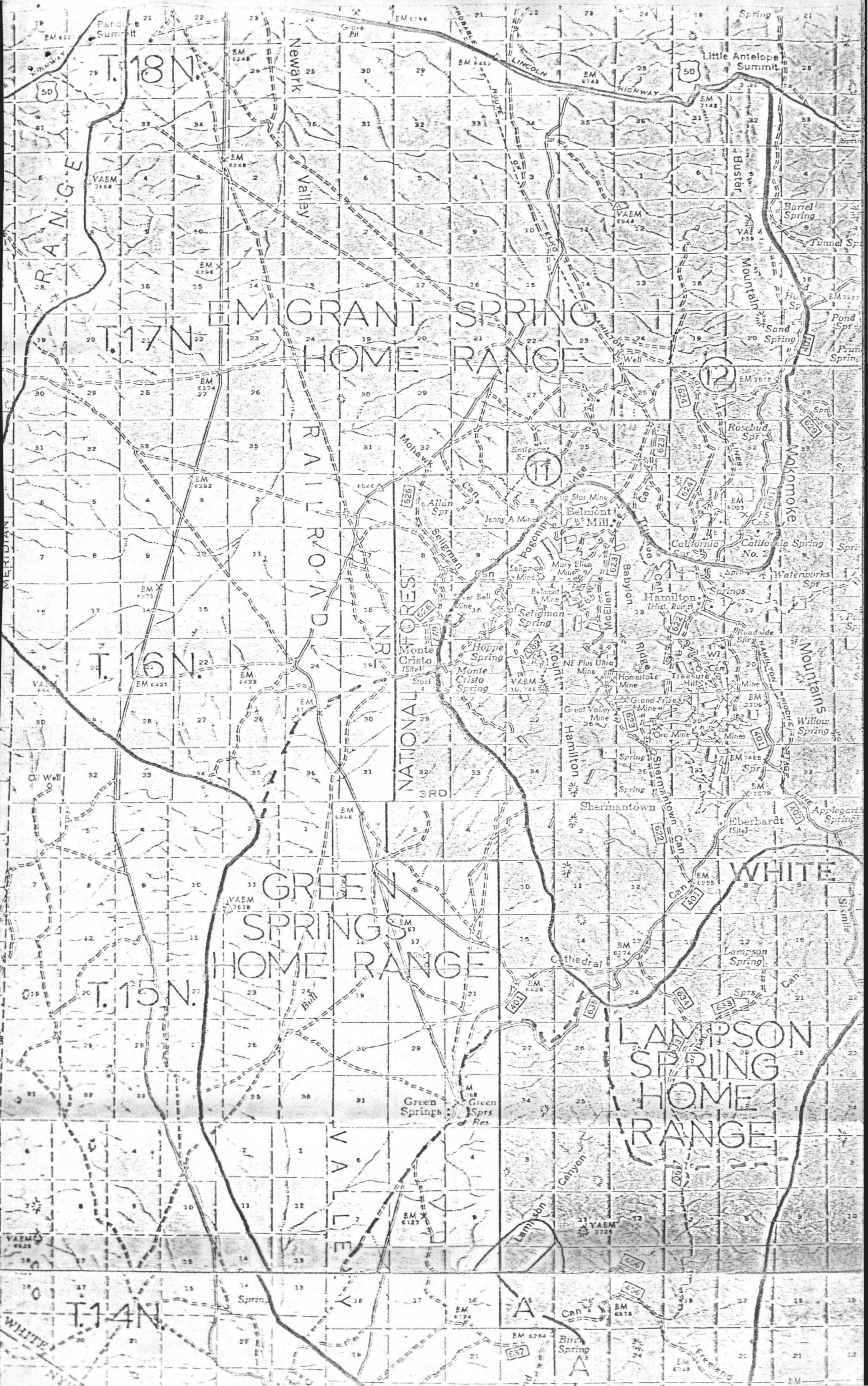
John A. Hafterson, Forest Supervisor
Humboldt National Forest — Date: 7/20/77


T.18N.
T.17N.
T.16N.
T.15N.
RANGE
Newark Valley
Pancake Summit
Little Antelope Summit
HIGHWAY 50
LINCOLN HIGHWAY
Buster Mountain
Barrel Spring
Tunnel Spring
Sand Spring
Pond Spr
Prune Springs
Hamilton Well
Rosebud Spr
Springs
Makomoke Mountains
Emigrant Spr
Monawk
Allan Spr
Jenny A Mine
Star Mine
Belmont Mill
California Spr
California Spring No. 2
Waterworks Spr
Poison Spring
Seligman Mine
Mary Ellen Mine
Belmont Mine
Seligman Spring
Babylon Canyon
Hamilton (Hist. Ruins)
Roadside Spr
Monte Cristo (Site)
Hoppe Spring
Monte Cristo Spring
Mount Hamilton Ridge
NE Plus Ultra Mine
Homestake Mine
Treasure Hill
Mines
Grand Prize Mine
Great Valley Mine
Ore Mine
Willow Spring
Hamilton
Shermantown
Shermantown Canyon
Eberhardt (Site)
Applegarth Springs
Sixmile Canyon
Lampson Spring
Cathedral
Windmill
Bull Creek
Green Springs
Green Spr
Res
Birch Spring
Cherry Spring
BLACKROCK
ALLOMENT
WHITE
NYE
PINE
CO
NATIONAL FOREST
RAILROAD
3RD
NRL
VALLEY
Oil Well
Bull Creek Ranch
Spr


BLACKROCK
ALLOTMENT
T14N
T13N
T12N
T11N
NRL
NF
WHITE PINE CO
NYE CO
Black Point
Bull Creek Reservoir
Gravel Pits
Gravel Pit
McGEARY
IRWIN
BROOM
Blackrock Spring
Limerock Spring
Cherry Spring
Bull Spring
Canyon
Pass
Silver
White
Duckwater Peak
White Pine Peak
Springs
Currant
MAP #1
WILDHORSE HERD MGMT. AREA OR TERRITORY BDRY
SPRINGS USED BY HORSES
RESERVOIR WHERE HORSES WATER
LIVESTOCK ALLOTMENT BOUNDARY
EXISTING FENCES
[P] PRIVATE LAND
NRL NATIONAL RESOURCE LANDS
SEEDINGS
NF - NATIONAL FOREST LAND


NEWARK VALLEY ALLOTMENT
SIX MILE ALLOTMENT
SOUTH PANCAKE ALLOTMENT
MONTE CRISTO ALLOTMENT
DUCKWATER ALLOTMENT
TREASURE HILL ALLOTMENT
MOORMAN RANCH ALLOTMENT
WHITE
NRL NF
3RD
RAILROAD VALLEY
RANGE
T.18N.
T.17N.
T.16N.
T.15N.
T.14N.
Pancake Summit
Little Antelope Summit
Newark Valley
LINCOLN HIGHWAY
Grove Pit
Mohawk Can
Allan Spr
Seligman Can
Seligman Mine
Belmont Mill
Belmont Mine
Star Mine
Jenny A Mines
Mary Ellen Mine
Seligman Spring
Hoppe Spring
Monte Cristo (Site)
Monte Cristo Spring
NE Plus Ultra Mine
Homestake Mine
Great Valley Mine
Grand Prize Mine
Ora Mine
Hamilton (Hist. Ruins)
Treasure Hill
Babylon
McEllen
Pogonip Ridge
Mount Hamilton
Shermantown
Shermantown Can
Eberhardt (Site)
Applegarth Springs
Willow Spring
Waterworks Spr
California Spr
California Spring No. 2
Rosebud Spr
Roadside Spr
Poison Spring
Cow Track Spring
Prune Springs
Pond Spr
Lampson Spr
Lampson Canyon
Cathedral
Windmill
Green Springs
Green Sprs Res
Spring
Freeland
Bull Creek
HAMILTON STAGE
HAMILTON PIOCHE STAGE LINE
Mokomoke Mountains
Buck Mountain
Sixmile
WHITE NYE
Bell Ranch


BULL CREEK
HOME RANGE
T. 14N.
T. 13N.
T. 12N.
T. 11N.
T. 10N.
R. 56 E.
R. 55 E.
WHITE PINE CO
NYE CO
DUCKWATER VALLEY
DUCKWATER INDIAN RESERVATION
Duckwater Agency Hdqrs
Cemetery
Big Warm Spring
Little Warm Spring
Springs
Gravel Pit
Black Point
Bull Creek Ranch Spr
Bull Creek
Bull Creek Reservoir
Duckwater Creek
Broom Creek
Landing Strip
Mustang Spring
Blackrock Spring
Blackrock Canyon
Bull Spring
Cherry Springs
Freeland
Yellow Canyon
Linerock Spring
Corduroy Spring
Basin
White River
Sawmill Spring
Duckwater Peak
White Pine Peak
Box Spring
Silver Spr
Crystal Spring
Angleworm Ranch
Currant
Currant Landing Strip
Rodshaw Spring
Indian Spring
Lehman Spring
IKE SPRING
McGEARY
IRWIN
MIDDLE
BROOM
1
2
3
4
5
6
7
8
9
10
20
MAP #2
WILDHORSE HERD MGMT. AREA OR TERRITORY BOUNDARY
HOME RANGES
WILDHORSE CONCENTRATION AREA
NO. ASSIGNED TO EACH SPRING TO BE INVENTORIED WITH TIME-LAPSE CAMERA


T. 18N.
T. 17N.
T. 16N.
T. 15N.
T. 14N.
EMIGRANT SPRING HOME RANGE
GREEN SPRINGS HOME RANGE
LAMPSON SPRING HOME RANGE
RAILROAD
VALLEY
NATIONAL FOREST
WHITE
RANGE
MERIDIAN
Newark Valley
Little Antelope Summit
LINCOLN HIGHWAY
Buster Mountain
Mokomoke Mountains
Hamilton
Belmont Mill
Monte Cristo Spring
Hoppe Spring
Seligman Spring
Green Springs
Shermantown
Eberhardt
Lampson Spring
Cathedral
Lampson Canyon
Birch Spring
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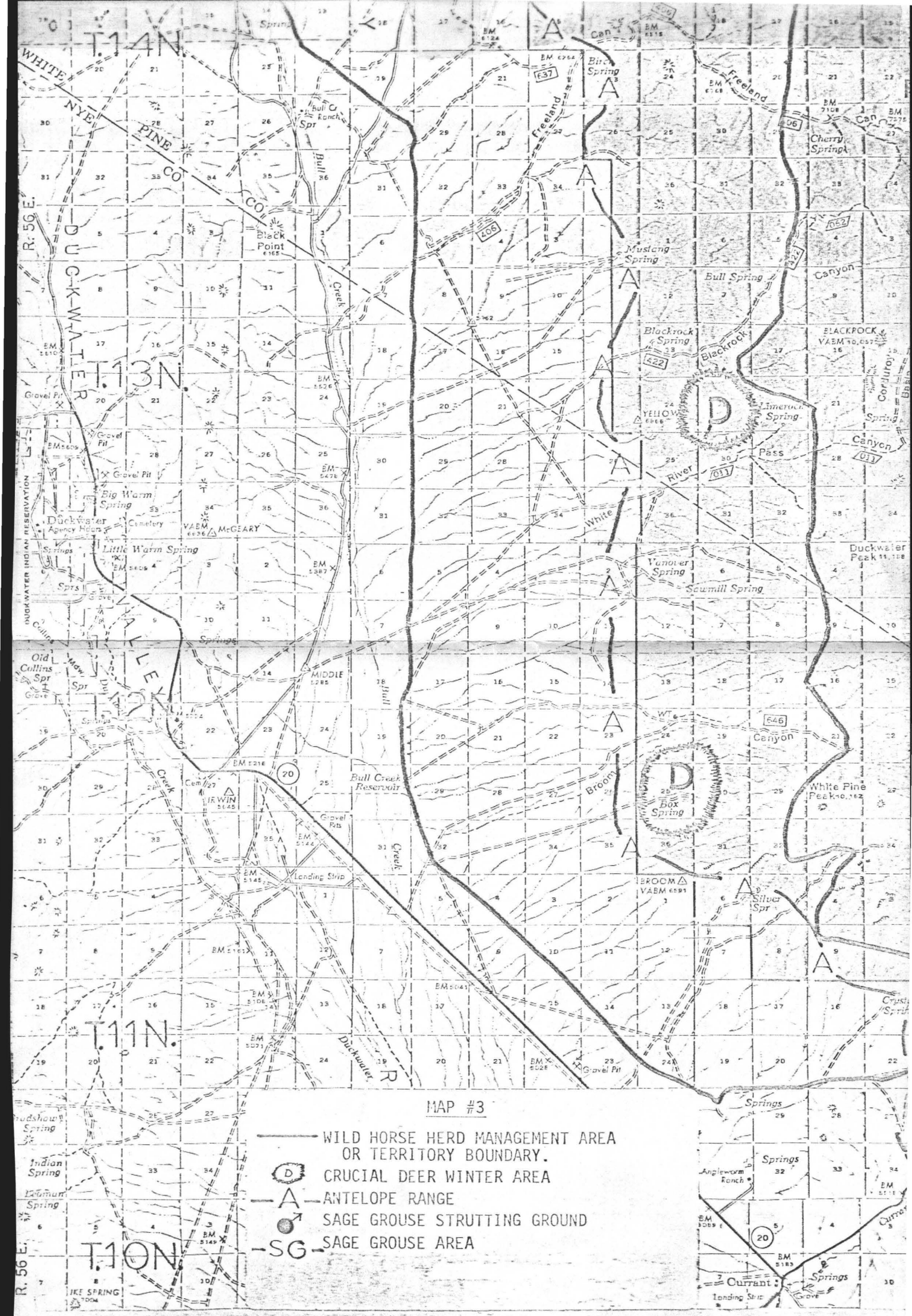
Sand Spring
Barrel Spring
Tunnel Spring
Pond Spr
Waterworks Spr
Treasure Hill
Mount Hamilton
Emigrant Spr
Hamilton Well
Pancake Summit
Oil Well


T.14N.
T.13N.
T.11N.
T.10N.
R. 56 E.
WHITE PINE CO.
NYE CO.
DUCKWATER
VALLEY
DUCKWATER INDIAN RESERVATION
Bull Creek Ranch Spr
Black Point 6165
Bull Creek
Freeland
Bitch Spring
Mustang Spring
Bull Spring Canyon
Blackrock Spring
Blackrock
BLACKROCK VABM 10,057
Limerick Spring
Pass
Corduroy Canyon
Cherry Springs
Duckwater Peak 11,328
Vanover Spring
Scumill Spring
White River
Big Warm Spring
Little Warm Spring
Duckwater Agency Hdqrs
Cemetery
VABM McGEARY
Old Collins Spr
Collins Spring
MIDDLE
Bull Creek Reservoir
Broom Creek
Box Spring
Canyon
White Pine Peak 10,162
IRWIN
Gravel Pits
Landing Strip
BROOM VABM
Silver Spr
Duckwater R
Gravel Pit
Indian Spring
Tatum Spring
IKE SPRING
Springs
Angleworm Ranch
Current
Landing Strip
406
422
037
011
646
06
MAP #3
WILD HORSE HERD MANAGEMENT AREA OR TERRITORY BOUNDARY.
CRUCIAL DEER WINTER AREA
ANTELOPE RANGE
SAGE GROUSE STRUTTING GROUND
SAGE GROUSE AREA

9-13-77

September 13, 1977

Mr. W. Steve Sherman, Manager
Bureau of Land Management
Star Route 5, Box 1
Ely, Nevada 89301

Dear Mr. Sherman:

Thank you for sending the copy of the Monte Cristo Wild and Free-Roaming Horse Management Plan. We only have several comments to make on the entire plan.

Page 3, 3b (livestock). Presently eight allotments are established, with two more proposed. We recommend that any additional fences that would need construction would be erected with the wild horses in mind and that gates be provided at the major horse trails in that area. We would also like to be notified as to any adjustments in wild horse numbers in the future. Recognizing that you have identified critical livestock use also, we would like to be advised as to the adjustment in those numbers.

Certainly your Plan shows forethought and an optimistic approach to the management of wild horses which is rare. We appreciate being advised in the past and will continue to work with the Bureau to implement any or all of the plans stated.

Most sincerely,

Dawn Y. Lappin (Mrs.)
Secretary

WHOA!

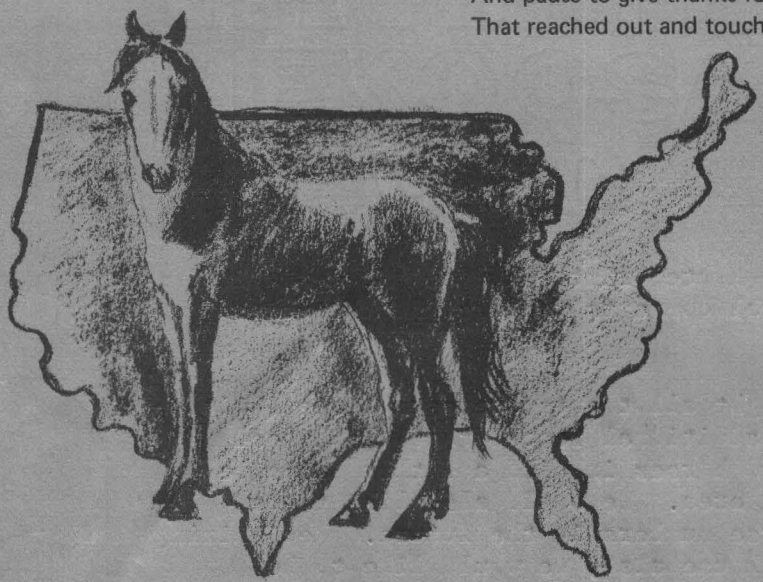
WILD HORSE ORGANIZED ASSISTANCE

INC.

A Foundation for the Welfare of
Wild Free-Roaming Horses and Burros

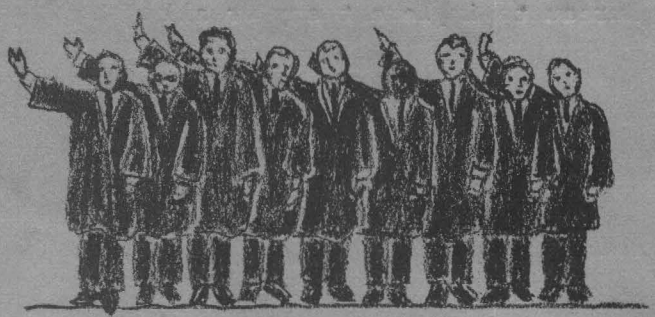
HOLIDAY GREETINGS

In this season for turkey and tinsel, that's here
We think back to all that has happened this year
And pause to give thanks for the good we recall
That reached out and touched the lives of us all.

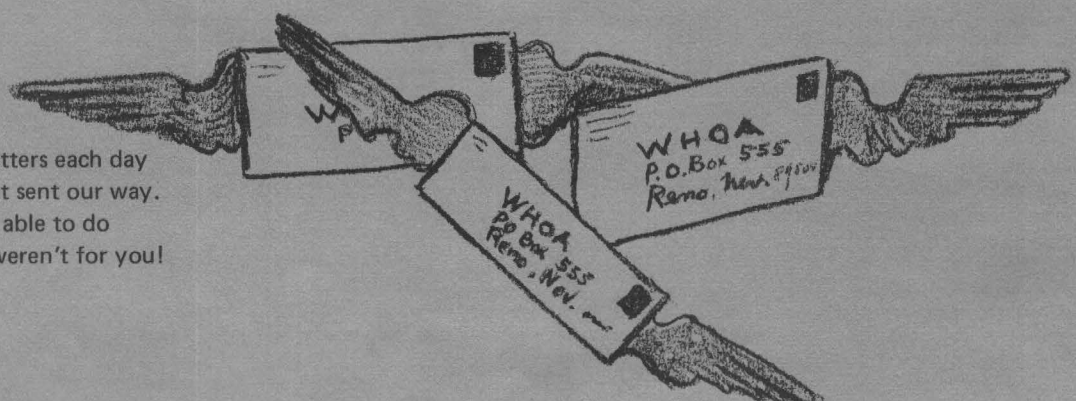


This year we've rejoiced in the freedom we've known
For the two hundred years that our country has grown
From a star-spangled plan our forefathers drew
To the mightiest nation that man ever knew.

We are thankful for all of you folks out there
Who have offered a lifetime of loving care
To hundreds of mustangs that used to roam
On the public land that was once their home.



Our thanks know no bounds for the nine just men
Who weighed all the evidence given . . . and then
In the Court that's Supreme throughout the land
Decreed that our law was good and would stand.



We are thankful, too, for your letters each day
And the words of encouragement sent our way.
And all of the things we've been able to do
Would not have been done if it weren't for you!

As we approach the Holiday Season of sharing, and of remembering those whom we hold most dear, we hope you will think of WHOA! Without your continuing assistance, we could not carry on in behalf of the wild horses and burros. For all that you have helped us do for them, we thank you and wish you HEALTH and HAPPINESS in the year to come.

Artwork by Betty Kuphaldt for WHOA!