

NEVADA STATE OFFICE
Room 3008 Federal Building
300 Booth Street
Reno, Nevada 89509

FEB 8 1978

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JLB
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Mrs. Joan R. Blue
American Horse Protection
Association
1312 18th Street, N. W.
Washington, D. C. 20036

Dear Mrs. Blue:

This will respond to your Mailgrams dated January 30, 1978, to this office and the Nevada District Managers requesting data relative to wild horse management activities in Nevada.

The following data is enclosed which involves current or proposed actions during the remainder of this fiscal year (through September 30, 1978):

1. Winnemucca District

- a. East Range Capture Plan and Environmental Assessment Record. Note: 396 horses have been removed as of 2/3/78.
- b. Paradise-Denio Resource Area Capture Plan and Environmental Assessment Record.

2. Carson City District

- a. Flanigan Wild Horse Herd Management Plan and Environmental Analysis Record. Note: 128 horses have been removed as of 2/3/78.
- b. Horse Mountain Herd Management Area Plan and Environmental Assessment Record.

3. Ely District

- a. Monte Cristo Wild Horse Management Plan and Environmental Assessment Record.

4. Battle Mountain District

- a. Stone Cabin - Reville Wild Horse Removal Plan and Environmental Assessment Record.

OFFICIAL RECORD COPY

In addition to the above plans, we have completed the following actions since May 1977.

1. Winnemucca District
 - a. Removed 1142 horses from the Little Owyhee Herd Management Area.
 - b. Removed 392 horses from the Hot Springs Mountain Wild Horse Area.
2. Carson City District
 - a. Removed 182 horses from the Garfield Flat Herd Management Area.

We also propose to take action this fiscal year to remove excess wild horses from the following herd management areas; however, the Environmental Assessment Records or Capture Plans have not been completed and approved as of this date.

1. Carson City District
 - a. Horse Springs - Stockton Flat
 - b. Pine Nut Mountains
2. Battle Mountain District
 - a. Gilbert Creek - Manhattan Area
3. Winnemucca District
 - a. Eugene Mountain - Alpha Mountain Area

We have made the decision to close down all current wild horse capture operations in Nevada until June 1, 1978, because we believe the animals should not be captured or handled during the major foaling season (March through May). We are also experiencing difficulty in finding homes for the 382 horses currently being held at our Palomino Valley Central Holding Facility. The only exception to this would be the capture of small numbers of animals that may become "problem animals" due to damage to private property, safety hazards, or other reasons which may require their removal.

During the time period between now and June 1, 1978, we plan to develop additional "adoption centers" in order to place the animals with cooperators in a more timely manner. We also plan to upgrade and improve our Central Holding Facility in order to improve the handling and care of excess horses being held for adoption.

A statement of copy fees for the enclosed records is attached in accordance with BLM Manual 1377.1. Please submit payment to:

Bureau of Land Management
Nevada State Office
Room 3008 Federal Building
300 Booth Street
Reno, Nevada 89509

Sincerely yours,

E. I. Rowland

E. I. Rowland
State Director, Nevada

7 Enclosures
Statement of Copy Fees
Documents as listed.

round-up
filed in individual files
under 4730.6

RFerris:mn:2/3/78

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STATE DIRECTOR
BUREAU OF LAND MANAGEMENT
ROOM 3008 FEDERAL BLDG 300 BOOTH ST
RENO NV 89502

PLEASE SEND BY RETURN MAIL ALL ENVIRONMENTAL ANALYSIS REPORTS AND
ALLOTMENT MANAGEMENT PLANS WHICH APPLY DIRECTLY OR INDIRECTLY TO
CURRENT WILD HORSE MANAGEMENT ACTIVITIES IN YOUR STATE. THIS DATA IS
NEEDED IMMEDIATELY. YOUR PROMPT RESPONSE IS EXPECTED

JOAN R BLUE
AMERICAN HORSE PROTECTION ASSN
1312 18 ST NORTHWEST
WASHINGTON DC 20036

1749 EST

MGMCOMP MGM

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

No. A 132138

February 3, 1978 Date

Serial Number

Reproduction Subject

FEB 13-78 2 00 039 2AMM489.7

Bureau of Land Management
 Room 3008 - Federal Bldg.
 300 Booth St.
 Reno, NV 89509 FEB 13-78 2 00 039 2AMM489.7

Mrs. Joan R. Blue
 American Horse Protection Assoc.
 1312 18th St., N.W.
 Washington, D.C. 20056

Remitter if different than lessee:

Default Date

PURPOSE	PERIOD		NUMBER AND CLASS	UNIT	COST PER UNIT	AMOUNT
	FROM	TO				
Xerox copies			359	ea.	.25¢	\$89.75

Not having complied with the requirements of the bill heretofore sent you, you are in default. If such default continues for 30 days from receipt of this notice, your lease will be cancelled without further notice.

Item below is applicable only if checked:
 Unless payment is made immediately, proceedings will be initiated to collect the amount now owed and due, including action on any bond filed in connection with the lease.

Default notice sent _____ Date _____

Previous Balance

Amount Payable	\$89.75
Amount Paid	
Balance	

FUND	COUNTY	AMOUNT
1481109		\$89.75

DO NOT ACCEPT THIS COPY AS A RECEIPT

CASE FOLDER

EAST RANGE - CAPTURE PLAN

I. Introduction

The intent of this capture plan is to outline the methods and procedures to be used in removing all the wild horses, burros and mules from the East Range. This involves approximately 1,100 head of horses, several burros and mules.

II. General Area Description

The north end of the East Mountain Range lies approximately 15 miles southwest of Winnemucca, Nevada (see figure #1).

This range has a north-south orientation and is approximately 35 miles long. Elevations range from a high of 8419' at Granite Mountain on the south end of the range to 4400' on the Buena Vista Valley side (to the west) and 4900' to the Pleasant Valley side of the mountain range (to the east).

Vegetation types range from juniper-sage type intermingled with mountain browse types in the higher elevations to sagebrush-grass at moderate elevations to shadscale-scrub and greasewood type in the valley bottoms.

Land status is as follows:

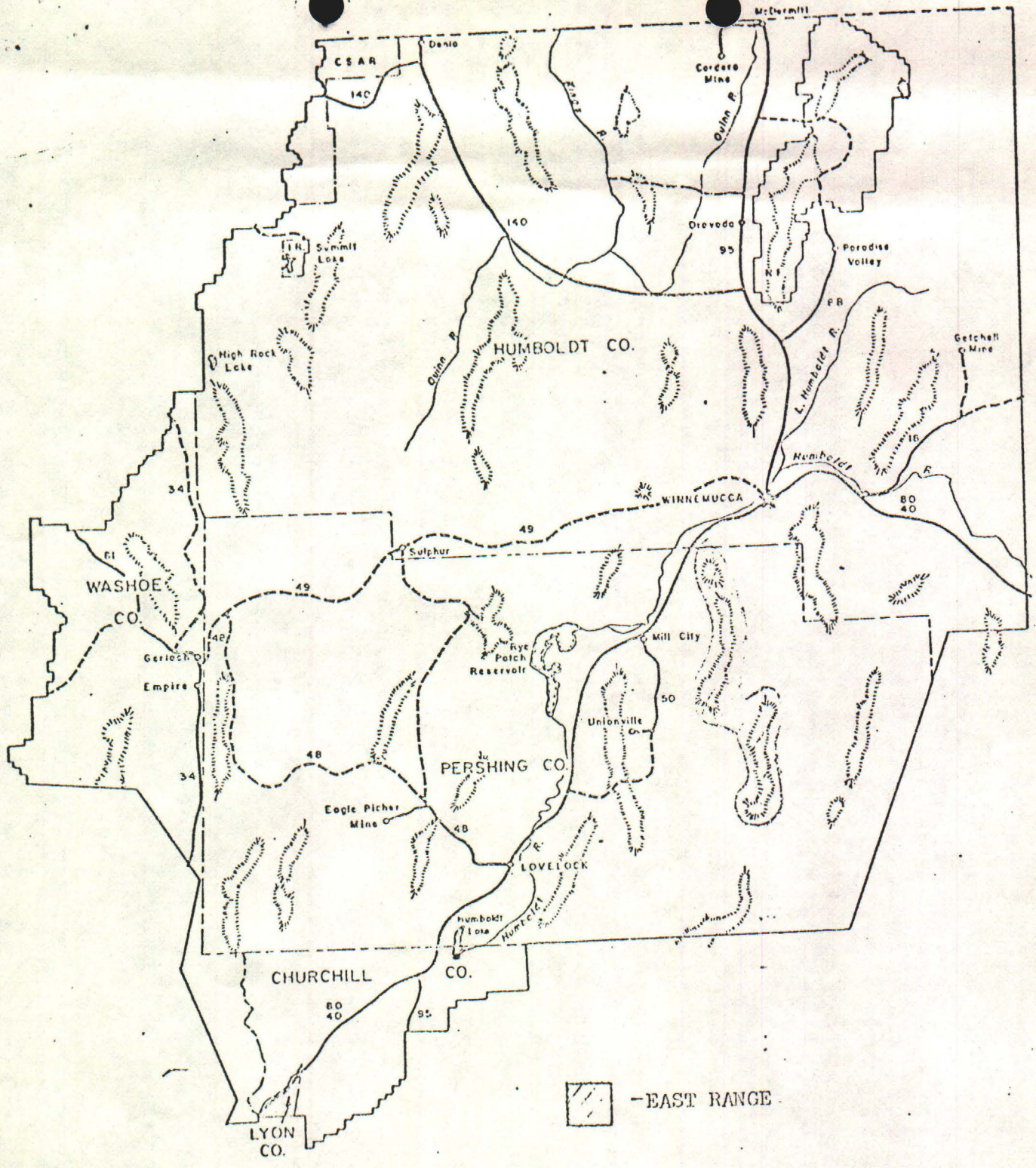
	<u>Acres</u>	<u>%</u>
Public Lands	421,273	73
Private Lands	156,102	27
Total	577,375	100

The majority of the private land is in a checkerboard pattern with public lands.

This mountain range encompasses all or part of 6 separate allotments. A list of permittees by allotment and % of public land follows:

<u>ALLOTMENT</u>	<u>% PUBLIC LAND*</u>	<u>PERMITTEE</u>
1. Dolly Hayden	54 ⁴⁶	**William Casey
2. White Horse	64.3 ^{35.7}	**Humboldt Valley Ranches (Vern Heckman)
3. Star Peak (north)	46.2 ^{53.8}	**Robert & Maria Belzarena John J. Thacker Paul Knoop Jimmie & Leona Ferrara

FIGURE 1



WINNEMUCCA DISTRICT

4. Klondike	81.5	18.5	**Coyote Creek Ranch (Lane Duncan or Jerry Reeves)
5. Rawhide (east)	77.2	22.8	**Paris Brothers **Fred Lynch Manual Chabagno Estate
6. Pleasant Valley (west)	94.7	5.3	**Siard Brothers **Paris Brothers Robert Vesco Manuel Chabagno Estate
7. Goldbanks Allotment	94.5	5.5	**J.F. & M.J. Burke

* Remaining percentage of land is private, approximately 95% of which is owned or controlled by the above listed permittees.

**These seven permittees have written letters to the Winnemucca BLM requesting that the BLM remove the wild horses from their leased private or owned private lands.

A detailed wild horse inventory was conducted on this mountain range using a helicopter in April, 1977. The inventory revealed a total of 1,093 horses and 2 Burros and 2 mules on the range.

In 1974 a wild horse inventory was conducted by fixed wing aircraft on this same range. This earlier inventory totaled 544 horses and 19 burros.

Since 1971 no horse roundups have been authorized in this area. The Winnemucca District Office has not received any claims from private individuals for horses, burros, or mules in the East Range area.

All of the available forage on the public lands in the East Range was adjudicated in the mid 60's to the above permittees for use in their cattle operations and to wildlife. No AUM's were adjudicated for horses.

Significant range damage is occurring on several allotments; perennial grasses are being grazed close to 100% yearly, and Artr and Grsp plants are being pawed out by horses in search of the protected grass in these shrub understories. This is causing a significant decrease in the % of ground cover and contributing to increased soil erosion problems, plus increased wildlife and livestock competition for forage.

The East Range supports a small population of mule deer estimated at less than 200 by the Nevada Department of Fish & Game, in addition a low density population of chuckar, mourning doves, and sage grouse are found throughout the range.

III. Justification

Section 4 of P.L. 92-195 authorized the Secretary of The Interior to arrange to have horses removed that stray from public lands onto privately owned lands. Since this office has received written requests from the majority of the private land owners on the mountain range and because of the checkerboard land status the only feasible way to remove the horses from the private land is totally remove all the horses from the entire mountain range.

IV. Capture Plan & Methods

Wild horses will be rounded up through the use of a helicopter. The horse will be directed toward temporary capture corrals by means of a helicopter. Wings (from $\frac{1}{2}$ to $\frac{1}{4}$ mile) will be constructed leading into the corral. When horses have been driven to within $\frac{1}{2}$ to $\frac{1}{4}$ mile of the trap riders on horse back will or may then continue to push the animals into the trap. Once the animals are inside the trap the gate will be closed either by hand or by a spring mechanism.

It is expected that the number of animals that are driven into the traps will vary from 5 to 35 horses at a time.

The capture corrals will be circular (100' in diameter) and constructed out of approximately 100-150 portable panels (height 6' to 7'). Each trap will have an additional small holding corral (100' in diameter) adjoining the trap. This corral will also be circular and constructed from portable panels.

A portable loading chute will be used at each trap site to load captured horses onto stock trucks that will transport the animals to the Sonoma Ranch holding corrals.

The start of each wing will be constructed from (6' to 7' high) portable panels. From there the wings will be constructed from white rope stretched on $6\frac{1}{2}$ ' steel fence posts. The fence posts will be spaced from 50' to 100' apart, depending upon the terrain. The stretched rope will then be flagged with white rags or flagging.

The helicopter will carry a Bureau employee at all times and should the horses become unnecessarily stressed the BLM employee will instruct the pilot to break off the pursuit so that the animals may rest/recover. All attempts will be made to move and keep bands together.

The Wild Horse Specialist will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. Topography, distance and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.

The roundup of the East Range will require an estimated 6 trap sites at the following approximate locations:

Raspberry Canyon	T. 34 N., R. 34 E., Section 32
Inskip Canyon	T. 31 N., R. 34 E., Sec. 24 or 18
W. Side Goldbanks Hills	T. 31 N., R. 38 E., Section 35
S.E. Side Goldbanks Hills	T. 30 N., R. 39 E., Section 16
McClure Canyon	T. 29 N., R. 37 E., Sec. 30 or 29
Lamberson Canyon	T. 28 N., R. 38 E., Sec. 31 or 32

As the horses are captured in the trap sites they will be loaded onto the stock trucks and shipped to Palomino Valley or other temporary holding corrals in the area.

Those horses that are determined to be privately owned animals will be handled as stipulated in the Cooperative Agreement between the BLM and the Nevada State Department of Agriculture, for this specific roundup.

A veterinarian will be on call in Winnemucca at all times during the roundup process. At a maximum he will be 75 miles away from any one trap site.

The area adjacent to each trap site will be worked by the helicopter until capturing any remaining horses becomes unfeasible. At that time the trap location will be moved to another capture site or location.

All handling of the horses captured by Bureau employees will conform to the "Safety Guidelines For Gathering, Transporting, and Handling Wild Horses", prepared by the BLM, Burns District Office.

Constant radio communications will be maintained between the authorized officer and the helicopter, riders, and stock trucks.

Trapping will start on the north end of the Mountain Range (both sides) and as these areas are worked out, the trapping sites will be moved south.

Undoubtedly some wild horses will be captured that are old, sick or injured if it is determined that the veterinarian cannot solve the problem the animal will be humanely disposed of by shooting with a .22 caliber rifle. The carcass will then be buried in an open pit near each trap site.

Any horses that have been moved to the temporary holding corrals will be shipped as transportation is available to the Bureau's Palomino Valley Corral facility.

IV. Signatures

Prepared by:

Brad Hines
Brad Hines
Range Specialist

6-27-77
Date

Participating Staff:

Robert J. Neary, Sonoma Gerlach Area Manager
James R. Hall, NV-02-Wild Horse & Burro Specialist
Leslie W. Boni, NV-02-Wildlife Specialist
Eugene Dahlem, Area Wildlife Specialist
Henry Beauchamp, District Environmental Coord.

Initial

Date

R.J.N.

6/27/77

J.R.H.

2/28/77

L.W.B.

6/27/77

E.D.

27/6/77

Approved:

Robert J. Neary
Robert J. Neary
Area Manager

6/27/77
Date

Vaden G. Stickley
Vaden G. Stickley
Acting District Manager

6/27/77
Date

E. I. Rowland

JUL 6 1977

E. I. Rowland
E. I. Rowland
State Director

Date

Form 1542-4
(August 1965)
(formerly 4-1123)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ROUTING AND TRANSMITTAL SLIP

TO				
CODE	NAME	ORGANIZATION	ACTION	ROOM NO.
	<i>Recreation Technical Services</i>	<i>N/50</i>		
	<i>N/931.3</i>			

Indicate Action by Number

- | | |
|----------------------------|---------------------|
| 1. Necessary action | 6. Note and surname |
| 2. Approval | 7. Note and return |
| 3. Signature | 8. Your information |
| 4. Prepare reply | 9. See me |
| 5. Your comment and return | 10. |

From	Date <i>6-27-77</i>	Room No.
Office <i>NV-020</i>		Phone

Remarks

*Send to State Clearinghouse
for 25 copies.*

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

ENVIRONMENTAL ASSESSMENT RECORD (EAR)
FACE SHEET

1. Public Purpose or Environmental Goal to be Served by (this, these) Bureau Action(s)
- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
 - assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings
 - attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences
 - preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice
 - achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
 - enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

Office
Winnemucca
District Office

EAR number

NV-020-7-46

Environmental assessment
reference number (only for
EAR update or supplement)

2. Discrete Operations (attach additional sheets, if necessary)

	DECISION*			
	a	b	c	d
PROPOSED ACTION(S) <input type="checkbox"/> Construction of Traps	X			
<input type="checkbox"/> Road Maintenance	X			
<input type="checkbox"/> Capture Process	X			
<input type="checkbox"/>				
<input type="checkbox"/>				
ALTERNATIVE ACTION(S) <input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

3. Mitigating Measures ** (attach additional sheets, if necessary)

<input type="checkbox"/> See attached sheets - All accepted as stated in EAR	X			
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

4. Environmental Impact Statement recommended Yes No

Approved by (Signature of Area Manager)
Robert P. Meany

Signature of District Manager
Robert P. Meany

Date
6/27/77

Date
6/27/77

* See reverse
* Summarize if decision is b or c

- a Accepted as stated in EAR
- b Accepted with environmentally insignificant modification
- c Accepted with environmentally significant modification which has been assessed and appended to (or incorporated in) the initial EAR
- d Rejected

Remarks (Explain if conclusion is that an Environmental Impact Statement is not required. The explanation should relate to significance of residual impacts, whether beneficial or adverse, and/or relate to controversy about impacts.)

NOTE

The principal purpose of this form is to provide a written record of the management decision and its salient environmental aspects. When properly completed, it attests to the consideration of environmental amenities and

values in planning and decisionmaking. Its completion by the decisionmaker, or authorized officer, provides subordinate officials with explicit written guidance as to the complexion of the decision.

SPECIFIC INSTRUCTIONS

1. In this section, record the linkage, if any, of the decision and the pursuit of national environmental goals expressed in Section 101(b) of the National Environmental Policy Act of 1969. The authorized officer should check any of the listed purposes/goals which this decision helps attain.
2. Record discrete operations of the proposed action which was assessed and discrete operations of its alternatives. A checkmark corresponding to the type of decision made (see asterisk above) should be entered in the pertinent box (a, b, c, or d) following the description of each discrete operation.
3. The authorized officer records the selection of mitigating measures. Every mitigating measure assessed should be listed. A checkmark corresponding to the type of decision made (see asterisk above) should be entered in the pertinent box (a, b, c, or d) following the description of each mitigating measure. If the decision corresponds to items b, or c, summarize the modification of the mitigating measure. The findings concerning significance of associated residual impacts should be summarized if the decision corresponds to items b, c, or d.
4. The authorized officer records recommendation concerning the need for an environmental impact statement on the action proposed SUBSEQUENT to the environmental assessment.

Possible Mitigating Measures

1. Archeological clearance will be done on all trap sites prior to their construction. If archeological values are present, trap sites will be moved. No traps will be placed near any of the identified historic sites.
2. The Wild Horse Specialist will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. This boundary line will be noted on the same map. Topography, distance and current conditions of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.
3. Horses will not be moved during the hottest part of the day if at all possible. Movement of horses will occur either early in the morning, or in the evening.
4. The peak of foaling occurs on the East Range about April 15th. No movement of horses will take place until colts are at least 2½ months old or until July 1st.
5. A veterinarian will be contracted to be on call at all times during the round-up.
6. All corral panels will be from 72" to 84" high in order to prevent from jumping out of traps.
7. Brutality to horses in any form will not be tolerated. Any employee who mistreats any horse will be dismissed immediately from the round-up operation.
8. A Bureau official will be in the helicopter at all times in order to insure that all stipulations are met and that horses are not over

stressed.

9. All holding facilities will meet U.S. Department of Agriculture specifications.
10. Only experienced horse back riders will be used in the gathering operations.
11. Experienced horse wranglers from the local area will be employed whenever possible.
12. All saddle horses will be properly shod and over three years in age. All saddles and tack will be in good repair.
13. EIA samples will be taken at the holding facilities at Carson City.
14. Alcoholic beverages will not be allowed in or near the horse corral premises.
15. Only experienced drivers will be used to transport the horses to the holding facilities.
16. The helicopter will have radio communication with the authorized officer or his designated representative at all times.

DISCRETE OPERATIONS

Survey/Range
 Socioeconomics
 Grazing

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Cont.)	B. PLANTS (Terrestrial)					
	Shrubs	0	L-	H+		Pressure on an over obligated forage resource will be eased.
	Forbs	0	L-	H+		
	Grasses	0	L-	H+		
	C. ANIMALS (Aquatic)					
	Non-Applicable					
III. INTERRELATIONSHIPS	D. ANIMALS (Terrestrial)					
	Mammals	0	L-	H+		Removal of horses will ease competition with mule deer for forage.
	Reptiles	0	L-	H+		
	Birds	0	L-	H+		
	A. ECOLOGICAL PROCESSES					
	Succession	0	0	H+		
	Energy Transfer	L-	L-	L-		
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
	Aesthetics	0	L-	L-		
	Open Space	0	L-	0		
	B. SOCIOCULTURAL INTERESTS					
	Human Interests	0		H+		Some controversy may arise as a result of the action.

INSTRUCTIONS

- Action** - Enter action being taken, analytic step for which worksheet is being used, environmental viewpoint of impact, and any assumptions relating to impact.
 - Worksheet is normally used to analyze "Anticipated Impacts" of action; however, it may be used to analyze "Residual Impacts." Worksheets may also be used to compare impacts before and after mitigating measures are applied.
 - State viewpoint that best describes environmental impact. For example, a fence viewed down the fence line has greater impact than the same fence viewed over an entire allotment. Generally, narrow viewpoints better illustrate specific impacts than will broad viewpoints.
 - Assumptions may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
- Elements Impacted** - Enter under appropriate heading all environmental elements susceptible to impact from action and alternatives. Elements not contained in the Manual should also be entered. See BLM Manual 1794.
- Anticipated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate square indicating degree of impact as low (L), medium (M), high (H), no impact (0), or unknown or negligible (X). Precede each entry by a plus (+) or minus (-) sign indicating a beneficial or adverse type of impact. If type of impact reflects a matter of opinion or is not known, do not precede with a sign. For example, construction of a wind mill on open range has a definite visual impact; however, to some people the effect is detrimental while to others it is an improvement. By not entering a plus (+) or minus (-) sign the worksheet is kept factual and unbiased. If both degree and type of impact are unknown, place an (x) in the appropriate square.
 - The measures of impact (e.g. low, medium, and high) are relative and their meaning may vary slightly from action to action. The term "low" should not be applied to impacts of a negligible nature. For example, we know that a pickup truck driving down a proposed fence line laying wire has some impact on air quality. However, the significance of this impact is not normally great enough to warrant even a "low" rating. In cases like this, the impact will usually be marked "0" or the element left off the worksheet.
 - If it is recognized that some environmental elements may defy accurate measurement or in-depth analysis within current Bureau capabilities or expertise, the nature of the action as well as type and degree of impact should guide in the decision to seek outside expertise or assistance.
- Remarks** - Enter clarifying information.

Environmental Assessment Record
East Range Wild Horse Gathering Plan
NV-020-7-46

I. Description of the Proposed Action and Alternatives

A. Background Data

The East Range has a wild horse population of approximately 1,100 animals. The herd is spread throughout the whole mountain range but major concentrations do occur in the White Horse Allotment and the Table Mountain Area.

The East Range is approximately 71.2% public land and 28.8% private. All but three of the grazing users which have privately petitioned the Bureau to remove the horses from their private land.

Section 4 of Public Law 92-195 states "if wild free-roaming horses or burros stray from public lands onto privately owned land, the owners of such land may inform the nearest Federal Marshall or agent of the Secretary, who shall arrange to have the animals removed."

The East Range is in the Sonoma Planning Unit of the Sonoma-Gerlach Resource Area. The Unit Resource Analysis and Management Framework Plan for the area was complete in 1970. No

recommendations were made for the management of wild horses in the East Range other than that they be managed and protected in accordance with Public Law 92-195. The Unit Resource Analysis for the Sonoma Planning Unit is scheduled to be updated in FY 80. The MFP is scheduled for revision in FY 81.

Implementation of the gathering plan will involve the construction of traps and trap wings, the movement of horses by use of a helicopter, the transportation of horses from the traps to holding corrals, the holding of horses in the corrals and some road work.

Traps and trap wings will be constructed of portable corral panels. All panels will be of high strength steel tube or railing of approximately 1-1/4" within a 2" frame. Heights of the panels will be from 72" to 84". Panels shall contain at least six horizontal rails with two sets of vertical stays between end posts. All gates must be complete with a self locking latch. Loading chutes will be at least 30" wide at the floor and flare to 42". Chutes must be at least 84" high and approximately 144" long with a gate in each end.

Archeological clearance will be completed on all trap sites prior to construction of the trap. If archeological values are found on the trap site, the trap site will be moved.

The helicopter use plan will incorporate the precautions specified in the proposed rulemaking for the use of helicopters (7440.4). A public meeting will be held on June 29th in Reno, Nevada.

The Wild Horse Specialist will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. This boundary line will be noted on the same map. Topography, distance and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.

A Bureau employee designated by the Authorized Officer will be in the helicopter at all times. Radio communications with the Authorized Officer will be maintained at all times.

Only experienced horse wranglers that meet Bureau criteria will be used. Brutality to horses in any form will not be tolerated.

Drivers of vehicles transporting wild horses from the capture area to holding facilities will be knowledgeable of handling such animals. All stock trucks will be equipped with radio communication in case of emergencies. The unloading of wild horses shall be in an orderly fashion and involve not more than four people.

A veterinarian will be on call at all times during the roundup operation. The veterinarian will never be more than 70 miles from the roundup operation.

All holding facilities will meet U.S. Dept. of Agriculture specifications.

B. The Proposed Action

The proposed action consists of removing as many wild horses as is possible from the East Range. An inventory conducted in April 1977 placed the current population of 1,093 animals. The actual population may be somewhat higher than this figure. It is hoped that at least 75% of the horses can be removed. Capture will be by use of a helicopter to run the horses into portable traps.

The Winnemucca District has received requests from all but one of the users in the checkerboard area to remove the horses from their private lands. This action is in response to that request as well as an attempt to alleviate the grazing pressure on a seriously overobligated range resource. The range adjudications made in the 1960's did not allocate any forage to wild horses. All of the forage was allocated to the ten livestock operations which operate on the mountain range. The horse herd has increased 101% in the last three years, causing the entire mountain range to be overgrazed.

The proposed action will be implemented in several stages. Surveillance of animal movements and location of trap sites is the first stage. This operation was begun approximately June 20th. Construction of traps and trap wings is scheduled to be completed as the roundup progresses. All traps will be portable and will be moved as the need arises. The first traps must be in place by July 8th. Archeological clearance of the trap sites will be completed prior to construction.

The actual capture process will begin on July 8th and proceed as long as it is economically feasible to keep trapping or until September 1st whichever comes first.

C. Alternatives to the Proposed Action

1. Alternative No. 1

No action would allow the horse population on the East Range to continue to increase. Control would come eventually in the form of disease or starvation.

Wildlife populations already on the decline would also be eliminated. Elimination of all the livestock operations on the mountain range would also result if no action is taken.

2. Alternative No. 2

Reduction of cattle numbers to accommodate horse numbers. This alternative would completely eliminate the ten ranches presently licensed in the area from the livestock business. It would also make their private lands which amount to 29% of the land on the mountain range unusable to them. They would never tolerate this action. Nor should they be asked to. The horse populations would continue to grow under this alternative and control would be necessary eventually anyway. If control were not exercised it would come in the form of disease and starvation.

II. Description of The Existing Environment

A. Previous Actions Pertinent to the Proposal

Prior to the enactment of P.L. 92-195, the Wild Horse and Burro Act, many wild horses were gathered on the East Range. It is since passage of this law in 1971 that horse herds in the area have multiplied to such large numbers.

B. Non-Living Components

1. Air

The prevailing winds are from the west or southwest with an average velocity of 5-10 miles per hour. Extreme velocities of from 0 to 80 miles per hour occur, with high velocities primarily during the spring months of March and April.

A wide range of temperatures can be noted in the East Range. Maximum summer temperatures can exceed 100°F. with winter lows to -30°F. No official temperatures are kept in the area.

Some particulate matter originates from the playas and sandy soils of the surrounding valleys. This occurs primarily in the spring as a result of high winds.

Noxious gases are rare in the East Range due to its low human population and its distance from major population centers.

No radiological contaminants or nonionizing radiation levels are known to exist in the area.

2. Land

BLM land is classified for retention and multiple use management. Ownership is checkerboard with 71.2% of the total 534,715 acres in public ownership and 28.8% in private ownership. Private lands are managed in conjunction with public lands primarily for grazing.

Major drainages are Rose, Dun Glen and Willow Creeks all of which have perennial streams. Spaulding, Klondike and Inskip Canyons all of which have intermittent streams.

Dun Glen Peak, Table Mountain, Granite Peak and Auld Lang Syne Peak serve as area landmarks.

Soils over the unit are fine textures alluvial deposits near the valley bottoms becoming coarser as the elevation increases. On the north end of the adjacent Buena Vista Valley there are deposits of windblown sand ranging from a few inches to many feet thick. Infiltration rates are moderate to high. The steep slopes are dominantly composed of Paleozoic sedimentary and metamorphic rocks.

Soil depth varies from 2 to 60 inches with the shallower soils occurring on the steeper slopes and the deeper soils in the canyons and valley bottoms.

Rocky soils with moderate to high infiltration rates help to deter erosion. Spring run-off accounts for most of the erosion. There is a significant amount of wind erosion occurring during high velocity winds. Gully erosion is evident throughout the area and sheet erosion does occur during heavy thunderstorms. As overgrazing continues sheet and gully erosion will intensify, removing valuable topsoil needed for vegetation growth.

3. Water

The majority of the precipitation that falls on this area falls during the winter months from November through March. Spring rains occur but are irregular:

Investigations of water quality of all the streams in the area will be conducted during the 1977 field season. No data is presently available on the amounts of sediment that is carried in Rose Creek, Willow Creek or Dun Glen Creek which are the only perennial streams in the area.

C. Living Components

1. Aquatic Plants

The riparian habitat along the perennial streams has been severely overgrazed to the extent that willow (*Salix*) most of the sedges (*Carex*) and other plants normally found in the riparian zone can only be found in areas that are inaccessible to livestock. Upper Willow Creek is an exception to this but the land there is mostly privately owned and is fenced. In this portion of Willow Creek the riparian habitat is in good condition.

2. Terrestrial Plants

Big sagebrush (*Artemisia tridentata*) is the dominant shrub in the vegetative cover on the East Range. Shadscale

(Atriplex confertifolia), white sage (Scratoides lanata) and bud sage (Artemesia spinescens) are the dominant shrubs on the valley floors and lower slopes.

Associated with big sagebrush on the mountain slopes are other shrubs such as rabbitbrush (Chrysothamnus spp.), Utah juniper (Juniperus osteosperma), bitterbrush (Purshia tridentata) and snowberry (Symphoricarpos spp.). Grass understory on these higher elevation sites consists dominantly of Sandberg bluegrass (Poa secunda), cheatgrass (Bromus tectorum), squirreltail (Sitanian hystrix), Thurber needlegrass (Stipa thurberiana), Great Basin wildrye (Elymus cinereus) and bluebunch wheatgrass (Agropyron spicatum). Arrowleaf balsamroot (Balsamorhiza sagittata), buckwheat (Eriogonum spp.), lupine (Lupinus spp.) and phlox (Phlox spp.) are the dominant forbs in the mountains.

Associated with big sagebrush at the lower elevations on the alluvial fans and terraces are spiny hopsage (Grayia spinosa) and littleleaf horsebrush (Tetradymia glabrata). The grass understory consists of cheatgrass, squirreltail and Sandberg bluegrass. Russian thistle (Salsola Kali), milkvetch (Astragalus spp.) and annual mustards (Brassica spp.) are common forbs in this area.

Associated with shadscale, white sage and bud sage are cheatgrass, squirreltail, Sandberg bluegrass, annual mustards and Russian thistle.

There are some black greasewood (Sarcobatus vermiculatus) stands on the saline bottoms in both Grass Valley and Buena Vista Valley.

3. Animal Life Aquatic Mammals

Few aquatic mammals inhabit the area. The possibility exists that beaver (Castor canadensis) may inhabit Willow Creek. Beaver are not found in any of the other perennial streams. No other aquatic mammals are known to inhabit the area.

(a) Birds

The only water associated birds known to inhabit the area are the killdeer (Charadrius vaciferus) and some migratory waterfowl during their annual migrations north and south.

(b) Fish

There are no fisheries in any of the perennial streams in the East Range.

4. Animal Life Terrestrial(a) Mammals

The most common species of mammals include mule deer (Odocoileus hemionus), which have a population of less than 200 animals. Occasionally transient mountain lion (Felis concolor), coyote (Canis lantrans), bobcat (Lynx rufus), badger (Taxides taxus), black-tail jackrabbit (Lepus californicus), Richardson's ground squirrel (Otospermophilis richardsonii), kangaroo rat (Dipodomys ordi), domestic cattle (Bos taurus) and wild horses (Equus caballus).

(b) Birds

Sage grouse (Centrocercus urophasianus) and chukar (Alectoris graeca) occur in minor populations. A variety of bird life is common to the area. Many species are unidentified. However, the most common include golden eagle (Aquila chrysaetos), red-tailed hawk (Buteo jamaicensis), mourning dove (Zenaidura macroura), common raven (Corvus corax) and a wide variety of passerine and non-passerine birds.

(c) Reptiles

Reptiles include collared lizard (Crotaphytus collaris), northern side-blotched lizard (Uta stansburiana), horned lizard (Phrynosoma spp.) and Great Basin rattlesnake (Crotalus viridis latusus).

(d) Invertebrates

No intensive inventory of insect species occupying the area has been made. However, the more common species do exist on the area.

(e) Man

There are no residences which are occupied year round in the area. Ranches are located in the valleys on either side of the mountain range. Human activity is mainly in the form of mining, hunting and those activities associated with domestic livestock grazing. During the winter months, practically no human activity occurs in the area.

D. Ecological Interrelationships

1. Succession

The East Range is part of the northern Nevada cold desert biome. Overgrazing from the late 1800's to the present has led to the invasion of sagebrush, cheatgrass and other less desirable species. Competition by horses is reducing forage for wildlife and livestock even further. These deteriorated ranges will take many years to recover due to the semi-arid conditions that exist in the area, poor sites and competition by the now dominant, less desirable species.

2. Nutrient and Energy Cycle

In all terrestrial ecosystems, the food chain begins with the vegetation. Vegetation growth is dependent upon the soil for its nutrients and weather for moisture. Wild horses are mainly grass eaters judging from our field observations and available literature. The wild horses, domestic livestock and mule deer are the major forage consumers in the East Range. There are no effective predators in the East Range that will prey on the wild horses.

E. Human Values

1. Landscape Character

The East Range has an air of ruggedness about them. The basins, washes and draws add to the diversity of topography. The mountains display a sharp contrast to the playas and shrub flats of the valleys.

2. Sociocultural Interests

a. Archeological and Historic

Archeological data for the East Range is scarce. However, three historic sites have been identified within the area. They are:

(1) Dun Glen

This place was a good silver producer between 1862 and 1880. From 1880 to 1895 Chinese placer miners worked the surrounding mountains and canyons. Some old graves, mill foundations, rock walls and one dilapidated log cabin remain.

(2) Jacobs Well

This was the water and whiskey stop on the Star City-Dun Glen road in the 1860's. Very little remains of this stage station.

(3) Kennedy

A small gold mining camp from 1892 to 1902. Mill ruins, rock walls, foundations and a few dilapidated wooden cabins still remain.

Trap sites will not be located near any of the above sites.

b. Unusual Ecological Areas

No unusual ecological areas are known to exist in the East Range.

c. Unusual Geological Formations

No unusual geological formations have been identified in the East Range.

d. Hunting and Fishing

Hunting is a minor activity in the East Range as there are less than 200 mule deer and only small populations of sage grouse and chukar. There are no fisheries in the East Range.

e. Wild Horses and Burros

A helicopter census was taken in April of 1977. This inventory revealed a total of 1,093 horses, 2 burros and 2 mules on the East Range. In 1974 the inventory conducted on the same range showed a total of 544 horses and 19 burros. In the past three years the wild horse population on the East Range has increased by 101%.

There are no outstanding claims for horses on the East Range.

f. There is no wilderness potential in the East Range.

3. Social Welfare

The population of the East Range is practically zero. The nearest community of any appreciable size is Winnemucca which is approximately 10 miles north of the north end of the mountain range. There are ranches in the valleys on either side of the mountain range but in all the population is still very small.

Livestock grazing and mining are the main uses of the East Range. The income generated by these operations is not large. Nearly all economic exchange takes place outside of the area to be gathered.

Most local people have a very negative attitude toward wild horses. Organized livestock interest groups have been very vocal in calling for the removal of most or all of the wild horses particularly from intermingled public and private lands.

Pershing County is governed by a three member County Commissioner system. Law enforcement in the area is by the Pershing County Sheriff's Department.

III. Analysis of the Proposed Action and Alternatives

A. Anticipated Impact of Proposed Action

1. Air

Air quality should not adversely be affected by the proposed gathering. There will be periods of time when the gathering will cause dust to be locally heavy. However, these time periods will be of short duration and the areas involved would be widely scattered. Drive trapping will create some dust as the animals are driven several miles to a trap. Vehicular traffic will create dust because of the heavy use roads will receive while a particular trap site is used. Dust and the exhaust gases should be rapidly dispelled because the wind is constantly blowing whether it is gentle or near gale force. Winnemucca, to the north, is the closest large town (approximately 70 miles on a straight line). However, the prevailing winds are generally from the west so there should be no impact to the air in any populated areas. In addition, the gathering should only last approximately three months, so impact to the air should be short lived.

2. Land

The land will only receive slight disturbance from the proposed gathering. The roads that will be improved have existed for years so the impact has already occurred. By regrading, making water bars, ditches, turnouts, etc. as needed, soil erosion should be greatly reduced from

The other major land disturbance would be clearing areas of land to build the traps and holding facilities. The drive traps should require only about $\frac{1}{4}$ acre to be cleared.

With the removal of a large number of horses a lot of the pressure on the depleted forage resource should be removed.

As recovery proceeds, native grasses and forbs should regain vigor and add organic matter to the soil. Because of the poor condition of the range it will probably take several years before a noticeable change can be seen.

Wind erosion should decrease as soil cover increases. The long term benefits to the land should outweigh the detrimental effects of clearing approximately 5 acres of land.

Pit will be used as the burial site for all old, sick, or lame animals which must be humanely destroyed. At each trap site this will require only a small additional ground disturbance.

3. Water

No detrimental effects are anticipated to any waters. Water quality should improve after the gathering as fewer animals will be using it. Trap sites will not be located on any of the perennial streams.

4. Living Components

The vegetation which supports the wild horse population will improve with the removal of a significant amount of

the year-long grazing pressure. Deterioration of the winterfat areas in the northern portion of the East Range has been severe and these areas are most in need of rest from grazing. All other forage plants (mainly perennial bunchgrass) should respond with increased vigor. These benefits will help to begin restoration of the forage resource. These benefits will be short-lived, however, if further reductions of wild horse numbers do not take place in the following years.

As for the relationship between wild horse reduction and benefits to wildlife, no firm conclusions can be made at this time. It is likely, though, that the decreased pressure on forage resources should benefit mule deer by reducing competition for forage. It is not anticipated that any harassment to mule deer should occur during trapping operations. No known raptor nesting areas exist in the gathering areas so no conflict is anticipated. No threatened or endangered species are known to live in the areas where trapping will take place.

5. Ecological Interrelationships

Wild horses are currently the largest consumers of forage on the East Range. The grazing pressure they apply to the range is on a year-round basis. No other large herbivore (cattle and deer) exerts year-round pressure in this manner. The removal of a large number of animals should provide a large measure of relief to the forage resource.

The native perennial bunchgrasses and forbs should begin to regain vigor. It is probable that retrogressive succession would be at least slowed. Complete halt to retrogression is highly unlikely until further grazing pressure, especially during the growing season, is removed through further horse reductions and livestock grazing plan modifications. When retrogression is halted, secondary succession can begin. As secondary succession progresses toward climax, the habitat for species such as mule deer and sage grouse should also improve.

6. Human Values

The landscape character should become more varied as the land takes on the appearance of sagebrush-grass savannah, instead of a monotonous stand of sagebrush.

Much information can be obtained from the gathered animals. All of this information will be useful in management of the horses in the future.

Local public opinion would most likely be strongly in favor of gathering wild horses. National opinions might be entirely the opposite, however, no firm conclusion can be made at this time. With such a large scale gathering planned it is very probable that it will draw national attention.

The gathering should have no significant effect on the local economy.

B. Anticipated Impact of Alternatives

1. No Action

a. Air

The only effect on air quality might be the long term increase in dust as the soil binding perennial grasses are overgrazed and killed.

b. Land

As vegetative cover is removed, especially the perennial grasses, soil protection from plant cover will decrease. Erosion, especially from wind would most likely increase. Water caused erosion might also increase. Since soil forming processes in all semi-desert areas create topsoil at a very slow rate, accelerated soil loss whether by wind or water only degrade the entire community.

c. Water

It is presently unknown how much sedimentation is caused by horses using the perennial streams and springs to water. Therefore, no conclusion can be made as to whether or not sedimentation will increase if no action is taken.

d. Living Components

No action would be very detrimental to the vegetative resource which supports the wild horse populations. The winterfat and shadscale areas are severely overgrazed. The continued drought and heavy overgrazing may de-

stroy these important wintering areas for decades. In the big sagebrush areas, the native perennial grasses have either been grazed out or are in a low state of vigor. The big sagebrush sites contain far less perennial grass than they would in a high seral or climax condition. Big sagebrush has replaced the grasses and this effectively limits reestablishment of the perennial grasses once they are gone. As the habitat is degraded, it becomes poorer for both mule deer, sage grouse and most other mammalian and avian species.

e. Ecological Interrelationships

If no action is taken to relieve the forage overobligation, retrogressive succession will continue. The whole ecosystem will be degraded until the pressure which causes the degradation is removed. As vegetative cover is removed, soil erosion will increase. This will decrease soil productivity which in turn hinders vegetative recovery. So a cycle is started which will be very difficult to break.

f. Human Values

No action will bring a loud outcry from the local population. If the situation on the East Range continues to deteriorate, a large number of horses will die from starvation, or diseases caused by weakened condition. This would probably cause an outcry from wild horse pro-

tection groups. Thus the Bureau could very conceivably receive more bad publicity from doing nothing than if they gather such a large number of animals.

2. Reduction of Cattle Numbers to Accomodate Horse Numbers

a. Air

Overall effects should be the same as described in the No Action Alternative.

b. Land

Removal of the cattle from the area would have a beneficial effect on the vegetation in that it would relieve the pressure on the depleted resource. However, this relief would be only temporary if horse numbers are not controlled. The same number of cattle are turned on to the allotment each year. Horse numbers without control would continue to increase until they had surpassed what they are at present plus what would be removed by cattle reductions. Without horse control depletion of the forage resource is inevitable. This will cause an increase in erosion of all types and cause a general overall degradation of the land.

c. Water

Again removal of the cattle without control of the horse populations is only a temporary measure and a degradation of the waters in the area will eventually occur.

d. Living Components

Deterioration of the forage resource and wildlife

habitat will continue until the proposed gathering is implemented. The effect on all living components should be the same as described in the Proposed Action section.

e. Ecological Interrelationships

Effects are the same as the No Action Alternative.

f. Human Values

Effects are the same as the No Action Alternative.

C. Unmitigated Impacts

The horse population would be directly effected. The population would be drastically reduced.

Soil compaction and vegetation trampling will occur in traps and other places of heavy concentration of horses.

Removal of a large number of horses from the East Range will reduce the conflict and competition for forage between range users on critical areas. Reduction in forage use will increase the amount of forage available to the horses that are left, cattle and wildlife.

Also the pressures being placed on the Bureau by vocal local livestock interests will be lessened.

The gathering operations will cause some stress on the horses and disturbance to wildlife and cattle.

D. Possible Mitigating Measures

1. Archeological clearance will be done on all trap sites prior

to their construction. If archeological values are present, trap sites will be moved. No traps will be placed near any of the identified historic sites.

2. The Wild Horse Specialist will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. This boundary line will be noted on the same map. Topography, distance and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.
3. Horses will not be moved during the hottest part of the day if at all possible. Movement of horses will occur either early in the morning or in the evening.
4. The peak of foaling occurs on the East Range about April 15th. No movement of horses will take place until colts are at least 2½ months old or until July 1st.
5. A veterinarian will be contracted to be on call at all times during the round-up.
6. All corral panels will be from 72" to 84" high in order to prevent horses from jumping our of traps.
7. Brutality to horses in any form will not be tolerated. Any employee who mistreats any horse will be dismissed immediately from the round-up operation.
8. A Bureau official will be in the helicopter at all times in

order to insure that all stipulations are met and that horses are not over stressed.

9. All holding facilities will meet U.S. Department of Agriculture specifications.
10. Only experienced horse back riders will be used in the gathering operation.
11. Experienced horse wranglers from the local area will be employed whenever possible.
12. All saddle horses will be properly shod and over three years in age. All saddles and tack will be in good repair.
13. EIA samples will be taken at the holding facilities at Carson City.
14. Alcoholic beverages will not be allowed in or near the horse corral premises.
15. Only experienced drivers will be used to transport the horses to the holding facilities.
16. The helicopter will have radio communications with the authorized officer or his designated representative at all times.

E. Adverse Impacts That Cannot Be Avoided

There are no adverse impacts which cannot be avoided. The use of portable panels for traps and wings will allow that all evidence of the roundup be removed.

IV. Relationship Between Short-Term Use and Long-Term Productivity

Short-term use under existing condition would have subtle adverse effects on the animal and plant community. Without control of horse numbers range and watershed conditions would continue to deteriorate effecting the animals supported by them.

Increased horse numbers would further magnify the conflict between range users and produce a high degree of population stress.

Reduction of horse numbers would help stabilize and/or improve the range and reduce population stress. This benefit would be recognized until horse numbers increase substantially. With periodic removal of excess horses the balance between range users can be properly managed pending evaluation of the plan and adjustments if needed. The ultimate goal is to manage wild horses, wildlife and livestock in an ecological balance for the maximum use without jeopardizing the range health.

V. Irreversible and Irretrievable Commitment of Resources

There should be no permanent loss of any resources in the East Range because of the proposed gathering.

Possible injury may result from the gathering of horses; if so the animals would have to be destroyed in a humane way.

VI. Persons, Groups And Government Agencies Consulted

William Casey, Rancher Grass Valley, Nevada	Mike Burke, Rancher Grass Valley, Nevada
Robert and Cesar Siard, Rancher Pleasant Valley, Nevada	Robert Vesco, Rancher Pleasant Valley, Nevada
Arnold & Mike Paris, Rancher Pleasant Valley, Nevada	Vern Heckman, Rancher Winnemucca, Nevada
Robert Belzarina, Rancher Buena Vista Valley, Nevada	Jerry Reeves, Rancher Buena Vista Valley, Nevada
Fred Lynch, Rancher Buena Vista Valley, Nevada	John and Eugene Thacker, Rancher Imlay, Nevada.
Mrs. Velma Johnson, Wild Horse Organized Assistance Reno, Nevada	Phillip Benolkin Nevada Department of Fish & Game Lovelock, Nevada

VII. Public Interest And/Or Controversy

Due to the large nature of the proposed gathering, the public, both locally and even nationally, should show a high level of interest. Wild horse interest groups will undoubtedly closely scrutinize all phases of the gathering. Many of these horse protection groups have been very influential in shaping BLM policies concerning wild horse management. The Bureau has been enjoined many times by these groups and has been forced into court battles long before a roundup could begin. In the case of this gathering, it is possible that the Bureau may be taken to court. Basically, in the past, injunctions have been based on the premise that no management is the proper management for horses. Without adequate data, the Bureau has often lost these court cases and been stopped from gathering. Another problem should, theoretically at least, have been solved by the United States Supreme Court ruling in 1976 which clearly places wild

horse responsibility with the United States. An agreement concerning brand inspection of captured animals has been tentatively drawn up for this gathering.

VIII. Recommendations Of Preferred Action

Based on the foregoing facts and analysis it is recommended that the proposed action be approved and adopted. It is further recommended that the stipulations and mitigating measures called for in this document be adopted.

IX. Participating Staff

Brad Hines, Range Conservationist Les Boni, Wildlife Biologist *L.H.*

Ron Hall, Wild Horse/Burro Specialist

Robert Carroll, Chief, Division of Operations *RC*

Eugene Dahlem, Wildlife Biologist *E.D.* John Roney, Archeologist *J.R.*

Tom Pagnano, Range Technician *TP*

X. Signatures

Robert J. Neary
 Robert J. Neary
 Team Leader

6/27/77
 Date

Henry B. Beauchamp
 Henry B. Beauchamp
 Environmental Coordinator

6/27/77
 Date

Robert J. Neary
Robert J. Neary
Area Manager Sonoma-Gerlach
Resource Area

6/27/77
Date

Chester E. Conard
Chester E. Conard
District Manager

6/27/77
Date

Owyhee Desert Wild Horse Capture Plan

I The Proposed Action

The proposed action consists of capturing approximately 1100 wild horses out of a herd of approximately 1800 animals on the Spring Range of the Owyhee Desert. This would reduce the herd down to the number counted after Public Law 92-195 became effective on December 15, 1971. The law does allow for herds to be managed at the 1971 population level. This gathering is proposed because there are only three water sources which the horse population can use. These sources provide an insufficient amount of water to support such a large population of horses. This has caused great physical stress on the population. A large die off is very possible unless water availability is increased by abnormally high summer precipitation.

II Background Information

Wild horses have been part of the fauna of the Owyhee Desert since the settlement of the area by European man in the mid-nineteenth century. Until the 1960's many mustangers made their living rounding up wild horses from the Owyhee Desert and surrounding country.

Due to public concern, Congress passed a law in 1959 making it illegal to use aircraft in the pursuit, harassment, and capture of wild horses. However, enforcement of this law was left up to the individual states. The states did nothing to enforce this law. Pressure continued to mount on Congress to pass a stricter law to

protect wild horses. In 1971, P.L. 92-195 passed both houses of Congress unanimously and the President signed it. This law charged the Secretaries of Agriculture and Interior with the protection and management of all wild, free-roaming horses and burros on public lands.

The main use of the Owyhee Desert by man has been livestock grazing. Before the passage of the Taylor Grazing Act in 1936 bands of sheep grazed the Owyhee along with cattle especially during the spring grazing season.

In the early 1960's the Winnemucca District conducted a forage inventory over the entire district. The Owyhee Desert was fenced into Spring use and Summer use areas. The Spring Range contains virtually all of the wild horses in the allotment (approximately 1800). The forage resource on the Spring Range is currently over-obligated by nearly 20%. A summary is presented below.

Species	Present Animal Numbers	Animals per AU	Present Estimated AUMs Consumed
Pronghorn	300	5	720
Deer	150	4	450
Horses	1,800	1	21,600
Cattle		1	18,500
			<u>41,270</u> AUMs consumed
			<u>+34,321</u> AUMs available (1964 survey)
			<u>-6,949</u> AUMs overobligated

This does not take into account consumption of forage by insects, especially ants. Aerial reconnaissance of the Desert gives a vivid picture of just how great the impact from ants is.

From October 1976 to the end of April 1977 only 29% of the total amount of precipitation fell in the Winnemucca area. Precipitation

for May 1977, was nearly 2.5 inches, which is far above the normal .88 inches. However, the precipitation received between October and March is most important for providing runoff. The winter of 1976-77 was so dry that practically no snowpack accumulated on the Calico Mountains. These mountains are the upper watershed for the three main drainages on the north end of the Spring Range. These streams, Raven Creek, Willow Creek, and the East Fork, Little Owyhee River, are intermittent but usually flow into May in most normal years. These streams have been dry since the spring of 1976. This has caused all of the horses on the north end of the Spring Range to concentrate around Twin Valley Spring. This spring had dried up considerably by the end of April 1977. Several young colts had been caught in the deep mud around the spring and were trampled to death in the mud. It was readily apparent that the spring needed to be dug out. This was done on April 30, 1977 as a temporary measure to provide more water. However, as the summer progresses evaporation from the spring will increase as well as the water demand by the horses. Thus, the water supply will be reduced.

In addition, all reservoirs on the north end of the Spring Range have been dry since the fall of 1976. Only two reservoirs on the Spring Range have water currently. These are located in the Fairbanks Field. The legal locations are T. 42 N., R. 44 E., Sec. 21, and T. 41 N., R. 43 E., Sec. 23. With the hot summer months ahead, these reservoirs should dry up. It is for this reason, the lack of water, and to a lesser extent, the depleted forage resource, that this emergency gathering is proposed.

Trapping: Methods, Location, Timing

Two different trapping methods will be used to capture wild horses. Water trapping will be used at Twin Valley Spring to capture approximately 500-700 animals. This is the only known water source for the horses that winter on the north end of the Spring Range. The location of the trap will be T. 45 N., R. 43 E., Sec. 28 SW $\frac{1}{4}$. A fence will be constructed around the spring area. Powder River type hollow steel tube panels, six feet high, will be used to make this enclosure. Gates will be placed upstream and downstream from the spring. When the animals enter the enclosure the gates would be closed. The animals will be driven to a narrow end of the trap where they will enter a small loading area constructed of wood. This loading corral and ramp will be the only permanent structures left at the spring after the trapping is finished.

If normal weather returns in June, trapping should commence the second week of July at this site and last no longer than the middle of August.

The second trap site will be located in the vicinity of the lower gorge of Milligan Creek. Approximately 500-700 horses utilize this area. Water is found in the creek bottom in small isolated pools just as the canyon starts to deepen. Water is also available at the mouth of the canyon from a spring-fed stream which enters the Little Humboldt Ranch. If the water in this streambed dries up considerably, and the horses are forced to use one or two small areas to water, a water trap will be used. If the horses remain

spread out due to water availability, a drive trap will be used. The approximate location of such a trap would be T. 42 N., R. 45 E., Sec. 17 NW₄¹. This trap would be used to capture animals that are watering at the South Fork Little Humboldt River. All horses captured in this trap would be driven by a helicopter under strict BLM supervision. Because of the central location of the trap, most horses would be forced to run no more than 10 miles. Since trapping at this site would not begin until mid-July, the colts should be old enough and strong enough to withstand such a drive.

The trap will be constructed out of portable panels, like those used at the Twin Valley Spring trap. The trap will be laid out in a manner that would make maximum use of the terrain to hide the trap.

A large herd of approximately 400 animals is watering at the South Fork, Little Humboldt. Some of these animals may be trapped using the Milligan Creek trap. If this is done, a two mile section of the Lake Creek Fence would be dropped to allow the horses to be driven to the trap.

Trapping would take place from mid-July until the end of August.

Holding Facilities

All animals trapped will be eventually shipped to the Nevada central holding facility at Palomino Valley, just north of Sparks, Nevada. In order to more efficiently handle captured animals, a temporary holding facility will be constructed to support the trapping operations at each trap. The corrals will be constructed from portable panels. To support the trapping operation at Twin

Valley Springs, a temporary holding corral will be constructed adjacent to the Owyhee Road. The location is T. 45 N., R. 42 E., Sec. 10 SW¹/₄. This is adjacent to an old gravel pit. This pit will be used to bury any animals which must be humanely disposed of. The location of the holding facility to support the Milligan Creek trap will be located near Little Humboldt Ranch on the South Fork, Little Humboldt River.

Disposal

Captured horses that are obviously old, lame, deformed, or sick will be humanely disposed of using a .22 caliber rifle. The carcasses will be buried in the old gravel pit adjacent to the temporary holding facility near Owyhee Camp. A similar burial pit will be located corral near Little Humboldt Ranch. The remaining animals will be transported to the temporary holding corrals. From there, the animals will be sorted by age and sex criteria, and will be shipped in groups of 20-30 in open top livestock trailers hauled by a semi-truck tractor.

These animals will be given away under the Bureau's Adopt-a-Horse program. This will be the most expensive part of the gathering.

The food cost for 1,100 horses will cost approximately \$100,000.

Any animals that can not be given away will be humanely disposed of.

Participating Staff

Bob Carroll	Chief, Division of Operations
Chester Conard	District Manager
Ron Hall	District Wild Horse/Barro Specialist
Bill Harkenrider	Paradise-Denio Area Manager
Ray Hoem	District Wildlife Biologist (Former)
Glen Stickley	Chief, Division of Resource

Approved:

William J. Harkenrider, Jr.
William J. Harkenrider, Jr.
Area Manager

6-07-77
Date

Vaden G. Stickley
Vaden G. Stickley
Acting District Manager

6-27-77
Date

J. I. Rowland

JUL 6 1977

E. I. Rowland
E. I. Rowland
State Director

Date

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ASSESSMENT RECORD (EAR)
FACE SHEET

1. Public Purpose or Environmental Goal to Be Served by (this/these) Bureau Action(s)
- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
 - assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings
 - attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences
 - preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice
 - achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
 - enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

Office

Winnemucca

EAR number

NV-020-7-44

Environmental assessment
reference number (only for
EAR update or supplement)

2. Discrete Operations (attach additional sheets, if necessary)

	DECISION*			
	a	b	c	d
PROPOSED ACTION(S) <input type="checkbox"/> Construct a water trap at Twin Valley Spring	✓			
<input type="checkbox"/> Construct a drive trap near Milligan Creek	✓			
<input type="checkbox"/> Construct a holding facility to support each trap operation	✓			
<input type="checkbox"/> Remove a total of 1100 wild horses	✓			
<input type="checkbox"/> Improve roads to trap sites	✓			
<input type="checkbox"/> Dispose of old, sick, lame, deformed animals by shooting	✓			
ALTERNATIVE ACTION(S) <input type="checkbox"/> No action				✓
<input type="checkbox"/> Delayed action				✓
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

3. Mitigating Measures** (attach additional sheets, if necessary)

<input type="checkbox"/> Archeological clearance of all traps, and holding corrals	✓			
<input type="checkbox"/> Place holding facilities away from live streams	✓			
<input type="checkbox"/> Seed cleared areas to protect soil	✓			
<input type="checkbox"/>				
<input type="checkbox"/>				
<input type="checkbox"/>				

4. Environmental Impact Statement recommended Yes No

Approved by (Signature of Area Manager)

William J. Harkness

Date

6-27-77

Signature of District Manager

John H. Stuchley (acting)

Date

6-27-77

* See reverse
** Summarize if decision is 1 or c

- a Accepted as stated in EAR
- b Accepted with environmentally significant modification
- c Accepted with environmentally significant modification which has been assessed and appended to ~~or incorporated~~ in the initial EAR
- d Rejected

Remarks (Explain if conclusion is that an Environmental Impact Statement is not required. The explanation should relate to significance of residual impacts, whether beneficial or adverse, and/or relate to controversy about impacts.)

NOTE

The principal purpose of this form is to provide a written record of the management decision and its salient environmental aspects. When properly completed, it attests to the consideration of environmental amenities and

values in planning and decisionmaking. Its completion by the decisionmaker, or authorized officer, provides subordinate officials with explicit written guidance as to the complexion of the decision.

SPECIFIC INSTRUCTIONS

1. In this section, record the linkage, if any, of the decision and the pursuit of national environmental goals expressed in Section 101(b) of the National Environmental Policy Act of 1969. The authorized officer should check any of the listed purposes/goals which this decision helps attain.
2. Record discrete operations of the proposed action which was assessed and discrete operations of its alternatives. A checkmark corresponding to the type of decision made (*see asterisk above*) should be entered in the pertinent box (*a, b, c, or d*) following the description of each discrete operation.
3. The authorized officer records the selection of mitigating measures. Every mitigating measure assessed should be listed. A checkmark corresponding to the type of decision made (*see asterisk above*) should be entered in the pertinent box (*a, b, c, or d*) following the description of each mitigating measure. If the decision corresponds to items *b, c, or d*, summarize the modification of the mitigating measure. The findings concerning significance of associated residual impacts should be summarized if the decision corresponds to items *b, c, or d*.
4. The authorized officer records recommendation concerning the need for an environmental impact statement on the action proposed *SUBSEQUENT* to the environmental assessment.

APR 19 1987

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

ENVIRONMENTAL ASSESSMENT RECORD (EAR)
FACE SHEET

1. Public Purpose or Environmental Goal to be Served by (this/these) Bureau Action(s)
- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
 - assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings
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 - preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice
 - achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
 - enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

Office

Winnemucca

EAR number

NV-020-7-44

Environmental assessment
reference number (only for
EAR update or supplement)

2. Discrete Operations (attach additional sheets, if necessary)

DECISION *

a b c d

PROPOSED ACTION(S)

- Dispose of horses through the Adopt-A-Horse Program
- Convey branded horses to the State of Nevada
-
-
-
-
-
-
-
-
-
-
-

DECISION *			
a	b	c	d

Mitigating Measures ** (attach additional sheets, if necessary)

-
-
-
-
-
-

Environmental Impact Statement recommended Yes No

Approved by (Signature of Area Manager)

Signature of District Manager

Date

Date

* To reverse
signature if decision is b or c

BUREAU OF LAND MANAGEMENT

WINNEMUCCA DISTRICT OFFICE

WILD HORSE MANAGEMENT

4740

PARADISE-DENIO RESOURCE AREA

CAPTURE PLAN

PARADISE-DENIO

STIPULATIONS

1. Archeological clearance will be done on all trap sites prior to their construction. If archeological values are present, trap sites will be moved. No traps will be placed near any of the identified historic sites.
2. A Bureau employee will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. Topography, distance and current conditions of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.
3. Any trap site located in the Sand Dunes area will be cleared by Bureau personnel to insure no populations of the threatened plant species Dalea kingii are disturbed.
4. A veterinarian will be contracted to be on call at all times during the roundup.
5. All corral panels will be from 72" to 84" high in order to prevent horses from jumping out of traps.
6. Brutality to horses in any form will not be tolerated. Any employee who mistreats any horse will be dismissed immediately from the roundup operation.
7. A Bureau official will be in the helicopter at all times in order to insure that all stipulations are met and that horses are not over-stressed.
8. All holding facilities will meet U.S. Department of Agriculture and U.S. Department of the Interior specifications.
9. Only experienced horseback riders will be used in the gathering operations.
10. Experienced horse wranglers from the local area will be employed whenever possible.
11. All saddle horses will be properly shod and over three years in age. All saddles and tack will be in good repair.
12. Equine Infectious Anemia (EIA) samples will be taken at the holding facilities at Carson City.

13. Only experienced drivers will be used to transport the horses to the holding facilities.
14. The helicopter will have radio communication with the Authorized Officer or his designated representative at all times.

I. Introduction

The intent of this capture plan is to outline the methods and procedures to be used in removing the wild horses from the Krum Hills, Bloody Run Hills, Hot Spring Range and Osgood Mountains. This involves around 800 horses on both public and private land.

The BLM is directed to manage wild horses and burros as authorized by P.L. 92-195 section 3. This management includes maintaining an ecological balance on the public lands. Over the past years the increase in horse numbers and drought have depleted the range condition and adversely effected the ecological balance of the area. Also, five of the private land holders have requested that the BLM remove all the wild horses from their land. The BLM has determined that the only effective method of removing the horses from the unfenced private land is to remove them from the entire mountain range involved.

II. General Area Description

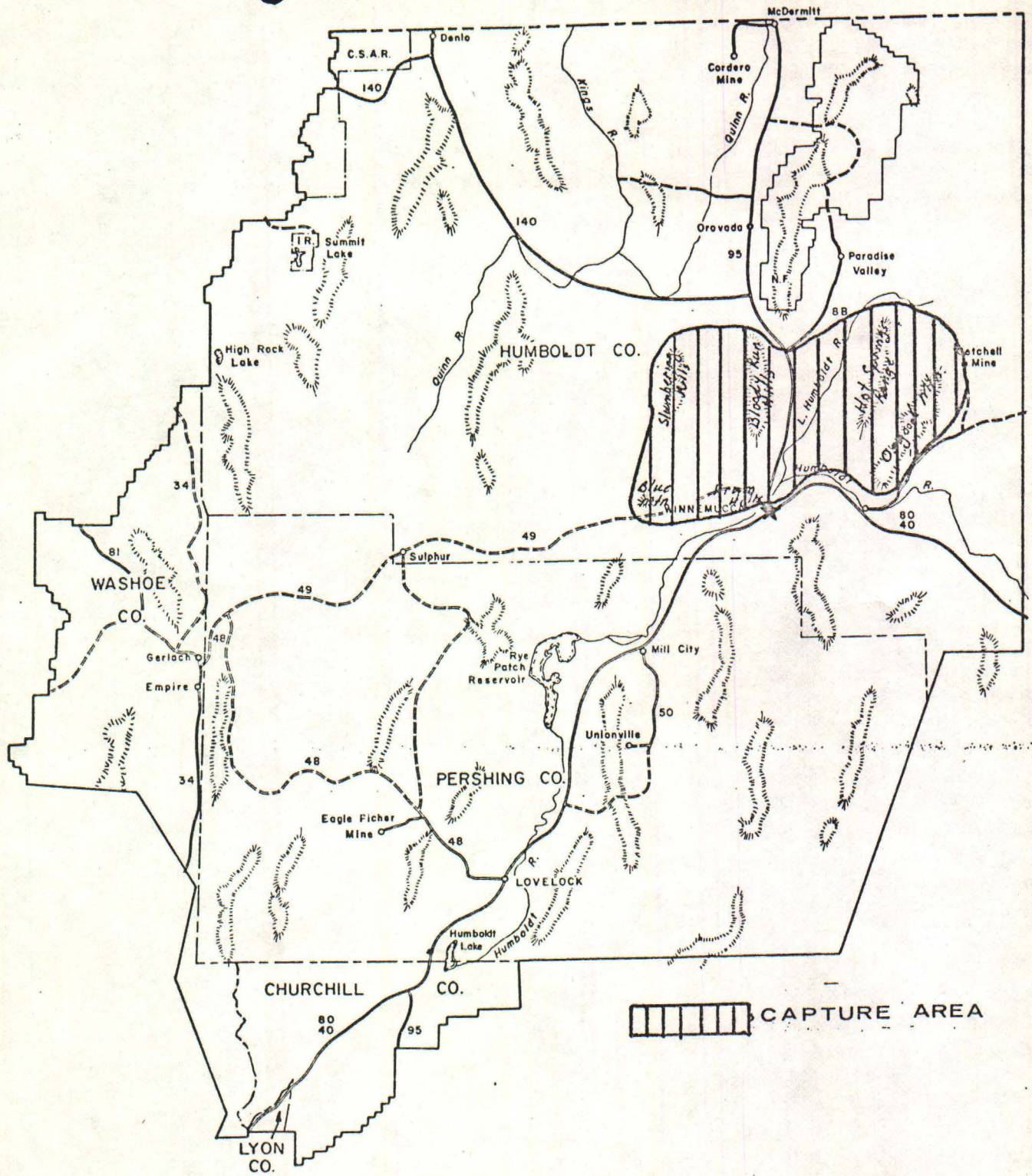
All the mountain ranges are within 20 miles of Winnemucca and are located northwest and northeast of Winnemucca (see figure #1).

The Krum Hills, which includes Winnemucca Mountain, lie approximately one mile northwest of Winnemucca. This range has an east-west orientation and is approximately 12 miles long. Elevations range from a high of 7700' at Winnemucca Mountain on the east end of the range to 4200' on the Silver State Valley side (to the north) and 4400' on the Humboldt River side of the range (to the south).

Slumbering Hills lie 18 miles northwest of Winnemucca. This range has a north-south orientation and is approximately 18 miles long. Elevations range from a high of 6437' at Awakening Peak on the north end to 4400' on the Desert Valley side (to the west), and 4200' on the Silver State Valley side (to the east).

Bloody Run Hills lie 10 miles north of Winnemucca on the west side of Paradise Valley. Elevations range from a high of 7835' at Bloody Run Peak on the south end to 4200' on the Silver State Valley side (to the west), and 4500' on the Paradise Valley side (to the east). This range has a north-south orientation and is approximately 19 miles long.

The Hot Springs Range lies 16 miles northeast of Winnemucca on the east side of Paradise Valley. This range has a north-south orientation and is approximately 22 miles long. Elevations range from a high of 6556' on an unnamed peak in the middle of the range to 4600' on the Paradise Valley side (to the west) and 4800' on the Eden Valley side (to the east).



WINNEMUCCA DISTRICT

FIGURE 1

The Osgood Mountains lie 14 miles east by northeast from Winnemucca. This range also has a north-south orientation and is approximately 24 miles long. Elevations range from a high of 8678' at Adam Peak in the center of the range to 4800' on the Eden Valley side (to the west) and 4700' on the Kelly Creek side (to the east).

Blue Mountain lies 14 miles west of Winnemucca. The foothills of Blue Mountain have an east-west orientation of approximately 7 miles. These foothills to the east connect with the foothills of the Krum Hills. Elevations range from a high of 7342' at Blue Mountain to 4300' on the Humboldt River side (to the south) and 4500' on the Sand Dunes side (to the north).

Vegetation types are consistent throughout the capture area. Greasewood and shadscale types are found in the valley bottoms and low elevation foothills. The remaining foothills and mountains consist of big and low sagebrush vegetative types.

A detailed wild horse inventory was conducted in March, 1977 on these mountain ranges. A total of 799 wild horses were counted as follows:

<u>Mountain Range</u>	<u>Total # Wild Horses</u>
Bloody Run	123
Krum Hills	206
Slumbering Hills	228
Hot Spring	229
Osgood	<u>13</u>
GRAND TOTAL	799

Since 1971 no horse roundups have been authorized in this area. The Winnemucca District Office has not received any claims from private individuals for horses, burros, or mules in the areas involved.

All of the available forage on the public lands in the allotments (31,331 AUMs) was adjudicated in the mid 60's for use in cattle operations and wildlife. No AUM's were adjudicated for horses. At the present time wild horses are using 9708 AUM's in the capture area, this is a 31% over obligation of AUMs for these allotments.

Significant range damage is occurring on several allotments; perennial grasses are being grazed close to 100% yearly, and Big sagebrush and hopsage are being pawed out by horses in search of the protected grass in these shrub understories. This is causing a significant decrease in the % of ground cover and contributing to increased soil erosion problems, plus increased wildlife and livestock competition for forage.

Land status is as follows:

	Acres	%
Public Lands	462,694	65
Private Lands	<u>241,496</u>	35
TOTAL	704,190	

The majority of the private land is in a checkerboard pattern with public lands (see figure #2).

These mountain ranges encompass all or part of 12 separate allotments. A list of permittees by allotment and % of public land follows:

Mtn. Range	Allotment	% Public Land*	Permittee
Slumbering Hills	Sand Dunes	52	Malvin & Hazel Pedroli Clifford I. Casteel **T Quarter Circle
	Davey Town	99	N.J. Ranches, Inc.
Bloody Run	Sand Pass	51	**T. Quarter Circle
	Bloody Run	64	**Alvin & Anesita Miller **Mr. George Miller
	Asa Moore	60	**Alvin & Anesita Miller
Osgood & Hot Springs	Long Canyon	97	Frey & Sons, Inc.
	Golconda Butte	39	**Glen Tipton
	Osgood	57	Jo Hibbs Christison Pinson Ranch
	Eden Valley	53	**Jack Fullenwider
	Scott Spring	51	**Alvin & Anesita Miller
	Hot Spring Peak	98	Stanley & Janice Klaumann

Bloody Run, Golconda Butte, and Scott Springs Allotments are all leased by the current operators from Nevada First Corporation

*Remaining percentage of land is private.

**These five (5) permittees have written letters to the BLM requesting that the BLM remove all wild horses from private lands which they own or control.

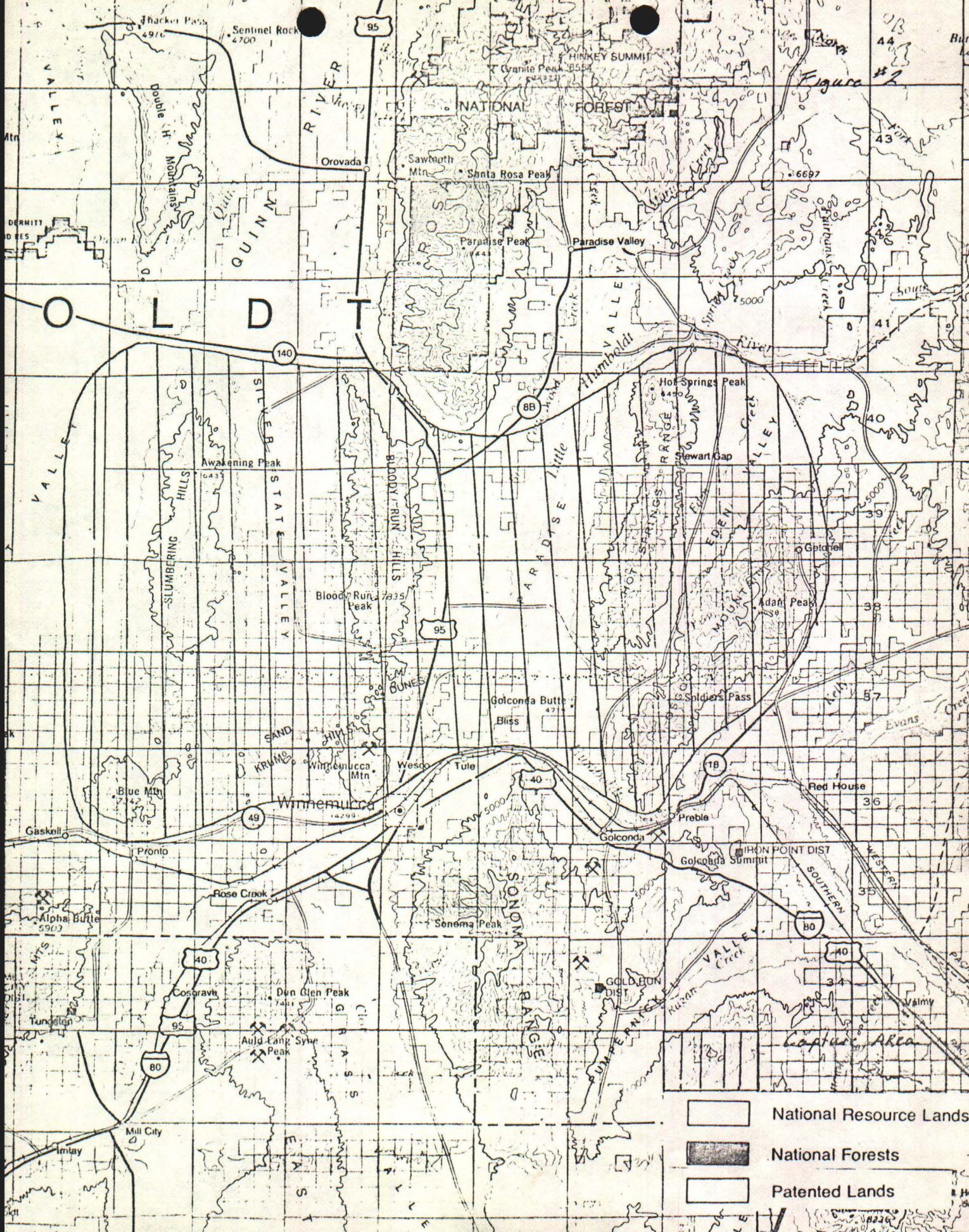


Figure #2

- National Resource Lands
- National Forests
- Patented Lands

These mountain ranges support a small population of mule deer, potential is estimated at 445 by Nevada Fish and Game, in addition a low density population of chuckar, mourning dove, and sagehen are found throughout these ranges.

III. Justification

Section 4 of P.L. 92-195 authorized the Secretary of The Interior to arrange to have horses removed that stray from public lands onto privately owned lands. Since this office has received written requests from five (5) private land owners on the mountain ranges and because of the checkerboard land status the only feasible way to remove the horses from the private land is totally remove all the horses from the mountain ranges.

IV. Capture Plan and Methods

Wild horses will be rounded up through the use of a helicopter. The horses will be directed toward temporary capture corrals by means of a helicopter. Wings (from 1/8 to 1/4 mile) will be constructed leading into the corral. When the horses have been driven to within 1/4 to 1/2 mile of the trap riders on horse back will then flank the animals and guide them into the trap. Once the horses are in the trap the gate will be closed by hand. Should a horse break back at the trap it will be roped if possible by the riders.

It is expected that the number of animals that are driven into the traps will vary from 1 to 35 horses at a time.

The capture corrals will generally be circular (100' in diameter) and constructed out of approximately 90-100 portable panels (height 6' to 7'). Each trap will have in addition a small holding corral (100' in diameter) adjoining the trap. This corral will also be circular and constructed from portable panels. The trap will be camouflaged with sagebrush.

A portable loading chute will be used at each trap site to load captured horses onto stock trucks that will transport the animals.

The start of each wing will be constructed from portable panels (6' to 7' high). The remainder of the wing will be constructed from white rope stretched on 6-1/2' steel fence posts. The fence posts will be spaced from 50' to 100' apart, depending upon the terrain.

The helicopter will carry a Bureau employee at all times and should the horses become unnecessarily stressed the BLM employee will instruct the pilot to break off the pursuit so that the animals may rest and recover. All attempts will be made to move and keep bands together.

A Bureau of Land Management employee will make careful determination of boundary lines to serve as an outer limit within which attempts will be made to herd horses to a given trap. Topography, distance, and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded. Each area will be flown prior to the start of trapping to locate any hazards to the horses while being herded (fences, cliffs, etc.).

More than one trap site will probably be needed in each mountain range. Each site will be located after the habits of the horses in that area are determined. In general all sites will be located to cause as little damage to the natural resources of the area as possible. Sites will be located close to existing roads when possible and all sites will be cleared by the district archeologist.

As the horses are captured in the trap sites they will be loaded onto the stock trucks and shipped to Palomino Valley or to temporary holding corrals in the area.

Those horses that are determined to be privately owned animals will be handled as stipulated in the Cooperative Agreement between the BLM and the Nevada State Department of Agriculture, for this specific roundup.

A veterinarian will be on call in Winnemucca at all times during the roundup process. At a maximum he will be 50 miles away from any one trap site.

The area adjacent to each trap site will be worked by the helicopter until capturing any remaining horses becomes unfeasible. At that time the trap location will be moved to another capture site of location.

All handling of the horses captured by Bureau employees will conform to the "Safety Guidelines For Gathering, Transporting, and Handling Wild Horses", prepared by the BLM, Burns District Office.

Undoubtedly some wild horses will be captured that are old, sick or injured. If it is determined that the veterinarian cannot solve the problem the animal will be humanely disposed of by shooting with a .22 caliber rifle. The carcass will then be buried in an open pit near each trap site.

Any horses that have been moved to the temporary holding corrals will be shipped as transportation is available to the Bureau's Palomino Valley corral facility.

V. Signatures

Lead responsibility:

Paul W. Bryant
Paul W. Bryant
Natural Resource Specialist

11/20/77
Date

Reviewed by:

Ron Hall
J. Ron Hall
Wild Horse Specialist

11/21/77
Date

Henry B. Beauchamp
Henry B. Beauchamp
Environmental Planning Coordinator

11/20/77
Date

Approved by:

William J. Harkenrider, Jr.
William J. Harkenrider, Jr.
Area Manager

1-17-78
Date

Robert Conard
For Chester E. Conard
District Manager

1-18-78
Date

Bureau of Land Management

Winnemucca District

Environmental Assessment Record

NV-020-8-13

4700

~~Paradise-Denio~~

Paradise-Denio Wild Horse Gathering Plan

11/29/77

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

ENVIRONMENTAL ASSESSMENT RECORD (EAR)
FACE SHEET

1. Public Purpose or Environmental Goal to be Served by (this/these) Bureau Action(s)
- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
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 - preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice
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 - enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

Office
Winnemucca

EAR number
NV-020-8-13

Environmental assessment reference number (only for EAR update or supplement)

2. Discrete Operations (attach additional sheets, if necessary)

		DECISION *			
		a	b	c	d
PROPOSED ACTION(S)	<input checked="" type="checkbox"/> 1 Surveillance	✓			
	<input checked="" type="checkbox"/> 2 Construction of traps	✓			
	<input checked="" type="checkbox"/> 3 Actual Capture	✓			
	<input checked="" type="checkbox"/> 4 Continued Management	✓			
	<input type="checkbox"/>				
ALTERNATIVE ACTION(S)	<input checked="" type="checkbox"/> 1 No Action				✓
	<input checked="" type="checkbox"/> 2 Reduction of livestock numbers				✓
	<input checked="" type="checkbox"/> 3 Partial Reduction with Control				✓
	<input type="checkbox"/>				
	<input type="checkbox"/>				

3. Mitigating Measures ** (attach additional sheets, if necessary)

<input type="checkbox"/> See attached sheets	✓				
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

4. Environmental Impact Statement recommended Yes No

Approved by (Signature of Area Manager) <i>William J. Heukensieder Jr.</i>	Date 1-17-78
Signature of District Manager <i>Robert J. ...</i>	Date 1-18-78

* See reverse
** Summarize if decision is b or c

DECISIONS *

- a Accepted as stated in EAR
- b Accepted with environmentally-insignificant modification
- c Accepted with environmentally-significant modification which has been assessed and appended to (or incorporated in) the initial EAR
- d Rejected

Remarks (Explain if conclusion is that an Environmental Impact Statement is not required. The explanation should relate to significance of residual impacts, whether beneficial or adverse, and/or relate to controversy about impacts.)

This action does not warrant an environmental statement nor will this action be sent to the state clearinghouse. wfh

NOTE

The principal purpose of this form is to provide a written record of the management decision and its salient environmental aspects. When properly completed, it attests to the consideration of environmental amenities and

values in planning and decisionmaking. Its completion by the decisionmaker, or authorized officer, provides subordinate officials with explicit written guidance as to the complexion of the decision.

SPECIFIC INSTRUCTIONS

1. In this section, record the linkage, if any, of the decision and the pursuit of national environmental purposes under section 101(b) of the National Environmental Policy Act of 1969. The authorized officer should list the listed purposes/goals. Obtain.

h thi

of the proposed action discrete operations of its check corresponding to the asterisk above) should box (a, b, c, or d) follow each discrete operation.

3. The authorized officer records the selection of mitigating measures. Every mitigating measure assessed should be listed. A checkmark corresponding to the type of decision made (see asterisk above) should be entered in the pertinent box (a, b, c, or d) following the description of each mitigating measure. If the decision corresponds to items b, or c, summarize the modification of the mitigating measure. The findings concerning significance of associated residual impacts should be summarized if the decision corresponds to items b, c, or d.

4. The authorized officer records recommendation concerning the need for an environmental impact statement on the action proposed SUBSEQUENT to the environmental assessment.

Possible Mitigating Measures (ITEM 3 on Form 179(-1))

1. Archeological clearance will be done on all trap sites prior to their construction. If archeological values are present, trap sites will be moved. No traps will be placed near any of the identified historic sites.
2. A Bureau employee will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. Topography, distance and current conditions of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.
3. Any trap site located in the Sand Dunes area will be cleared by Bureau personnel to insure no populations of the threatened plant species Dalea kingii are disturbed.
4. A veterinarian will be contracted to be on call at all times during the roundup.
5. All corral panels will be from 72" to 84" high in order to prevent horses from jumping out of traps.
6. Brutality to horses in any form will not be tolerated. Any employee who mistreats any horse will be dismissed immediately from the roundup operation.
7. A Bureau official will be in the helicopter at all times in order to insure that all stipulations are met and that horses are not over-stressed.
8. All holding facilities will meet U.S. Department of Agriculture and U.S. Department of the Interior specifications.
9. Only experienced horseback riders will be used in the gathering operations.
10. Experienced horse wranglers from the local area will be employed whenever possible.
11. All saddle horses will be properly shod and over three years in age. All saddles and tack will be in good repair.
12. Equine Infectious Anemia (EIA) samples will be taken at the holding facilities at Carson City.

13. Only experienced drivers will be used to transport the horses to the holding facilities.
14. The helicopter will have radio communication with the Authorized Officer or his designated representative at all times.

I. Description of the Proposed Action and Alternatives

A. Background Data

These mountain ranges, Slumbering Hills, Bloody Run Hills, Hot Springs Range, Osgood Mountains, Blue Mountain and Krum Hills, which includes Winnemucca Mountain, have a total wild horse population of approximately 800 animals. The horses are distributed between the ranges as follows:

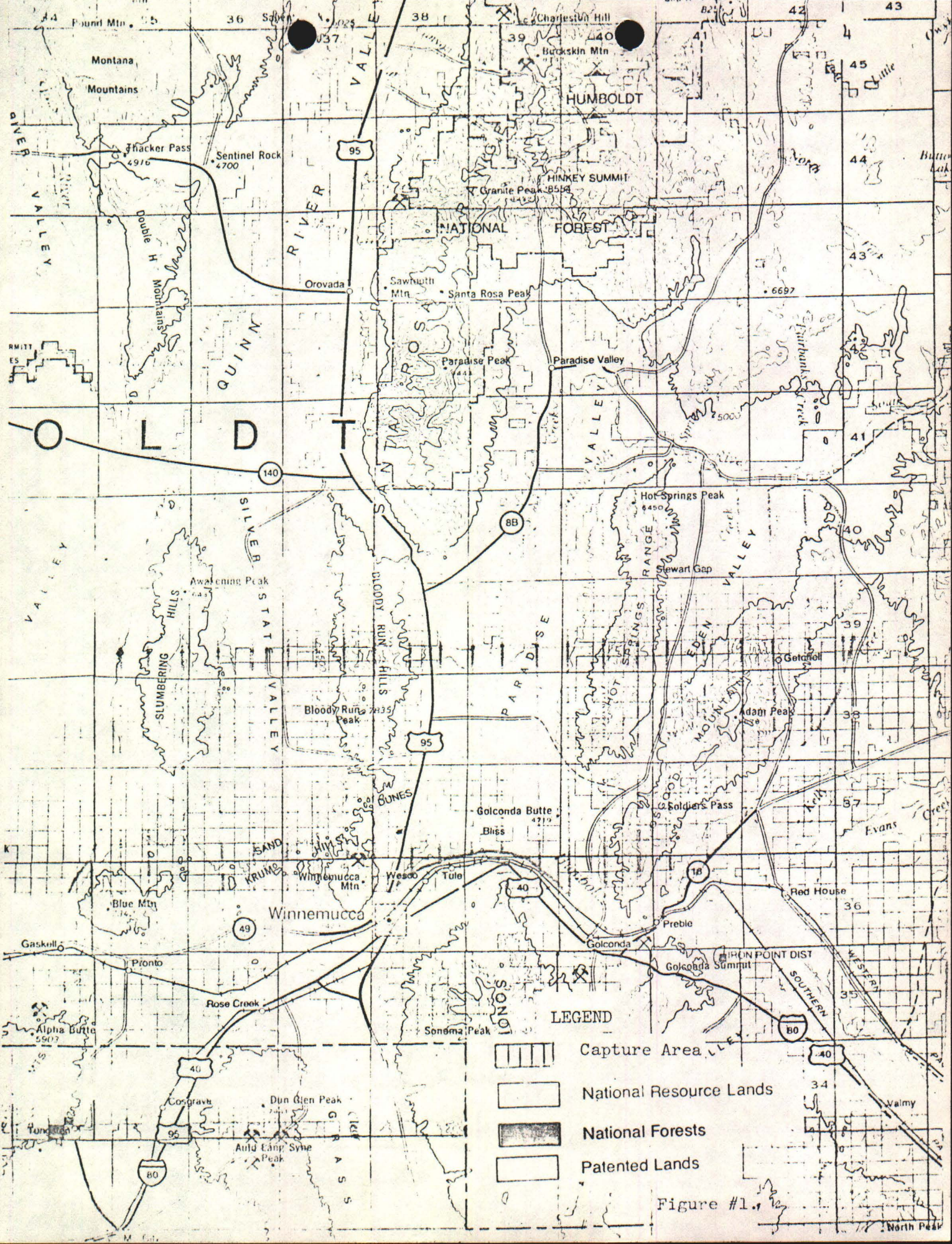
<u>Mountain Range</u>	<u>Number of Wild Horses</u>
Bloody Run Hills	123
Krum Hills	206
Slumbering Hills	228
Hot Springs Range	229
Osgood Mountains	<u>13</u>
	799

These mountain ranges are composed of approximately 65% public land and 35% private. Four of the grazing users, which have control of the majority of the private land in their allotments, have requested that the Bureau remove the horses from their private land. This private land is in a checkerboard pattern and unfenced (see Figure #1). The Bureau has determined that the only way to effectively remove the horses from unfenced private land is to remove them from the entire mountain range involved.

Section 4 of Public Law 92-195 states "if wild free-roaming horses or burros stray from public lands onto privately owned land, the owners of such land may inform the nearest Federal Marshall or agent of the Secretary, who shall arrange to have the animals removed."

These mountain ranges are located in the Paradise and Denio Planning Units of the Paradise-Denio Resource Area. This action complies with the management goals of the area.

Implementation of the gathering plan will involve the construction of traps and trap wings, the movement of horses by use of a helicopter, the transportation of horses from the traps to holding corrals, the holding of horses in the corrals and some road work.







- LEGEND**
-  Capture Area
 -  National Resource Lands
 -  National Forests
 -  Patented Lands

Figure #1.

The traps will generally be circular (100' in diameter) and constructed out of approximately 90-100 portable panels 6' to 7' in height constructed from 1 1/2" steel pipe. Each trap will have in addition a small holding corral (100' in diameter maximum) adjoining the trap. This corral will also be circular and constructed from identical portable panels.

A portable loading chute will be used at each trap site to load captured horses onto stock trucks that will transport the animals.

The start of each wing will be constructed from portable panels (6' to 7' high). The remainder of the wing will be constructed from white rope stretched on 6 1/2' steel fence posts. The fence posts will be spaced from 50' to 100' apart, depending upon the terrain.

The helicopter will carry a Bureau employee at all times and should the horses become unnecessarily stressed the BLM employee will instruct the pilot to break off the pursuit so that the animals may rest and recover. The helicopter use plan will also incorporate the precautions specified in the proposed rulemaking for the use of helicopters (7440.4). All attempts will be made to move and keep bands together.

A Bureau employee will make careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap site. Topography, distance and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded. Each trapping area will be flown prior to the start of trapping to locate any hazards to the horses while being herded (fences, cliffs, etc.).

An archeological clearance will be completed on all trap sites prior to construction of the trap. If archeological values are found on the trap site, the trap site will be moved.

Only experienced horse wranglers that meet Bureau criteria will be used. Brutality to horses in any form will not be tolerated.

Drivers of vehicles transporting wild horses from the capture area to holding facilities will be knowledgeable of handling such animals. All stock trucks will be equipped with radio communication in case of emergencies. The unloading of wild horses shall be in an orderly fashion and involve not more than four people.

A veterinarian will be on call at all times during the roundup operation. The veterinarian will never be more than 50 miles from the roundup operation.

All holding facilities will meet U.S. Department of Agriculture specifications.

B. The Proposed Action

The proposed action consists of removing 100% of the wild horses, if possible, from these mountain ranges. An inventory conducted in March 1977 placed the population at 799 total in all these ranges. The actual population may be somewhat higher. Capture will be by the use of a helicopter to run the horses into portable traps.

The Winnemucca District has received requests from four of the users in the checkerboard area to remove the horses from their private land. This action is in response to that request as well as an attempt to alleviate the grazing pressure on a seriously overobligated range resource. The range adjudications made in the 1960's did not allocate any forage to wild horses. All the forage was allocated to wildlife and the livestock operations in the area. At the present time wild horses are using 9,708 AUMs annually in this area, which is a 31% over-obligation of the range resource.

The proposed action will be implemented in several stages. Surveillance of animal movements and location of trap sites is the first stage. Construction of traps and trap wings is scheduled to be completed as the roundup progresses. All traps will be portable and will be moved as the need arises. Archeological clearance of the trap sites will be completed prior to construction.

The actual capture process will begin on November 30 and proceed as long as it is economically feasible to keep trapping or until March 15, whichever comes first.

C. Alternatives to the Proposed Action

1. Alternative No. 1

No action would allow the horse population on the ranges involved to continue to increase. Control would come eventually in the form of disease or starvation. Elimination of all the livestock operations on the mountain range would also result if no action is taken.

2. Alternative No. 2

Reduction of cattle numbers to accommodate horse numbers would eliminate 12 ranches presently licensed in the area from the livestock business. It would also make their private lands, which amount to 35% of the land on these mountain ranges, unusable to them. The horse population would continue to grow under this alternative and control would still be necessary. If control were not exercised by man it would come in the form of disease and starvation on a depleted range resource.

3. Alternative No. 3

Partial reduction of horse numbers with control in preceding years would call for the removal of wild horses to a population level more suitable for the available forage. The horse numbers will then be maintained at this level by removing excess animals every few years. This alternative is not possible with the current forage allocations.

At the present time all available forage is allocated to livestock and wildlife, no forage is allocated to wild horses. With the current situation the only suitable level of horse population for forage is zero. In addition, this action would eventually cost more than the proposed action because of the continuing cost of maintaining horse numbers at a given level. Therefore, this alternative will not be implemented.

II. Description of the Existing Environment

A. Previous Actions Pertinent to the Proposal

Prior to the enactment of P.L. 92-195, the Wild Horse and Burro Act, many wild horses were gathered in the mountain ranges. It is since passage of this law in 1971 that horse herds in the area have multiplied to such large numbers that they have become one of the major factors in the overgrazing of the rangeland.

B. Nonliving Components

1. Air

The prevailing winds are from the west or southwest with an average velocity of 5-10 miles per hour. Extreme velocities to 80 miles per hour occur, with high velocities primarily during the spring months of March and April.

Some particulate matter originates from the playas and sandy soils of the surrounding valleys. This occurs primarily in the spring as a result of high winds.

A wide range of temperatures can be noted in the mountain ranges. Maximum summer temperatures can exceed 100°F with winter lows to -30°F. No official temperatures are kept in the area.

Noxious gasses are rare in the capture areas. This is in part due to the sparse human population and distances from major population centers.

No radiological contaminants or nonionizing radiation levels are known to exist in the areas.

2. Land

Public land is classified for retention and multiple use management. Ownership is checkerboard with 65% of the total 704,190 acres in public ownership and 35% in private ownership. Private lands are managed in conjunction with public lands primarily for grazing.

Winnemucca Mountain, Blue Mountain, Hot Springs Range and Bloody Run Mountains serve as area landmarks.

Soils over the area are fine textured, alluvial deposits near the valley bottoms becoming coarser as the elevation increases. Infiltration rates are moderate to extreme. The steep slopes are dominately composed of Paleozoic sedimentary and metamorphic rocks. Soil depth varies from 2 to 60 inches with the shallower soil occurring on the steeper slopes and in the deeper soils in the canyons and valley bottoms.

Approximately eight miles north of Winnemucca lies a large area of sand dunes. These dunes have an east-west orientation of 18 miles. South portions of Silver State Valley and Paradise Valley are covered by these dunes.

Rocky soils with moderate to high infiltration rates help to deter erosion. Spring run-off accounts for most of the erosion. There is a significant amount of wind erosion occurring during high velocity winds. Gully erosion is evident throughout the area and sheet erosion does occur during heavy thunderstorms. As overgrazing continues sheet and gully erosion will intensify, removing valuable topsoil needed for vegetation growth.

3. Water

The majority of the precipitation that falls on this area falls during the winter months from November through March. Spring rains occur but are irregular.

Investigations of water quality of all the streams in the area was conducted during the 1977 field season. No data is presently available on the amounts of sediment that is carried in Paiute Creek, Osgood Creek or China Garden Creek, which are the only perennial streams in the area.

C. Living Components

1. Aquatic Plants

The riparian habitat along the perennial streams has been severely overgrazed to the extent that willow (Salix), most of the sedges (Carex) and other plants normally found in the riparian zone can only be found in areas that are inaccessible to livestock.

2. Terrestrial Plants

Big sagebrush (Artemisia tridentata) is the dominant shrub in the vegetative cover in the capture area. Shadscale (Atriplex confertifolia), white sage (Seratoides lanata) and bud sage (Artemisia spinescens) are the dominant shrubs on the valley floors and lower slopes.

Associated with big sagebrush on the mountain slopes are other shrubs, such as rabbitbrush (Chrysothamnus spp.), bitterbrush (Purshia tridentata) and snowberry (Symphoricarpos spp.). Grass understory on these higher elevation sites consists dominantly of Sandberg's bluegrass (Poa secunda), cheatgrass (Bromus tectorum), squirreltail (Sitanian hystrix), Thurber's needlegrass (Stipa thurberiana), Great Basin wildrye (Elymus cinereus) and bluebunch wheatgrass (Agropyron spicatum). Arrowleaf balsamroot (Balsamorhiza sagittata), buckwheat (Eriogonum spp.), lupine (Lupinus spp.) and phlox (Phlox spp.) are the dominant forbs in the mountains.

Associated with big sagebrush at the lower elevations on the alluvial fans and terraces are spiny hopsage (Grayia spinosa) and littleleaf horsebrush (Tetradymia glabrata). The grass understory consists of cheatgrass, squirreltail and Sandberg's bluegrass. Russian thistle (Salsola kali), milkvetch (Astragalas spp.) and annual mustards (Brassica spp.) are common forbs in this area.

Associated with shadscale, white sage and bud sage are cheatgrass, squirreltail, Sandberg's bluegrass, annual mustards and Russian thistle.

There are some black greasewood (Sarcobatus vermiculatus) stands on the saline bottoms in Paradise Valley, Silver State Valley and Eden Valley.

3. Animal Life - Aquatic(a) Mammals

Few aquatic mammals inhabit the area. The possibility exists that beaver (Castor canadensis) may inhabit Little Humboldt River. Beaver are not found in any of the other perennial streams. No other aquatic mammals are known to inhabit the area.

(b) Birds

The only water associated birds known to inhabit the area are the killdeer (Charadrius vaciferus) and some migratory waterfowl during their annual migrations north and south.

(c) Fish

There are no fisheries in any of the perennial streams in the capture area.

4. Animal Life - Terrestrial(a) Mammals

The most common species of mammals include mule deer (Odocoileus hemionus), which have a population of approximately 445 animals. Occasionally transient mountain lion (Felis concolor), coyote (Canis lantrans), bobcat (Lynx rufus), badger (Taxides taxus), black-tail jackrabbit (Lepus californicus), Richardson's ground squirrel (Otospermophilis richardsonii), kangaroo rat (Dipodomys ordi), domestic cattle (Bos taurus) and wild horses (Equus caballus).

(b) Birds

Sage grouse (Centrocercus urophasianus) and chukar (Alectoris graeca) occur in scattered populations. A variety of bird life is common to the area. Many species are unidentified. However, the most common include golden eagle (Aquila chrysaetos), red-tailed hawk (Buteo jamaicensis), mourning dove (Zenaidura macroura), common raven (Corvus corax) and a wide variety of passerine and non-passerine birds.

(c) Reptiles

Reptiles include collared lizard (Crotaphytus collaris), northern side-blotched lizard (Uta stansburiana), horned lizard (Phrynosoma spp.) and Great Basin rattlesnake (Crotalus viridis latosus).

(d) Invertebrates

No intensive inventory of insect species occupying the area has been made. However, the more common species do exist on the area.

(e) Man

There are few residences which are occupied year round in the area. Ranches and farms are located in the valleys on either side of the mountain range. Human activity is mainly in the form of mining, hunting and those activities associated with domestic livestock grazing. During the winter months, very little human activity occurs in the area.

D. Human Values

1. Sociocultural Interests

a. Archeological and Historic

Archeological data for this area is scarce. Sites have been located in the Bloody Run Hills, Hot Springs Range and the Osgood Mountains, but none have been excavated. One historical site has been identified within the Dutch Flat area.

(1) Dutch Flat

This mine is located approximately 18 miles northeast of Winnemucca. The mine produced gold from 1891 to 1904. Chinese worked in the mine from 1909 to 1910. Total production was \$200,000. Some mining has been done in the more recent past.

b. Unusual Ecological Areas

The sand dunes located 10 miles north of Winnemucca are unique in this area. The dunes, in addition to being unique, are also inhabited by Dalea kingii, a threatened plant species.

c. Unusual Geological Formations

No unusual geological formations have been identified in the capture area.

d. Hunting and Fishing

Hunting is a minor activity in this area. There are approximately 445 mule deer and only small populations of sage grouse. Fairly dense chukar populations occur in scattered areas. No significant fisheries occur in the area.

e. Wild Horses and Burros

A helicopter census was taken in March of 1977. This inventory revealed a total of 799 horses in the capture area. For the distribution by mountain range refer to Section I-A, Background Data.

There are no outstanding claims for horses in the capture area.

f. Wilderness Potential

There is no wilderness potential in this area.

3. Social Welfare

The population of the area is very low. The majority of the population live in Paradise and Silver State Valleys on farms and ranches. No capturing will be done on the farming lands. The nearest community of any appreciable size is Winnemucca, which is located on the south boundary of the capture areas.

Livestock grazing and mining are the main uses of the mountain ranges. The income generated by these operations is not large. Nearly all economic exchange takes place outside of the area to be gathered.

Most local people have a very negative attitude toward wild horses. Organized livestock interest groups have been very vocal in calling for the removal of most or all of the wild horses particularly from intermingled public and private lands.

III. Analysis of the Proposed Action and Alternatives

A. Anticipated Impact of Proposed Action

1. Air

Air quality should not adversely be affected by the proposed gathering. There will be periods of time when the gathering will cause dust to be locally heavy. However, these time periods will be of short duration and the areas involved would be widely scattered. Drive trapping will create some dust as the animals are driven several miles to a trap. Vehicular traffic will create dust because of the heavy use roads will receive while a particular trap site is used. Dust and the exhaust gases should be rapidly dispelled because the wind is constantly blowing whether it is gentle or near gale force. However, the prevailing winds are generally from the west so there should be no impact to the air in any populated areas. In addition, the gathering should only last approximately three months, so impact to the air should be short lived.

2. Land

The land will only receive slight disturbance from the proposed gathering. The roads that will be improved have existed for years so the impact has already occurred. By regrading, making water bars, ditches, turnouts, etc., as needed, soil erosion should be greatly reduced from the roadbeds.

The other major land disturbance would be clearing areas of land to build the traps and holding facilities. The drive traps should require only about 1/4 acre to be cleared.

With the removal of a large number of horses, a lot of the pressure on the depleted forage resource should be removed. As recovery proceeds, native grasses and forbs should regain vigor and add organic matter to the soil. Because of the poor condition of the range it will probably take several years before a noticeable change can be seen. Wind erosion should decrease as vegetative cover increases. The long-term benefits to the land should outweigh the detrimental effects of disturbing approximately 5 acres of land. A pit will be used as the burial site for all old, sick, or lame animals which must be humanely destroyed. At each trap site this will require only a small additional ground disturbance.

3. Water

No detrimental effects are anticipated to any waters. Water quality should improve after the gathering as fewer animals will be using it. Trap sites will not be located on any of the perennial streams or springs.

4. Living Components

The vegetation which supports the wild horse population will improve with the removal of a significant amount of the year-long grazing pressure. Deterioration of the winterfat areas has been severe and these areas are most in need of rest from grazing. All other forage plants (mainly perennial bunchgrass) should respond with increased vigor. These benefits will help to begin restoration of the forage resource.

As for the relationship between wild horse reduction and benefits to wildlife, no firm conclusions can be made at this time. It is likely, though, that the decreased pressure on forage resources should benefit mule deer by reducing competition for forage. It is not anticipated that any harassment to mule deer should occur during trapping operations. No known raptor nesting areas exist in the gathering areas so no conflict is anticipated. No threatened or endangered species are located in the areas where trapping will take place. No traps will be used in the sand dunes area without clearance.

5. Ecological Interrelationships

Wild horses are currently the second largest consumers of forage on the capture area. The grazing pressure they apply to the range is on a year-round basis. No other large herbivore (cattle and deer) exerts year-round pressure in this manner. The removal of a large number of animals should provide a large measure of relief to the forage resource. The native perennial bunchgrasses and forbs should begin to regain vigor. It is probable that retrogressive succession would be at least slowed. Complete halt to retrogression is highly unlikely until further grazing pressure, especially during the growing season, is removed through livestock grazing plan modifications. When retrogression is halted, secondary succession can begin. As secondary succession progresses toward climax, the habitat for species, such as mule deer and sage grouse, should also improve.

6. Human Values

The majority of the landscape character should become more varied as the land takes on the appearance of sagebrush-grass savannah, instead of a monotonous stand of sagebrush.

Much information can be obtained from the gathered animals. All of this information will be useful in management of the horses in the future.

Local public opinion would most likely be strongly in favor of gathering wild horses. National opinions might be entirely the opposite, however, no firm conclusion can be made at this time. With such a large scale gathering planned, it is very probable that it will draw national attention.

The gathering should have no significant effect on the local economy.

B. Anticipated Impact of Alternatives

1. No Action

a. Air

The only effect on air quality might be the long-term increase in dust as the soil binding perennial grasses are overgrazed and killed.

b. Land

As vegetative cover is removed, especially the perennial grasses, soil protection from plant cover will decrease. Erosion, especially from wind would most likely increase. Water caused erosion might also increase. Since soil forming processes in all semi-desert areas create topsoil at a very slow rate, accelerated soil loss whether by wind or water only degrade the entire community.

c. Water

It is presently unknown how much sedimentation is caused by horses using the perennial streams and springs to water. Therefore, no conclusion can be made as to whether or not sedimentation will increase if no action is taken.

d. Living Components

No action would be very detrimental to the vegetative resource which supports the wild horse populations. The winterfat and shadscale areas are severely overgrazed. The continued drought and heavy overgrazing may destroy these important wintering areas for decades. In the big sagebrush areas, the native perennial grasses have either been grazed out or are in a low state of vigor. The big sagebrush sites contain far less perennial grass than they would in a high seral or climax condition. Big sagebrush has replaced the grasses and this effectively limits reestablishment of the perennial grasses once they are gone. This degraded habitat is less valuable for mule deer, sage grouse and most other mammalian and avian species.

e. Ecological Interrelationships

If no action is taken to relieve the forage over-obligation, retrogressive succession will continue. The whole ecosystem will be degraded until the pressure which causes the degradation is removed. As vegetative cover is removed, soil erosion will increase. This will decrease soil productivity which in turn hinders vegetative recovery. So a cycle is started which will be very difficult to break.

f. Human Values

No action will bring a loud outcry from the local population. If the situation on these mountain ranges continues to deteriorate, a large number of horses will die from starvation, or diseases caused by weakened condition. This would probably cause an outcry from wild horse protection groups. Thus, the Bureau could very conceivably receive more bad publicity from doing nothing than if they gather such a large number of animals.

2. Reduction of Cattle Numbers to Accommodate Horse Numbers

a. Air

Overall effects should be the same as described in the No Action Alternative.

b. Land

Removal of the cattle from the area would have a beneficial effect on the vegetation in that it would relieve the pressure on the depleted resource. The same number of cattle are turned on to the allotment each year. Horse numbers without control would continue to increase until they had surpassed what they are at present, plus what would be removed by cattle reductions. Without horse control depletion of the forage resource is inevitable. This will cause an increase in erosion of all types and cause a general overall degradation of the land.

c. Water

Again, removal of the cattle without control of the horse populations is only a temporary measure and a deterioration of the waters in the area will eventually occur.

d. Living Components

Deterioration of the forage resource and wildlife habitat will continue until the proposed gathering is implemented. The effect on all living components should be the same as described in the Proposed Action section.

e. Ecological Interrelationships

Effects are the same as the No Action Alternative.

f. Human Values

Effects are the same as the No Action Alternative.

C. Unmitigated Impacts

The horse population would be directly effected. The population would be eliminated or reduced to a very small number.

Soil compaction and vegetation trampling will occur in traps and other places of heavy concentration of horses.

Removal of a large number of horses from these mountain ranges will reduce the conflict and competition for forage between range users on critical areas. Reduction in forage use will increase the amount of forage available to cattle and wildlife.

The gathering operations will cause some stress on the horses and disturbance to wildlife and cattle.

D. Possible Mitigating Measures

1. Archeological clearance will be done on all trap sites prior to their construction. If archeological values are present, trap sites will be moved. No traps will be placed near any of the identified historic sites.
2. A Bureau employee will make a careful determination of a boundary line to serve as an outer limit within which attempts will be made to herd horses to a given trap. Topography, distance and current condition of the horses are factors that will be considered to set the limits so as to avoid undue stress on the horses while they are being herded.
3. Any trap sites located in the Sand Dunes area will be cleared by Bureau personnel to insure no population of the threatened species, Dalea kingii, are disturbed.
4. A veterinarian will be contracted to be on call at all times during the roundup.
5. All corral panels will be from 72" to 84" high in order to prevent horses from jumping out of traps.
6. Brutality to horses in any form will not be tolerated. Any employee who mistreats any horse will be dismissed immediately from the roundup operation.

7. A Bureau official will be in the helicopter at all times in order to insure that all stipulations are met and that horses are not over-stressed.
8. All holding facilities will meet U.S. Department of Agriculture and U.S. Department of the Interior specifications.
9. Only experienced horseback riders will be used in the gathering operation.
10. Experienced horse wranglers from the local area will be employed whenever possible.
11. All saddle horses will be properly shod and over three years in age. All saddles and tack will be in good repair.
12. Equine Infectious Anemia (EIA) samples will be taken at the holding facilities at Carson City.
13. Only experienced drivers will be used to transport the horses to the holding facilities.
14. The helicopter will have radio communications with the Authorized Officer or his designated representative at all times.

E. Adverse Impacts That Cannot Be Avoided

There are no adverse impacts which cannot be avoided. The use of portable panels for traps and wings will allow that all evidence of the roundup be removed.

IV. Relationship Between Short-term Use and Long-term Productivity

Short-term use under existing conditions would have subtle adverse effects on the animal and plant community. Without control of horse numbers range and watershed conditions would continue to deteriorate effecting the animals supported by them.

Increased horse numbers would further magnify the conflict between range users and produce a high degree of population stress. Elimination of horse numbers would help stabilize and/or improve the range and reduce population stress. This benefit would be recognized until horse numbers increase substantially. With periodic removal of excess horses the balance between range users can be properly managed pending evaluation of the plan and adjustments, if needed. The ultimate goal is to manage wild horses, wildlife and livestock in an ecological balance for the maximum use without jeopardizing the range health.

V. Irreversible and Irretrievable Commitment of Resources

There should be no permanent loss of any resources in these mountain ranges because of the proposed gathering.

Possible injury may result from the gathering of horses; if so, the animals would have to be destroyed in a humane way.

VI. Persons, Groups and Government Agencies Consulted

Roscoe E. Ferris, State BLM Wild Horse Specialist

Wild Horse Organized Assistance, Reno, Nevada

California Humane Association

T Quarter Circle c/o Henry Angus, Rancher, Winnemucca, NV.

Jack Fullenwider, Rancher, P. O. Box 128, Golconda, NV.

Glen Tipton, Rancher, P. O. Box 98, Golconda, NV.

Alvin & Anesita Miller, Ranchers, Star Rt. Box 138, Winnemucca, NV.

Ms. George Miller, Rancher, Star Rt. Box 162, Winnemucca, NV.

VII. Public Interest and/or Controversy

Due to the large nature of the proposed gathering, the public, both locally and even nationally, should show a high level of interest. Wild horse interest groups will undoubtedly closely scrutinize all phases of the gathering. Many of these horse protection groups have been very influential in shaping BLM policies concerning wild horse management. The Bureau has been enjoined many times by these groups and has been forced into court battles long before a roundup could begin. In the case of this gathering, it is possible that the Bureau may be taken to court. Basically, in the past, injunctions have been based on the premise that no management is the proper management for horses. Without adequate data, the Bureau has often lost these court cases and been stopped from gathering. Another problem should, theoretically at least, have been solved by the United States Supreme Court ruling in 1976 which clearly places wild horse responsibility with the United States. An agreement concerning brand inspection of captured animals has been drawn up for this gathering.

VIII. Recommendations of Preferred Action

Based on the foregoing facts and analysis, it is recommended that the proposed action be approved and adopted. It is further recommended that the stipulations and mitigating measures called for in this document be adopted.

IX. Participating Staff

Glenn T. Patterson, Range Conservationist
J. Ron Hall, Wild Horse Specialist
John R. Roney, District Archeologist
Carl J. Keller, Area Wildlife Biologist
Richard D. Wheeler, Range Conservationist
Robert G. Brown, Natural Resource Specialist

X. Signatures

Lead responsibility:

Paul W. Bryant
Paul W. Bryant
Natural Resource Specialist

11/20/77
Date

Edward J. Hopfer
Edward J. Hopfer
Range Technician

11-20-77
Date

Reviewed by:

J. Ron Hall
J. Ron Hall
Wild Horse Specialist

11/21/77
Date

Henry B. Beauchamp
Henry B. Beauchamp
Environmental Planning Coordinator

11/20/77
Date

Approved by:

William J. Harkenrider, Jr.
William J. Harkenrider, Jr.
Area Manager

1-17-78
Date

Chester E. Conard
Chester E. Conard
District Manager

1-18-78
Date



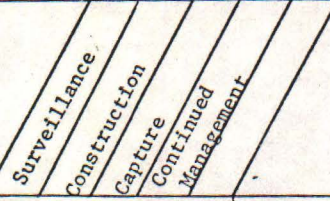
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action **Hot Springs Horse Removal**

2. Stages of implementation
Surveillance and Location of Traps, trap construction, capture

3. DISCRETE OPERATIONS



4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED	5. ANTICIPATED IMPACTS				6. REMARKS
	Surveillance	Construction	Capture	Management	
I. NONLIVING COMPONENTS					
A. AIR					
Air space	0	0	0	0	Vehicle travel & light construction
Particulate matter	0	L-	L-	L+	will not cause any significant dust hazards, good access to capture area provided through roads in the area.
B. LAND					
Soils-General	0	0	L-	L+	Soils profile will not be impacted
Erosion	0	0	L-	M+	appreciably by the implementation of the action. A reduction of erosion will be prevalent due to increased vegetative cover.
C. WATER					
Surface Water	0	0	0	M+	Riparian habitat pressures will
Ground-water	0	0	0	L+	be reduced.
Evapotranspiration	0	0	0	L+	
Hydrologic Cycle	0	0	0	L+	
II. LIVING COMPONENTS					
A. PLANTS (Aquatic)					
Riparian Habitat	0	0	0	L+	Pressure on the riparian habitat will be reduced.

DISCRETE OPERATIONS

Surveillance
Constructi
Capture
Confined
Management

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)					
	Shrubs	0	0	L-	M+	Pressure on the ever obligated
	Forbes	0	L-	L-	M+	forage resource will be greatly
	Grasses	0	L-	L-	M+	reduced allowing an increase in
						vegetative cover.
	C. ANIMALS (Aquatic)					
	Non-applicable					
D. ANIMALS (Terrestrial)	Mammals	0	L-	L-	M+	Horse removal will ease competitio
	Birds	0	L-	L-	M+	for forage with mule deer & chukar
	Reptiles	0	L-	L-	M+	populations due to increased
						vegetation
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
	Succession	0	0	0	L+	Secondary succession should begin
	Energy transfer	0	0	0	L+	with the elimination of the over
					obligation of forage	
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
	Aesthetics	0	0	0	L-	General appearance of the
	Open space	0	L-	L-	0	landscape will improve with the
						increase in vegetative cover
B. SOCIOCULTURAL INTERESTS						
Human interest	0	X	X	L+	Controversy may arise due to	
					action taken	

INSTRUCTIONS

- Action** - Enter action being taken, analytic step for which worksheet is being used, environmental viewpoint of impact, and any assumptions relating to impact.
 - Worksheet is normally used to analyze "Anticipated Impacts" of action, however, it may be used to analyze "Residual Impacts." Worksheets may also be used to compare impacts before and after mitigating measures are applied.
 - State viewpoint that best describes environmental impact. For example, a fence viewed down the fence line has greater impact than the same fence viewed over an entire allotment. Generally, narrow viewpoints better illustrate specific impacts than will broad viewpoints.
 - Assumptions may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
- Elements Impacted** - Enter under appropriate heading all environmental elements susceptible to impact from action and alternatives. Relevant elements not contained in the digest should also be entered. See BLM Manual 1791, Appendix 2, Environmental Digest.
- Anticipated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate square indicating degree of impact as low (L), medium (M), high (H), no impact (O), or unknown or negligible (X). Precede each entry by a plus (+) or minus (-) sign indicating a beneficial or adverse type of impact. If type of impact reflects a matter of opinion or is not known, do not precede with a sign. For example, construction of a wind mill on open range has a definite visual impact; however, to some people the effect is detrimental while to others it is an improvement. By not entering a plus (+) or minus (-) sign the worksheet is kept factual and unbiased. If both degree and type of impact are unknown, place an (x) in the appropriate square.
 - The measures of impact (e.g. low, medium, and high) are relative and their meaning may vary slightly from action to action. The term "low" should not be applied to impacts of a negligible nature. For example, we know that a pickup truck driving down a proposed fence line laying wire has some impact on air quality. However, the significance of this impact is not normally great enough to warrant even a "low" rating. In cases like this, the impact will usually be marked "O" or the element left off the worksheet.
 - It is recognized that some environmental elements may defy accurate measurement or in-depth analysis within current Bureau capabilities or expertise. The nature of the action as well as type and degree of impact should guide in the decision to seek outside expertise or assistance.
- Remarks** - Enter clarifying information.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action

Osgood Mountains Horse Removal

2. Stages of implementation

Surveillance and location of traps, trap construction, capture.

3. DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR					
	Air Space	0	0	0	0	Vehicle travel and light construction will not cause any significant dust hazard. Access to capture area readily available via roads in area.
	Particulate Matter	0	L-	L-	L+	
	B. LAND					
	Soils - General	0	0	L-	L+	Soils profile will not be impacted appreciably by the implementation of the action. A reduction of erosion will be prevalent due to increased vegetation.
	Erosion	0	0	L-	L+	
	C. WATER					
	Surface Water	0	0	0	L+	Riparian habitat pressures will be lessened.
	Ground Water	0	0	0	L+	
	Evapotranspiration	0	0	0	L+	
Hydrologic Cycle	0	0	0	L+		
II. LIVING COMPONENTS	A. PLANTS (Aquatic)					
	Riparian Habitat	0	0	0	L+	Pressure on the riparian habitat will be reduced.

DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Cont.)	B. PLANTS (<i>Terrestrial</i>)					
	Shrubs	0	L-	L-	M+	Pressure on an over obligated for-
	Forbs	0	L-	L-	M+	age resource will be reduced.
	Grasses	0	L-	L-	M+	
	C. ANIMALS (<i>Aquatic</i>)					
	Non-Applicable					
II. LIVING COMPONENTS (Cont.)	D. ANIMALS (<i>Terrestrial</i>)					
	Mammals	0	0	0	M+	Horse removal will ease competi-
	Reptiles	0	0	0	M+	tion with mule deer and chukar
	Birds	0	0	0	M+	populations due to increased
					vegetation.	
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
	Succession	0	0	0	L+	
	Energy Transfer	0	0	0	L+	Secondary succession should begin
					with the elimination of the over	
					obligation of forages.	
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
	Aesthetics	0	0	0	L+	General appearance of the land-
	Open Space					scape will improve with an increase
						in vegetative cover.
IV. HUMAN VALUES	B. SOCIOCULTURAL INTERESTS					
	Human Interest	0	X	X	L+	Controversy may arise due to action
					taken.	

INSTRUCTIONS

- Action** - Enter action being taken, analytic step for which worksheet is being used, environmental viewpoint of impact, and any assumptions relating to impact.

 - Worksheet is normally used to analyze "Anticipated Impacts" of action; however, it may be used to analyze "Residual Impacts." Worksheets may also be used to compare impacts before and after mitigating measures are applied.
 - State viewpoint that best describes environmental impact. For example, a fence viewed down the fence line has greater impact than the same fence viewed over an entire allotment. Generally, narrow viewpoints better illustrate specific impacts than will broad viewpoints.
 - Assumptions may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
- Elements Impacted** - Enter under appropriate heading all environmental elements susceptible to impact from action and alternatives. Relevant elements not contained in the digest should also be entered. See BLM Manual 1791, Appendix 2, Environmental Digest.
- Anticipated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate square indicating degree of impact as low (L), medium (M), high (H), no impact (O), or unknown or negligible (X). Precede each entry by a plus (+) or minus (-) sign indicating a beneficial or adverse type of impact. If type of impact reflects a matter of opinion or is not known, do not precede with a sign. For example, construction of a wind mill on open range has a definite visual impact; however, to some people the effect is detrimental while to others it is an improvement. By not entering a plus (+) or minus (-) sign the worksheet is kept factual and unbiased. If both degree and type of impact are unknown, place an (x) in the appropriate square.

 - The measures of impact (e.g. low, medium, and high) are relative and their meaning may vary slightly from action to action. The term "low" should not be applied to impacts of a negligible nature. For example, we know that a pickup truck driving down a proposed fence line laying wire has some impact on air quality. However, the significance of this impact is not normally great enough to warrant even a "low" rating. In cases like this, the impact will usually be marked "O" or the element left off the worksheet.
 - It is recognized that some environmental elements may defy accurate measurement or in-depth analysis within current Bureau capabilities or expertise. The nature of the action as well as type and degree of impact should guide in the decision to seek outside expertise or assistance.
- Remarks** - Enter clarifying information.

DISCRETE OPERATIONS

Surveillance
Construction
Capture
Confinement
Management

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS	
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)						
	Shrubs	0	X-	X-	M+	Pressures on an already over obligated forage area will be reduced allowing on increased in vegetative cover.	
	Forbs		L-	L-	M+		
	Grasses		L-	L-	M+		
	C. ANIMALS (Aquatic)						
III. INTERRELATIONSHIPS	D. ANIMALS (Terrestrial)						
	Mammals	0	0	0	M+	Horse removal will ease competition with mule deer and chukar populations due to increases in vegetation.	
	Reptile	0	0	0	M+		
	Birds	0	0	0	M+		
	A. ECOLOGICAL PROCESSES						
	Succession	0	0	0	L+	Secondary succession should start with the elimination of the over obligation of forage.	
	Energy Transfer	0	0	0	L+		
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER						
	Aesthetics	0	0	0	L+	General appearance of the landscape will improve with the proper management of the area. This includes managing horse numbers.	
	Open Space	0	L-	L-	0		
	B. SOCIOCULTURAL INTERESTS						
	Human Interest	0	X	X	L+	Controversy may arise due to the action being taken.	

INSTRUCTIONS

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 - Assumptions may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
- Elements Impacted** - Enter under appropriate heading all environmental elements susceptible to impact from action and alternatives. Relevant elements not contained in the digest should also be entered. See BLM Manual 1791, Appendix 2, Environmental Digest.
- Anticipated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate square indicating degree of impact as low (L), medium (M), high (H), no impact (0), or unknown or negligible (X). Precede each entry by a plus (+) or minus (-) sign indicating a beneficial or adverse type of impact. If type of impact reflects a matter of opinion or is not known, do not precede with a sign. For example, construction of a wind mill on open range has a definite visual impact; however, to some people the effect is detrimental while to others it is an improvement. By not entering a plus (+) or minus (-) sign the worksheet is kept factual and unbiased. If both degree and type of impact are unknown, place an (x) in the appropriate square.
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- Remarks** - Enter clarifying information.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action

Krum Hills Horse Removal

2. Stages of implementation

Surveillance and Location of Traps, Trap Construction, Capture

3. DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

	4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED	5. ANTICIPATED IMPACTS				6. REMARKS
		Surveillance	Construction	Capture	Continued Management	
I. NONLIVING COMPONENTS	A. AIR					
	Air Space	0	0	0	0	Vehicle travel and light construction will not cause any significant dust hazards. Good access to capture area provided thru roads in the area.
	Particulate Matter	0	L-	L-	L-	
	B. LAND					
	Soils - General	0	0	L-	L+	Soils profile will not be impacted appreciably by the implementation of the action. A reduction of erosion will be prevalent due to increased vegetative cover.
	Erosion	0	0	L-	M+	
	C. WATER					
Surface Water	0	0	0	M+	Riparian habitat pressures will be reduced.	
Ground Water	0	0	0	L+		
Evapotranspiration	0	0	0	L+		
Hydrologic Cycle	0	0	0	L+		
II. LIVING COMPONENTS	A. PLANTS (Aquatic)					
	Riparian Habitat	0	0	0	L+	Pressure on the riparian habitat will be reduced.

DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)					
	Shrubs	0	0	L-	M+	Pressure on the over obligated
	Forbs	0	L-	L-	M+	forage area will be reduced due
	Grasses	0	L-	L-	M+	to increased vegetative cover.
	C. ANIMALS (Aquatic)					
	Non-Applicable					
	D. ANIMALS (Terrestrial)					
	Mammals	0	0	0	M+	Horse removal will ease competi-
	Reptiles	0	0	0	M+	tion for forage with mule deer and
	Birds	0	0	0	M+	chukar populations due to increased
					vegetation.	
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
	Succession	0	0	0	L+	Secondary succession should begin
	Energy Transfer	0	0	0	L+	with the elimination of the over
					obligation of forage.	
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
	Aesthetics	0	0	0	L-	General appearance of the land-
	Open Space	0	L-	L-	0	scape will improve with the increas-
						in vegetative cover.
	B. SOCIOCULTURAL INTERESTS					
Human Interest	0	X	X	L+	Controversy may arise due to action	
					taken.	

INSTRUCTIONS

- Action** - Enter action being taken, analytic step for which worksheet is being used, environmental viewpoint of impact, and any assumptions relating to impact.

 - Worksheet is normally used to analyze "Anticipated Impact" of action, however, it may be used to analyze "Elements Impacted". Worksheets may also be used to compare impacts before and after mitigating measures are applied.
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 - Assumptions may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
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- Anticipated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate square indicating degree of impact as low (L), medium (M), high (H), no impact (0), or unknown or negligible (X). Precede each entry by a plus (+) or minus (-) sign indicating a beneficial or adverse type of impact. If type of impact reflects a matter of opinion or is not known, do not precede with a sign. For example, construction of a wind mill on open range has a definite visual impact; however, to some people the effect is detrimental while to others it is an improvement. By not entering a plus (+) or minus (-) sign the worksheet is kept factual and unbiased. If both degree and type of impact are unknown, place an (x) in the appropriate square.

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 - It is recognized that some environmental elements may defy accurate measurement or in-depth analysis within current Bureau capabilities or expertise. The nature of the action as well as type and degree of impact should guide in the decision to seek outside expertise or assistance.
- Remarks** - Enter clarifying information.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action

Slumbering Hills Horse Removal

2. Stages of implementation

Surveillance and Location of Traps, Trap Construction, Capture

3. DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

	4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED	5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR					
	Air space	0	0	0	0	Vehicle travel and light construction will not cause any significant dust hazards. Good access to capture area is provided thru roads in the area.
	Particulate Matter	0	L-	L-	L+	
	B. LAND					
	Soils - General	0	0	L-	L+	Soils profile will not be impacted appreciably by the implementation of the action. A reduction of erosion will be prevalent due to increased vegetative cover.
	Erosion	0	0	L-	M+	
C. WATER						
Surface Water	0	0	0	M+	Riparian habitat pressures will be reduced.	
Ground Water	0	0	0	L+		
Evapotranspiration	0	0	0	L+		
Hydrologic Cycle	0	0	0	L+		
II. LIVING COMPONENTS	A. PLANTS (Aquatic)					
	Riparian Habitat	0	0	0	L+	Pressure on the riparian habitat will be reduced.

DISCRETE OPERATIONS

Surveillance
Construction
Capture
Continued Management

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS	
LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)						
	Shrubs	0	0	L-	M+	Pressure on the already over obligated forage area will be reduced due to increased vegetative cover.	
	Forbs	0	L-	L-	M+		
	Grasses	0	L-	L-	M+		
	C. ANIMALS (Aquatic)						
	Non-Applicable						
III. INTERRELATIONSHIPS	D. ANIMALS (Terrestrial)						
	Mammals	0	0	0	M+	Horse removal will ease competition for forage with mule deer and chukar populations due to increased vegetation.	
	Reptiles	0	0	0	M+		
	Birds	0	0	0	M+		
	A. ECOLOGICAL PROCESSES						
	Succession	0	0	0	L+	Secondary succession should begin with the elimination of the over obligation of forage.	
	Energy Transfer	0	0	0	L+		
I. HUMAN VALUES	A. LANDSCAPE CHARACTER						
	Aesthetics	0	0	0	L-	General appearance of the landscape will improve with the increase in vegetative cover.	
	Open Space	0	L-	L-	0		
	B. SOCIOCULTURAL INTERESTS						
Human Interest	0	X	X	L+	Controversy may arise due to action taken.		

INSTRUCTIONS

- a. **Assess Impact** - Identify the impact of each action and phase on each element and place an entry in the appropriate column reflecting degree of impact as indicated in the instructions.

b. **State viewpoint** that best describes environmental impact. For example, a fence viewed down the fence line has greater impact than the same fence viewed over an entire allotment. Generally, narrow viewpoints better illustrate specific impacts than will broad viewpoints.

c. **Assumptions** may be made to establish a base for analysis (e.g. estimated time periods, season of year, etc.).
- Stages of Implementation** - Identify different phases of proposed project (e.g. a road project consists of survey, construction, use, and maintenance stages).
- Discrete Operations** - Identify separate actions comprising a particular stage of implementation (e.g. the construction stage of the road project has the discrete operations of clearing, grading, and surfacing).
- Elements Impacted** - Enter under appropriate heading all environmental elements susceptible to impact from action and alternatives. Relevant elements not contained in the digest should also be entered. See BLM Manual 1791, Appendix 2, Environmental Digest.
- Estimated Impact** - Evaluate anticipated impact on each element and place an entry in the appropriate column reflecting degree of impact as indicated in the instructions.

a. **Beneficial or Adverse** - Indicate whether the impact is beneficial or adverse to the element. Beneficial impacts are indicated by a plus (+) sign and adverse impacts by a minus (-) sign. If the impact is neither beneficial nor adverse, no sign is required. If the impact is both beneficial and adverse, the impact should be indicated with a sign. If the degree of impact is unknown, place an (x) in the appropriate square.

b. **It is recognized** that some environmental elements may defy accurate measurement or in-depth analysis with current Bureau capabilities or expertise. The nature of the action as well as type and degree of impact should guide in the decision to seek outside expertise or assistance.
- Remarks** - Enter clarifying information.

FLANIGAN WILD HORSE HERD
MANAGEMENT AREA PLAN

ADDENDUM

Flanigan Wild Horse Herd Management Area Plan
and
Environmental Analysis Record

The Flanigan Wild Horse Herd Management Area Plan proposes permanent management facilities in the herd area.

It is the decision of the District Manager to use temporary facilities until such time as the United States Supreme Court rules on the constitutionality of Public Law 92-195.

Permanent facilities affected are:

Upper adobe water trap
East Virginia Peak wing trap
Cottonwood Canyon wing trap
13½ miles fence construction
Marl Holding and Sorting corral

An interdisciplinary team has assessed the environmental impacts of the proposed action which includes the herd management area plan and the horse removal in the Pyramid Planning Unit. It is the decision of the interdisciplinary team that the substitution of temporary facilities for permanent facilities will not create any additional environmental impact.

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A. Background Information

The Flanigan Wild Horse Herd - A Brief History

It is generally assumed by local ranchers that these horses originated from ranch stock that was turned out in the area. These horses ranged on the north end of the Virginia Mountain until the construction of the Red Light Fence in 1952 and the Fort Sage - Mud Springs Fence in 1955. These two fences restricted what is now the Flanigan Herd to the summer range within Flanigan Grazing Allotment which is licensed by the Fish Springs Ranch. A few horses remained in the Winnemucca Ranch and Big Canyon Allotments. Occasional drift of the horses would occur into the Winnemucca Ranch and Big Canyon Allotments when snows or the horses would knock down these fences.

In 1962 there were approximately 140 horses in the Flanigan Herd. These horses were causing damage to water developments and fences as well as consuming a large amount of forage. In 1962 approximately 100 horses were gathered leaving 40 animals in the Flanigan Allotment.

In 1973 Earl Batteate claimed the majority of the Flanigan Herd (estimated at 96 animals). This claim was rejected (11/21/73) by the District Manager for lack of adequate proof of ownership.

Earl Batteate at this time contends that the horses (130-1975 estimate) are from the former Heller stock (previous owner of the Fish Springs Ranch). He will submit another claim with affidavits from witnesses stating that these horses are former Heller Stock.

At this time it is believed a reservation of forage for wild horses (1200 AUM's) and not allowing the permittee to be on the Federal range during the critical growing season of the forage species will make the Fish Springs Ranch a marginal livestock operation.

A. Background Information

1. Maps

See Attached Maps ($\frac{1}{2}$ " / mile, $2\frac{1}{2}$ " / mile)

2. Location and Area

The herd area is located at the north end of the Pyramid Planning Unit, approximately 50 miles north of Reno, Nevada. The herd ranges on the extreme north end of the Virginia Mountains within the summer range of the Flanigan Grazing Allotment. The herd area includes 19,945 Federal acres and 1,590 private acres totaling 21,534 acres.

3. Resource Data

The Management Framework Plan for the Pyramid Planning Unit has been completed. Resource data may be obtained in the Step 3 of the Unit Resource Analysis.

The erosion condition for the herd area varies from slight (Big Sage) to moderate (Pinyon-Juniper type). The average soil surface factor is 27 (stable). Generally there appears to be no erosion problem.

The grazing capacity is as follows within the herd area:

	<u>Year</u> ¹	<u>Acres</u> ¹	<u>AUM(Animal Unit Month)</u> ¹
Federal	1975	19,945	2963
Private	1975	<u>1,590</u>	<u>243</u>
		21,535	3206
Federal	1973	17,095	2465
Private	1973	<u>1,380</u>	<u>201</u>
		18,475	2666

¹ Herd area increased from 1973 to 1975.

Condition and trend data (completed 1964) for the Flanigan Allotment is as follows:

Condition:

Satisfactory	90%
Unsatisfactory	10%

Trend:

Up	33%
Static	67%
Down	0%

Recent condition data is not available. Condition data will be completed in the Flanigan Allotment by the end of FY 76.

Big game species habitat found within the herd area include deer winter, deer yearlong range, and antelope yearlong range. Upland game species includes sage grouse, chukar and mourning dove. No critical habitat has been identified for any of the above mentioned species. No threatened species habitat has been identified in the Flanigan Allotment.

The Flanigan Herd forage requirements are as follows:

Year	Herd Total	Forage Requirement
1973	96	1152 AUM
1975	130	1560 AUM
1974	100 ¹	1200 AUM

¹ Step III MFP Decision

Qualifications for the Flanigan Allotment which includes the horse area are as follows:

Active Use	5062
Suspended Non-Use ¹	2306
Cal-Nev Unit Active	185
TOTAL	<u>7,553</u>

¹ 2306 AUMs suspended non-use is the difference between the grazing demand and the grazing capacity in the 1967 adjudication of grazing privileges.

No forage has been reserved for wild horses or wildlife in the Flanigan Allotment.

A break down of Flanigan Herd numbers, colors, and sex is shown in Tables 3 and 4. The Flanigan Herd has increased 17%/year from 1973 to 1975.

Color slides of the herd are maintained in the district files.

Forage species include big sage (Artemisia tridentata) black sage (Artemisia nova), needle and thread (Stipa comata), blue bunch wheatgrass (Agropyron spicatum), cheat grass (Bromus tectorum), and meadow grass species in the low depressions and drainages.

Scattered junipers (Juniperus osteosperma) exist throughout the area. These trees provide shelter from the winter winds as well as escape cover.

Water is plentiful throughout the area with East and West Cottonwood Canyons having available live water their entire length year round. A number of the waters in the area have been developed (See Existing Projects). A total of 18 springs are present. These include developed and undeveloped springs on private lands.

The horses within the herd show little movement from east to west (laterally along the slope of the mountain).

There is movement up down the slope with the winter snows. However, only severe snow will move the animals to the extreme lower elevations.

The horses are familiar with escape routes and capture in this rugged terrain will be extremely difficult in a major portion of area.

4. Coordination

The Management Framework Plan Step III Decision is as follows:

1. Establish an intensive wild horse management area in the Flanigan Area. Maintain in that area the current population of about 100 horses (1973 estimate).

2. Conduct studies to determine the biological requirement of this herd. Based on these studies, determine the optimum number of wild horses that can be maintained in this intensive management area and adjust numbers accordingly.

Maintenance of 100 horses will require a reduction in active use of 1200 AUM's for Fish Springs Ranch (licensed in the Flanigan Allotment). Qualifications for Fish Springs Ranch with consideration for maintenance of the wild horse herd would be:

Active Use	3,862
Suspended Non-Use	2,306
Cal-Nev Unit Active	185
Reservation of Forage for Wild Horses	<u>1,200</u>
TOTAL	<u>7,553</u>

A cooperative agreement with Nevada Department of Agriculture will be negotiated to assure that both federal and state responsibilities are adequately identified.

The Flanigan herd area is within one mile of the fenced boundary of the Pyramid Indian Reservation. Cooperative relations will be maintained with the tribal leaders for the maintenance of the reservation fence.

Fence cooperative agreements will continue between Joe, Pete Capurro and Sons, W. Dalton La Rue, Fish Springs Ranch and the Bureau of Land Management for existing projects.

Cooperative relations will be maintained with the organized wild horse groups for the disposal of excess horses.

The Bureau of Land Management is the only land management agency involved. Patented lands within the area are owned by Earl N. Batteate (1270 Acres) and Helen M. Garboe (320 Acres).

5. Existing Projects

At this time the herd area is partially enclosed on the north by the Fort Sage Cottonwood Drift Fence (Job 4263), on the east by the Red Light Drift Fence (Job 0210) and on the south by the Fort Sage-Mud Spring Fence (Job 5005).

All of these fences are over 20 years old.

The Cottonwood Stock Trail (Job 4004) provides access through the center of the herd area. The remainder of the herd area is rugged and is generally accessible by four wheel drive jeep trails.

Spring developments include: 1) Sheep Trough Springs (Job 4325); 2) Rock Spring (Job 4326); 3) Lower Salt Cabin Spring (Job 5032); 4) Lower Adobe Spring (Job 5019) and 5) Upper Adobe Spring and Pipeline (No job no.).

Ten other undeveloped springs exist on federal land. Five private spring developments exist in the area.

B. Objectives

1. Habitat

- a. Maintain the watershed in a slight erosion condition.
- b. Maintain the range condition at 90% satisfactory level and allow no downward trend.
- c. Reserve adequate forage in the Flanigan Allotment to meet the biological requirement of 100 wild and free roaming horses (1200 AUMs) on a continuing basis.

2. Animal

- a. Management practices shall be at the minimal feasible level and shall be consistent to the extent possible and practical with the maintenance of their free roaming behavior.
- b. The Flanigan Wild Horse Herd will be maintained at a maximum of 100 animals through disposal to private individuals, removal to other herd management areas or destruction of the animals.

3. Other

- a. Provide adequate forage for 365 cows from 6/15 to 11/31 (1907 AUMs - 95% F.R.) within the herd management area (Fish Springs Ranch Permit).
- b. Provide forage for a reasonable population of deer (estimated to be 150).

C. Management Methods

1. Habitat

Maintaining the slight erosion condition, 90% satisfactory condition and static or improving trend can be accomplished through a proper stocking rate within the herd management area as follows:

	<u>1 AUM</u>	<u>1 Acres</u>
¹ Active Use (livestock)	1,907	23,770 (Fed.)
Reservation of Forage for Wild Horses	1,200	
^{1&2} Private Lands	<u>201</u>	<u>1,380 (Private)</u>
TOTAL	<u>3,308</u>	<u>25,150</u>

- ¹ Within proposed fenced Wild Horse Area
² 138 AUM - Batteatte, 63 AUM Garboe

Reservation of 1,200 AUM's will meet the biological requirements of 100 wild horses while maintaining and/or improving the habitat.

2. Animal

a. Initial Gathering

Currently there are 130 horses (both estrays and wild) in the herd management area. All of the animals must be gathered to determine which are wild and which are estrays.

The Management Framework Plan Step III Decision provides for the maintenance of 100 wild horses. Therefore:

- a. If more than 100 wild horses are gathered then only 75 will be returned to the herd management area and the remaining animals will be disposed of through 1) cooperative agreement to private individuals; 2) relocated to other areas or 3) destroyed.
- b. If fewer than 75 wild horses are returned to the Flanigan Herd Management Area then horses gathered from other herds may be placed in this area to make up total herd of 75 animals.

The herd will not be managed for color, conformation or "Native Barb" characteristics.

The initial turn out figure of 75 animals will allow for a 1 to 2 years annual increase in the herd, while allowing a thorough culling of the sick, old, injured and excess studs.

Turn out of the 75 horses will be broken down by sex as follows:

Sex	Proposed Numbers	Percent	1975 Numbers	Percent
Mares	50 ¹	65	56	43
Studs	10 ¹	14	35	27
Studs	5 ²	7		
Yearlings and Colts	5 male ³ 5 fem. ³	7 7	36	28
Unknown			3	2
	75	100	130	100

- 1 1 Stud to 5 mares
- 2 For replacement and competition
- 3 1 to 1 ratio

Total gathering of the Flanigan Herd without the use of aircraft is going to be exceedingly difficult if not, impossible due to the availability of water and the rugged terrain.

Two wing traps sites, one water trap site and one holding corral are proposed.

Table 1. Trap Site and Type (See Map)

<u>Location</u>	<u>Type</u>	<u>Temp or Permanent</u>
East Virginia Peak	Wing Trap	Permanent
Cottonwood Canyon	Wing Trap	Permanent
Upper Adobe Spring	Water Trap	Permanent
Marl Corral	Holding and Sorting Corral	Permanent

Three miles of trail construction is necessary to provide access for equipment and horse removal to the Adobe water

trap and the East Virginia wing trap. Access is available to the Cottonwood Canyon wing trap. A small pipeline (1/8 mile) is required to water the Marl Holding Corral.

b. Maintenance of the Herd

The herd will be maintained at a maximum of 100 animals, an annual increase of 15% is expected.

The three traps constructed for the initial gathering will be permanent and will be used as a part of the maintenance of the herd.

If a particular animal cannot be captured through the use of the permanent traps then the animal will be destroyed. Equipment is now maintained in the district office for this purpose.

The herd area increased 2 miles to the west from the years 1973 to 1975. Three miles of fence construction (see map) on the 1973 herd boundary is necessary to maintain the herd in its present geographic range on the west side of the area. On the eastern perimeter of the area 10½ miles of fence is proposed to maintain the horses within the area and facilitate livestock management within the horse area. The proposed fence is adjacent to the county road and will allow the horses to drop to the lower elevations for additional public viewing. The fence will also allow horse movement 2 miles to the east. This eastern area in addition to lower elevational area provided will allow winter use under severe conditions.

Fencing the herd boundary (8½ miles) on the east as opposed to a fence along the county road would be difficult to construct and would not allow the additional public viewing and winter range.

3. Others

With the reservation of forage for 100 wild horse (1200 AUM), 1907 AUM's are available for livestock use. The present operation by the Fish Springs Ranch is as follows:

	100 C	3/1 to 3/31	90% F.R.	90 AUM
(Horse area-	750 C	4/1 to 10/31	90% F.R.	4725 AUM
included in)	50 C	11/1 to 2/28	90% F.R.	180 AUM

The following turn-in date for cattle in the wild horse area

will give the proper stocking rate and proper season of use:

Defer to Peak of Flowering of Agsp 365 C 6/15 to 11/31
95% F.R. 1907 AUMs.

A small number of deer may be found in the area. The present estimate is 95 animals. A herd of antelope (15 animals) move into the area occasionally.

The future deer number has been anticipated to be 150 animals. The required forage necessary to support this population is 225 AUMs.

D. Cooperative Agreements

E. Management Facilities and Equipment

1. Permanent Facilities

- a. Water trap Adobe Sp.
40 man days @ 25.00/day

Estimated Cost
Material \$1,800
1,000
\$2,800

- b. 3 miles of road (stock trail) to
haul material and animals to Adobe
Spring and East Virginia Peak Trap
3 miles @ \$600/mi.

\$1,800

c.	1 Permanent wing trap on east of Virginia Peak	\$ 2,800
d.	1 Permanent wing trap at mouth of East Cottonwood Canyon	\$ 2,800
e.	Marl Holding and Sorting Corral Material, Labor	\$ 4,000
f.	13½ miles fence on east and west sides of Herd Area @ 1300/mile	\$17,550
g.	Marl Pipeline and Trough (1/8 Mi.) to service Marl Holding and Sorting Corral	\$ 1,000
h.	Annual aerial inventory - 2 helicopter hours @ \$125.00/Hr.	\$ 250
	Sub-Total	\$33,000

2. Temporary Expenditures

a.	Contract to catch horses in above traps and deliver to Fred True Well Holding Corral 130 horses @ \$200/Horse	\$26,000
b.	Veterinary fees for injured horses and shots when given to owners for adoption.	\$ 1,000
c.	10 tons of hay for holding area	\$ 6,000
	Sub-Total	\$33,000
	GRAND TOTAL	\$66,000

F. Studies

Studies are an integral part of the Flanigan Herd Management Area Plan as provided for in the MFP Step III Decision:

"Conduct studies to determine the biological requirement of this herd. Based on these studies, determine the optimum number of wild horses that can be maintained in this intensive management area and adjust numbers accordingly."

1. Standard BLM studies

The Flanigan Allotment is scheduled fourth in the Pyramid Planning Unit for an Allotment Management Plan. Standard BLM studies prior to the AMP will include:

Range Survey
Actual Use
Utilization
Condition and Trend
Climatological Data
Phenology

2. Other Studies

a. Habitat

Studies should be initiated to determine horse forage preference and season of use by plant species.

A study to determine range suitability for horses should also be considered.

b. Animal

Annual herd increase will be studied through a annual aerial survey.

A mortality study should also be considered (i.e., autopsy on the animals found dead and those destroyed).

G. Modification

This plan may be modified if data from studies and experience gained indicate that changes are desirable. Modification will be based on the results of the animal and habitat studies, inspections and/or operational problems.

Modification may also be initiated in conjunction with the Environmental Impact Statement scheduled to be completed in 1980.

H. Support

1. Fire Protection

Fire protection is critical. Loss of forage due to fire may require a reduction of the herd in order to maintain the condition and trend of the area.

2. Lands

Land exchanges should be considered when lands are offered by either Earl Batteate or Helen Garboe (present land owners).

3. Emergency Feeding

Emergency feeding of horses has been considered when the winter forage situation for herds throughout the west becomes critical. Emergency feeding for the Flanigan Herd should not be considered unless the survival of the entire herd appears to be in jeopardy (possibly below 20 animals).

I. Signatures

Prepared by:

Pardee Bardwell, Wildlife Biologist, Lahontan R.A.

Chris Erb, Range Conservationist, Lahontan R.A.

Bill R. Stewart, Range Technician, Lahontan R.A.

Concurred by:

Norman L. Murray
Norman L. Murray
Area Manager, Lahontan R.A.

2-11-76
Date

Approved by:

L. Paul Applegate
L. Paul Applegate, District Manager
Carson City District

2-12-76
Date

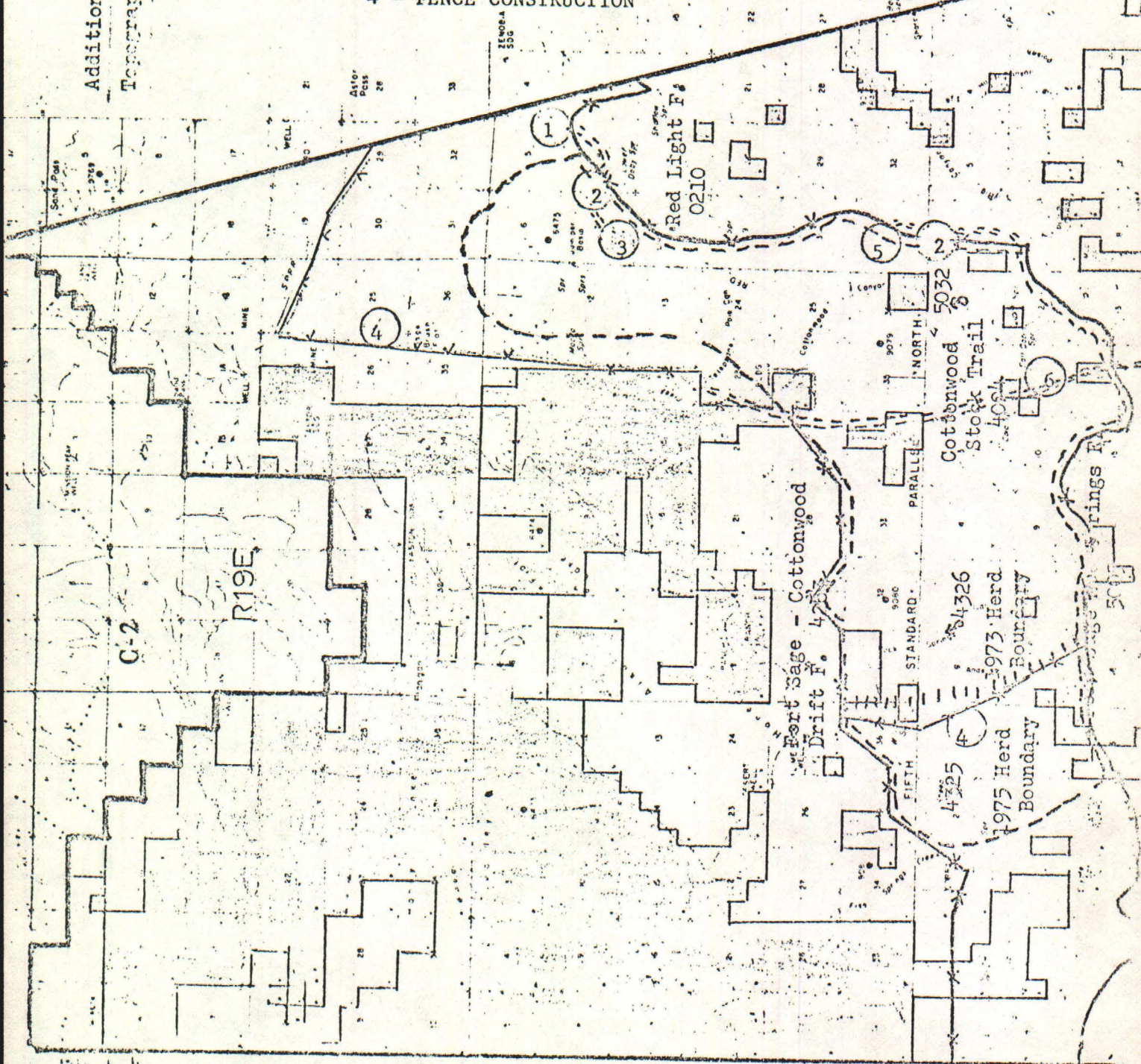
E. I. Rowland
State Director, Nevada

Date

PROPOSED PERMANENT FACILITIES (PURPLE)

- 1 - MARL HOLDING & SORTING CORRAL & PIPELINE
- 2 - TRAIL CONSTRUCTION
- 3 - UPPER ADOBE SP. WATER TRAP
- 4 - FENCE CONSTRUCTION
- 5 - E. VIRGINIA PEAK WING TRAP
- 6 - COTTONWOOD CANYON WING TRAP

Additional
Topographic Map



FLANGAN ALLOT.
BOUNDARY (RED)

PRIVATE LANDS
(GREEN)

NATIONAL RESOURCE
LANDS (WHITE)

T. 27 N.

R. 26 N.

Table 2. Flanigan Herd Composition
 Adapted from aerial survey - 2/1973

Band No.	Total	Studs	Colts	Mares	Yearlings	Unknown
1	14	1	4	9	0	
2	3	3	0	0	0	
3	9	1	2	6	0	
4	12	1	2	6	3	
5	10	1	3	4	2	
6	2	2*	0	0	0	
7	3	3	0	0	0	
8	12	1	2	6	3	
9	4	1	1	2	0	
10	4	4	0	0	0	
11	8	1	3	4	0	
12	5	1	2	2	0	
13	8	1	3	4	0	
14	2	2	0	0	0	
	96	23	22	43	8	0

*Located on East side of Division Fence between Flanigan and Big Canyon Allotments

Table 3. Flanigan Herd Composition
 Adapted from aerial survey - 2/7/75.

Band No.	Total	Studs	Colts	Mares	Yearlings	Unknown
1	8-	1		4	2	1
2	8-	1	1	4	2	
3	3-	1		1	1	
4	11-	1	1	5	4	
5	4-	1		2	1	
6	3-	1		1	1	
7	5-	1		3	1	
8	2-	2(old)				
9	2-	2				
10	5-	1		2	2	
11	6-	1		3	2	
12	1-	1(old)				
13	5-	1	1	2	1	
14	4-	1		2	1	
15	7-	1	1	3		2
16	6-	1		4	1	
17	5-	5				
18	3-	1		1	1	
19	4-	1		2	1	
20	2-	2				
21	8-	1		4	3	

Table 3. Flanigan Herd Composition
 Adapted from aerial survey - 2/7/75.

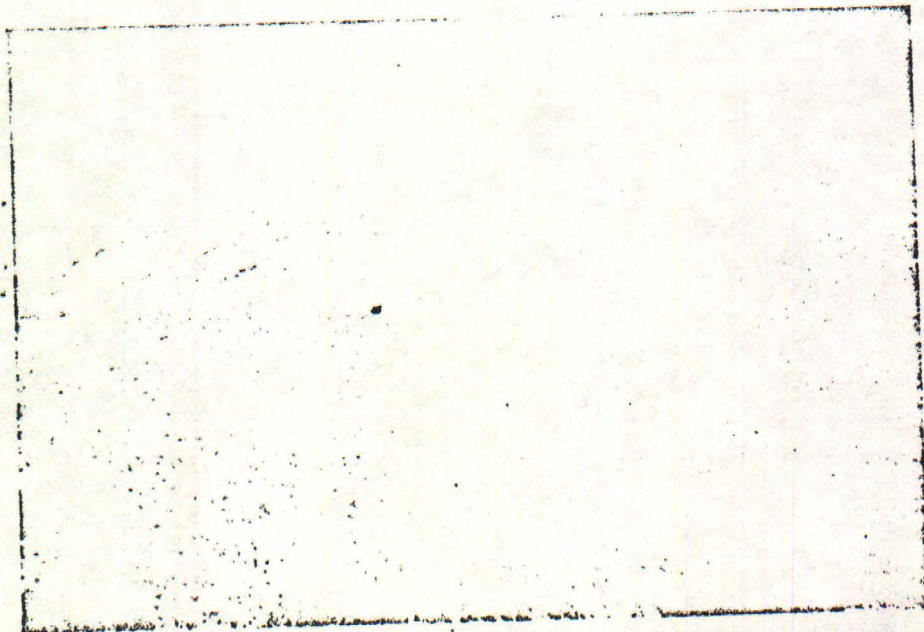
Band No.	Total	Studs	Colts	Mares	Yearlings	Unknown
22	7-	1	1	4	1	
23	3-	3				
24	1-	1(old)				
25	10-	1		5	4	
26	7-	1		4	2	
	130	35.	5	56	31	3
1973 Data	96	23	22	43	8	0

4. Flanigan Herd Color Composition
Adapted from aerial survey - 2/7/75.

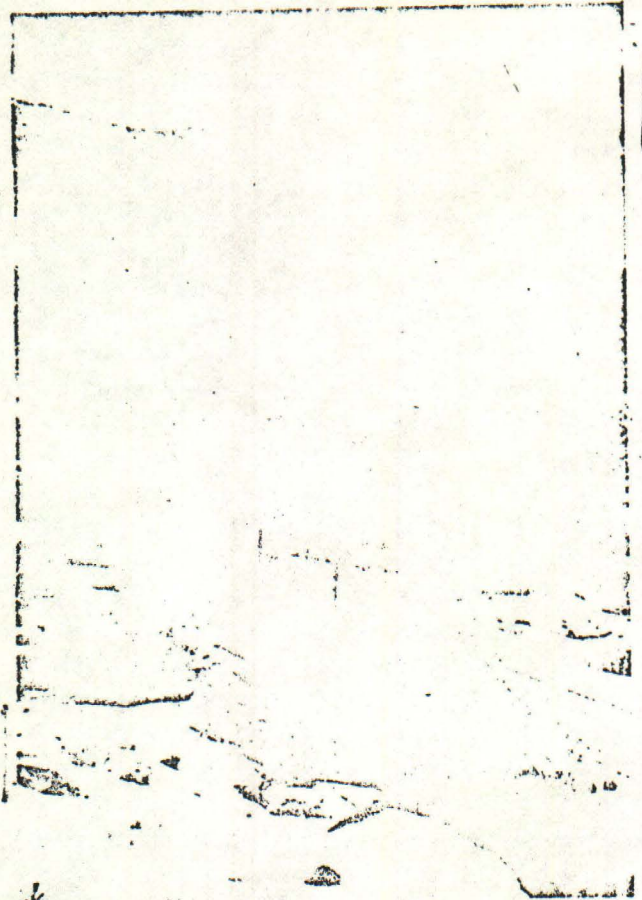
<u>Band No.</u>	<u>Total</u>	<u>Color</u>
1	8	1 black stud, 1 black mare, 1 buckskin mare, 1 buckskin yr. 2 bay mares, 1 bay yr., 1 unknown
2	8	1 brown stud, 1 black mare, 1 black colt, 3 bay mares, 2 bay yr.
3	3	1 bay stud, 1 bay mare, 1 bay yr.
4	11	1 black stud, 1 bay mare, 1 bay yr., 4 black mares, 1 black colt, 3 black yr.
5	4	1 bay stud, 1 brown mare, 1 bay mare, 1 bay yr.
6	3	1 bay stud, 1 brown mare, 1 brown yr.
7	5	1 brown stud, 1 black mare, 1 black yr., 2 bay mares
8	2	1 bay stud, 1 brown stud (both old)
9	2	1 palmino stud, 1 bay stud (bald face)
10	5	1 black stud, 1 black mare, 1 black yr., 1 bay mare, 1 bay yr.
11	6	1 black stud, 1 bay mare, 1 sorrel mare, 1 sorrel yr., 1 black mare, 1 black yr.
12	1	1 bay stud (old)
13	5	1 sorrel stud, 1 brown mare, 1 sorrel yr., 1 sorrel mare, 1 sorrel colt
14	4	1 sorrel stud, 1 pinto mare, 1 bay mare, 1 bay yr.
15	7	1 bay stud, 1 pinto mare, 1 black mare, 1 sorrel mare, 1 sorrel colt, 2 unknown
16	6	1 black stud, 3 sorrel mares, 1 black mare, 1 black yr.
17	5	2 sorrel studs, 2 black studs, 1 brown stud
18	3	1 pinto stud, 1 brown mare, 1 brown yr.
19	4	1 sorrel stud, 1 sorrel mare, 1 sorrel yr., 1 buckskin mare

Table 4. Flanigan Herd Color Composition
 Adopted from aerial survey 2/7/75.

Band No.	Total	Color
20	2	2 sorrel studs
21	8	1 sorrel stud, 2 bay mare, 1 sorrel yr., 1 Bay yr., 2 brown mares, 1 brown yr.
22	7	1 sorrel stud, 2 pinto mares, 1 pinto colt, 2 black mares, 1 balck yr.
23	3	1 bay stud, 1 sorrel stud, 1 black stud
24	1	1 sorrel stud (old)
25	10	1 sorrel stud, 2 grey mares, 1 grey yr., 2 sorrel mares, 2 sorrel yr., 1 bay mare, 1 bay yr.
26	7	1 roan stud, 3 sorrel mares, 1 grula mare, 1 sorrel yr., 1 grulo yr.

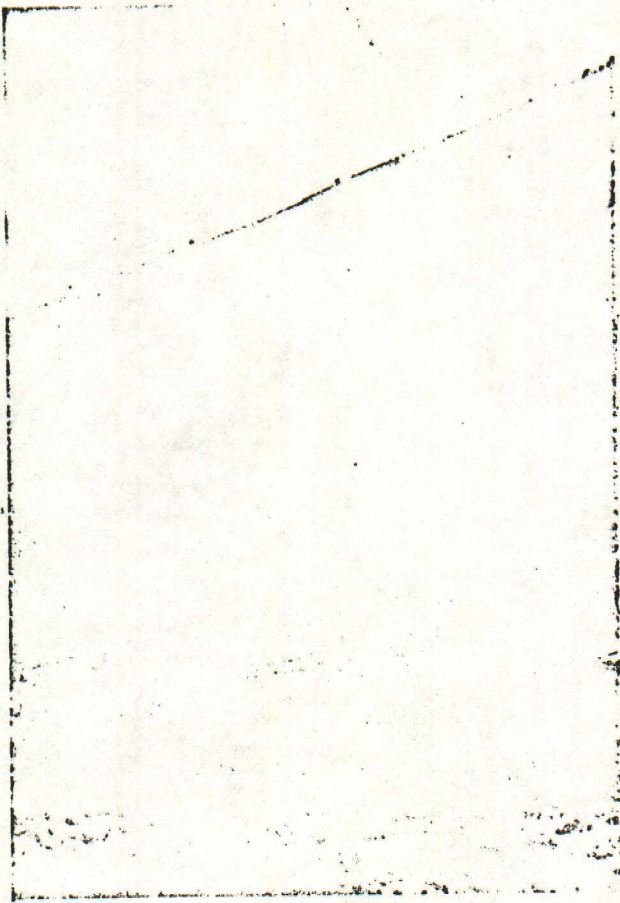


Typical slopes within the wild horse area
Grass present is Arrhenyon spicatum
Note the rockiness of the slope



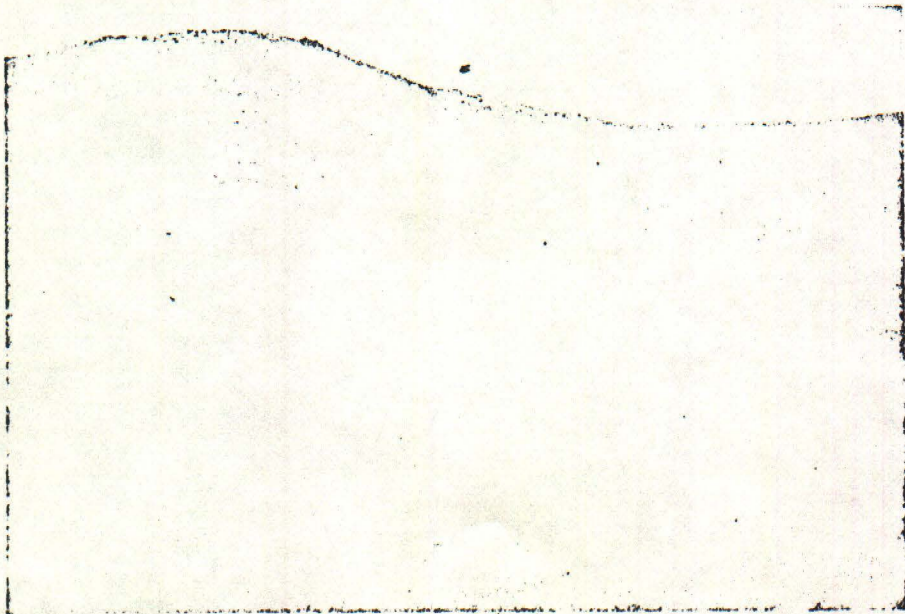
Fort Sage - Mud Springs
Fence

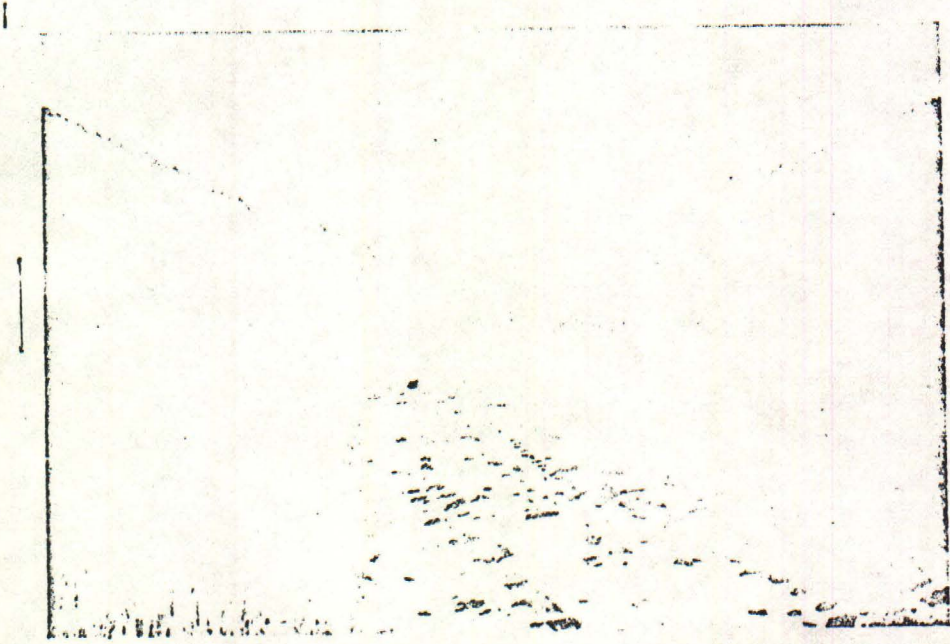
Viewing into wild horse
area



Fort Sage - Cottonwood
Drift Fence

Viewing into wild horse
area





Cottonwood Stock Trail

NV-030-6-86

Environmental Analysis Record
for the
Removal of Wild Horses
and the establishment
of the
Flanigan Wild Horse Area
in the
Pyramid Planning Unit

Location

Bureau of Land Management
Pyramid Planning Unit (0306)
found in the
Southern 1/3 of Washoe County, Nevada

ADDENDUM

Flanigan Wild Horse Herd Management Area Plan
and
Environmental Analysis Record

The Flanigan Wild Horse Herd Management Area Plan proposes permanent management facilities in the herd area.

It is the decision of the District Manager to use temporary facilities until such time as the United States Supreme Court rules on the constitutionality of Public Law 92-195.

Permanent facilities affected are:

Upper Adobe water trap
East Virginia Peak wing trap
Cottonwood Canyon wing trap
13½ miles fence construction
Marl Holding and Sorting corral

An interdisciplinary team has assessed the environmental impacts of the proposed action which includes the herd management area plan and the horse removal in the Pyramid Planning Unit. It is the decision of the interdisciplinary team that the substitution of temporary facilities for permanent facilities will not create any additional environmental impact.

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INTRODUCTION

The proposed action (see page 3) is taken from Pyramid Planning Unit Management Framework Plan Step III decision which states:

1. Establish an intensive wild horse management area in the Flanigan area. Maintain in that area the current population of about 100 horses (1973). This area is considered to be particularly suitable for intensive wild horse use because it has few developments that would restrict their movements and receives little wildlife use.
2. Conduct studies to determine the biological requirements of this herd. Based on these studies, determine the optimum number of wild horses that can be maintained in this intensive management area and adjust numbers accordingly.
3. Remove wild horses from other identified use areas for the following reasons:
 - (a) The wild horses in the Fort Sage Mountain and Granite Peak areas (see map) will be removed because of the intense use these areas receive from the Lassen-Washoe interstate deer herd, whose numbers are declining.
 - (b) The wild horses in the Pah Rah Mountains will be removed because of the fragmented land patterns of national resource lands and because of the proposed housing development in the adjacent Spanish Springs Valley.
 - (c) The wild horses in the Mahogany Flat and Dogskin Mountain areas will be removed because their small number (about 13) cannot be adequately managed at their present locations.
4. Relocate as many animals from these areas as possible into the Flanigan Wild Horse Management Area. When this becomes impossible because of over-population of the Flanigan herd, give away as many animals as possible to interested parties on a custodial basis for private maintenance. If suitable homes cannot be found for all, the remaining animals should be destroyed humanely.

An activity plan for the Flanigan Wild Horse Management Area has been prepared. The Environmental Analysis Record is an assessment of the activity plan as well as the Management Framework Plan Decision for wild horses.

The activity plan proposes to gather all of the horses in the Flanigan Allotment (130 animals), determine which are estrays, and return 75 wild horses to the herd management area. Should less than 75 wild horses be returned to the herd management area, wild horses from other herds in the planning unit would be introduced into the area. The return of 75 wild horses will allow for a one or two year increase to the proposed population

level of 100 animals. Forage will be reserved for 100 wild horses (1200 AUMs) in the herd area. The Flanigan Wild Horse Herd Management Area Plan identifies permanent facilities (see Table 1) which will be required to manage the herd.

In the remainder of the planning unit, the following horses are recommended for removal:

<u>Herd Name</u>	<u>1975 Population</u>
Fort Sage Mountain herd	21
Mahogany Flat herd	5
Dogskin herd	9
Granite Peak herd	10
Pah Rah herd	<u>119</u>
	164

Temporary traps will have to be constructed to gather the horses throughout the planning unit.

I. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

Establish an intensive wild horse management area in the Flanigan Allotment. Construct permanent management facilities for the gathering and maintenance of the herd. Remove all of the horses from the Flanigan Allotment and return 75 wild horses to the wild horse area.

Construct temporary facilities and remove all other horses from the remainder of the Pyramid Planning Unit.

B. Stages of Implementation of the Proposed Action

1. Construct management facilities, both temporary and permanent, in the Pyramid Planning Unit.

Discrete Operations (All discrete operations include limited ORV travel.)

- a. Trail and pipeline construction
- b. Trap and corral construction - temporary and permanent
- c. Fence construction - permanent

2. Gather approximately 294 horses in the Pyramid Planning Unit and return 75 wild horses to the federal range in the Flanigan herd area. Dispose of the excess horses.

Discrete Operations

- a. Gathering
- b. Horse handling
- c. Decreased horse population

3. Maintain the Flanigan herd at 100 animals. (All discrete operations include limited ORV travel.)

Discrete Operations

- a. Maintain facilities
- b. Dispose of excess horses
- c. Recreational activities in the wild horse area

C. Alternatives to the Proposed Action

Alternative 1

No action.

Alternative 2

Attain the proper stocking rate in the Pyramid Planning Unit while maintaining the horse population at the 1971 level by making required adjustments in livestock.

Alternative 3

Attain the proper stocking rate in the Pyramid Planning Unit by equally reducing livestock and horses after the horses are reduced to their 1971 level.

Alternative 4

Attain the proper stocking rate by removing all horses from the federal range in the Pyramid Planning Unit. No livestock reductions would be made.

Alternative 5

Attain the proper stocking rate by continually reducing livestock. No horse reductions would be made in the affected allotments until the proper stocking rate is reached by horses.

II. DESCRIPTION OF THE EXISTING ENVIRONMENTAIR

Air movement patterns are frequently related to topographic features. The long, narrow canyons, for example, often display a cyclic sort of air movement; as morning temperatures climb, a natural ventilation effect causes winds to move up through the canyons. This pattern is reversed as evening temperatures drop. Orientation, of course, affects this phenomenon.

Across the broad valleys air movement is characteristically from the west and southwest. These winds are often powerful and gusty, especially during the summer months.

Temperatures across the area are likewise affected to some degree by topography. For example, in those canyons displaying the natural ventilation discussed above, the air is commonly being moved and usually prevents extreme low temperatures. A random examination of temperatures (degrees Fahrenheit) for locations in or adjacent to the area shows the following:

	January average		July average	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
Fernley	42	20	96	59
Reno	44	18	90	49

The entire area north of Reno, Nevada can be considered rural in nature with only relatively small settlements within its boundaries. The major forms of industry (agriculture, livestock ranching and tourism) are basically not air-polluting types. The main source of particulate matter is from wind erosion of the relatively light-textured soils. Although some of this material results from agricultural activities, the majority comes from natural climatic or geologic events (i.e., gusty winds moving across barren landforms devoid of vegetation). Unless surface disturbance radically alters this "natural pollution", particulate matter is not a significant factor of the air quality across the area.

Normal traffic and tourism presently contribute insignificant amounts of carbon monoxide, nitrogen oxides, etc.

Non-ionizing radiation is negligible, but probably occurs along the paths of high voltage transmission lines.

LAND

The area lies within the Basin and Range Province, a region characterized by isolated, elongate, subparallel mountain ranges and broad intervening valleys. All drainage leads to enclosed interior basins rather than discharges into the sea, and for this reason the area is within the Great Basin subdivision of the province.

The mountain ranges generally trend north or northeast, and in most cases rise abruptly from the coalescing alluvial fans that border them. Playa lakes occupy low parts of some enclosed basins. Many of the flat-floored valleys are relics of more extensive lake beds formed when ancient Lake Lahontan covered a large portion of western Nevada.

Two prominent mountain ranges are included with this area: the Pah Rah Range and the Virginia Range. The highest point of elevation within the area is Tule Peak, which is 8,722 feet above sea level. Also included are mountains such as Fort Sage Mountain and Dogskin Mountain. The highest of these ranges have elevations between 6,000 and 8,000 feet above sea level.

The included valleys and playas generally have elevations between 4,000 - 5,000 feet. Some of these are: Honey Lake Valley, Winnemucca Valley and Warm Springs Valley.

The fault-blocked mountain ranges offer dramatic contrasts in topography and have created a complex geologic picture; the soils displayed across the area are subsequently complex.

WATER

Varied demands exist for water in the area. These include demands by rural use, irrigation, and recreation. Water in this area is definitely a limiting factor to population growth and industrial development. (Nevada Department of Natural Resources, Water for Nevada Report #2, 1971)

Precipitation, Recharge and Discharge

About 54 million acre feet of water fall on Nevada each year in the form of rain and snow. Only about 3.2 million acre feet run off from the mountains and about 2.2 million acre feet recharge the ground-water reservoirs. The rest of the water continues in the hydrologic cycle through evaporation and transpiration.

Precipitation is generally absent on the valley floors, so very little reaches the ground-water reservoirs; most of the valley recharge comes from precipitation and snowmelt in the adjacent mountains. Water reaches the ground-water system by seepage from streams on alluvial aprons and by percolation through consolidated rocks. Even so, most of the precipitation and meltwaters evaporate before infiltration and only a small amount recharges the ground-water reservoir.

Mean annual precipitation, in inches, from stations around the area (from published records of the United States Department of Commerce):

<u>Station</u>	<u>Annual Precipitation</u>	<u>Period</u>
Carson City	11.83	1936-1965
Glenbrook	19.17	1945-1970
Reno	7.39	1936-1968

VEGETATION

The two vegetation communities of the area are the Northern Desert shrub and Juniper communities.

Northern Desert Shrub

This vegetation community includes both big sagebrush and low sagebrush communities, in some places existing in almost pure stands, and in others, as a mixture. Rainfall averages from 8 inches to 25 inches annually. Soils are generally moderately coarse (sandy loam) to medium-textured (loam, silt-loam), and medium (10" to 16") to deep (more than 16") in the sagebrush community. Soils in the low sagebrush are generally shallower and more finely textured.

Community dominants are either big sagebrush or low sagebrush. Other common shrubs include bitterbrush, squaw tea, rabbitbrush, and horsebrush. At the higher elevations snowberry, currant, and mountain mahogany are found, along with forbs such as mule ears, balsamroot, and lupine. In the better areas (with higher elevations and less accessibility), grasses, such as needlegrasses, bluegrasses, Great Basin wild rye, and bluebunch wheatgrass, comprise most of the vegetation. Where fire has occurred, bunchgrass communities have started. These areas are very productive. At lower elevations (Granite Peak), the condition is generally poorer and the grasses are mainly cheatgrass and squirreltail, in addition to a few perennials.

Juniper

This community occupies about the same elevation as northern desert shrub. Rainfall varies from 10" to 18" annually. Soils are generally medium in depth and texture, except on rougher sites which have poorer soils.

The community is dominated by juniper with sagebrush as the predominant understory shrub species. Species composition is similar to the northern desert shrub and the juniper is a significant part of the community. Other common shrubs include low sagebrush, squaw tea, and rabbitbrush. Grasses are the same as those of the northern desert shrub community.

Major plant species occurring in the northern desert shrub and juniper communities are:

Trees

Utah juniper
Quaking aspen

Juniperus osteosperma
Populus tremuloides

Shrubs

Big sagebrush
Hop sage
Bitterbrush
Spineless horsebrush
Rubber rabbitbrush
Low rabbitbrush
Spiny horsebrush
Low sagebrush
Mountain mahogany
Squaw tea
Desert peach
Currant, gooseberry
Rose
Snowberry
Serviceberry
Prickly phlox
Shrubby eriogonum

Artemisia tridentata
Grayia spinosa
Purshia tridentata
Tetradymia canescens
Chrysothamnus nauseosus
Chrysothamnus viscidiflorus
Tetradymia glabrata
Artemisia arbuscula
Cercocarpus ledifolius
Ephedra viridis
Prunus andersonii
Ribes spp.
Rosa spp.
Symphoricarpus spp.
Amelanchier alnifolia
Leptodactylon pungens
Eriogonum spp.

Grasses

Sandberg bluegrass
Nevada bluegrass
Cheatgrass
Squirrel tail
Indian ricegrass
Great Basin wild rye
Bluebunch wheatgrass
Needlegrass

Poa sandbergii
Poa nevadensis
Bromus tectorum
Sitanion hystrix
Oryzopsis hymenoides
Elymus cinereus
Agropyron spicatum
Stipa spp.

Forbs

Arrowleaf balsamroot
 Indian paint brush
 Lupine
 Phlox
 Mule ears
 Buckwheat
 Skeleton Plant
 Locoweed

Balsamorhiza sagittata
Castilleja spp.
Lupinus spp.
Phlox spp.
Wyethia amplexicaulis
Eriogonum spp.
Lygodesmia spinosa
Astragalus spp.

ANIMALS

A diversity of animals is found in the area. The distribution and abundance of these species are greatly influenced by the presence of the vegetative zones discussed earlier.

Mammals

Terrestrial animals range from big game species to shrews, bats, weasels, cats, rodents, rabbits, and wild horses. Hall (1946) estimates the average population of mammals in Nevada to be about 20 per acre (most of which are rodents).

Big game animals include antelope and mule deer. The resident deer herds are found in the Virginia Mountains, Pah Rah Mountains, Fort Sage and the Dogskins. Deer herds on the west side of the area are predominantly migratory. These animals (Lassen-Washoe interstate deer herd) summer in the Sierra Nevada Mountains and move into winter areas in Nevada.

Fort Sage, Granite Peak and Dogskin Mountains are deer wintering areas. The carrying capacity of the deer winter range is often considered critical to the deer herds in the western United States. This is because the amount of accessible range for deer is restricted due to snow, and the forage available may not be abundant or nutritional enough to support the animals. Fort Sage, Dogskin Mountains, and Tule Peak are also critical deer yearlong and summer range.

Three small antelope areas exist here, and all receive yearlong use. The antelope area west of Dogskin Mountain is the smallest, amounting to about 2,300 acres.

The two larger areas are in the vicinity of Spanish Springs Peak and Tule Peak, and are about 21,000 and 11,000 acres respectively. There are about 50 antelope in the planning unit. Antelope sightings have been made throughout the area.

Seventeen species of bats inhabit the caves, mines, tunnels, tree-covered areas, old buildings, and niches in rocks. The spotted bat, a rare species, has been sighted in the area (Hall, 1946). Two species of weasels frequent brushy or wooded areas near water. The bobcat is common to areas where rocky ledges and outcroppings occur. Over 35 species of rodents, four species of rabbits, including the mountain cottontail, can be expected to occur here.

Six wild horse herds exist in the Pyramid area (see Figure 1). Horses are one of the few mammals for which a population inventory exists (see Table 5 and Figure 1). No forage has been allotted for horses in the Pyramid area at the present time. The displacement of other animal species by horses has not been documented.

Birds

Over 250 species of birds are known to occupy the area during different seasons of the year.

Four species of upland game birds, including sage grouse, chukar partridge, mourning dove, and mountain quail, are found here. Sage grouse and chukar partridge are the most important species in the area because of their abundance. Mourning dove and chukar partridge occur throughout the area. Crucial habitat for mourning dove and chukar is considered to be any water source. The mountain quail are found in the Virginia Range. The remaining birds are non-game species, such as raptors and a variety of song birds. These birds can be seen in every habitat type in the area. Many are seasonal residents.

Threatened raptor species in the Pyramid area include the peregrine falcon and southern bald eagle. Sightings of the peregrine falcon suggest that its occurrence in Nevada is extremely rare.

Amphibians and Reptiles

Thirty-two species of amphibians and reptiles are known to occur in the Pyramid area. These include spadefoot toads, true toads, frogs, true frogs, lizards, snakes and turtles. Habitat for these species exists throughout the area. None of these amphibians or reptiles are threatened.

Fish

No fish exist within the wild horse herd areas.

Man

The national resource lands and private lands throughout the area are grazed by livestock. Predator control is conducted by various groups to protect livestock. Waters (wells, springs, and reapers) developed primarily for livestock have benefited wild horses and wildlife.

While deer are the only big game, upland game birds are hunted throughout the area.

Deer winter areas and migration routes have become severely encroached upon by developments (housing, highways, etc.) along the eastern front of the Sierra Nevada. As the developments continue, deer winter areas and migration routes become more and more critical.

The wild horse herds are assumed to have originated from ranch stock which were turned loose or escaped. Before 1971, these herds were controlled by ranchers and others. Since the passage of the Wild Horse and Burro Act of 1971, the herds have been largely uncontrolled.

Fire suppression is conducted by local governments, the State of Nevada, and the Bureau of Land Management.

ECOLOGICAL INTERRELATIONSHIPS

Succession is a process in which a site becomes progressively occupied by different plant and animal communities. The community which is relatively stable over a period of time is the climax vegetation for the site.

Important climax plant species in the area include big sagebrush (Artemisia tridentata), juniper (Juniperus osteosperma), needlegrasses (Stipa species), and bluebunch wheatgrass (Agropyron spicatum). Domestic livestock grazing has controlled or dictated plant succession on much of the area. Year-round grazing has reduced the density and composition of the more palatable climax species and even eliminated them in some locations. As a result, the less palatable browse species, such as big sagebrush, rabbitbrush, and juniper, have increased in density in the more accessible areas. Grass species have changed from the climax perennials to annuals, such as cheatgrass (Bromus tectorum), mustard (Brassica species), and filarce (Erodium cicutarium).

Natural succession back to the climax community may take decades due to the competition from these annuals. Recurring fires and/or heavy herbivore use can retard natural succession and maintain the annual community indefinitely.

Plants supply the basis for the food chain in the ecosystem. These plants (grasses, forbs, shrubs, trees) supply the food for the animal community, including small mammals (rodents), large mammals (deer, cattle, horses), and birds. These, in turn, supply the predator population (man, coyotes, birds) with food. Many of these animals are highly dependent on certain habitat conditions to compete successfully. As changes in the plant community occur, the animal community is affected in both numbers and species. Such events affect the whole food chain interrelationship.

The net overall effect of retrogressive succession (which may be caused by improper grazing) is a change from a diverse, stable ecosystem with a variety of plants and animals to a simple, unstable ecosystem with few plant species and few animal species.

LANDSCAPE CHARACTER

Generally the horses are established in the upper elevations of the mountain ranges and are divided into six separate resident herd areas:

- A. The Flanigan herd occupying a portion of the Honey Lake Valley and the north end of the Virginia Mountains.
- B. Fort Sage Mountain
- C. Granite Peak area, southeast of Fort Sage Mountain
- D. Dogskin Mountain
- E. Pah Rah Mountain range
- F. Mahogany Flat (Tule Ridge) in the Virginia Mountain range

Honey Lake Valley, to the north of the area, consists of two raw, bright alkali flats that stand out in the midst of the surrounding brush-strewn valley floor. Brush covered slopes ascend into the rugged, rocky hills to the south and east. Some of the hills display terracing--the result of ancient Lake Lahontan's pounding on the low ridges. The hills rise abruptly and give way to the rugged heights of Fort Sage Mountain and the northern ridges of the Virginia Mountains. These semi-arid mountains are dotted with juniper and have a few springs, small meadows, and groves of cottonwoods and aspens.

Centrally located in the area is the low, hilly and brush covered Granite Peak region. Two ranges dominate the eastern portion of this area. Dogskin Mountain, spotted with juniper and rocky outcrops, rises suddenly and gives way to the loffier Tule Ridge portion of the Virginia Mountains to the east. Speckled with junipers, the high rocky cliffs of Tule Ridge rise abruptly from Winnemucca Valley. Lush meadows with aspen crown the higher reaches of the Virginia Mountains. Brilliant, multi-colored rocks of the "Incandescent Hills" brighten the southern end of the mountain range.

Lofty and seemingly remote, the rugged juniper-covered Pah Rah Mountain dominates the southern portion of the area. Imposing and rocky, the crescent-shaped range towers over sheltered Warm Springs Valley.

SOCIOCULTURAL INTERESTS

The Pyramid Planning Unit makes up the lower portion of Washoe County, excluding the Pyramid Lake Indian Reservation. Most of the county's

population is centered around Reno and Sparks, which are located in the southern end of the planning unit. There are 159,000 people in Washoe County, of which about 120,000 live in Reno and Sparks. This area is also the sociocultural center for the county. Outside the metropolitan area, the population density is rather low. Much of the land in Washoe County is used for sheep and cattle grazing. There are 26 active allotments (32 operators) in the Pyramid Planning Unit, four of which are for sheep and the remainder for cattle. Private and federally-owned lands are intermingled and the BLM grazing licenses are based on the use of both private and public lands. Ten of these allotments (15 cattle operations) contain bands of wild horses, for which no forage has been allocated by the BLM range adjudication. Consumption of cattle-allocated forage by the steadily increasing wild horses may have caused and may continue to cause an economic loss to the cattle operations due to the lower forage available for the cattle. However, no data are available on this.

Wild, free-roaming horses in the planning unit were declared to be "living symbols of the historic and pioneer spirit of the west" by Public Law 92-195, The Wild Horse and Burro Act. As such symbols, these horses have educational, scientific, and cultural values to the people of the region and nationally. Access taking about an hour's drive from the Reno area increases opportunities for observation and study of the horses. Local attitudes toward the presence of the horses, both generally and in the specific area, are varied. It should be noted that Reno is the headquarters of Wild Horse Organized Assistance, Inc. (WFOA!).

The following economic data are for all of Washoe County.

In 1969, livestock and livestock products sold in Washoe County accounted for 3.35% of total state livestock sales. In 1970, the agricultural industry accounted for minimal employment (1.22%) of Washoe County's population and was the second lowest employment sector for the county. Most of the county's employment is related to tourist-related services (24.32%), services (23.32%), and trade (17.49%). Of the total employment in agriculture for the state of Nevada, Washoe County accounts for 13.45%, and, of all employment in Nevada, agriculture in Washoe County accounts for 0.32% of the state's population (1).

The estimated personal income from livestock in Washoe County for 1972 was less than \$0.1 million, compared to total earnings of \$744 million for all income sources in the county and \$2,777 million for the state (2).

Washoe County livestock operations depended on national resource lands for 18.1% of their forage in 1971. On a statewide basis, 23% of the livestock forage came from national resource lands in 1971. The 1972 estimated earnings of those dependent on public lands for grazing in Washoe County were less than \$50,000 as compared to total county earnings of \$744 million, and, on a statewide basis, \$2,777 million (3).

It should be remembered the economic data are for all of Washoe County and the Pyramid Planning Unit occupies only the lower portion of the county.

References

- (1) U.S. Bureau of the Census, Census of Population: 1970 General Population Characteristics.
- (2) U.S. Bureau of the Census, Census of Agriculture, 1969, Vol. 1, Area Reports, Part 45, Nevada. (Data were projected to estimate the 1972 earnings.)
- (3) U.S. Department of the Interior, Economic Profile for Bureau of Land Management in Nevada, Nevada State Office, June 1974, Appendix A, Table 19.

III. ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES

Establish an intensive management area in the Flanigan Allotment. Maintain a population of 100 horses in the area. Remove all other horses from the federal range in the Pyramid Planning Unit.

A. Environmental Impacts of the Proposed Action

Construction of management facilities, both temporary and permanent, in the Pyramid Planning Unit.

Discrete Operations

- (1) Trail and pipeline construction
- (2) Trap and corral construction, both temporary and permanent
- (3) Permanent fences

All discrete operations include limited travel by off-road vehicles (ORVs).

1. Anticipated Impacts

AIR

A temporary negligible impact is noted for trail and pipeline construction. This will be caused by the exhaust emission from the diesel grader.

Particulate matter will also be temporarily increased by the proposed trail construction.

LAND

A low negative impact on soil depth and structure is expected to result from the 3 miles of trail construction and 1/8 mile of pipeline installation. Localized impacts may be severe, but the overall adverse impacts will be low.

The impacts from trap and corral construction are expected to be negligible due to their localized nature. The trap may not be directly adjacent to an existing road and minimal trail development can be expected.

Fence construction (13.5 miles) will have a negative low impact on soil structure. District policy states that fence lines will not be cleared. However, it is assumed some ORV travel will occur along the fence line.

WATER

Water is limited throughout the planning unit. Within the proposed horse area there are 18 springs and two small creeks. The flow in these creeks, East and West Cottonwood Canyons, is extremely limited (possibly 0.2 CFS). The proposed construction of management facilities is expected to have no impact on water in the planning unit.

PLANTS (Aquatic and Terrestrial)

No impact on aquatic plants is anticipated due to their limited numbers in the planning unit.

Negative low impacts to terrestrial vegetation are expected from the trail and pipeline construction and the fence construction (13½ miles). The vegetation would be completely cleared from the proposed trails, creating a localized severe impact while on a unit-wide basis the impact would be low.

The fence line will not be cleared (district policy), yet ORV travel can be expected during construction. ORV travel may kill vegetation in the tire rows and may break down shrubs from the under carriage of the vehicle.

Trap and corral construction is expected to have a negligible impact on terrestrial vegetation. The impact may occur from the traps not being directly adjacent to an existing road, thus creating a minimal amount of ORV travel.

ANIMALS (Aquatic and Terrestrial)

No impact is anticipated to aquatic animals due to their extremely limited populations in the planning unit.

Negative low impacts to terrestrial animals are expected along the trail, pipeline, and fence construction primarily due to the loss of vegetation.

The fence, trail, and pipeline construction may destroy the entire habitat for some smaller mammals such as mice, while the effect on the larger mammals, such as deer and horses, would be negligible.

Trap and pipeline construction will have a possible negligible impact due to the ORV travel associated with their locations.

ECOLOGICAL INTERRELATIONSHIPS

Reference should be made to the previous discussion presented in living and non-living components of the environment (water, land, animals, etc.).

Succession will be the most pronounced of the ecological interrelationships to be disrupted by the proposed construction.

Fence, trail, and pipeline construction will create a localized disturbed site and succession will be altered allowing annuals (Halogenton, russian thistle and cheatgrass) to be introduced. The impact will be low for fence, trail, and pipeline construction and negligible for the trap and corral construction.

LANDSCAPE CHARACTER

The construction of the proposed facilities will have little or no impact on the landscape character in the planning unit. Due to the rugged terrain in the planning unit, most of the facilities, temporary and permanent, will be difficult to see even during the construction stage when men and equipment are at the proposed sites.

SOCIOCULTURAL INTERESTS

At this stage, the predominate interest by the public will be in the bidding for the construction contracts. Negligible interest will be generated by the proposed trap and trail construction. Considerable interest by certain sectors will be stimulated (positive low impact) by the fence contract estimated at over \$17,000.

Gather approximately 300 horses in the Pyramid Planning Unit and return 75 wild horses to the federal range in the Flanigan Herd Area. Dispose of excess horses.

Discrete Operations

(1) Horse gathering

- (2) Horse handling
- (3) Decrease horse population on the range

1. Anticipated Impacts

AIR

No impact to the air from either the horse gathering or the decreased horse population can be expected.

A negligible impact from horse handling will be caused by exhaust emissions while trucking the animals to a holding and sorting area in Reno, Nevada. Vehicle exhaust emissions will be increased in the Reno area when claimed or adopted horses are picked up.

LAND

Gathering of the nearly 300 horses will have a negligible impact on the soil by creating trails (soil compaction and erosion) where the horses are herded into the wing traps. Soil disturbance and compaction from the horses can be expected in each of the traps and the holding and sorting areas. This impact would be extremely localized.

With a decrease in the horse population, a positive low impact can be expected to the land from less soil compaction in the wild horse areas throughout the planning unit.

No impact is expected to the land from horse handling.

WATER

No impact to water is expected from any of the discrete operations.

Decreasing the horse populations may increase available water for wildlife and livestock throughout the planning unit.

PLANTS (Aquatic and Terrestrial).

No impact is anticipated to the limited numbers of aquatic plants by any of the discrete operations in the planning unit.

Gathering the horses will have a negligible impact on terrestrial plants through trampling during the gathering process.

Horse handling will have no impact other than possible denuding of areas within the trap from browsing or trampling.

Decreasing the horse population will have a positive medium impact on terrestrial plants by reducing the competition for forage in the planning unit. At this time, no forage has been

allocated for horse use in the planning unit. This has resulted in over-utilization in some areas.

ANIMALS (Aquatic and Terrestrial)

No impact is expected to aquatic animals from the discrete operations due to their extremely limited populations in the planning unit.

The gathering process and handling of the horses will have no impact on terrestrial animals, except the horses.

The impact of the gathering and handling processes is expected to have a negative high impact on the horses. This is due to the traumatic effect of chasing and trapping, as well as sorting and trucking of the animals to Reno, Nevada.

Decreasing the horse population will have a high impact on the horses themselves. By removing a portion of the horse population in the Flanigan Herd Management Area, the competition for forage will be greatly reduced for the remaining horses (positive impact). However, the horses in the remainder of the planning unit will be removed from their habitat (negative impact). They will either be given to a foster home or destroyed humanely.

The reduction of the horse population in the Pyramid Planning Unit is expected to have a positive medium impact on the other terrestrial animals in the unit by reducing the competition for forage and water.

ECOLOGICAL INTERRELATIONSHIPS

There will be no impact from horse gathering or handling.

A decrease in the horse population will result in a positive medium impact on succession. By reducing the competition for forage, the more palatable climax species will be able to retain their vigor, thus allowing them to remain established in the horse areas. If the climax species are allowed to remain established, annual species (a lower seral stage) will not become established.

LANDSCAPE CHARACTER

The horse gathering and horse handling will have no impact on landscape character.

Decreasing the horse population will have a low impact (positive) on landscape character. By lowering the horse population, the competition for forage will be reduced and the grass and browse

species in the area will have a more natural growth form. However, by lowering the horse population, there will be fewer horses to view on the landscape (low negative impact).

SOCIOCULTURAL INTERESTS

The gathering of the horses is expected to create a high interest from the wild horse groups, persons who might contract for the job, and the range-users. These interests can be either negative or positive depending on the view point of the group involved.

A negative high impact is expected to the Fish Spring Ranch in which the Flanigan Wild Horse area is to be established. The reservation of 1200 AUMs for the horse management area will reduce this operation by 25%.

Decreasing the horse population will also create a high amount of interest and, again, the interest may be either positive or negative depending on the group involved. It is assumed that some of the public will be opposed to horse reductions while the range-users and others may favor their removal.

The horse handling is expected to have a positive high interest value for people wishing to see the animals while they are being sorted and held for disposal to private owners. A high negative impact is expected if an animal is injured during handling. This would upset most people.

Maintain the Flanigan Wild Horse Herd at 100 animals.

Discrete Operations

- (1) Maintenance of facilities
- (2) Disposal of excess animals
- (3) Recreational use in the wild horse area

All discrete operations include limited ORV use.

1. Anticipated Impacts

AIR

No impact to the air is anticipated from the maintenance of facilities or disposal of the animals.

Exhaust emission from recreational vehicles may create a negligible impact.

LAND

All discrete operations during the maintenance of the herd will create a negligible impact on the land, primarily from

the limited ORV use with each discrete operation.

WATER

No impact is anticipated to water from either maintenance of the facilities or disposal of the animals.

A negligible impact to water is expected from recreational use, as a result of minor vandalism to water developments in the area.

PLANTS (Aquatic and Terrestrial)

No impact is expected to aquatic plants due to their extremely limited population in the herd area.

Maintenance of facilities (traps and fences) is expected to have a negligible impact on terrestrial vegetation. The impact may occur from the traps not being directly adjacent to an existing road, causing a minimal amount of ORV travel. This impact has previously been accounted for in the construction stage of implementation.

Recreational use is also expected to have a negligible impact due to the ORV travel in the wild horse herd area. However, the herd area is mostly steep, rugged terrain and does not lend itself to off-road vehicle use.

Disposal of the excess horses is expected to have a positive low impact on terrestrial vegetation, as a result of maintaining the proper utilization of the forage species.

ANIMALS (Aquatic and Terrestrial)

No impact is anticipated to aquatic animals due to their extremely limited population in the herd area.

A negligible impact on animals in the herd area is expected from the maintenance of facilities. This is primarily due to the loss of vegetation discussed earlier.

Disposal of the excess horses will have a positive low impact by reducing the competition for forage in the herd area.

A low negative impact is expected for all animals in the area from disturbance associated with recreational use.

ECOLOGICAL INTERRELATIONSHIPS

Maintenance of facilities and recreational ORV use in the herd area is anticipated to have a negligible impact on succession.

This impact has previously been discussed in the construction stage of implementation.

A positive low impact by reducing the competition for forage is expected from disposal of the excess horses. The more palatable climax species will remain in the area and fewer annuals (a lower seral stage) will become established.

LANDSCAPE CHARACTER

No impact is anticipated to the landscape character from the maintenance of facilities.

Recreational ORV use in the area is anticipated to have a negligible impact. As discussed earlier, the area does not lend itself to ORV use due to the rugged terrain.

Disposal of the excess horses will have a negligible impact on the landscape character, by reducing the over-grazed appearance in certain areas.

SOCIOCULTURAL INTERESTS

No interest will be created from the maintenance of facilities.

The number of animals to be disposed of at this stage of implementation will be small and the interest generally will be negligible.

Recreational use at this stage of implementation is anticipated to be moderate.

2. Possible Mitigating or Enhancing Measures to the Proposed Action

- (a) Horse handling should be kept to a minimum. Capture and transportation is exceedingly traumatic to these animals. Minimizing the handling would increase the safety of the animals, as well as the handlers.
- (b) During the period of April 1st to June 30th gathering can cause the abortion of foals or separation of the foal and mother. Gathering operations should be avoided during this period.
- (c) During the gathering operation, the chance of injury to all horses involved is high. A veterinarian should be on call during the gathering operations.
- (d) Off-road vehicle use should be held to a minimum, by constructing the permanent and temporary traps as close as possible to existing trails.

- (e) After the initial gathering, permanent and temporary trap sites should be seeded. This would serve two purposes: (1) Prevent erosion; (2) Forage species would attract horses to the trap, making future capture easier.
- (f) The Marl Holding and Sorting area should be seeded as these areas would receive a considerable amount of traffic during the sorting process and the transportation of animals to Reno, Nevada. Seeding would mitigate erosion problems.
- (g) The proposed trail (3 miles) should be water-barred to prevent future erosion and maintenance problems on the trail.
- (h) Contractors should be advised of all federal and state laws pertaining to the capture of wild horses.
- (i) Prior to construction of proposed projects (either temporary or permanent) an archaeological survey would be done to prevent loss of cultural resources.
- (j) A public participation plan is necessary to inform the public of the rationale of the proposed action and the long-term benefits.
- (k) An interpretive program should be developed to inform the public of the wild horse management area.

3. Recommendations for Mitigation or Enhancement of the Proposed Action

- (a) Horse handling will be kept to the minimum practical.
- (b) No gathering of horses will be allowed from April 1st through June 30th.
- (c) A veterinarian will be on call during the gathering operation.
- (d) Off-road vehicle use will be kept to a minimum.
- (e) After the roundup is completed, permanent and temporary trap sites will be seeded.
- (f) After the roundup, the Marl Holding and Sorting area will be seeded.
- (g) Trails developed for the gathering operation will be water-barred.
- (h) All project sites will have a cultural resource inventory prior to construction.
- (i) A public participation plan will be prepared and executed.

(j) An interpretive program (signs, literature, etc.) will be developed for the Flanigan Wild Horse Management Area.

4. Residual Impacts of the Proposed Action

Trails will be developed from off-road vehicles associated with maintenance of facilities and recreational use.

Injury and death of some horses can be expected.

Horse handlers may experience injuries.

Recreational use in the area may lead to vandalism of existing water developments and permanent structures developed to accomplish the proposed action.

5. Relationships Between Long-term Use and Short-term Productivity

The reservation of forage for 100 wild horses (1200 AUMs) will reduce the Fish Springs Ranch operation by 25%. This, in turn, will reduce by 25% the number of calves sent to market by this ranch.

Removal of all horses in the rest of the Pyramid Planning Unit will reduce competition for forage and increase plant vigor and productivity.

6. Irreversible and Irretrievable Commitments of Resources

There will be no irreversible or irretrievable commitment of resources by the proposed action.

Alternative 1

No action.

B. Environmental Impacts of Alternative 1

1. Anticipated Impacts

AIR

This alternative would have no effect on the air.

LAND

The combined use by livestock and wild horses is anticipated to have a negative low effect on soil structure. Year-round use in some areas such as meadows is concentrated, which will have an adverse effect on soil structure.

WATER

Alternative 1 will have no effect on water in the planning unit. However, the combined needs of livestock and wild horses may create competition for water during drier months.

PLANTS (Aquatic and Terrestrial)

No impact on the limited aquatic vegetation is anticipated.

A moderately negative impact is anticipated to terrestrial vegetation if no action is taken. No forage has been allocated for horse use in this planning unit. Within the planning unit, all available forage is totally allocated to livestock. Any use above this is detrimental to the forage species. With continued inaction, the damage to the forage resource will become more severe.

ANIMALS (Aquatic and Terrestrial)

No impact on aquatic animals is anticipated due to their extremely limited nature in the planning unit.

No action is expected to cause a negative moderate impact on other animals in the planning unit, because no forage has been allocated for wild horses (see Plants above). Competition for forage among all animals would be continued. This competition would be significantly increased as the horse population expands (15-20% per year).

ECOLOGICAL PROCESSES

A negative moderate impact is expected on succession if no action is taken. The combined use by horses and livestock will have an adverse effect on the dominant, desirable forage species. Continued over-utilization of these species will cause them to die out and succession will be set back to a lower seral stage with undesirable forage species.

LANDSCAPE CHARACTER

No action may have a low impact (no sign).

It will allow continued growth of the horse population, making the horses more visible on the landscape. This can be considered as a positive low impact.

Continued growth of the horse herds and continued competition for forage will create an overgrazed appearance to the vegetation. This could be considered a negative low impact.

SOCIOCULTURAL INTERESTS

No action will create a negative moderate impact. Livestock

interests prefer to have the horses removed rather than having the populations continue to increase.

Wild horse interests are now realizing that overpopulation is detrimental to both the horses and the habitat.

2. Possible Mitigating or Enhancing Measures

Under this alternative, no mitigating or enhancing measures are possible.

3. Recommendations for Mitigation or Enhancement

No action requires that no mitigating or enhancing measures be taken.

4. Residual Impacts

Residual impacts are those impacts remaining after the mitigating and enhancing measures are followed. With no action, no mitigating or enhancing measures will be taken and the impacts will be those discussed under Anticipated Impacts.

5. Relationship Between Short-term Use and Long-term Productivity

Inaction at the present time will not damage the long-term productivity of areas where smaller herds are found. Continued inaction with the anticipated increase in herds will result in losses of the forage resource.

In the areas with larger herds (Pah Rah and Flanigan), continued inaction will result in a greatly reduced forage resource and lowered long-term productivity.

6. Irreversible and Irretrievable Commitments of Resources

If no action results in over-utilization of the range to the point of extreme soil erosion, this could be considered an irretrievable commitment of the resource. Soil development is extremely slow in the cold desert biome.

Alternative 2

Attain the proper stocking rate in the Pyramid Planning Unit while maintaining the horse population at the 1971 level by making required adjustments in livestock.

Discrete Operations

- (1) Construction of temporary facilities within the six herd areas in the planning unit. The temporary facilities would include traps, corrals, water tanks and troughs.

- (2) Gather approximately 119 horses, lowering the population to 175 animals, the estimated 1971 level.
- (3) Horse handling. This discrete operation involves moving the horses from the trap and corral sites to Reno, Nevada as well as sorting the animals for adoption.
- (4) Decreased horse population (effect of having approximately 119 fewer horses of the federal range).
- (5) Reduced livestock use (effect of having less livestock use to attain the proper stocking rate in the herd areas).

C. Environmental Impacts of Alternative 2

1. Anticipated Impacts

AIR

Of the five discrete operations only horse handling is expected to have any impact on the air. Exhaust emissions from trucking of the animals to Reno, Nevada and persons coming to pick up their adopted animals will create a negligible impact.

LAND

The discrete operations involving the construction of temporary facilities and the gathering of the horses are expected to have a negligible effect on soil structure. This impact may be caused by limited off-road vehicle use.

Gathering of the horses is anticipated to have a negligible impact on soils structure by creating trails where the horses are herded. The areas within the proposed temporary traps may become compacted by animals in the trap.

Horse handling is expected to have no impact on soil structure. A decrease in both the livestock and horse population is anticipated to have a positive low impact on soil structure throughout the planning unit. Both horses and livestock tend to concentrate in areas, such as meadows, causing some soil compaction.

WATER

No impact is expected to water in the planning unit from any of the discrete operations. However, the reduced populations of both livestock and horses may alleviate some pressure on water during drier months.

PLANTS (Aquatic and Terrestrial)

No impact is expected to aquatic plants by any of the discrete operations of this action.

A negligible impact is expected to terrestrial vegetation from the construction of temporary facilities and the actual gathering of the horses. A limited amount of off-road vehicle travel will damage plants, and a negligible amount of trampling can be expected during the horse gathering.

Horse handling will have no effect on terrestrial plants. The reduction of livestock and horses is expected to have a positive moderate impact. The reduced livestock and horse populations will attain the proper stocking rate and lower the utilization of the preferred plant species in the herd areas.

ANIMALS (Aquatic and Terrestrial)

No impact is expected from any of the discrete operations to aquatic animals due to their extremely limited populations.

The construction of temporary facilities will have a negligible effect on horses and other animals. The effects will primarily be loss of habitat for some smaller animals such as mice. The traps may be situated in the vicinity of water, which would cause some disturbance to the horses.

No impact is expected to other animal species from either the horse gathering or horse handling. However, these discrete operations are expected to have a negative high impact on the horses, from the traumatic effects of gathering and sorting in the corrals.

A decreased horse population will have positive moderate impact on other animals by lowering the competition for forage. A high impact is expected to the horses by their reduced numbers. This operation will reduce competition for forage (positive impact) while a number of horses will have to be adopted (positive impact) or destroyed (negative impact).

The reduction in livestock will have a positive moderate impact on other animals, including the horses, through the reduction in competition for forage within the herd areas.

ECOLOGICAL INTERRELATIONSHIPS

Succession will be disrupted by this alternative. Construction of temporary facilities and some off-road vehicle use (negligible impact) will create small, disturbed sites. Once the disturbance has occurred, the sites would be invaded by annuals, such as russian thistle and cheatgrass.

The discrete operations of horse handling and gathering are anticipated to have no effect on ecological interrelationships.

The lowering of both the horse and livestock numbers to attain the proper stocking rate will have positive moderate impacts. Competition for forage will be decreased, allowing the dominant palatable species to maintain themselves within the herd areas.

LANDSCAPE CHARACTER

Landscape character will be unaffected by the construction of temporary facilities, gathering of horses, or the horse handling.

The reduction in livestock and horses will have a low impact. Fewer livestock and horses on the open range may be considered either positive or negative depending on the point of view of the person viewing the landscape.

SOCIOCULTURAL INTERESTS

Construction of the temporary facilities will have a negligible impact.

There is not much interest generated or monetary gain associated with this discrete operation.

Gathering of the horses is expected to create moderate interest. A contract will be let to gather the animals, which will generate interest from potential bidders (positive impact). The gathering operation will create interest from the wild horse groups and livestockmen. In general, the livestockmen will be in favor of the removal of horses, while the wild horse interests may be opposed.

The reduction in livestock will also create moderate interest. The wild horse interests will be in favor of the livestock reduction, while the livestockmen will be opposed.

Within the herd areas there will be a reservation of 2028 AUMs to maintain 169 horses (1971 estimated population for the planning unit, see Table 4). This will pose a monetary loss for the range-users involved.

The Pah Rah Herd presents a particular problem. With the reduction of the horses to the 1971 level, there are not enough federal AUMs to support the remaining animals in the Cottonwood Creek Allotment. The remaining allotments used by the Pah Rah herd (see Table 2) are all alternating sections of private and federal land. It is impossible to maintain this herd solely on federal land.

2. Possible Mitigating or Enhancing Measures

- (a) Horse handling should be kept to a minimum. Capture and transportation will be exceedingly traumatic to these

animals. Minimizing the handling will increase the safety of the animals, as well as the handlers.

- (b) During the period of April 1st to June 30th gathering can cause the abortion of foals or separation of foal and mother. Gathering operations should be avoided during this period.
- (c) During the gathering operation the chance of injury to horses is high. A veterinarian should be on call during the gathering operations.
- (d) Off-road vehicle use should be held to a minimum. This can be accomplished through constructing the temporary facilities as close as possible to existing trails.
- (e) Prior to construction of temporary facilities, an archaeological survey should be done to prevent loss of cultural resources.
- (f) Temporary facilities' sites should be seeded after completion of the action. This will prevent erosion and invasion of annual plant species.

3. Recommendations for Mitigation or Enhancement

- (a) Horse handling will be kept to the minimum practical.
- (b) No gathering of horses will be allowed from April 1st through June 30th.
- (c) A veterinarian will be on call during the gathering operation.
- (d) Off-road vehicle use will be kept to a minimum.
- (e) After the roundup is completed temporary facility sites will be seeded.
- (f) All project sites will have a cultural resource inventory prior to construction.
- (g) A public participation plan will be prepared and executed.

4. Residual Impacts

Trails will be developed from off-road vehicle use associated with the traps.

Some injury and death losses can be expected to the horses.

Some injury may be expected to the horse handlers.

5. Relationship Between Short-term Use and Long-term Productivity

The reservation of forage for 169 horses (2028 AUMs) will reduce the productivity for the livestock operations involved (see Table 4).

Attaining the proper stocking rate in the herd areas will maintain the productivity of the federal range.

6. Irreversible and Irretrievable Commitments of Resources

There will be no irreversible or irretrievable commitments of resources with this action.

Alternative #3

Attain the proper stocking rate in the Pyramid Planning Unit by equally reducing livestock and wild horses, after the horses are reduced to their 1971 level.

Discrete Operations

- (a) Construction of temporary facilities
- (b) Horse gathering
- (c) Horse handling
- (d) Decreased horse numbers
- (e) Decreased livestock numbers

All discrete operations include limited travel by off-road vehicles.

C. Environmental Impacts of Alternative 3

1. Anticipated Impacts

AIR

Little or no impact to the air will result. Vehicles will be used in construction of temporary facilities, horse handling and gathering, but the impact will be negligible.

LAND

Little or no impact to the land will result from construction of facilities, horse gathering, and horse handling. The decreased horse population will have a positive low impact by less soil compaction. The impact of reduced livestock will be slightly less since fewer animals are involved.

WATER

No impact to water is expected from any of the discrete operations. Decreasing the horse and livestock numbers may increase available water for the remaining animal life.

PLANTS (Aquatic and Terrestrial)

No impact is anticipated to the limited aquatic plants by any of the discrete operations.

Little or no impact will result to terrestrial plants from construction of facilities, horse handling, and horse gathering. Decreasing the horse numbers will have a positive medium impact by eliminating over-grazing. Decreasing the livestock will have a positive low impact for the same reason.

ANIMALS (Aquatic and Terrestrial)

No impact is anticipated to the limited populations of aquatic animals by any of the discrete operations.

Little or no impact will result from construction of facilities, horse handling and gathering to terrestrial animals except the horses. The impact of the gathering and handling will have a negative high impact on the horses, due to the traumatic effect of being chased, corralled, sorted, loaded into trucks, and transported to the disposal area. Here they will be sorted again and trucked to their new homes, or, if not adopted, destroyed in the most humane manner possible.

Decreasing the horse population will have both a positive and negative high impact on the horses themselves. Reduction of numbers will reduce the competition for forage among the remaining horses (positive impact). The ones removed will be eliminated from their habitat, loaded into trucks, and transported to the disposal area, etc. (negative impact).

Decreasing the horse population in small herd areas could possibly cause the demise of the entire herd. Table 6 shows the horses remaining in each herd using this alternative. Fort Sage, Dogskin, Granite Peak, and Mahogany Flat would have only 3 head left. This herd size is probably not viable. Death of one or two members of the herd could easily happen and the herd would be eliminated.

Other terrestrial animals will benefit from the decrease in both livestock and horses, as competition for forage and water would be reduced.

The reduction in livestock is beneficial to the horses because both types of animals would share in reductions, not just horses.

ECOLOGICAL INTERRELATIONSHIPS

There will be little or no impact from construction of facilities, horse handling and gathering.

A decrease in the horse and livestock populations will result in a beneficial impact on succession. That impact is greatest with the horses because more of them are being removed. Excess numbers are causing a regression of vegetative succession in areas where the animals concentrate. The more palatable species are being eliminated and replaced by less palatable species.

LANDSCAPE CHARACTER

There will be no impact from construction of facilities, horse handling and gathering.

A decrease in the horse and livestock populations will have both a positive and negative low impact. Reducing their numbers will reduce the use of vegetation for forage and allow it to be viewed in a more natural growth form (low positive impact). However, there will be fewer animals to view on the landscape (low negative impact).

SOCIOCULTURAL INTERESTS

There will be no impact from construction of facilities.

The gathering of the horses will create interest to many people. A contract for the gathering will be awarded and provide jobs. Wild horse groups will be watching closely to see if the animals are treated humanely. National interest could build up if publicity is extensive. Range-users generally lend positive support to the gathering of the horses.

The horse handling will have a positive high interest value for people wishing to see wild horses in corrals and being handled. As stories spread throughout the country about the animals being corralled and held for adoption, national interest is generated. High negative impacts are expected as a result of an injury or death due to handling.

Reducing the horse population will also create a high amount of interest. Some of the public will be opposed to horse reductions, while the livestock interests will be in favor of it.

Reducing the livestock numbers will create a high amount of interest (negative) among the livestock people and, in particular, those range-users directly affected by reductions.

2. Possible Mitigating or Enhancing Measures

- a. Horse handling should be kept to a minimum. Capture and transportation will be exceedingly traumatic to these animals. Minimizing the handling will increase the safety of the animals as well as the handlers.
- b. During the period of April 1st to June 30th gathering can cause the abortion of foals or separation of foal and mother. Gathering operations should be avoided during this period.
- c. During the gathering operation the chance of injury to all horses involved is high. A veterinarian should be on call during the gathering operations.
- d. Off-road vehicle use should be held to a minimum. This can be accomplished through constructing the temporary facilities as close as possible to existing trails.
- e. Prior to construction of temporary facilities, an archaeological survey should be done to prevent loss of cultural resources.

Temporary facilities' sites should be seeded after completion of the action. This will prevent erosion and invasion of annuals.

3. Recommendations for Mitigation or Enhancement

- a. Horse handling will be kept to the minimum practical.
- b. No gathering of horses will be allowed from April 1st through June 30th.
- c. A veterinarian will be on call during the gathering operation.
- d. Off-road vehicle use will be kept to a minimum.
- e. After the roundup is completed, temporary facility sites will be seeded.
- f. All project sites will have a cultural resource inventory prior to construction.
- g. A public participation plan will be prepared and executed.

4. Residual Impacts

The removal of the horses and livestock cannot be avoided. The impact to the horses can only be minimized as noted above. The net effect to the rangeland ecosystem is positive when proper stocking rate is attained by removing excess animals.

5. Relationship Between Short-term Use and Long-term Productivity

This alternative is designed to attain the proper stocking rate which will maintain or improve the long-term productivity.

6. Irreversible and Irretrievable Commitments of Resources

There are no irreversible or irretrievable commitments of resources under this alternative.

Alternative 4

Attain the proper stocking rate by removing all horses from the federal range in the Pyramid Planning Unit. No livestock reductions would be made.

Discrete Operations

- (1) Use of temporary trap and corral facilities.
- (2) Gathering of wild horses into the corrals.
- (3) Handling of the horses including sorting, inspection, transporting to a holding corral (possibly in Reno), and relocation to their final destination.
- (4) Complete removal of horses from the planning unit, including adoption or destruction. Relocation to other horse ranges is not being considered because the entire district's planning has not been completed.

D. Environmental Impacts of Alternative 4

1. Anticipated Impacts

AIR

No impact on air quality is anticipated except during the horse handling operations. At that time, negligible exhaust emissions could be expected from the vehicles removing the horses to a centrally-located (Reno, for example) holding and processing corral.

LAND

A negligible impact in the form of slight soil compaction could occur during the transporting and placing of trap and corral facilities. Additional soil compaction would occur within the trapping areas when the horses are gathered. As the horses would be taken to a central holding corral, the time spent in the temporary trapping facilities would be limited. Overall benefits to the soils in the planning unit would result as the absence of horses would eliminate further soil compaction.

WATER

Because water in the planning unit is so limited, no impacts would be anticipated from horse removal activities.

PLANTS (Aquatic and Terrestrial)

Aquatic plants are extremely limited and no impacts would be expected by horse removal activities.

Negligible impacts on terrestrial vegetation could occur from the temporary facilities and the gathering operation. Vegetation in the trapping area could be trampled during horse capture and removal to the holding corral. Horse handling activity in the holding corral would not impact vegetation, as the corral would most likely be in Reno. A moderate improvement in planning unit vegetation would be expected by removing the horses. Over-grazing would be eliminated.

ANIMALS (Aquatic and Terrestrial)

There are very few aquatic animal populations due to the nature of the planning unit water sources. No impacts on the limited populations would result from horse removal.

Placement of temporary facilities may have a negligible disruptive influence to the smaller, terrestrial animals such as rodents. Livestock would have a moderately improved situation by horse removal, as competition for forage would be eliminated.

The planning unit's horse population would be heavily impacted by this proposal. Transporting and placing the temporary traps would disturb nearby horses. The major impacts would occur during gathering and handling. Such activities could be highly disruptive and frightening to the wild horses. Attempts to escape could result in injuries and/or death to highly excited horses.

Attempts would be made to find custodians for all animals captured. Should some of the animals not be adopted, the alternative disposal method would be destruction. This could be viewed as a highly negative impact for those animals.

ECOLOGICAL INTERRELATIONSHIPS

Succession would be altered by horse removal. A negligible impact would be expected from trap facilities. Slight soil compaction and vegetation trampling would change the normal sequence of succession in localized areas. A moderate improvement in successional change would result from horse removal. Use of more desirable forage plants would be at the proper rate and less invasion of annuals and unpalatable species would result. Remaining animals would have more food and future access to the better forage plants. A more stabilized plant-animal relationship would result.

LANDSCAPE CHARACTER

No impact would be made on the landscape character from horse removal. Lack of opportunity to see wild horses running on the open range could be viewed negatively by some. Horses would remain in other locations within the District, but they would be at greater distances from Reno and Sparks.

SOCIOCULTURAL INTERESTS

Such a horse reduction near a populated area would arouse considerable interest and have high impacts. The contracts for horse round-up and purchase of trap facilities would be economically beneficial to the individuals or companies involved. This positive impact would be limited to a few persons, however.

Past gatherings of horses have been widely publicized and concern for the operations touched most areas of the United States. The possibility of injury and death for the horses during round-up would be of considerable concern to wild horse interests. All aspects of the operation, including the justification for horse removal, would be closely scrutinized by BLM publics.

Holding corrals located in Reno would add further stimulus to local, regional, and, perhaps, national interest. The opportunity to view wild horses at such close quarters would appeal to many.

Costs of maintaining the animals until all potential custodial applications were processed could be considerable. The manpower involved in soliciting and screening applications would be paid by taxpayers.

If horses were destroyed because custodians weren't found, the emotional impacts would be quite high. Since there are almost 300 horses involved, the likelihood of all being adopted is not great.

Range-users whose allotments had wild horses would view the horse removal as generally favorable. Their cattle would no longer be forced to compete for forage allocated to them.

Removal of all horses would preclude any studies of their requirements or habits. Knowing that the horses were no longer in the planning unit could negatively affect many people who enjoy the idea of free-roaming animals. Others, having expressed disdain for wild horses, would probably welcome such removals.

2. Possible Mitigating or Enhancing Measures

- a. Off-road vehicle traffic should be minimal. Every attempt to locate trap and corral facilities by existing roads should be made.
- b. Horse handling should be kept to a minimum to reduce possible death or injury to the horses and handlers.
- c. During the period of April 1st to June 30th, gathering can cause the abortion of foals or separations of the foals and mothers. Gathering operations should be avoided during that period.
- d. Prior to construction of temporary facilities, an archaeological survey should be done to prevent loss of cultural resources.
- e. Thorough investigation of the contract applicants should be made to insure competent handlers are hired. All work should be supervised by knowledgeable BIM employees.
- f. All phases of the operation should be closely coordinated with special interest groups to avoid misunderstanding. News releases should correctly explain the needs, methods, and anticipated results of the operation.
- g. Any destruction of animals should be adequately explained to news media and interest groups. Concerted efforts to find adoptive homes for the captured animals should be made. However, excessive costs through prolonged holding of animals must be avoided where possible.

3. Recommendations for Mitigation or Enhancement

All of the measures described above should be applied if this proposal is executed.

4. Residual Impacts

The complete removal of horses without any livestock adjustments would find considerable opposition among certain interest groups. Widespread, probably negative, publicity should be anticipated as a result.

Some injury and possible deaths to the horses during gathering and handling is likely. Horse handlers could receive injuries as well.

Intense emotions over destruction of excess animals could be expected. Widespread, probably negative, publicity should be anticipated.

5. Relationship Between Short-term Use and Long-term Productivity

Continued use by both horses and cattle will lead to degradation of the areas particularly those of the Flanigan and Pah Rah herds. Over-grazing will lead to range deterioration including loss of forage, erosion problems, and other ecological imbalances.

Removal of horses would bring the grazing use into accord with available forage and range plants could maintain their vigor.

Long-term gains in range condition could be expected.

If additional forage became available through intensive management, horses from other areas in the district could be relocated to this area.

6. Irreversible and Irretrievable Commitments of Resources

No resource values would be irretrievably committed by this proposal.

Alternative 5

Attain the proper stocking rate by continually reducing livestock. No horse reductions would be made in the affected allotments until the proper stocking rate is reached by horses.

Discrete Operations

- (1) Reduction of livestock as wild horse population increases; maintain proper stocking rate during transition period.

- (2) Upon termination of livestock grazing in the affected allotments, maintain the horses at the proper stocking rate.
- (3) Remove excess horses periodically to maintain the proper stocking rate.

E. Environmental Impacts of Alternative 5

1. Anticipated Impacts

AIR

No impact on air quality is anticipated except during times when stock adjustments are being made. At these times, negligible exhaust emissions could be expected from the vehicles removing livestock or excess horses.

LAND

A negligible impact in the form of slight soil compaction can be expected from vehicles and facilities necessary for the livestock reductions and later horse reductions.

WATER

Because water is limited within the area, no impacts are anticipated by changing the primary use from livestock to horses.

PLANTS (Aquatic and Terrestrial)

Aquatic plants are quite limited and no impacts are expected by conversion from livestock and horse grazing to horse grazing.

A moderate improvement in some areas' vegetation could be expected by elimination of livestock grazing and accomplishment of the proper stocking rate is attained, periodic removal of excess horses will be necessary to maintain the stocking rate and prevent deterioration of vegetation.

ANIMALS (Aquatic and Terrestrial)

There are very few aquatic animal populations in the area because of limited water. No impacts are anticipated through the reduction in livestock and resultant increase in horse numbers.

Livestock will be heavily impacted by this alternative as their numbers will be reduced as horse numbers increase. Eventually all livestock grazing will be eliminated in favor of horses.

This alternative would be highly beneficial to the horses; they would be allowed to increase at their natural rate until they

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reach the proper stocking rate. At that time, excess horses would be removed periodically to maintain the proper stocking rate.

It is felt that the horse reductions necessary to maintain the proper stocking rate can be accomplished with little or no negative effect on the herds. Old, sick or injured animals could be removed to maintain herd health and vigor as well as desired herd size.

ECOLOGICAL INTERRELATIONSHIPS

Succession would be slightly altered by the gradual transition from livestock grazing to horse grazing. Once horse populations have reached the proper stocking rate and livestock grazing is eliminated, there would be little or no effect on the successional patterns. Use of more desirable forage plants would be at the proper rate and less invasion of annuals and unpalatable species would result. Remaining animals would have more food and access to better forage. A stabilized plant-animal relationship would result by the controlled management of horses.

LANDSCAPE CHARACTER

The impact of removal of livestock from the area will be low. The opportunities for observing wild horses will increase as the herds expand. This will have a moderate impact on the public, because of the herds' close proximity to the population centers of Reno and Sparks.

SOCIOCULTURAL INTERESTS

The proposed reduction and eventual elimination of livestock grazing from this area is going to have a high impact. Several livestock operations in the area are dependent on the use of federal range for their existence. A gradual reduction in livestock grazing and its eventual termination on the federal ranges in the planning unit will force these operators to relocate to other federal ranges, utilize private sources of forage, or terminate their livestock operations. It should be assumed that none of these options would be popular with the livestock operators and would no doubt be contested. Although this process would be spread over several years, an economic impact on the local merchants involved in the livestock industry would surely be felt.

The maintenance of large numbers of wild horses on national resource lands adjacent to Reno and Sparks will have a high local impact because of their high degree of visibility and proximity to population centers, plus the concerns of the wild horse protection movement which has its roots in this area.

Tourists and other interested parties can be expected to visit and utilize the area because of the increased horse populations.

After livestock grazing has been eliminated and the horses have attained the proper stocking rate through natural increases, the need to periodically remove excess horses will become necessary, in order to maintain the proper stocking rate. Such round-ups of wild horses have in the past received much emotional publicity, both pro and con, concerning the round-up. It should be anticipated that future round-ups will continue to receive such attention.

2. Possible Mitigating or Enhancing Measures

Close cooperation should be maintained between the affected livestock operators and the BLM in an effort to relocate the displaced livestock in a manner acceptable to all concerned parties.

Local governmental agencies, elected officials, interested groups and individuals should be kept informed about all steps being taken to implement this alternative.

The news media will be kept informed concerning all steps being taken to implement this alternative.

All phases of the operations concerning the removal of excess horses will be coordinated with all interested parties to insure the horses' safety and welfare during all phases of their capture, holding and eventual disposition.

3. Recommendations for Mitigation or Enhancement

All of the measures described above should be applied if this proposal is executed.

4. Residual Impacts

The complete phasing-out of livestock grazing in favor of wild horse use on these national resource lands will receive considerable opposition from the operators, livestock interests, elected officials and others. Widespread publicity against the BLM and this proposal should be expected.

Some favorable backing should be expected from the wild horse interest groups and others.

Over all, the alternative is certain to generate considerable emotion and comments from those that oppose and those that support this alternative.

5. Relationship Between Short-term use and Long-term Productivity

Little effect will be immediately seen if this alternative is adopted. With the passage of time, the horse population will increase and livestock numbers will be reduced until such time that all livestock have been removed and replaced by wild horses at the proper stocking rate.

The effect will be a gradual reduction and eventual elimination of beef production from these national resource lands.

6. Irreversible and Irretrievable Commitment of Resources

No resource values would be irretrievably committed by this alternative.

IV. PERSONS, GROUPS, AND OTHER AGENCIES CONSULTED

Velma Johnston, Wild Horse Organized Assistance, Inc., Reno.
Dawn Lappin, Wild Horse Organized Assistance, Inc., Reno.

Earl Batteate, Flanigan Allotment
Warren Westbrook, Antelope Mountain Allotment
Marshall Matley, Antelope Mountain Allotment
Larry Pedrett, Antelope Mountain Allotment
Joe Capurro, Big Canyon Allotment

Charles Fisher, Bureau of Indian Affairs (Pyramid Lake Indian Reservation)
Bureau of Land Management - Nevada State Office
" " " - Grand Junction District Office
" " " - Susanville District Office
" " " - Tonopah Resource Area

Tom Ballew, State Brands Inspector, Nevada Department of Agriculture
Terry Retterer, Nevada Department of Fish and Game
George Tsukamoto, Nevada Department of Fish and Game
Sam Millazzo, Nevada Department of Fish and Game

V. INTENSITY OF PUBLIC INTEREST

National, as well as local, attention to the range conditions on the national resource lands has been most recently stimulated by two BLM actions taken this year. These were the increase in grazing fees and the two-month-a-year grazing restriction. In Nevada, particularly, the reaction to these actions has been very negative by the livestock interests and Nevada congressmen. Included in their counter-demands to BIM were expressions of concern regarding the impact wild horses were having on the range.

As the second major Nevada round-up and removal of horses after Stone Cabin Valley, the potential for national attention to the proposed Pyramid Planning Unit herd reductions does exist.

Wild horse interests are also concerned by the range conditions and are interested in assuring that forage is allocated to sustain wild horse populations. Representatives of the varied wild horse groups may be expected to follow closely any herd reductions. Their concern is that livestock should also be reduced if demand exceeds the capacity of an area.

Inquiries for "adoption" of wild horses continue to be received and past interest in this program involved citizens of almost every state.

Conservationists and their interest groups also closely watch BLM activities. Of particular concern to them is the management of the national resource lands so that resource values are not lost.

The management framework plan for the Pyramid Planning Unit was completed in November 1974. Discussion of the wild horse situation was included in all public meetings and workshops. Of the thirteen written replies to our public discussions, twelve favored:

1. restriction of wild horses to their present geographical areas;
2. development of a horse management plan; and
3. removal of all horses claimed and/or branded and forage allocations made for wild horses.

In summary, all interests identified are concerned about range conditions. Solutions to improve the range or at least partially satisfy grazing demands bring out differences of opinions. The livestock and wild horse interests want to assure that adequate consideration is given to the needs of the cattle and horses when any adjustments are made. The emotional impacts of horse removal, and their possible destruction, and cattle reductions will play a role in public reactions to the proposals.

VI. PARTICIPATING STAFF

Pardee P. Bardwell, Wildlife Biologist, Lahontan Resource Area
 Joan Comanor, Writer/Editor
 Edward Mayo, District Range Specialist
 Bill Garrels, District Recreation Planner

VII. SUMMARY CONCLUSION

Within the Pyramid Planning Unit there are 6 horse herds, 2 of which include over 100 animals each. The remaining 4 herds have under 20 animals each (see Tables 2 and 3). The 1975 aerial inventory showed 294 horses in the planning unit.

The Flanigan Wild Horse Herd Management Area Plan has been prepared. The Environmental Analysis Record is an assessment of that plan and the Management Framework Plan, Step III decision for wild horses.

The proposed action would remove five of the herds while maintaining 100 animals on the summer range of the Flanigan Grazing Allotment. The intensive management area would have dual use by livestock and wild horses. A reservation of 1200 AUMs would be made for wild horses, while a reduction in the same amount would be made in livestock use.

At this time the horse population (294 animals) is having a moderate impact on the forage resource, because no forage has been allocated for horses in the planning unit. If the present use continues (no action, Alternative 1), the damage may become significant.

Alternatives 2, 3, and 5 all suggest livestock reductions in the 10 affected allotments to maintain varying populations of wild horses in the 6 herd areas. These alternatives protect the forage resource but do not alleviate the problems stated in the Management Framework Step III Decision (see introduction). These alternatives would also require managing six wild horse herds while protecting the forage resource, as opposed to one herd in the proposed action. Removing all horses (Alternative 4) contradicts the MFP decision.

Special attention should be paid to the Pah Rah Herd (119 animals). The allotments where this herd ranges are all alternating sections of private and national resource lands and it is, therefore, impossible to maintain this herd on national resource lands.

The highest impact (negative) of the proposed action and alternatives is the effect of gathering on the horses.

It is recommended that the proposed action be taken with the following stipulations:

- a. Horse handling will be kept to the minimum practical.
- b. No gathering of horses will be allowed from April 1st through June 30th.
- c. A veterinarian will be on call during the gathering operation.
- d. Off-road vehicle use will be kept to a minimum.
- e. After the round-up is completed, permanent and temporary trap sites will be seeded.
- f. After the round-up, the Marl Holding and Sorting Area will be seeded.
- g. Trails developed for the gathering operation will be water-barred.
- h. All project sites will have a cultural resource inventory prior to construction.
- i. A public participation plan will be prepared and executed.

Table 1. Permanent facilities required to manage the Flanigan Wild Horse Management Area.

<u>Facilities and their locations</u>	<u>Units</u>
Water Trap - Adobe Spring	1/ea.
Wing Trap - East Virginia Peak	1/ea.
Wing Trap - East Cottonwood Canyon	1/ea.
Trail Construction - Access to Adobe Water Trap and East Virginia Wing Trap	3 miles
Fence Construction - East and West Boundaries	13½ miles
Marl Holding and Sorting Corral	1/ea.
Pipeline - From existing trough to Marl Holding area	1/8 mile

Table 2. Estimated Horse Use by Allotment

Herd Name	Allotment	AUMs Class I	Horse Numbers	Est. Horse Use/Allot./Herd(percent)	Horse AUMs
Flanigan	Flanigan	5062 ¹	130	100	1560
Fort Sage	Flanigan	5062	3	12.5 ³	36
	Winnemucca	6942	5	25 ³	60
	Constantia ²	245	3	12.5 ³	36
Dogskin	Paiute Cyn.	4034	9	100	108
Granite Peak	Antelope Mtn.	8447	10	100	120
Pah Rah	Cottonwood Cr. & private land ⁴	202	83	70	996
	Olinghouse Cyn.	1113	12	10	144
	White Hills	1123	12	10	144
	Mustang	300	12	10	144
Mahogany Flat	Hardscrabble Cyn.	<u>1236</u>	<u>5</u>	100	<u>60</u>
		28704	284		3408
			<u>10</u> Calif. ³		
			294		

¹ Active Use

² AUMs within Nevada

³ Assume 50% of use in California - Susanville District

⁴ 4,020 Federal acres; 99,833 Private acres

Table 3. Herd Numbers, 1975, 1973, 1971

<u>Herd Name</u>	<u>1975¹</u>	<u>1973¹</u>	<u>Estimated 1971</u>
Flanigan	130	96	73
Fort Sage	21	16	6 ²
Mahogany Flat	5	6	5
Granite Peak	10	6	5
Dogskin	9	7	5
Pah Rah	<u>119</u>	<u>101</u>	<u>75</u>
	294	232	169

¹ From Aerial Inventory

² There were 6 additional horses on California side.

Table 4. Horse Use by Allotment with Reduction to 1971 Population

Herd Name	Allotment	Present AUM Class I	Estimated 1971 Horse No.	Estimated % Horse Use Per Allot. Per Herd	Forage Reservation For Horses
Flanigan	Flanigan	5062 ¹	73	100	876
Fort Sage ³	Flanigan	5062 ¹	1	17	12
	Winnemucca	6942	4	66	48
	Constantia ²	245	1	17	12
Dogskin	Paiute Cyn.	4034	5	100	60
Granite Peak	Antelope Mtn.	8447	5	100	60
Pah Rah	Cottonwood Cr. ⁴ & private land	202	54	73	648
	Olinghouse Cyn.	1113	7	9	84
	White Hills	1123	7	9	84
	Mustang	300	7	9	84
Mahogany Flat	Hardscrabble Cyn.	<u>1236</u>	<u>5</u>	100	<u>60</u>
		28704	169		2028 AU

6 - Fort Sage,
Calif.

¹ Active Use

² AUMs Within Nevada

³ Assume 50% of Use in California

⁴ 4,020 Federal acres, 99,833 Private acres

Table 5. Wild Horse Numbers in the Pyramid Area (1975)

<u>Herd</u>	<u>Total Horses</u>
Fort Sage Mountain	21*
Flanigan	130
Mahogany Flat	5
Dogskin Mountain	9
Granite Peak	10
Pah Rah Mountains	<u>119</u>
Total	294

* Part of the herd area is in California.

TABLE 6. Horse Population - Established by Alternative 3

Herd Name	1971 Numbers	Number Removed by Alternative	Number Remaining
Flanigan	73	37	36
Fort Sage	6 ^{1/}	3	3
Mahogany Flat	5	2	3
Granite Peak	5	2	3
Dogskin	5	2	3
Pah Rah	75	50 ^{2/}	25
TOTAL	169	96 ^{3/}	73

^{1/} 50% of total herd in Nevada

^{2/} High reduction due to limited AUMs available on national resource lands

^{3/} Numbers of livestock to be reduced also

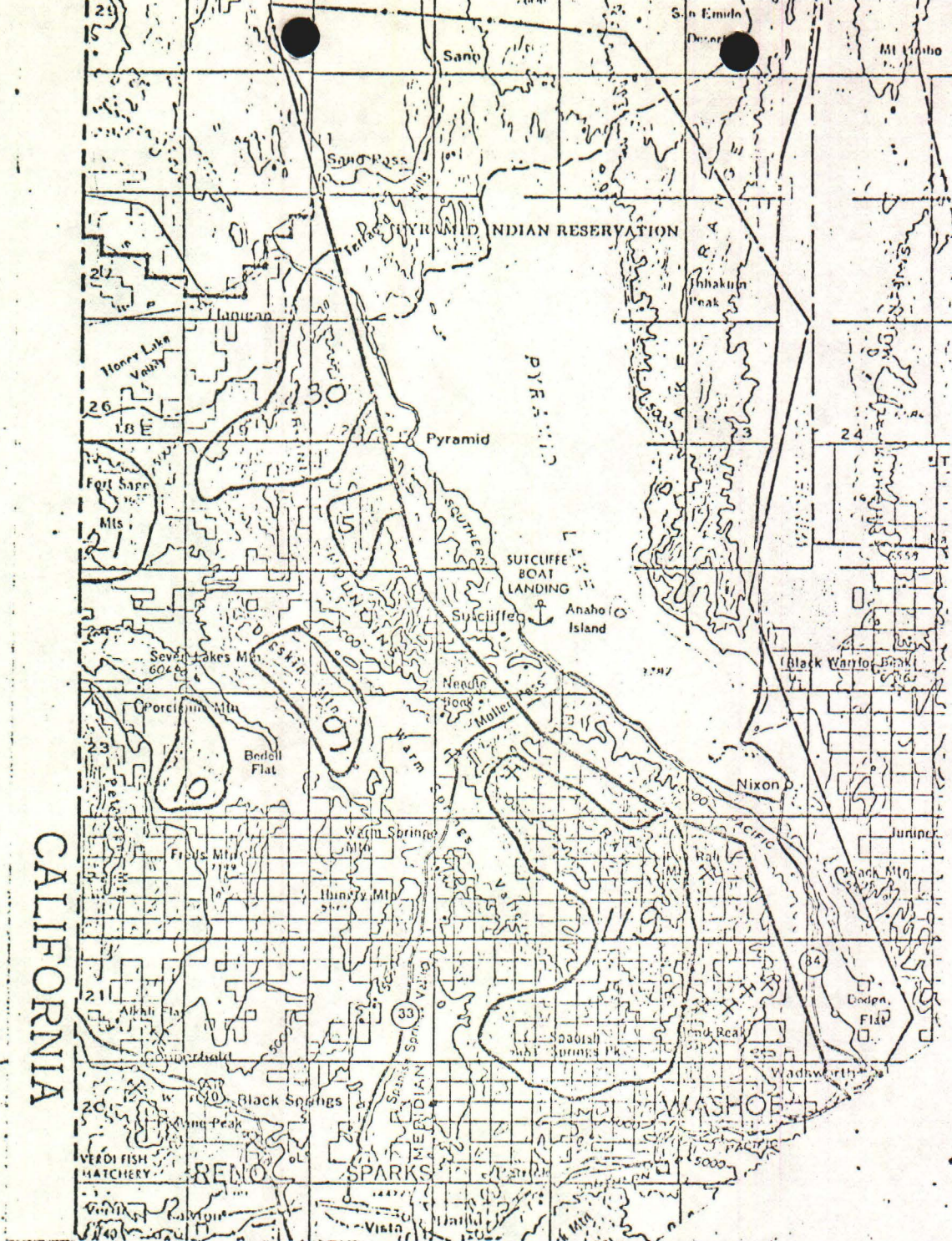


Figure 1. Wild horse Areas in the Pyramid Area

1. Fort Sage Mountain herd (21)
2. Flanigan herd (130)
3. Granite Peak herd (10)
4. Dogskin herd (9)
5. Mahogany Flat herd (5)
6. Pah Rah Mountains herd (119)

HORSE MOUNTAIN
(Interim)

HERD MANAGEMENT AREA PLAN

Fort Churchill Planning Unit
Carson City District

HORSE MOUNTAIN HERD MANAGEMENT AREA PLAN

A. Background Information

1. Map - Appendix 1
2. Location and Area

The Horse Mountain Herd Unit is located approximately 17 miles southwest of Fallon, Nevada, in Churchill and Lyon Counties. It is on the southern border of the Fort Churchill Planning Unit and includes an estimated 34,700 Federal acres. There are no private lands within the unit.

3. A Brief History

Little information is available on this unit prior to the Wild Horse and Burro Act. It is assumed that the herd got its beginning from strays and horses turned out by local ranchers. Local residents kept the population controlled by various methods prior to the passage of the Act.

Before 1973, there was only speculation as to the actual number of wild horses in the area. In February of that year, a helicopter survey was made and reported 35 animals. A second survey was completed in February, 1975, with 50 animals reported. See Appendix II for details of 1973 and 1975 inventories. It is suspected that there may be as many as 65 head at the present time.

Since the Act was passed, no horses are known to have been removed from the area. There have been no claims for the horses in the unit and none are expected.

The Management Framework Plan for the Fort Churchill Planning Unit was prepared and approved on March 26, 1976. In regards to the wild horses in the Horse Mountain Herd Unit, the following decision was made:

As an interim measure, reduce the wild horse population in the Horse Mountain Herd Unit to the estimated 1971 level.

It was decided that a formal management plan will be prepared concurrently with the allotment management plans scheduled prior to 1982. At this time, an interim management plan will be formulated to reduce the wild horse population to the estimated 1971 level (27 head) and to manage them at that number.

4. Resource Data

An extensive collection of data is contained in the Fort Churchill Unit Resource Analysis Step III. A brief summation follows.

The wild horse herd unit is spread over two livestock grazing allotments, the Horse Mountain and Desert Mountain Allotments. Drift over the boundaries is common due to lack of physical barriers. It is believed that there is adequate forage above the livestock demand for the estimated 1971 horse population and existing wildlife.

Cattle are licensed in both allotments from November 1 to March 31. Most of the licensed use in the Horse Mountain allotment is made in the northwest portion. Major use areas by cattle in the Desert Mountain allotment are in the low lands around the East Julian Well (#4237) and west of the herd unit boundary. During the winter, the horses spread out to the borders illustrated on the map overlay. As waters become scarce after the removal of the cattle, the horses trail to the northeast portion of the unit which has the only constant water supply.

The controlling factor on the distribution of the horses, as brought out above, is the source of waters. When storms leave adequate amounts in the mountains, the horses will scatter. When cattle have been removed and natural stores are depleted, the horses trail to water (on Bureau of Reclamation lands located near a cottonwood tree north of the unit) near the Smith Ranch (see Map).

Water - There are five sources of water in the herd unit. The East Julian Well (#4237) receives little use by the horses. The Eldorado Spring #1 (#4281) is a wildlife spring development inadequate for watering domestic livestock or horses. Nineteen Mile Well (#175) has a concrete storage tank, but is not equipped and has not been used for many years. The Horse Mountain Well (#3516) and Wild Horse Basin Well No. 3 (#4209) are equipped and when pumped, receive use by the horses.

Wildlife - (No big game species are represented in the unit). Chukar, partridge and mourning doves can be found through the area. No threatened species habitat has been identified in the unit.

Soils - Erosion condition in the area has been rated stable and slight. Trend is considered static.

Livestock Forage - Condition and trend information for the vegetation in the area is not available. Utilization studies were begun the summer of 1976. Use areas are illustrated on map overlay.

5. Existing Projects

Water - Five projects were discussed in a previous section. There is one well near the north boundary of the unit. A well in Section 1, T. 16 N., R. 27 E., MDM, is quite shallow and produces very little water when pumped. The Horse Mountain Reaper (#4027) located southeast of the unit is not operational.

Fences - There are several fences within and around the herd unit. These are illustrated on the map - Appendix 1.

- 237 - Julian Drift Fence
- 4023 - Desert Mountain Fence
- 4058 - South TCID Fence
(Truckee-Carson Irrigation District)
- 4063 - Wild Horse Basin Fence
- 4100 - Desert Wash Drift Fence

The Walker Indian Reservation Fence borders the herd unit to the south.

A corral and line shack are located at the Horse Mountain Well (#3516). Another corral is located at Wild Horse Basin Well #3.

Power Lines - Two power lines transect the unit. One runs north and south parallel to (approximately one mile west) the Churchill and Lyon County line. The other enters the northeast portion of the unit at the base of the Desert Mountains and runs east and west.

B. Objectives

1. Habitat - Determine condition and trend of vegetation within the herd unit. Determine proper stocking rate of the unit for domestic livestock and wild horses.

2. Animal

- a. Management practices shall be at the minimal feasible level and shall be consistent to the extent possible and practical with the maintenance of the wild horses' free-roaming behavior.
- b. Reduce the Horse Mountain herd population to the estimated 1971 level of 27 head and maintain.

C. Management Methods

1. Habitat - Conduct standard BLM studies.

2. Animals

a. Capture, Transport and Disposal of Excess Wild Horses

The Fort Churchill-Clan Alpine Management Framework Plan Step III Decision provided that the Horse Mountain Herd be reduced to the estimated 1971 level of 27 head. Approximately 38 animals are to be removed. The Horse Mountain Herd Unit has been selected for this action because of low gathering costs and the present drought conditions. The traps to be used have already been constructed and used by the licensed livestock operator in the area. The following are the steps that will be followed in the capture and disposal of excess wild horses:

- (1) Prior to capture, an aerial inventory will be made to establish a positive number of animals to be removed.
- (2) Capture will be accomplished through the use of two permanent water traps at the Horse Mountain Well (#3516) and at Wild Horse Basin Well #3 (#4209). A basic diagram of the traps is located in Appendix III.

The wild horses will be trapped and removed until the population is reduced to 27 animals. Using this procedure, a random selection will be made for sex, age, and color. The traps will be observed on a daily basis.

Captured horses will be transported to the Bureau's wild horse holding facility 17 miles north of Reno in a 4-horse, covered "Gooseneck" horse van.

The Carson City District's Wild Horse and Burro Specialist will be responsible for carrying out this plan.

He will insure that: the traps are adequate for trapping and holding the wild horses; the wells are pumped; the traps are observed on a daily basis while trapping is being done; the trapped horses are hauled to the holding facility; and the wild horse population is monitored after the initial reduction.

- (3) Disposal of the excess horses will be through (1) cooperative maintenance agreements with private parties, and (2) destruction. Horses which have not been placed in private custody after a reasonable amount of time will be humanely destroyed. Those animals found infirm and highly aged may be destroyed and buried at the trap sites.

b. Maintenance

Existing movements by bands or individuals will not be altered. The population will be maintained at 27 head.

D. Cooperative Agreements

The standard cooperative agreement for assignment to private maintenance of wild, free-roaming horses or burros (Form 4710-9) will be used.

E. Management Facilities and Equipment

1. Labor and Transport - Wild Horse and Burro Specialist
2. Aerial Inventory - 3 Hours @ \$45.00 per Hour = \$135.00

F. Studies

1. Standard BLM Studies
 - a. Range Survey
 - b. Actual Use
 - c. Utilization
 - d. Condition and Trend
 - e. Climatological Data

2. Other

- a. Population Survey
- b. Seasonal Use and Common (horse-cattle) use areas.

G. Modification

This plan may be modified as more information is obtained or status changes.

H. Support

Emergency feeding should be considered only when the winter forage production is critical to maintain a productive population.

I. Signatures

Prepared by:

Chris Erb, Range Conservationist, Lahontan R.A.
Pardee Bardwell, Wildlife Biologist, Lahontan R.A.
Bill R. Stewart, Range Technician, Lahontan R.A.

Concurred by:

Norman L. Murray
Norman L. Murray
Lahontan Area Manager

6-8-77
Date

Reviewed by:

Archie P. Melancon
Archie P. Melancon
Environmental Coordinator

6-9-77
Date

Approved by:

L. Paul Applegate
L. Paul Applegate
District Manager

6-10-77
Date

APPENDIX II

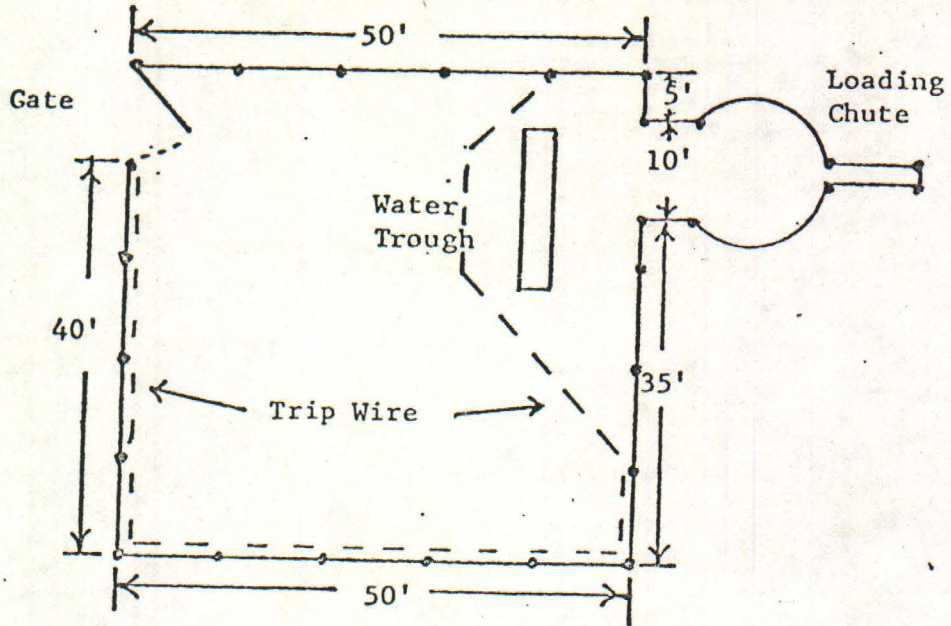
HORSE MOUNTAIN HERD POPULATION CONDITION TABLE

	Studs	Mares	Colts	Juveniles*	Total
1973 Inventory	8	17	8	2	35
1975 Inventory	10	24	2	14	50

*Represents one and two year old animals that are still within bands.

APPENDIX III

Water Trap Design and Materials



- 1.) The main trap area will be fenced with woven wire (4 inch grid) 5 feet 6 inches in height.
- 2.) The round corral will be fenced with woven wire (4 inch grid) 6 feet 6 inches in height.
- 3.) Wood posts will be placed with ten foot centers.
- 4.) A pulley system and a heavy weight will be used to trigger and close the gate.

PUBLIC PARTICIPATION PLAN

Publics Affected

A. Special Interest Groups

Humane Society
Nevada Cattlemen's Association
Nevada Woolgrowers Association
Carson City District licensees
Wild Horse Organized Assistance, Inc.
American Horse Protection Association, Inc.
Feral Organized Assistance League, Inc.
Sierra Club
Nevada Outdoor Recreation Association
Nevada Organization for Wildlife
Nevada Wildlife Federation
Audubon Society
Walker Lake Indian Reservation

B. News Media

District Media
State Media
Regional and/or National Media

C. Local, Regional, National citizens

D. Nevada Multiple Use Advisory Board

E. The State Multiple Use Advisory Committee on Federal Lands

F. National Advisory Board on Wild Horses and Burros

G. University of Nevada - Reno

College of Agriculture
Division of Agricultural and Resource Economics
Division of Plant, Soil, and Water Science
Division of Renewable Natural Resources
Division of Animal Science

H. Government Agencies

Department of the Interior

Bureau of Land Management
Washington, D. C. Office
Nevada State Office
Carson City District
Other Nevada BLM Districts

State of Nevada

Governor's Office
Department of Agriculture
Department of Fish and Game

Carson River Basin

Council of Governments

Long Range Goals

To develop public support and commitment to the following management objective identified in the BLM planning system for the Fort Churchill Planning Unit:

Reduce the Horse Mountain herd to the estimated 1971 level (27 animals).

Short Range Goals

To capture, remove, and/or relocate between 30 and 35 horses from the Horse Mountain herd in accordance with the Horse Mountain Interim Herd Management Plan.

To inform the public of the need and rationale for these actions.

To allow the public to observe the horses without creating management difficulties or safety hazards.

To provide the opportunity for claimed and/or branded horses to be identified and removed from the wild horse herd by their owners.

To submit timely news releases regarding the round-up and subsequent actions.

To fully inform those range users and the special interests most affected by the proposed action in advance of the round-up.

Courses of Action

Meetings, letters of intent, and/or telephone communications will be used to inform the appropriate representatives of the state and federal agencies of our herd management plan and the required round-up of wild horses.

News releases will be issued describing the actions and their results as appropriate.

Timetable of Actions

Land Use Guides describing the planning system decisions for the Fort Churchill-Clan Alpine Planning Units (including the need for a horse management plan) were mailed to the Carson City District publics in August 1976.

Upon approval of the Environmental Analysis Record, a timetable for the required actions will be developed and the special interests involved will be notified of the schedule.

News releases will be issued, as warranted by the interest generated by the actions, informing the public of our progress.

Follow-up news releases will be issued when round-up, adoption, etc., has been completed to summarize the events and re-emphasize the long range results expected from the actions.

Communication Methods

1. Personal Contacts with
 special interests
 government agency officials
 news media
2. Letters, news releases

Provisions for Two-Way Communications

News media will be monitored for editorials regarding the actions taken.

Public comments received during the planning process regarding wild horse management in the Fort Churchill Planning Unit have been reviewed to determine attitudes and values at that time (comments were received in January 1976).

News reports and editorials about the Tonopah (Stone Cabin Valley), Nevada round-up were reviewed to determine attitudes and values before, during, and after that action in summer 1976.

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

ENVIRONMENTAL ASSESSMENT RECORD (EAR)
FACE SHEET

1. Public Purpose or Environmental Goal to be Served by (this/these) Bureau Action(s)
- fulfill the responsibilities of each generation as trustee of the environment for succeeding generations
 - assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings
 - attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences
 - preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice
 - achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities
 - enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources

Office

Carson City

EAR number

NV-030-7-27

Environmental assessment
reference number (only for
EAR update or supplement)

2. Discrete Operations (attach additional sheets, if necessary)

		DECISION*			
		a	b	c	d
PROPOSED ACTION(S)	<input checked="" type="checkbox"/> 1 Capture, Transport & Dispose of Approximately 35 Horses	X			
	<input checked="" type="checkbox"/> 2 Maintenance of the Herd Unit at 27 Animals	X			
	<input type="checkbox"/>				
	<input type="checkbox"/>				
ALTERNATIVE ACTION(S)	<input checked="" type="checkbox"/> 1 No Action				X
	<input checked="" type="checkbox"/> 2 Discontinue Livestock Use and Manage for Horses Only				X
	<input checked="" type="checkbox"/> 3 Remove all Horses and Manage for Livestock and Wildlife				X
	<input checked="" type="checkbox"/> 4 Reduce Livestock and Horses Proportionately and Maintain				X
	<input type="checkbox"/>				
3. Mitigating Measures** (attach additional sheets, if necessary)					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					
<input type="checkbox"/>					

4. Environmental Impact Statement recommended Yes No

Approved by (Signature of Area Manager)	Date
<i>Norman L Murray</i>	6-8-77
Signature of District Manager	Date
<i>L. Paul Applegate</i>	6-10-77

* See reverse
** Summarize if decision is b or c

DECISIONS*

- a Accepted as stated in EAR
- b Accepted with environmentally-insignificant modification
- c Accepted with environmentally-significant modification which has been assessed and appended to (or incorporated in) the initial EAR
- d Rejected

Remarks (Explain if conclusion is that an Environmental Impact Statement is not required. The explanation should relate to significance of residual impacts, whether beneficial or adverse, and/or relate to controversy about impacts.)

NOTE

The principal purpose of this form is to provide a written record of the management decision and its salient environmental aspects. When properly completed, it attests to the consideration of environmental amenities and

values in planning and decisionmaking. Its completion by the decisionmaker, or authorized officer, provides subordinate officials with explicit written guidance as to the complexion of the decision.

SPECIFIC INSTRUCTIONS

1. In this section, record the linkage, if any, of the decision and the pursuit of national environmental goals expressed in Section 101(b) of the National Environmental Policy Act of 1969. The authorized officer should check any of the listed purposes/goals which this decision helps attain.
2. Record discrete operations of the proposed action which was assessed and discrete operations of its alternatives. A checkmark corresponding to the type of decision made (see asterisk above) should be entered in the pertinent box (a, b, c, or d) following the description of each discrete operation.
3. The authorized officer records the selection of mitigating measures. Every mitigating measure assessed should be listed. A checkmark corresponding to the type of decision made (see asterisk above) should be entered in the pertinent box (a, b, c, or d) following the description of each mitigating measure. If the decision corresponds to items b, or c, summarize the modification of the mitigating measure. The findings concerning significance of associated residual impacts should be summarized if the decision corresponds to items b, c, or d.
4. The authorized officer records recommendation concerning the need for an environmental impact statement on the action proposed SUBSEQUENT to the environmental assessment.

ENVIRONMENTAL ASSESSMENT RECORD

Horse Mountain (Interim) Herd Management Plan

Bureau of Land Management
Carson City District
Lahontan Resource Area
Fort Churchill Planning Unit

Prepared by:

Chris Erb, Range Conservationist
Pardee Bardwell, Wildlife Biologist
Bill Stewart, Wild Horse and Burro Specialist
Tom Abbett, Recreation Planner

I. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

Capture and remove approximately 35 wild horses from the Horse Mountain Herd Unit. Dispose of the excess wild horses in accordance with Bureau policy which is to place the animals under private maintenance agreements. When after a reasonable amount of time, attempts are unsuccessful to place the animals under these agreements, the animals will be humanely destroyed. Animals that are found infirm or highly aged may be destroyed upon the determination of the Wild Horse and Burro Specialist. Maintain the wild horse population at 27 until an Allotment Management Plan and Herd Management Area Plan can be prepared concurrently.

The horses are to be captured through the use of water traps located at the Horse Mountain Well (#3516) and the Wild Horse Basin Well No. 3 (#4209). The traps were originally constructed for use in conjunction with the on-going livestock operation in the allotment. The Wild Horse and Burro Specialist has determined that the traps are adequate for the capture of wild horses. A diagram illustrating the design and materials used for the traps can be found in Appendix III of the Management Plan.

The traps, when set, will be inspected on a daily basis. Captured horses will be transported to the Nevada Central Holding Facility (NCHF) seventeen miles north of Reno. The transport vehicle to be used is a four horse 'gooseneck' van. Destroyed horses will be buried in the field.

The Wild Horse and Burro Specialist will be responsible for the supervision of the portions of the Horse Mountain (Interim) Herd Management Area Plan (HMAP) involving capture, transport, disposition and maintenance.

Discrete Operations

1. Capture, transport and disposition of excess wild horses.
2. Maintenance of the Herd Unit.

B. Alternative No. 1

No action.

C. Alternative No. 2

Discontinue domestic livestock use in the herd unit. Allow the wild horse population to increase until the desired stocking rate is reached.

D. Alternative No. 3

Using the water traps located at the Horse Mountain Well (#3516) and Wild Horse Basin Well No. 3 (#3516), remove all wild horses from the herd unit. Disposition of the wild horses to be in accordance with Bureau policy, highly aged and infirm horses will be destroyed and buried in the field. Allocate additional forage to wildlife and livestock. Maintain proper use of the unit.

E. Alternative No. 4

Using the water traps located at the Horse Mountain Well (#3516) and Wild Horse Basin Well No. 3 (#3516), reduce livestock and wild horse populations on an equally proportionate basis until the desired stocking rate is attained. Disposition of the excess wild horses to be in accordance with Bureau policy. Maintain proper use in the unit.

II. DESCRIPTION OF THE EXISTING ENVIRONMENT

AIR

Air movement is basically from the southwest and west. The typical daily movements brought on by temperature changes are in evidence in this area. As temperatures rise, movement of air is from the lower to higher elevations and as temperatures decrease, the movement reverses.

Light breezes are normally found in the area during daylight hours. Gusty winds are not uncommon when storms are passing through. Weather records kept in Fallon, Nevada, approximately 17 miles northeast of the unit, report the following average temperatures for the months of January and July (degrees in Farenheit):

	<u>High</u>	<u>Low</u>
January	44°	18°
July	91°	55°

In the areas where intensive agriculture is practiced, a surface disturbance is common, but soon rectified through irrigation and crop growth. This and properly managed cattle grazing are not considered permanent air polluting forms. The main source of particulate matter is from wind erosion of the light textured soils in the area. Although some of the particulate matter is from an agricultural source, the majority comes from natural climatic or geologic

agencies (i.e. alkali flats, playas). Unless surface disturbance increases radically, particulate matter is not significant to the air quality in the area.

Normal traffic and sightseeing presently contribute insignificant amounts of carbon monoxide, nitrogen oxides, etc.

Non-ionizing radiation is negligible, but probably occurs along the paths of high voltage transmission lines.

LAND

The area within the herd unit comprises approximately 34,700 acres and is split quite evenly between Lyon and Churchill Counties. No private lands exist in the unit.

The herd unit is in the Desert Mountains and the southern end of the Dead Camel Mountains. The area varies in elevation from 4,000 to 5,800 feet. The unit is in the Great Basin subdivision of the Basin and Range Province. All drainage leads to enclosed interior basins.

The area surrounding the herd unit is rural in nature with relatively small towns and settlements. The major industry in these communities is agriculture. The town of Fallon is located in the middle of the Truckee-Carson Irrigation District. Where waters have been allotted, various irrigated crops are raised. The balance of agriculture is represented by livestock. All of the national resource lands are licensed for sheep and cattle grazing.

Soils in the unit are mainly medium-textured, characteristically loamy, and more than forty inches in depth. Ridges are represented by shallow coarse textured soils. The coarser soils are more susceptible to water erosion.

WATER

About 54 million acre feet of water fall on Nevada each year in the form of rain and snow. About 3.2 million acre feet run off the mountains and 2.2 million acre feet recharge the ground water reservoirs. The remaining waters continue the hydrological cycle through evaporation and transpiration.

Precipitation is generally absent in the valley floors outside the unit. Valley recharge is obtained from adjacent mountains by seepage from intermittent streams and percolation through consolidated rocks. Much of the precipitation and meltwaters evaporate before infiltration. The mean annual precipitation reported in Fallon was 5.06 inches.

VEGETATION

Four vegetation communities are in evidence within the herd unit.

Grassland Community

The grassland community occurs in the higher reaches of the unit to the south and the foothills of the Dead Camel Mountains to the north. Species represented in this community are:

Grasses - Galletta grass, Indian Ricegrass, Sandburg Bluegrass, Bottlebrush Squirreltail, Needle-and-Thread, and Cheatgrass

Shrubs - Low Sage, Big Sage, Mormon Tea, Winterfat, Rabbitbrush, Horsebrush, Spiny Hopsage, Bud Sage, Shadscale, and Low Greasewood.

Northern Desert Shrub Community

This community generally surrounds the grassland community. The most dominant plant in this type is Big Sagebrush. Other plants found in this community are:

Grasses - Galletta Grass, Indian Ricegrass, Sandberg Bluegrass and Cheatgrass

Shrubs - Low Greasewood, Shadscale, Spiny Hopsage, Bud Sage, and Winterfat

Cheatgrass is the most common grass found within this community in the herd unit.

Salt Desert Shrub Community

This community is located in the lower most arid areas of the unit. It is dominated by low greasewood and shadscale. Large spaces between plants are not uncommon. These open or barren areas are covered by a gravelly, coarse soil mixture and are generally referred to as desert pavement.

ANIMALS

A diversity of animals is found in the area. The distribution and abundance of these species are greatly influenced by the presence of the vegetative zones discussed earlier.

A small deer population exists in the Dead Camel Mountains north of the unit. The remaining mammals represented range from shrews to wild horses. An estimate was made that the average population of mammals in Nevada was about 20 per acre, most of which were rodents.

Two inventories of the wild horse population in the Horse Mountain Herd Unit have been made. In 1973 and 1975, 35 and 50 animals were counted, respectively. Based on these figures, an estimate of 27 animals was made for the population at the time the Wild Horse & Burro Act was passed (1971). At the present time, there are approximately 62 animals in the unit.

BIRDS

Over 250 species of birds are known to occupy this portion of Nevada during the different seasons of the year. Two species of upland game can be expected to be encountered: chukar partridge and mourning dove. The remaining birds are non-game species represented by raptors and song birds. No critical areas for endangered species have been identified.

AMPHIBIANS AND REPTILES

Twenty-eight species of amphibians and reptiles are known to occur in the area. Amphibians identified are one species each of the spadefoot toads, true toads and four species of true frogs. Among the reptiles, eight are lizards, one each of skinks and whiptails and eleven of snakes. None of these mentioned are rare or endangered. It is doubtful that the amphibians are represented within the herd unit itself, but may be found in the near proximity. The reptiles are probably found throughout the area.

FISH

No fish are located within the area.

MAN

The national resource lands within the herd unit are grazed by domestic livestock during the fall and winter months. Mineral prospectors and various recreationists frequent the area. Waters (wells and spring development) have been located primarily for the use of livestock. Wildlife and wild horses have received benefit from the water developments. Fences also are common in and around the unit. Two power lines

transect the unit. One parallels the northern base of the Desert Mountains and the other parallels the Lyon-Churchill County line approximately one mile to the west.

The wild horses are assumed to have originated from strays and ranch stock turned out. Prior to the Wild Horse and Burro Act, the population was held in check by "mustangers" and local ranchers. Since the passage of the Act, no horses are known to have been removed and no forage has been reserved for them. It is felt that there is sufficient forage for the licensed livestock and the proposed number of horses (27). Utilization studies are being conducted to determine use intensities and proper stocking rates in the area. A utilization study conducted in the spring of 1976 revealed a 57% overall utilization of the forage outlined in the livestock use area.

ECOLOGICAL INTERRELATIONSHIPS

The Horse Mountain Herd Unit is within the cold desert biome. Historically, perennial grasses such as Indian Ricegrass, Needle-and-Thread Grass and Sandburg Bluegrass made up a great part of the vegetation under and around the large shrub climax species. These shrubs exist today and are commonly called Big Sagebrush, Greasewood, and Shadscale. When the dominant species and their underlying communities are disturbed (i.e., fire, overgrazing, construction, drought), the plants may be replaced by species that may be more able to adapt to the harsher circumstances. During the past two years, the area has received below normal precipitation. With increasing numbers of animals applying pressure on the vegetal resource, this transition can only be accelerated.

Annual plants fall into this category and of these, quite commonly found are cheatgrass, Russian thistle, and halogeton. After such a change takes place, the trend to get back to a natural balance may take considerable time, especially in arid zones.

Plants supply the basis for the food chain in the ecosystem. Mammals, birds, fishes and insects are all interdependent upon plants some time during their lives. A change in the plant community may apply damaging pressure upon an already delicate balance or interrelationship.

Many plants and animals are highly specific under what conditions they can compete, while others can tolerate a broad spectrum of conditions. Two examples of this would be the Devils Hole Pup Fish outside of Death Valley being quite dependent upon the water level and the coyote which is continuing to expand its boundaries and adapting to man's encroachment.

As is the case between plants and animals, soil has the same relationship with plants. Soil characteristics such as depth, texture and

mineral composition often dictate what plants may grow on a certain site.

To conclude, all parts of the environment combine to form a certain habitable realm in which a specific set of living things may exist. A change, however insignificant, may have a highly negative impact unless fully analyzed and mitigated.

LANDSCAPE CHARACTER

The landscape of the Horse Mountain Herd Unit is represented by treeless mountains covered by sagebrush, greasewood and shadscale. The latter two are found at the lower elevations. Man's presence is evidenced by roads and trails, fences and wells. Prospectors have also left their telltale marks on the hillsides and ravines.

WILDERNESS VALUES

The area has little wilderness potential. Although it contains over 5,000 acres of area with no maintained roads, numerous well-travelled roads do exist. A review of the Recreation Inventory System shows that the area lacks the variety of recreation opportunities or uniqueness to warrant much consideration as a designated wilderness area.

The use of the area by wild horses would add to the "wild" character of the area.

SOCIOCULTURAL INTERESTS

The Horse Mountain Herd Unit is unpopulated by permanent human residents. An archaeological site is located north of the unit at Salt Cave. The Overland Stage and Pony Express routes are also located a few miles to the north. A comprehensive archaeological survey has yet to be conducted of the area.

Recreation takes all forms within the herd unit. Sightseeing, hunting, rock hounding, and off-road vehicles take up the majority of this activity.

All of the land within the herd unit is licensed for cattle grazing. Two grazing allotments are within the unit. The Horse Mountain allotment is licensed to Rolling "A" Ranch, the Desert Mountain allotment is licensed to Jay Julian, and both use the area from November 1 to March 31.

III. ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

Capture and remove approximately 35 wild horses from the Horse Mountain Herd Unit. Dispose of the excess wild horses in accordance with Bureau policy which is to place the animals under private maintenance agreements. When after a reasonable amount of time, attempts are unsuccessful to place the animals under these agreements, the animals will be humanely destroyed. Animals that are found infirm or highly aged may be destroyed upon the determination of the Wild Horse and Burro Specialist.

Maintain the wild horse population at 27 until an Allotment Management Plan and Herd Management Area Plan can be prepared concurrently.

The horses are to be captured through the use of water traps located at the Horse Mountain Well (#3516) and the Wild Horse Basin Well No. 3 (#4209). The traps were originally constructed for use in conjunction with the on-going livestock operation in the Horse Mountain allotment. The Wild Horse & Burro Specialist has determined that the traps are adequate for the capture of wild horses. A diagram illustrating the design and materials used for the traps can be found in Appendix III of the management plan.

The traps, when set, will be inspected on a daily basis. Captured horses will be transported to the Nevada Central Holding Facility (NCHF) seventeen miles north of Reno. The transport vehicle to be used is a four horse 'gooseneck' van. Destroyed horses will be buried in the field.

The Wild Horse & Burro Specialist will be responsible for the supervision of the portions of the Horse Mountain (Interim) Herd Management Area Plan (HMAP) involving capture, transport, disposition and maintenance.

Discrete Operation

Capture, transport and disposition of excess wild horses.

1. Anticipated Impacts

AIR - A negligible impact to the air is anticipated. Exhaust emissions from transport vehicles and pump engines would be insignificant.

LAND - No impact is anticipated in the capture area.

WATER - No impact to water is expected.

PLANTS (Terrestrial) - The trap sites have been used quite intensively in the past and are void of all perennial species. Capture, transport and disposal of the excess animals will have no additional impact on the trap site.

ANIMALS (Terrestrial) - The capture, transport and disposal processes will have no impact on any terrestrial animals other than horses.

The impact of water trapping will have a negative high impact on the trapped horses. A positive low impact will result through the reduction of competition for forage, and, therefore, benefit all remaining animals.

Capture, transport and disposal actions will place a large amount of stress on the horses. There is a potential danger that some of the horses may be injured in these processes. However, with the exception of heavy padding on all facilities and working the animals individually, the risk cannot be avoided.

ECOLOGICAL INTERRELATIONSHIPS - There will be no impact from the horse capturing or disposal programs.

A positive low impact will result from the reduction of large herbivores in the unit. The reduction will result in less soil compaction, less utilization of the vegetal resource and, overall, improve the watershed and vegetal resource.

LANDSCAPE CHARACTER - The horse trapping and subsequent disposal program will have no impact on the landscape character.

A low positive impact will result from the reduction of competition for forage. Utilization of the forage will be reduced, stud piles less frequent and the visual resource more appealing.

SOCIOCULTURAL INTERESTS - The capturing and disposal programs are expected to create a high interest among preservationists, conservationists, wild horse groups, range users and people desiring to adopt excess animals. The interests can be either negative or positive depending on viewpoint of the individual involved.

The proposed action would result in a definite control of the large animal population in the area. Most people agree to the need for proper management of the nation's natural resources. The controversy comes when actual numbers are placed on the various populations to be managed. Wild horse interest groups prefer to see wild horses. Livestockmen resisting reductions in their licenses prefer to see less horses. The decision of assigning stocking rates is a difficult one and must reflect requirements of resources and public attitudes.

A negative moderate to high impact may exist should personnel become injured while working the wild horses.

2. Possible Mitigating or Enhancing Measures to the Proposed Action
 - a. Should a burial pit be necessary for disposal of field destroyed animals, an archeological survey should be conducted.
 - b. Should the pit be used, it should be restored to original contours and, if possible, rehabilitated upon completion of original gathering.
 - c. A veterinarian should be on call as needed.
 - d. A public participation plan is necessary to inform the public of: the rationale of the proposed action and its long-term benefits; and the need for foster homes for the excess animals.

3. Recommendations for Mitigation or Enhancement of the Proposed Action
 - a. An archaeological survey should be conducted on the potential burial site.

- b. Rehabilitate burial site after use where possible.
- c. Have a veterinarian available on call as needed.
- d. Prepare a public participation plan.

4. Residual Impacts of the Proposed Action

- a. Injury and death of some wild horses can be reasonably expected.
- b. Injury to personnel may occur.

5. Relationships Between Short-Term Use and Long-Term Productivity

As the trap sites have been used quite extensively for livestock management, continued use would have little if any short-term effect. A long-term benefit will result by maintaining fewer large herbivores, therefore, reducing competition and increasing chances for plants to become more vigorous and productive.

6. Irreversible and Irretrievable Commitments of Resources

Only one irreversible commitment can be anticipated. In cases where excess horses cannot be placed, or when injured or highly aged, they will be destroyed.

Discrete Operation

Maintenance of the herd unit.

1. Anticipated Impacts

AIR - No impact is anticipated.

LAND - With a decrease in the horse population, a positive low impact can be expected with a lowered potential for soil compaction.

WATER - No impact is anticipated.

PLANTS - By maintaining the grazing pressure at a lower rate, the plant community will receive a positive low impact.

ANIMALS - Licensed livestock and remaining horses will be benefited by maintaining the horse population at the reduced level. Competition for water and forage will be reduced - positive low impact.

Horses removed after the initial reduction will receive a negative high impact.

ECOLOGICAL INTERRELATIONSHIPS - A positive low impact on terrestrial plants is anticipated by maintaining the horse population at the reduced number. A decrease in the number of herbivores will reduce competition for available forage, leaving more vegetation to benefit other resources.

Horses will remain in the same general area unless forced to move by nature or some other outside influence. It is the nature of the Wild Horse & Burro Act to preserve the free-roaming character of the horses. As a result, continued use in one area will not allow the vegetative community to maintain or improve itself. This represents a negative low (and potentially increasing) impact.

LANDSCAPE CHARACTER - No negligible impact is anticipated.

SOCIOCULTURAL INTERESTS - Although there is much public interest on both sides of the wild horse question, most people realize the need for control of the total large animal population. The proposed action represents a move in this direction and can be considered a positive low impact.

2. Possible Mitigating or Enhancing Measures to the Proposed Action

No mitigating or enhancing measures can be proposed at this time.

3. Recommendations for Mitigation or Enhancement

No recommendations can be proposed at this time.

4. Residual Impacts

Subsequent to the initial reduction, the population will be maintained at that level. Excess horses will be placed

in the adoption program. When the animals cannot be disposed of through this program, they will be destroyed.

Year-round use of some of the areas in the unit by the horses cannot be avoided.

5. Relationship Between Short-Term Use and Long-Term Productivity

Continued use of the areas mentioned above may cause a degradation to the watershed resource and, therefore, a loss of long-term productivity.

6. Irreversible and Irretrievable Commitments of Resources

No irreversible and irretrievable commitments of resources can be identified at this time.

B. Alternative No. 1

No action.

1. Anticipated Impacts

AIR - This alternative would have no impact upon the air.

LAND - The combined use by livestock and wild horses is anticipated to have a negative low effect on soil structure. To allow the same number of livestock an increasing numbers of horses would increase soil compaction and potential damage to the watershed.

WATER - There are no natural waters in the unit other than pooling from intermittent storms.

PLANTS (Terrestrial) - A negative low impact (increasing) is anticipated by this alternative. Vegetation within a certain area will support a certain number of animals. No control of the number of animals within the unit may result in: overuse, loss of vigor and eventually death to native plants, and destruction of the watershed resource.

ANIMALS (Terrestrial) - No action is expected to have a negative low impact (increasing) on all animals obtaining sustenance from the unit. Along with expanding numbers is increasing competition for

forage which will eventually lead to a decrease in quality of forage and a loss of vigor in the animal population.

ECOLOGICAL PROCESSES - A negative low impact is expected on succession if no action is taken. The combined use by horses and livestock will have an adverse effect on the dominant, desirable forage species. Continued over-utilization of these species will cause them to lose vigor and eventually die out. Succession will be set back to a lower seral stage with a less desirable forage species represented.

LANDSCAPE CHARACTER - No action may have negligible impact in the beginning, but with increasing numbers of animals, the land will show signs of deterioration and result in a negative low to medium impact.

SOCIOCULTURAL INTERESTS - No action will create a negative low impact. Livestock interests prefer to have the horses removed rather than having the populations continue to increase.

It will also allow continued growth of the horse population, making it a higher possibility to view the horses in their natural surroundings. This can be considered a positive low impact.

Wild horse interests recognize that uncontrolled populations may be damaging the nation's natural resources.

2. Possible Mitigating or Enhancing Measures

Under this alternative, no mitigation or enhancing measures are possible.

3. Recommendations for Mitigation or Enhancement

No action requires that no mitigating or enhancing measures be taken.

4. Residual Impacts

Residual impacts are those impacts remaining after the mitigating and enhancing measures are followed. With, no

action, no mitigating or enhancing measures will be taken and the impacts will be those discussed under Anticipated Impacts.

5. Relationship Between Short-Term Use and Long-Term Productivity

No action will have a low negative impact on the area. This impact will increase as years pass as a direct result of increased numbers of animals demanding more forage from the vegetal resource. Lowered long-term productivity is a certainty.

C. Alternative No. 2

Discontinue domestic livestock use in the herd unit. Allow the wild horse population to increase until the desired stocking rate is reached.

1. Anticipated Impacts

AIR - No impact upon the air is anticipated from this action.

LAND - In the beginning, a reduction in the number of large animals in the unit would have a positive low impact in the areas frequented by the domestic livestock.

As the number of horses increase, a negative low to moderate impact is expected. At times, wild horses demonstrate territorial tendencies. Unless disturbed or forced by the weather, they will remain in the same area. This increase in numbers coupled with only one source of permanent water is potentially damaging to the soil.

WATER - By removal of the livestock, the licensed operator would remove all equipment from water facilities developed in the unit - negative low impact. This would force the horses to continue using trails to the cottonwood tree (Section 35, T. 17 N., R. 28 E.) near the Smith Ranch the whole year round.

PLANTS (Terrestrial) - By removal of the cattle in the winter, a positive low impact is expected by decreasing competition.

As mentioned above, horses are somewhat territorial. As long as their biological requirements are met, they

will remain in the same area year round. This means that there is little chance for forage plants in these use areas to obtain the necessary rest to restore food reserves and reproduce. This action is expected to have a negative low impact.

ANIMALS (Terrestrial) - This alternative will have a negative high impact on the livestock should the rancher be unable to find replacement forage for them. If replacement forage is found, there should be no impact on livestock.

A positive low impact is expected in that there will be more feed available at the onset giving rise to a higher productivity in the horse population. This impact will eventually reverse as the population expands due to the lack of water facilities.

ECOLOGICAL PROCESSES - A positive low impact is anticipated by this action. A decrease in the number of large herbivores will decrease competition allowing plants to regain vigor. Under proper stocking rates, the lands will stabilize and when potentially suitable, improve.

LANDSCAPE CHARACTER - By establishing proper stocking rates for the horses, the vegetal resource may be protected through proper management - positive low impact.

SOCIOCULTURAL INTERESTS - This action will have a negative high impact upon the livestock operators in the herd unit. Rolling "A" Ranch controls the majority of the privileges in the herd unit and all privileges in the Horse Mountain allotment. The Horse Mountain allotment provides all of Rolling "A" Ranch's winter forage from November 1 through March 31. This action would create a loss of 3000 AUMs and would probably force Rolling "A" Ranch to drastically alter its operation or sell. The remaining operator within the unit, Jay Julian, would not be as damaged by this action because most of the horse use in his allotment, Desert Mountain, is high and in areas not generally used by his cattle.

Removal of all domestic livestock and allowing the unit to be managed primarily for wild horses will create a moderate amount of interest. Whether it be negative or positive will depend upon the various views held.

2. Possible Mitigating or Enhancing Measures

- a. Water Facilities - Equip wells and use them to control movement of horses so that the forage plants may be able to regain vigor, produce, seed, and establish seedlings. Develop additional waters to achieve better distribution.
- b. Establish a schedule for reducing the number of cattle so that the impact can be softened over a period of years (possibly 3 to 5).

3. Recommendations for Mitigation or Enhancement

- a. Equip all existing water facilities.
- b. Develop new water facilities where possible.
- c. Schedule domestic livestock removal program over a period of years.

4. Residual Impacts

The removal of animals within the unit cannot be avoided.

As a result of this alternative, the removal of all domestic livestock will greatly modify the livestock operation if not end it. The overall effect of this action will establish a proper stocking rate and manage the natural resource lands at their potential productivity.

5. Relationship Between Short-Term Use and Long-Term Productivity

This alternative will establish the proper stocking rate and will stabilize the long-term productivity of the herd unit.

6. Irreversible and Irretrievable Commitments of Resources

The direct result of this alternative will be a trade of resources managed. In place of domestic livestock, the unit will be managed for the visual resource of the wild horses. No irreversible or irretrievable commitment of resources is occurring.

D. Alternative No. 3

Using the water traps located at the Horse Mountain Well (#3516) and Wild Horse Basin Well No. 3 (#3516), remove all wild horses

from the herd unit. Disposition of the wild horses to be in accordance with Bureau policy, highly aged and infirm horses will be destroyed and buried in the field. Allocate additional forage to wildlife and livestock. Maintain proper use of the unit.

1. Anticipated Impacts

AIR - A negligible impact is anticipated. Exhaust emissions from transport vehicles and pump engines would be insignificant.

LAND - A positive low impact could be expected from this action. A reduction in the number of large animals within the unit will decrease soil compaction.

WATER - No impact upon waters in the area is expected.

PLANTS (Terrestrial) - A positive low impact is anticipated by the removal of the horses in the unit. A reduction in the number of large herbivores will relieve growing competition for forage. Removing the year-round use in the unit will allow the vegetative community to maintain and possibly improve itself.

ANIMALS (Terrestrial) - Capturing and disposal will have no direct impact upon animals other than the horses. A positive low impact will result as fewer animals will be competing for available forage.

A negative high impact on the wild horses will occur as a direct result of this action. Trapping, transporting, and disposal actions will place a large amount of stress on the individuals. Injuries of varying degrees are anticipated. In cases where animals can not be placed under cooperative agreements, destruction obviously is an extreme negative impact.

ECOLOGICAL INTERRELATIONSHIPS - A positive low impact will result as the horses are removed. The removal will stop the uncontrolled increase in the large herbivore population in the unit. Through use of standard study procedures, the proper stocking will be determined and future natural resources will be conserved.

LANDSCAPE CHARACTER - No direct impact is expected from the discrete actions of trapping and disposal of the wild horses.

A positive low impact is anticipated as the competition for forage is relieved. With livestock use properly managed, the landscape character should stabilize and improve where potential exists.

SOCIOCULTURAL INTERESTS - The removal of all the horses within the herd unit is expected to create a high interest among various groups. Wild horse enthusiasts, fighting to preserve the wild horses in all areas they existed in at the time the Wild Horse and Burro Act was passed, will be quite negatively impacted. On the other side, livestock operators will be positively impacted as competition for forage will be reduced and larger weight gains on livestock realized.

2. Possible Mitigating or Enhancing Measures to Alternative No. 3
 - a. Should a burial pit be necessary for disposal of field destroyed animals, an archaeological survey should be conducted.
 - b. Should the pit be used, it should be rehabilitated upon completion of the original gathering where possible.
 - c. A veterinarian should be on call as needed.
 - d. A public participation plan is necessary to inform the public of: the rationale of the proposed action, and its long-term benefits; and the need for foster homes for the excess animals.

3. Recommendations for Mitigation or Enhancement of Alternative No. 3
 - a. An archaeological survey should be conducted on the potential burial site.
 - b. Rehabilitate burial site after use where possible.
 - c. Have a veterinarian available on call as needed.
 - d. Prepare a public participation plan.

4. Residual Impacts of Alternative No. 3

- a. Injury and possibly death to some of the wild horses can be reasonably expected.
- b. A potential exists that personnel working with the wild horses may become injured.

5. Relationships Between Short-Term Use and Long-Term Productivity

Possible water trap sites have been used quite extensively in the past. Use as a water trap site will have no short-term effect and, therefore, have no effect on long-term productivity.

Wild horses will no longer be a resource in this area, however, the general productivity will be enhanced by the positive control of the remaining resources.

6. Irreversible and Irretrievable Commitments of Resources

Only one irreversible commitment can be anticipated. In cases where excess horses cannot be placed or when injured or highly aged, the animals will be destroyed.

E. Alternative No. 4

Using the water traps located at the Horse Mountain Well (#3516) and Wild Horse Basin Well No. 3 (#3516), reduce livestock and wild horse populations on an equally proportionate basis until the desired stocking rate is attained. Disposition of the excess wild horses to be in accordance with Bureau policy. Maintain proper use in the unit.

1. Anticipated Impacts

AIR - A negligible impact is anticipated. Exhaust emissions from transport vehicles and pump engines would be insignificant.

LAND - A reduction in the number of large animals within the unit will result in a decreased potential for soil compaction - positive low impact.

WATER - No impact upon waters in the area is expected.

PLANTS (Terrestrial) - A reduction in the number of large grazing animals will also reduce competition for available forage. Managing the area under the proper stocking rate should provide the necessary requirements of all plants - positive low impact.

Being the nature of wild horses to be somewhat territorial, there is the possibility that some areas will receive use the year-round. This is detrimental to plants for they require rest to regain vigor, reproduce and establish young seedlings - negative moderate impact.

ANIMALS (Terrestrial) - No impact is expected on animals other than those horses trapped and disposed of.

A negative high impact is anticipated from the capture and disposal of excess horses. In these processes, the animals will become quite stressed, may be injured and possibly die.

The remaining animals will be benefited by this action due to the decrease in competition for available forage. They will have to expend less energy in search of feed and will probably improve upon their physical condition.

ECOLOGICAL INTERRELATIONSHIPS - No impact upon ecological interrelationships is expected from the direct reduction of livestock and wild horses.

Indirectly, a positive low impact will result from the reduction of large herbivores in the unit. The reduction will result in less soil compaction, less utilization of the vegetal resource and, overall, improve upon all resource values in the area.

LANDSCAPE CHARACTER - No impact is expected from the direct reduction of livestock and wild horses from the unit.

After the reduction has been made and the proper stocking rate achieved, the general landscape should stabilize and improve where potential exists - positive low impact.

SOCIOCULTURAL INTERESTS - Livestock operators within the unit will have to take a reduction in their permit. In this period of low cattle prices and increasing expense of doing business, a reduction in the size of their herd is met with obvious negativity. It is doubtful that the eventual reduction by this alternative would force the operator to drastically alter his operation - negative low impact.

Wild horse interests, namely the Wild Horse Organized Assistance, would tend to support this alternative. Most members of these groups are conservationists, but feel that every time a reduction is to be made that horses are usually reduced first then livestock - positive low impact.

2. Possible Mitigating or Enhancing Measures to Alternative No. 4

- a. Should a burial pit be necessary for disposal of field destroyed animals, an archaeological survey should be conducted.
- b. Should the pit be used, it should be rehabilitated upon completion of the original gathering where possible.
- c. A veterinarian should be on call as needed.
- d. A public participation plan is necessary to inform the public of: the rationale of the proposed action, and its long-term benefits; and the need for foster homes for the excess animals.

3. Recommendations for Mitigation or Enhancement of Alternative No. 4

- a. An archaeological survey should be conducted on the potential burial site.
- b. Rehabilitate burial site after use where possible.
- c. Have a veterinarian available on call as needed.
- d. Prepare a public participation plan.

4. Residual Impacts of Alternative No. 4

- a. Injury and possibly death to some of the wild horses can be reasonably expected.
- b. A potential exists that personnel working with the wild horses may become injured.

5. Relationships Between Short-Term Use and Long-Term Productivity

Potential water trap sites have been used extensively in years past by domestic livestock and wild horses. Use of these facilities for this action will not have any significant effect upon long-term productivity.

As a result of this action, a proper stocking rate will be determined. Prior to this time and after the passage of the Wild Horse and Burro Act, there has been no control over the total large animal population. By this alternative, the proportionate reduction of livestock and wild horses to the proper stocking rate will preserve and manage all resources for the future.

6. Irreversible and Irretrievable Commitments of Resources

As a significant number of wild horses and livestock will remain in the unit, there are no irreversible commitments to those resources in the area.

Horses that have been removed from the area will be placed in the adoption program. In cases where excess horses cannot be placed or when injured or highly aged, the animals will be destroyed.

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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:

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

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.

<u>TYPE</u>	<u>ACRES</u>	<u>PERCENT</u>
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
	<u>228,940</u>	<u>100%</u>

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

<u>CONDITION</u>	<u>ACRES</u>	<u>PERCENT</u>
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:

<u>Allotment</u>	<u>AUM's of Use</u>	<u>Suspended and Preferred Non-use</u>	<u>Total AUM's</u>
<u>National Forest</u>			
*Treasure Hill	415	0	415
*Black Rock	102	0	102
Total	<u>517</u>	0	<u>517</u>
<u>NRL</u>			
*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	<u>2239 Cattle</u>	<u>1083</u>	<u>3322</u>
Total	<u>3731</u>	<u>3464</u>	<u>7197</u>

*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

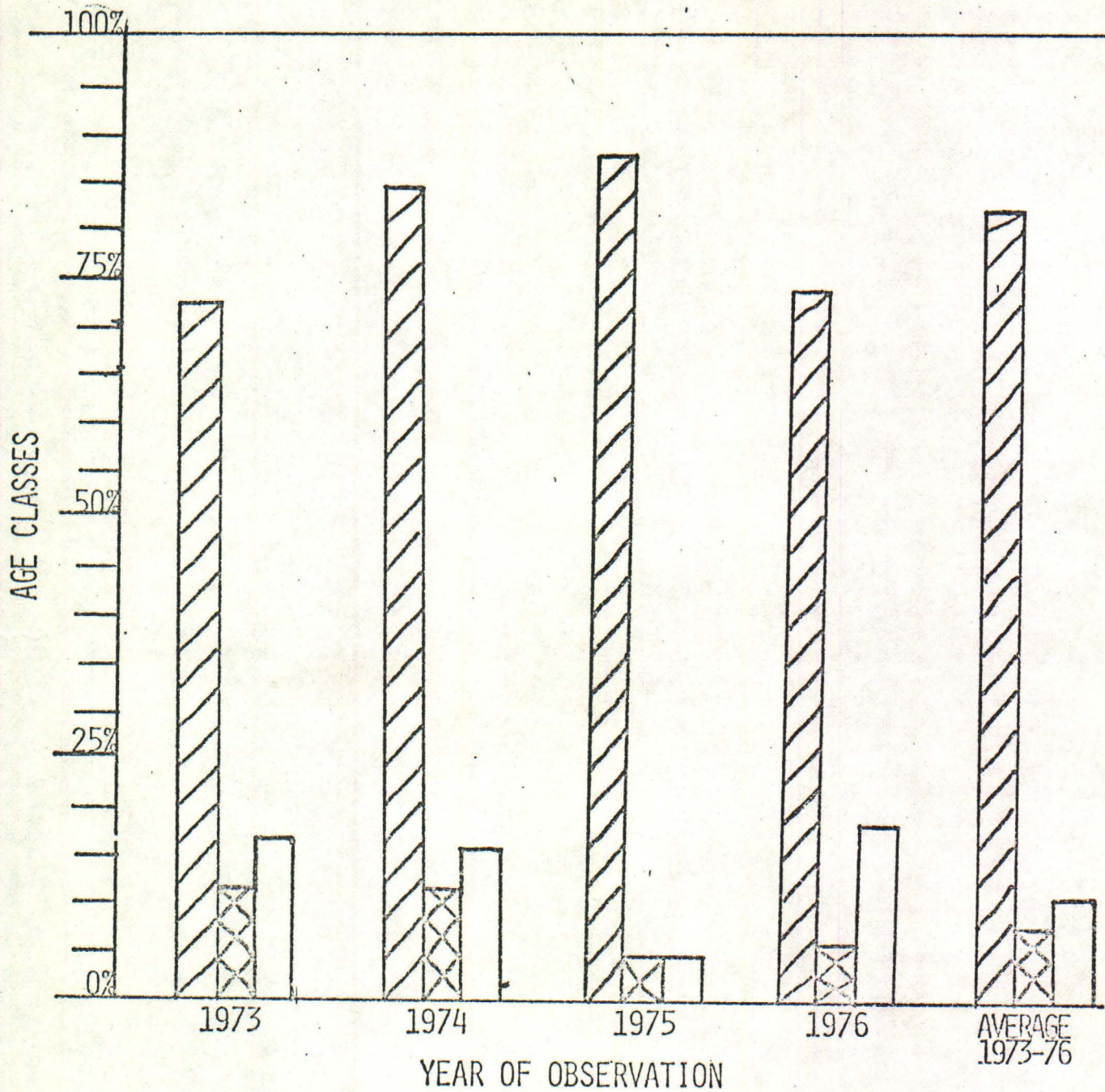
a. Numbers

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:

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

TABLE 1



ADULTS



YEARLINGS

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



YOUNG

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 occurring 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 (<i>Aristida</i>)					
Blue grama (<i>Bouteloua gracilis</i>)		1.38	.06		1.89
Cheatgrass (<i>Bromus tectorum</i>)	2.03				
Sedge (<i>Carex</i>)	1.12	.16			.24
Wild rye (<i>Elymus</i>)	9.16	.51	.28		.40
Galleta (<i>Hilaria Jamesii</i>)	2.88	41.40	5.26	8.55	22.18
Indian ricegrass (<i>Gryzops hymenoides</i>)	14.30	10.52	1.76	2.54	10.96
Squirrel tail (<i>Sitanion hystrix</i>)	12.26	1.04	1.24	.87	1.14
Dropseed (<i>Sporobolus</i>)	.58	1.69	1.89	.74	7.34
Needlegrass (<i>Stipa</i>)	47.65	5.36	2.46	5.99	30.75
Unknown grass	.16			.49	.49
Rheatgrass (<i>Agropyron</i>)					
Sagebrush (<i>Artemisia</i>)	.24				
Saltbrush (<i>Atriplex</i>)		.31	1.73	7.68	1.64
Balsam root (<i>Balsamorhiza</i>)					
Rubber rabbitbrush (<i>Chrysothamnus nauseosus</i>)					
Douglas rabbitbrush (<i>Chrysothamnus viscidiflorus</i>)					
Tansy Mustard (<i>Descurainia</i>)	.32			.49	
Manzanita (<i>Ephedra</i>)					
Wall flower (<i>Erysimum</i>)				.12	
Wright buckwheat (<i>Eriogonum wrightii</i>)					
Winterfat (<i>Eurotia lanata</i>)	8.03	7.29	86.90	70.45	22.82
Halogeton (<i>Halocetion glomeratus</i>)	.32				
Spiny Hopsage (<i>Grayia spinosa</i>)					
Juniper (<i>Juniperus Utahensis</i>)					
Opuntia					
Phlox (<i>Phlox hoodii</i>)	.39			.25	.24
Greasewood (<i>Sarcobatus vermiculatus</i>)	.16				
Russian thistle (<i>Salsola Kali</i>)				.12	
Nightshade (<i>Solanum</i>)					
Globe Mallow (<i>Sphaeralcea coccinea</i>)					
Seed					.08
Unknown Chenopod		.09			.15
Unknown Composite (<i>Artemisia</i> type)					
Unknown Composite	.32				
Unknown Ford		.27	.22	1.24	.08
Unknown Legume	.08			.37	
Loss					

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:

<u>Facility and/or Equipment</u>	<u>Units</u>	<u>Materials</u>	<u>Labor</u>	<u>Total Cost</u>
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
				<hr/>
	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.

<u>Use Intensity Class</u>	<u>Forage Utilization</u>	<u>Use Class Symbol</u>	<u>Color Code</u>
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 occurring.

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

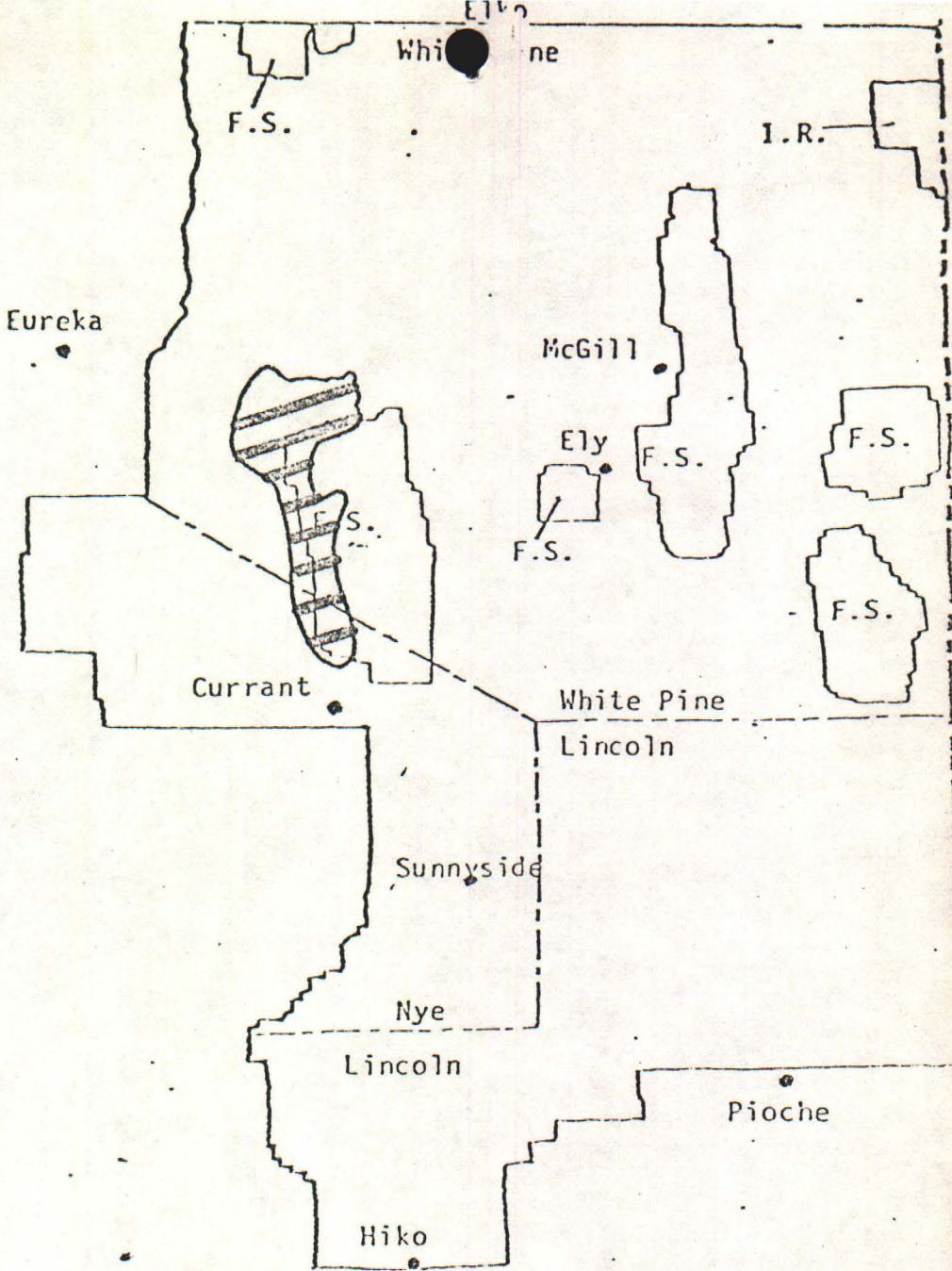
Six to 10 harem stallions will be sterilized using various techniques. These animals will be observed to determine their behavior characteristics. Their harems will be observed to determine the effect of the sterilization on band reproduction. If this study proves the method to be feasible, it will be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



Nevada BLM Districts



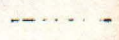
LEGEND

Ely District Boundary

County Boundary

Monte Cristo Herd Unit

Humboldt National Forest



SIGNATURES

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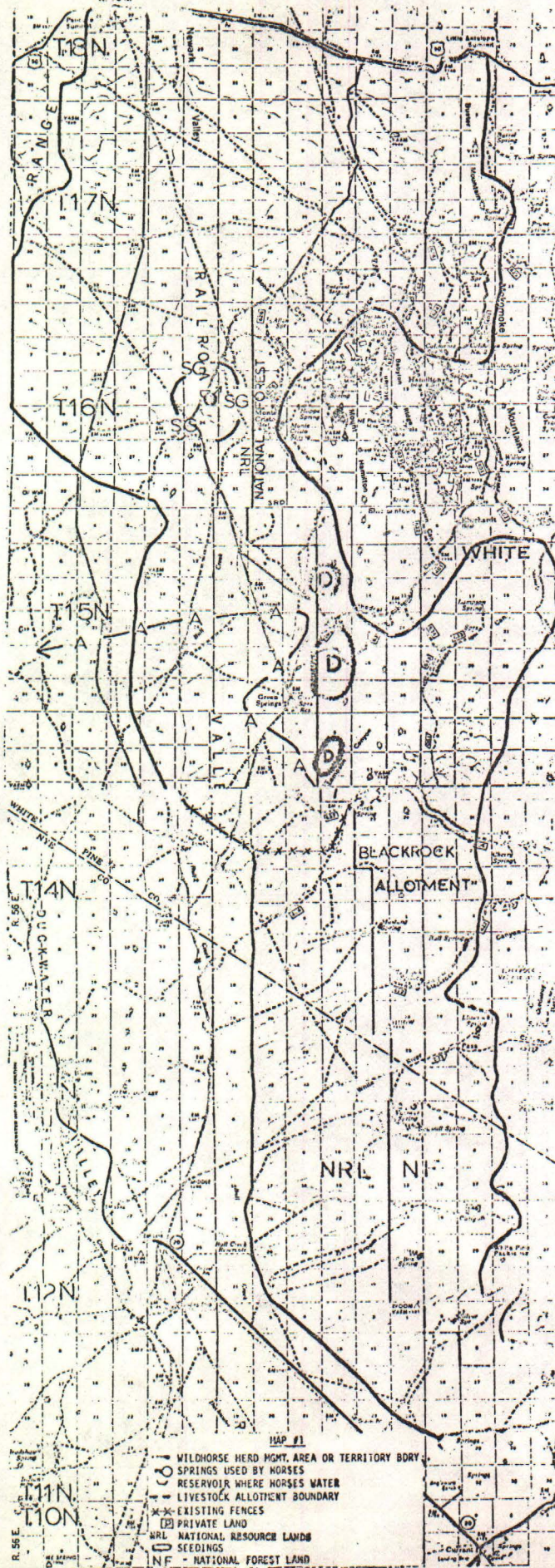
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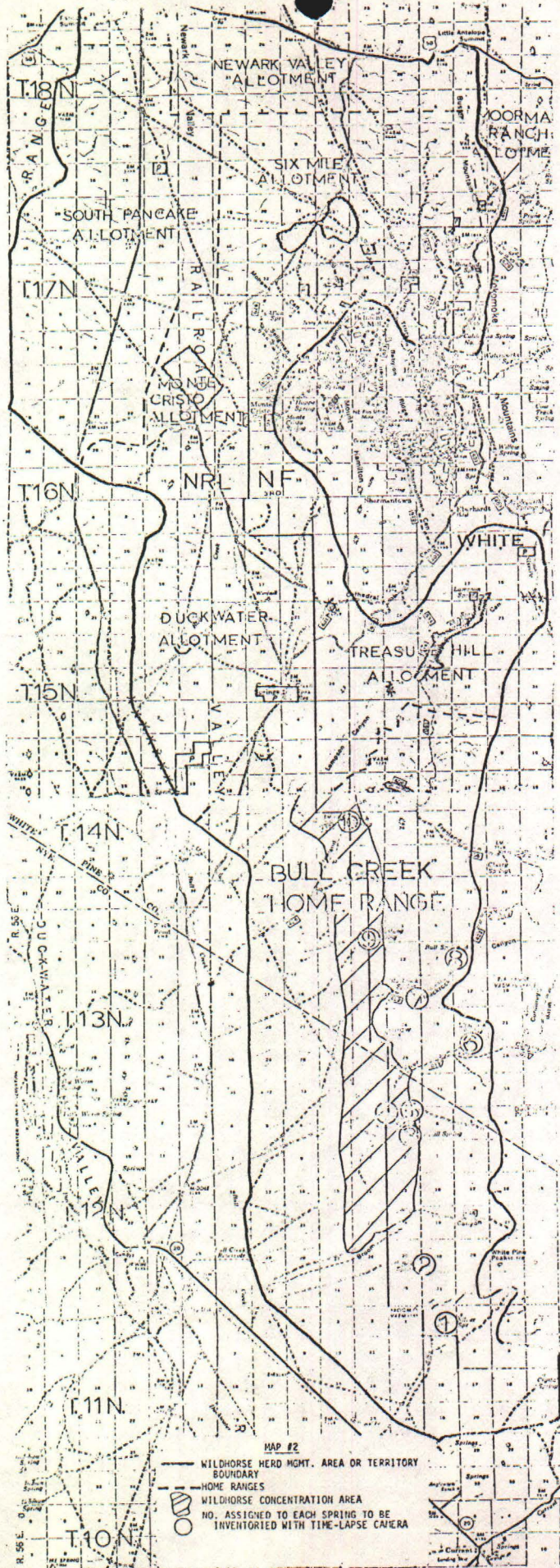
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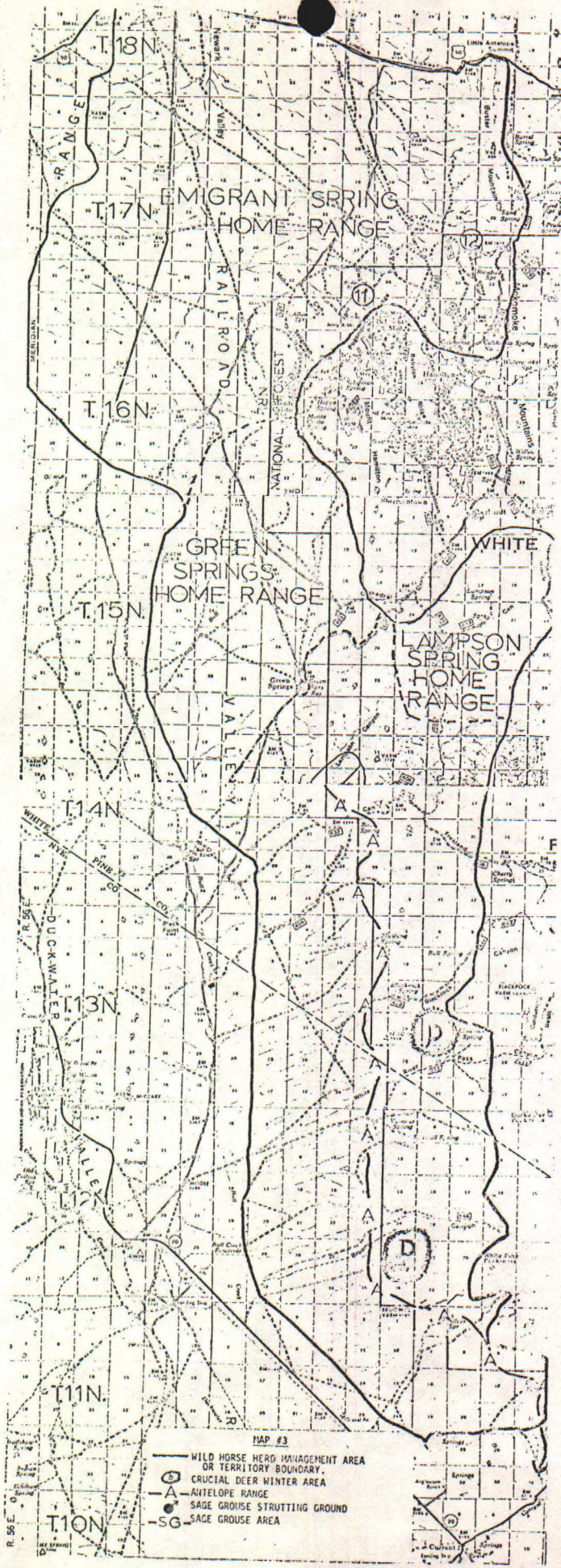


- MAP #1
- WILDBORSE HEAD MGMT. AREA OR TERRITORY BDRY
 - SPRINGS USED BY HORSES
 - RESERVOIR WHERE HORSES WATER
 - LIVESTOCK ALLOTMENT BOUNDARY
 - EXISTING FENCES
 - PRIVATE LAND
 - NRL NATIONAL RESOURCE LANDS
 - SEEDLINGS
 - NF NATIONAL FOREST LAND

T11N
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T18N

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Environmental Assessment Record

BLM Ely #NV-040-7-17

for

Monte Cristo Wild Horse Herd Area Management Plan

Prepared by

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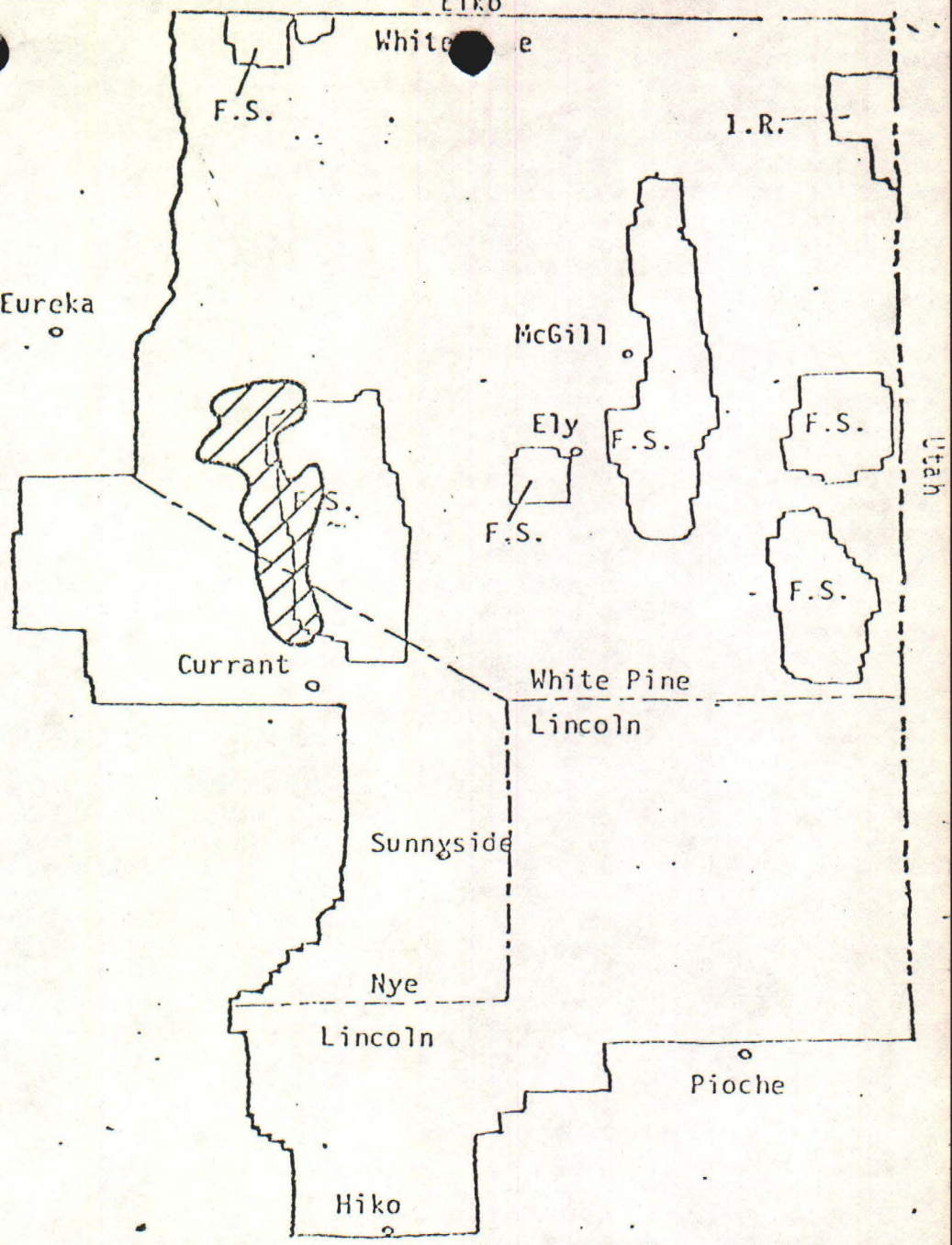
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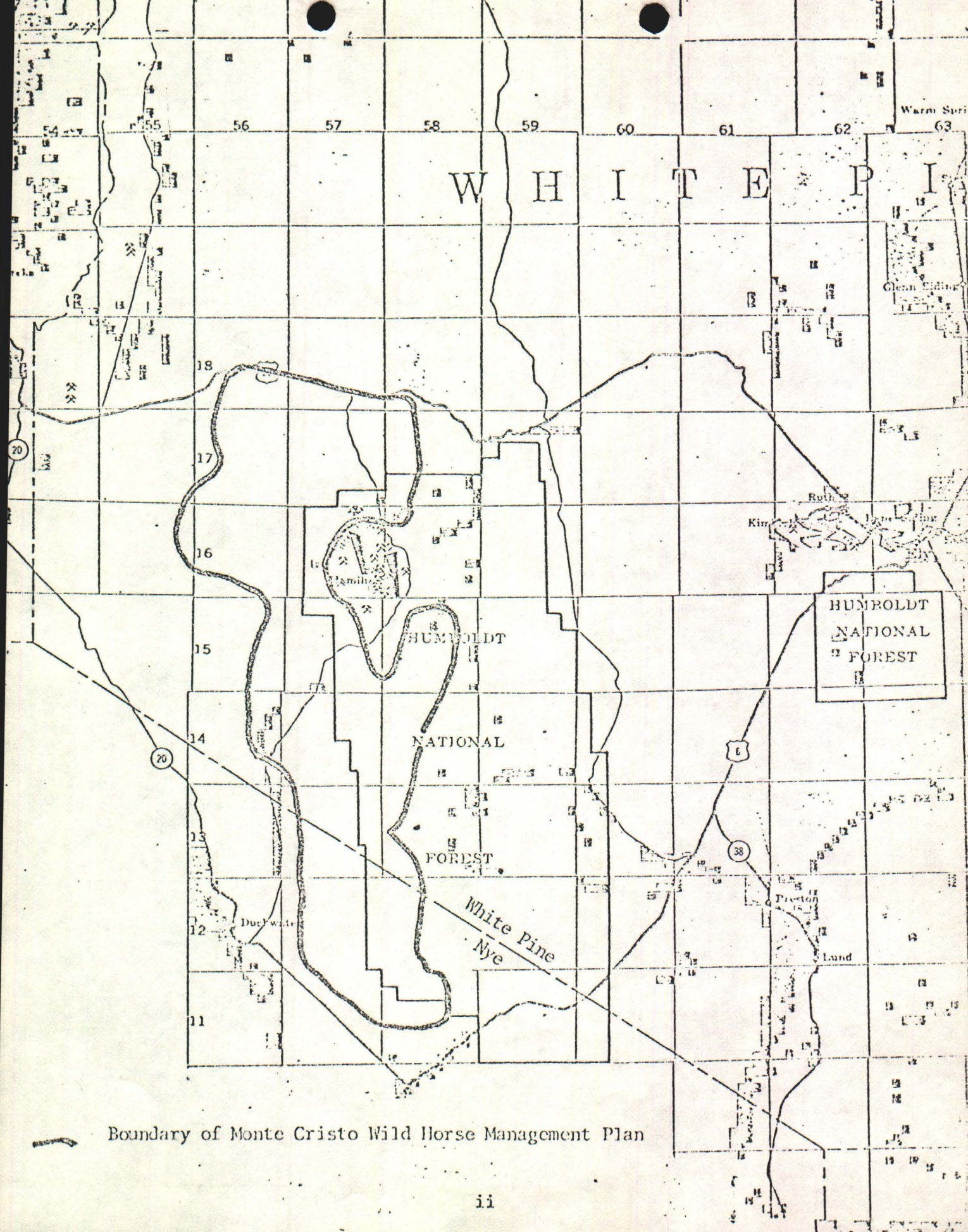
ELY DISTRICT

GENERAL LOCATION MAP
 MONTE CRISTO
 WILD HORSE MANAGEMENT PLAN



LEGEND

- District Boundary ---
- County Boundary - - - - -
- Management Plan Boundary
- National Forest ---



W H I T E P I N E

HUMBOLDT
NATIONAL
FOREST

NATIONAL
FOREST

White Pine
Nye

Boundary of Monte Cristo Wild Horse Management Plan

CHAPTER 1

PROPOSED ACTION

The proposed action is to develop and implement a plan for the proper management of horses in the Monte Cristo wild horse herd management area. The plan will be developed jointly with the White Pine District of the Humboldt National Forest. The optimum population level for the area will be determined using the most limiting factor for the area as a base, and will take into consideration other uses of the area such as wildlife and livestock. Studies will be established to insure that the objectives of the plan are being met.

Implementation of the plan will involve construction of trapping facilities, removal of excess horses to a number compatible with the forage resource and other uses in the area, and maintenance of the number of horses in the Monte Cristo herd, with adequate AUM's reserved for the maximum determined number.

Horses removed from the area will be trucked to holding facilities operated by the Bureau of Land Management near Reno, Nevada, where they will be cared for until such time that they can be released to the public under cooperative agreement through the Bureau's "Adopt-A-Horse" program.

Those horses to be disposed of by the Forest Service may be adopted under this program or under a local Forest Service program, whichever proves to be the most efficient.

Once the initial reduction is complete, the herd population will be allowed to build up to a specified maximum number, at which time a subsequent reduction will take place.

At the present time, an estimated 150 horses inhabit the Monte Cristo herd unit. Through management framework plan (MFP) decisions, establishment and interpretation of integrated studies, utilization and pellet group counts, and range environmental analysis an optimum number of horses will be arrived at. In order to allow for fluctuations in the population and to reduce the number of reductions to the population, a range of numbers will be established, allowing for a 25 percent fluctuation up or down from the optimum. Initial reduction is expected to take place in fiscal year (FY) 1979 with additional reductions occurring as the population increases.

Public Law 92-195, the Wild and Free Roaming Horse and Burro Act, places the responsibility for management of these animals with the Secretary of the Interior through the Bureau of Land Management and the Secretary of Agriculture through the Forest Service. This law provides for the management of wild horses in keeping with the multiple-use management concept for the public lands.

In accordance with law, an archaeological investigation will be conducted on any area where facilities will be constructed or where disruptive activities take place.

Water trapping will be the primary means of initially reducing numbers. This will involve the construction of corrals and loading chutes at selected springs within the herd unit. The trap itself will enclose the free water in the immediate vicinity of the spring. Road improvements may be required to accommodate vehicles transporting materials and horses to and from the trap site.

In order for water trapping to be an effective means of gathering horses, the water enclosed by the trap must be the only available free water in the immediate area. Therefore any other springs and water sources would have to be made unavailable for use by horses. This would require, at a minimum, the flagging of other water sources nearby.

Another method of capture being considered is wing trapping. This method requires the construction of a corral with a loading chute and wings extending out from the corral for distances of approximately one-quarter mile. The corral would be situated in an area frequently utilized by horses, preferably on a trail that passes through a geographical restriction such as a steep wash or canyon. The horses would then be slowly herded into the trap with the use of a helicopter.

A third method of capture is "parada" or the use of a domestic horse to encourage other horses to enter a corral or trap. This would also require the construction of trapping facilities similar to those mentioned above.

The final capture method to be considered is roping from horseback. This method requires highly skilled ropers on well trained horses to rope each wild horse and remove it from the area.

Two destructive methods of population reduction can also be considered. These are shooting with high powered rifles and overdosing the animals with euthanizing drugs administered remotely from a dart gun.

In both cases, small blinds would be constructed at desirable locations and personnel from either BLM or USFS would wait in the blinds for horses to pass by. While this is an efficient, humane, and economical method, and allows for a greater degree of selectivity of horses to be removed, it does require the destruction of horses and is very much in disfavor with the general public. As such, it will be considered only as a last resort after other methods have failed.

Population maintenance may also be partially achieved through the sterilization of selected male horses in individual bands through surgical, chemical, or mechanical means. This would require the immobilization of selected animals by remote injection of drugs. They would then be sterilized by one of the above mentioned methods, collared and released. This would reduce the productivity of each band, and lower the rate of population increase.

Finally the act provides for the capture and relocation of excess horses to areas where wild horses were found at the time of passage of the act, and where the present numbers are low and the area can support additional animals. No such areas are known to exist within the Ely District.

ALTERNATIVES TO THE PROPOSED ACTION

1. No Action - This alternative would involve no change in the present situation, and no studies would be conducted to gather information on range or herd conditions as they apply to the Monte Cristo herd unit. This alternative would not follow the intent of public law 92-195, which is to protect and manage wild horses in a manner which will achieve and maintain a thriving natural ecological balance on the public lands.

In addition, this alternative is not appropriate for this situation due to the joint nature of management of the herd between the Bureau of Land Management and the Forest Service.

2. Reduce Livestock Use with No Control on Horses - This alternative would eventually result in the removal of livestock from the herd area with those AUM's formerly used by livestock made available for horse use. This would allow the numbers of horses to increase without competition from livestock, and for control of numbers to be achieved through the processes of natural selection.

In effect, this would create a wild horse range or sanctuary with no domestic livestock use permitted. In order for this alternative to be effective, the area would require fencing to insure that no use from livestock would occur.

If control of horses were allowed, it would require roundups on a periodic basis to remove excess animals, control the population dynamics of the herd, and maintain the health and quality of the herd.

3. Increase Forage - This alternative would increase the amount of available forage in the herd unit through vegetative manipulation. At the present time, no suitable sites have been identified on National Resource Lands (NRL) within the herd unit. The possibility of suitable sites may exist on Forest Service lands on the White Pine range in the southern end of the herd unit. This would provide additional forage for wild horses, wildlife, and livestock, and could relieve some of the competition presently occurring in the area.

CHAPTER II

EXISTING ENVIRONMENT

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 in the south and to the summit of the Pancake Range in Newark Valley in the north.

General topography consists of valley bottoms, alluvial fans, foothills, canyons and steep ridges.

Land status and acreage tabulations are as follows:

<u>Land Status</u>	<u>Acres</u>	<u>Percent</u>
National Resource Lands (NRL)	155,330	68
Forest Service Lands (FS)	71,680	31
Private	<u>1,930</u>	<u>1</u>
TOTAL	<u>228,940</u>	<u>100</u>

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 shrub make up the remainder. (Refer to Cherry Creek and Duckwater URA's for a more detailed discussion of vegetation.) Four species of threatened or endangered plants are believed to exist in the area. While none have been identified within the boundaries of the herd unit, they have been located close by in similar habitat types. These include Astragalus calycosus var. monophyllidus, Erigeron uncialis ssp. coryugans and Lepidium nanum all classified as threatened species, and Astragalus uncialis which is classified as endangered.

Studies show present range condition throughout the area to be poor with a downward trend occurring.

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.

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 blue grouse is known to exist in the area, and sage grouse are found in valleys and suitable mountain brush habitat in the northern portion of the area.

Actual numbers are not known, however, observations made in 1976 indicate that approximately 35 antelope inhabit the area. There is no estimated number for deer, small game or non-game species. No endangered species are known to exist in the area.

Livestock grazing occurs both from sheep and cattle. Grazing occurs primarily during fall, winter and spring on NRL and during summer on USFS land.

There are eight established allotments and two proposed allotments in the area. Presently (1976), there are 7,714 AUM's within the area, 7,197 on NRL and 517 on USFS lands. AUM, or animal unit month, means the amount of natural or cultivated feed necessary for the sustenance of one cow or its equivalent for a period of one month. Two types of non-use may be made, suspended and preferred. Suspended non-use is a mandatory reduction in grazing privileges due to a deteriorated range condition while preferred non-use is a temporary and voluntary non-use of AUM's which may be activated at any time during the grazing season.

AUM's of use, AUM's of non-use and total AUM's by allotment are as follows:

<u>Allotment</u>	<u>AUM's of Use</u>	<u>Suspended and Preferred Non-Use</u>	<u>Total AUM's</u>
<u>USFS</u>			
*Treasure Hill	415	0	415
*Blackrock	<u>102</u>	<u>0</u>	<u>102</u>
TOTAL	<u>517</u>	<u>0</u>	<u>517</u>
<u>NRL</u>			
*Newark Valley	483	696	1,179
South Pancake	526	628	1,154
*Moorman Ranch	106	104	210
Six Mile	0	955	955
Monte Cristo	377	0	377
*Duckwater	<u>2,239</u>	<u>1,083</u>	<u>3,322</u>
TOTAL	<u>3,731</u>	<u>3,466</u>	<u>7,197</u>

*Only that portion falling within the Wild Horse Area.

The Monte Cristo wild horse herd presently contains approximately 150 horses concentrated into four home ranges. These are the Emigrant Spring home range with 18 horses, the Green Springs home range with 27 horses, the Lampson Spring home range with 15 horses, and the Bull Creek home range with 90 horses. No grazing problems or conflicts have been identified in the Emigrant Spring, Green Springs or Lampson Spring home ranges, and no reduction in horse numbers is anticipated.

In the Bull Creek home range studies have indicated a serious overuse problem due to excessive numbers of horses. It is anticipated that the present numbers will be reduced to a number compatible with the resource base and other uses in the area.

Water is provided by several springs in the herd unit. Many intermittent streams also flow early in the year and may provide water until they run dry. For the most part, the horses are dependent on springs and winter snow for a source of water.

No outstanding or unique scenic values are recognized in the area. There are numerous intrusions from roads and past mining activity. The adjoining Pancake Range and the portion of the National Forest within the area are more scenic and provide more natural variety of terrain and vegetation than the two valley areas.

There are several recreational activities available in the area. These include hunting for deer, game birds, and small game, as well as visitors to several historical sites. Christmas tree cutting and pinyon nut collecting occur on a small scale.

The Pancake Range in the Cherry Creek Planning Area has been identified as possessing primitive qualities primarily because of its lack of intrusions. The Cherry Creek MFP decision regarding this area is to manage it on a multiple use basis with preservation of primitive values, an important consideration in management decisions.

There are eleven known archeological sites in the area. These sites are typical of many sites throughout eastern Nevada. They are the cultural remains of the Basin - Plateau Aboriginal Sociopolitical Groups. Most sites are found in association with water sources and generally consist of lithic and potsherd scatters.

CHAPTER III

IMPACT ANALYSIS

Proposed Action

Reduction of grazing pressure from the area encompassed by the Monte Cristo herd management area will aid in stabilizing the present downward trend of both range and watershed conditions in the area. It will also serve to reduce competition for forage, space and water between wild horses, wildlife and livestock. Proper management of the wild horses in this area will allow for a healthy viable herd while at the same time benefiting other resource uses in the area. Year-round AUM's will be reserved on BLM allotments for the maximum number allowable for the herd.

With reduced grazing pressure and proper management, desirable plant species should increase. With the implementation of a management plan, the public would become involved and public awareness of the government wild horse program would increase.

With the reduction in numbers, there would be fewer wild horses present on the range and it would be harder to see one by an individual going out for purposes of observation.

Each of the four accepted methods of reduction are described below.

Methods of Reduction - The method of water trapping for purposes of reduction would require the construction of trapping facilities at selected springs in the area. This would include a corral enclosing the available water at the spring with an attached loading chute. Some alteration or development of water may be required to facilitate the trapping operation. This could include diversions, piping water to another location, or the construction of small water holding facilities.

In the case of most springs in the area, approximately three miles of existing road would have to be upgraded, and an area cleared to accommodate vehicles for the loading and removal of captured horses. It would also require that all springs in the immediate vicinity be flagged to exclude use by horses. Some trampling of vegetation would occur in the corral. Vegetation at the loading site would also suffer damage.

A visual impact of the structure would occur, however, this would be minimal due to the presence of existing structures in the area of each potential trap site and the remoteness of the area.

Recommended Mitigating or Enhancing Measures

After optimum numbers are set, the required number of horses should be removed in one reduction effort. This will allow the remaining horses to be left alone for a longer period of time before another reduction is required.

Construction of trapping facilities should be done in such a manner as to allow the use of the water by other animals except when horses are actually in the trap. Construction of any water holding facility should be done so that surrounding vegetation will be left undisturbed and to guard against the possibility of soil erosion occurring. Upgrading of roads should be done to government specifications and be inspected by government personnel. This should control erosion and increase water quality on a long term basis. Springs flagged to exclude horses should be done with one strand of rope or smooth wire placed at a 48" height above ground with cloth or plastic flagging attached.

Government personnel should be present at the trap site at all times when trapping is in progress. No set or automatic water traps should be allowed in order to prevent water being made unavailable for long periods of time.

Residual Impacts

The reduction of horses should result in an increase in forage production, a decrease in overgrazing in critical areas, will aid in reversing the downward erosion trend, will reduce competition, and will help to maintain a healthy, viable horse herd.

Horses may be injured in the trap from crowding and fighting or trying to escape. Injuries may also occur during loading and transporting operations.

Increased public activity in the area would be expected with increased public awareness and improved roads in the area. This could lead to vandalism and harassment of the horses remaining. Visitor use may also increase in recreational activities. Accidents may occur to personnel involved in construction, trapping, handling, and transporting horses. Vehicle related accidents may occur in travel to the trap site, loading captured animals and transporting captured animals from the site.

Short Term Use -vs- Long Term Productivity

Short term use would involve the construction of trapping facilities at selected springs, upgrading existing roads and the possible construction of water holding facilities at one or more springs.

Long term productivity would involve an increase in forage, improvement of plant composition, possible improvement of water quality on a long term basis, reduction of competition for food, water, cover and living space, potential reduction of erosion and improvement of range condition and trend.

Irreversible and Irretrievable Commitment of Resources

No irreversible or irretrievable commitment of resources has been identified.

Wing Trapping

This method would involve the construction of a corral with a loading chute and gate and two wings radiating out from the gate for distances of approximately one-fourth mile. The trap would be located in a draw or deep wash that is frequently used by horses in the area. Horses would then be slowly herded from the benches into the draw and the trap using a helicopter. Construction of the trap would require the upgrading of existing roads from the main Bull Creek road to the trap site. In some locations, a short access road may have to be constructed to accommodate vehicles bringing in construction materials and loading and removing captured horses. The use of a helicopter may require small landing sites which, if repeatedly used, could result in trampling of vegetation and dust blowing. Trampling of vegetation may also occur at the trap site. There would be a visual impact of the trap itself which would be minimal due to the temporary nature of the corral and wings, location in a concealed area, and the general remoteness of the area.

Recommended Mitigating or Enhancing Measures

To reduce the effect of the corral and wings, portable traps and wing sections should be used. This would also reduce the visual impact once the trap is removed. Any damage to the area from construction or operation should be rehabilitated at the soonest opportune chance. An effort should be made to locate the trap site in an area where additional access roads would not be required. Any area damaged through the use of helicopters should be rehabilitated as soon as practicable. Roads, if needed, should be built to government specifications and inspected by government personnel. BLM and FS regulations concerning the use of helicopters in wild horse management and ground vehicle use should be followed.

Residual Impacts

Accidents may occur during trapping and transporting operations. Horses may be injured during trapping operations and while in the trap as a result of running into the wings, fighting, trampling, etc. Accidents to personnel may occur during trapping operations if riders are used in conjunction with a helicopter. Accidents may occur with helicopter use if the pilot and supervisor are not fully acquainted with proper methods of helicopter use and safety procedures relating to wild horse roundups.

Short Term Use -vs- Long Term Productivity

Short term use involves the construction of trapping facilities, upgrading of roads and possible construction of access roads. Long term productivity involves the removal of excess horses which will reduce the competition for forage between horses, wildlife and domestic livestock in the area. The reduction in competition should aid in improving forage condition and trend in the area. Watershed conditions should also improve through increases in ground cover, litter, etc.

Irreversible and Irretrievable Commitment of Resources

No irreversible or irretrievable commitment of resources are identified under this alternative.

Parada

This method would also involve the construction of corrals with gates and loading chutes. With this method, a domestic horse is used to encourage wild horses to enter a corral where they are then trapped. Impacts of construction are the same as those mentioned under water and wing trapping.

Recommended Mitigating or Enhancing Measures

Mitigating or enhancing measures for this method are the same as those described for water and wing trapping.

Residual Impacts

Accidents may occur during trapping and transporting operations. Horses may be injured during trapping operations and while in the trap as a result of fighting, trampling and trying to escape. Accidents to personnel may occur during trapping operations if riders are used in conjunction with domestic horses.

Short Term Use -vs- Long Term Productivity

These are the same as are described for water and wing trapping.

Irreversible and Irretrievable Commitment of Resources

No irreversible or irretrievable commitment of resources are identified under this alternative.

Roping

This method involves the roping of selected horses by mounted riders and taking them to a holding facility for transportation from the area. Riders would be stationed in an area frequented by horses and an attempt would be made to rope them when they passed by the selected spot. This method requires very experienced ropers and well trained and disciplined horses. Once the horses have been captured, they would be removed in the same manner as described above. The impacts of constructing a holding corral would be the same as those described for water and wing trapping.

Mitigating or Enhancing Measures

Personnel involved should be highly experienced in roping horses and be knowledgeable in the movements and habits of wild horses. Domestic horses used under this method should be well trained and in excellent condition to avoid injury to the horse or its rider.

Mitigating or enhancing measures involved with corral construction and transportation are the same as those mentioned for proceeding methods.

Residual Impacts

Accidents may occur to domestic horses used as roping horses. Riders may also be injured during the trapping operation. Wild horses may receive injuries from the roping activities and from trying to escape. Further residual impacts are the same as those for methods previously described.

Short Term Use -vs- Long Term Productivity

These are the same as those previously described.

Irreversible or Irrecoverable Commitment of Resources

No irreversible or irretrievable commitments of resources are identified with this method of reduction.

Shooting With High Powered Rifles and Overdosing With Drugs

This method involves the removal of selected animals by government officials using high powered rifles or through remote injection of an overdose of lethal drugs.

Small blinds would be constructed at vantage points and selected horses shot as they passed the blind. This method allows for greater selectivity of the animals removed, is humane, efficient, and economical. A problem could arise concerning disposal of the carcasses, especially during the initial reduction. This method would allow for a greater degree of flexibility in managing the population for sex ratios, age structures, and maintaining the general health of the population. This method creates a great deal of public concern and is not accepted by most factions. For these reasons, it is listed only as a last resort effort.

Mitigating or Enhancing Measures

Personnel involved should be knowledgeable in characteristics and habits of wild horses. Selection of horses for removal should be done by the district or area wild horse specialist. Personnel involved in the removal operation should be adept with firearms, drugs, injection equipment, and be able to carry out the assignment in as humane a manner as possible. Carcasses should be removed from the site as soon as possible and disposed of in an acceptable manner in order to avoid possible health hazards. Care should be taken to remove old, sick, lame and injured animals first.

An extensive public information program should be carried out so the public can be made aware of the situation and the reasons for this method of disposal.

Residual Impacts

Accidents may occur through the use of firearms, drugs, injection equipment, and from injured horses. If disposal of the carcasses is not done in a proper manner, an impact could arise.

Short Term Use -vs- Long Term Productivity

Short term use would result only from any handling and disposal of carcasses that might arise.

Long term productivity involves the removal of selected animals from the herd which will aid in better management of the population structure of the herd.

Irreversible or Irrecoverable Commitment of Resources

No irreversible or irretrievable commitment of resources are made under this method other than the loss of the animals themselves.

Impacts of Alternatives to the Proposed Action

1) INCREASE FORAGE

This alternative would attempt to increase available forage on a multiple use basis by vegetation manipulation such as through seeding a selected area. Increased forage would be available for wild horses, wildlife, and livestock. Due to the lack of suitable sites on NRL and the unavailability during most winters on USFS, this increase in forage would be primarily seasonal in nature. A land disturbance would be made in preparation of the area from the method chosen to remove present vegetation. This could include chaining, spraying or plowing the selected area.

Recommended Mitigating or Enhancing Measures

The shape of a seeding should be discontinuous with irregular edges and islands or fingers of native vegetation rather than a block or other regular shape. The area should be kept to a small size with more than one small area better than one large one. Proximity to cover and water should be considered. Composition of the area should not be one species but rather a mixture such as 1/3 grass, 1/3 forbs and 1/3 shrubs to provide a more diverse habitat for a variety of species.

Residual Impacts

Forage production would increase in the area and provide additional forage for wild horses, wildlife and livestock. A visual impact

would occur which would partially be mitigated by the size and shape considerations listed above. A seeding may serve to attract animals and could create a concentration area, which may increase competition in the immediate area of the seeding.

Short Term Use -vs- Long Term Productivity

Short term use would involve the actual site preparation and seeding operation. Long term productivity would involve the loss of native vegetation types in the area. It would also involve the increase in forage production if the seeding were successful. Increases in forage could lessen the grazing pressure and reduce competition between species. It could also create a competition problem by attracting animals to the site. Watershed, wildlife habitat, wild horses, and livestock habitat would all increase.

Irreversible or Irretrievable Commitment of Resources

Native vegetation would be removed from the area and replaced by introduced species. The natural community system would be altered. No other irreversible or irretrievable commitments of resources are identified under this action.

2) REDUCE LIVESTOCK USE OR CREATE A WILD HORSE RANGE

This alternative would result in the eventual removal of domestic livestock use within the boundaries of the wild horse herd area and reserve use of the area for wild horses and wildlife exclusively. Competition between wild horses and livestock would be eliminated under this alternative. Eventually horse numbers would expand to the point where the range would no longer be able to support them. At this point, numbers would be reduced through the process of natural selection or through one of the methods discussed under the proposed action. It is generally felt that the herd unit would require fencing to exclude use by domestic livestock and to prevent horses from roaming outside the boundaries of their range in accordance with Public Law 92-195. This would involve the construction of over 100 miles of fence.

Complete removal of livestock from the area would create a serious economic hardship on ranchers presently holding grazing privileges in the area, with the loss of over 3,500 AUM's of active use. Many of the springs in the herd area have had water right filed on them for a number of years. To create a wild horse range and exclude livestock grazing would effectively deny the use of this water for which compensation would have to be made. Over 1,900 acres of private land are found within the herd area. Much of this land is used in conjunction with livestock operations and the denial of use of adjacent public land for livestock grazing would effectively make the present uses of this land unfeasible.

The combination of the above factors would, in all probability, cause several livestock operators to go out of business.

Creation of a wild horse range would enable horses to roam unmolested throughout the area and would increase the likelihood of observation by the general public.

Recommended Mitigating or Enhancing Measures

To mitigate the loss of over 3,500 AUM's to local ranchers, forage should be increased in other areas to compensate for the loss. This would involve the establishment of one or a number of seedings to increase grazing capacity and the drilling of several wells to provide livestock water.

Fencing the area should be done in such a manner that will not disrupt wildlife and will not be a hazard to wild horses or wildlife.

When horse numbers increase to the point where the range will no longer support them, or they are creating a serious conflict with wildlife, the excess animals should be reduced by implementation of a procedure equivalent to the proposed action described in this document.

Residual Impacts

The impact of the loss of 3,500 AUM's and its economic results cannot be fully mitigated.

The impact of increases in horse numbers to the point where deterioration of the range occurs could not be mitigated without the implementation of proposals other than those outlined in this alternative.

In the event a reduction in numbers were to take place, the risk of accidents would be similar to those discussed under the various methods of removal outlined in the proposed action.

Short Term Use -vs- Long Term Productivity

Short term use would involve the construction of the boundary fence around the herd area, and the reduction in competition between wild horses and livestock. Long term productivity would involve the increased use of the range and increases in conflicts with wildlife as horse numbers increased. Range and watershed condition would deteriorate as numbers reached the point where the resources could no longer support them.

Irreversible or Irretrievable Commitment of Resources

Irreversible and irretrievable commitment of resources would involve the loss of over 3,500 AUM's of livestock grazing within the boundaries of

the herd unit. The use of water from a number of springs by private individuals would also be lost. When horse numbers increased to the point where degradation to the range was taking place, the vegetative and soil resources would increasingly continue to be lost.

CHAPTER IV

a) Record of Participation

On October 14, 1976 a public information meeting and tour was given. A short office presentation was followed by an all day tour of the Monte Cristo wild horse herd management area. Several comments were received from local area ranchers, special interest groups and local residents.

Comments were solicited on a proposed management plan to be developed jointly by the Bureau of Land Management and the U.S. Forest Service. Representatives of local and regional offices of the Nevada Fish and Game Department were contacted for comments. Several wild horse interest groups were contacted including Wild Horse Organized Assistance (WHOA!), America Horse Protection Association (AHPA), Nevada Horsemen's Association, and a newspaper column dealing with horses called Saddle Chatter. The Nevada State Office of the Bureau of Land Management and the Forest Supervisor's Office of the Humboldt National Forest were also contacted for comments.

Newspaper articles soliciting comments on a draft management plan ran in Ely and Reno newspapers, and on the Ely radio station, and copies were available for review at the White Pine County Library, Ely District Office of the BLM, and White Pine District, USFS.

The proposed management plan was presented to the National Wild Horse Forum in Reno, Nevada in April 1977. The proposal was received favorably and no adverse comments were made.

Eighteen copies of the proposed plan were sent to a variety of people for review and comment. Of these eighteen, four responses were received. (See Appendix 1 for a detailed list.)

b) Intensity of Public Interest

The issue of wild horses and their management has been one of high public interest for many years. Prior to the passage of the first protective regulations in the 1950's, local area residents captured horses on a regular basis, generally to be sold for slaughter. As laws were passed and more publicity was attached to the issue, public concern became greater, both for and against protection of these animals. In recent years, groups have become very vocal for the total protection of wild horses with reduction in grazing pressure to be absorbed by livestock interests in the areas where horses were found. Opposing views were held by the livestock industry and, in some cases, progressed to the point where horses were shot when seen on the range. Present public interest continues on both sides with each side generally becoming more moderate in their views. Both sides, for the most part, realize that reductions are necessary and that management plans and disposal procedures developed by the Federal land managing agencies are the processes that must be followed.

In recent years, roundups have been held in areas where severe damage is being done to the resources and a private maintenance under cooperative agreement program has been developed to dispose of the captured animals. In addition, herd area management plans are in the process of being developed for those areas identified as wild horse herd units. Efforts have been made in many areas to remove privately owned claimed animals from the Federal range. Interest still exists on the national level through organized wild horse interest groups, humane societies, lobby groups and organized livestock interests. The recently passed Federal Land Policy and Management Act of 1976 provides for changes in implementation of the wild horse laws and Federal agency regulations are periodically updated and altered to meet changing situations.

c) Staff Participation

Ross Ferris - - - Nevada State Office, BLM

Ken Timothy - - - Humboldt National Forest

CHAPTER V

Summary

The proposed action is the development of a Monte Cristo wild horse herd area management plan and its implementation using water trapping as the primary means of reducing population numbers. Residual impacts identified are minor and vary with each method and alternative discussed. Short term use is identified as construction of facilities with long term productivity identified as increases in forage production and plant composition, reduction in grazing pressure and competition between wild horses, wildlife and domestic livestock and an increase in watershed condition and trend. No irreversible or irretrievable commitment of resources is identified other than the loss of excess animals from the wild horse population. Public interest is high and support for the project is mixed between interest groups but generally in favor of management.

Review

<u>Review</u>	<u>Initial</u>	<u>Date</u>
Eugene Jonart, Environmental Coordinator	<u>ejj</u>	<u>7/1/77</u>
Steve Sherman, Egan Area Manager	<u>WSS</u>	<u>7/5/77</u>
Garth Baxter, District Ranger	<u>Garth Baxter</u>	<u>7/1/77</u>
Neil McCleery, Ely District Manager	<u>nmccleery</u>	<u>7/6/77</u>
John Hafterson, Forest Supervisor	<u>JAH</u>	<u>7/20/77</u>

APPENDIX I

List of Individuals

and

Organizations Contacted

1. Wild Horse Organized Assistance (WHOA!)
Reno, Nevada
2. Saddle Chatter, Nevada State Journal
Reno, Nevada
3. Mr. Edward Halstead
Halstead - Forsgren Ranches
4. Nevada Department of Fish and Game
Ely, Nevada
5. Nevada Department of Fish and Game
Elko, Nevada
6. Elias Goicoechea
Elko, Nevada
7. Richard McKay
Eureka, Nevada
8. Nevada State Horsemen's Association
Reno, Nevada
9. Nevada Humane Society
Reno, Nevada
10. Dwain Nelson
Vernal, Utah
11. American Horse Protection Association (AHPA)
Escondido, California
12. Joyce Yelland
Ely, Nevada
13. Karl Bradshaw
Duckwater, Nevada
14. Bureau of Land Management
Ely, Nevada
15. Humboldt National Forest
Ely, Nevada
16. Ross Ferris
Reno, Nevada

17. White Pine County Library
Ely, Nevada
18. Keith Bartholomae
Elko, Nevada

Comments were received from the following:

1. Wild Horse Organized Assistance (WHOA!)
Reno, Nevada
2. Nevada Department of Fish and Game
Reno, Nevada
3. American Horse Protection Association (AHPA)
Escondido, California
4. Bureau of Land Management
Ely and Reno, Nevada
5. Ross Ferris
Reno, Nevada
6. Humboldt National Forest
Ely and Elko, Nevada

PLAN FOR INITIAL REMOVAL OF
WILD HORSES FROM THE STONE CABIN AND
REVELLE GRAZING ALLOTMENTS

BATTLE MOUNTAIN DISTRICT
TONOPAH RESOURCE AREA

NEVADA

1977

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I. INTRODUCTION

A. Maps

See Appendix A.

B. Description of Proposal

This plan is an outline of operations to reduce the wild horse populations in the Stone Cabin grazing allotment (Stone Cabin project area) and in the Reveille grazing allotment (Reveille project area) to the numbers established by the land use plan for these areas. Numbers will be reduced to 185 head in the Stone Cabin project area and to 175 head in the Reveille project area. These areas are delineated on the maps in Appendix A. This reduction will involve the removal of approximately 1,115 horses, including the transport of these animals to corrals near Reno. There will be approximately 600 horses removed from the Stone Cabin area and approximately 515 head removed from the Reveille area. It should be noted this will also involve the complete removal of wild horses from the area east of the Reveille Range and from the critical deer summer range in the Kawich Range (these areas are identified on the maps in Appendix A).

Capture of horses will be done primarily with a helicopter used to herd the animals into traps or corrals. If for some reason the use of a helicopter is not practical or possible, water trapping will be substituted. Traps which are proposed for use with the helicopter would be effective water traps since each is located around a major water. Field destruction (shooting) will be used in the Kawich deer summer range if they cannot be gathered by helicopter or by trapping.

In addition to the actual removal of horses, the plan includes an intensive inventory of the wild horses in the project areas prior to start of removal operations. This will insure that the correct number of horses is removed. The inventory will be done not more than one month nor less than one week prior to the start of removal operations.

Flying (including the inventory) and transport of horses will be done by contract, utilizing separate contracts for flying (including the inventory) and transportation. In the event water trapping is done, one contract will be let for the trapping and transport of animals from the trap to the holding corral. All other work, including a ground crew for the helicopter running and a crew to feed and care for horses being held prior to shipment to Reno, will be done by BLM employees.

C. Current Situation

1. Stone Cabin Project Area

The horse population of this area is estimated as 785 head, including the 1977 colt crop. Decision WH-2.3 of the Tonopah Management Framework Plan (MFP) has set the optimum number of horses in this area at 235 head. The number of wild horses will be allowed to fluctuate between 185 and 320 head. This plan is for reduction of the population to the lower limit of 185 head.

2. Reveille Project Area

The approximate wild horse population in this area, including the 1977 colt crop, is estimated as 690 head. The Tonopah MFP, Decision WH-2.4, has set the optimum number at 200 head in this Herd Management Area, specifying that the population will be allowed to vary between 175 and 225 head. MFP Decision FF-2.2 calls for removal of horses from the Kawich deer summer range (outlined on the maps in Appendix A). In addition, the Allotment Management Plan for the Reveille Allotment, which is nearly the same area as this horse removal project area, specifies that wild horses will be maintained only in Reveille Valley itself, between the crests of the Kawich and Reveille Ranges. It prescribes that wild horses be removed entirely from the Kawich critical summer deer range. This is in turn, supported by MFP Decision WL-5b. This plan will implement these decisions by effecting a reduction in the one area (to 175 head) and completely removing horses from other selected areas.

II. REMOVAL

A. Description and Priority of Methods

Horses will be removed primarily by the use of a helicopter or by water trapping, and possibly by shooting, as identified above.

The specific way that the helicopter will be used is not exactly prescribed. Exact operating procedures may vary between trap locations and is dependent on what will work. In general, however, it is not intended to use riders on horseback or wings on the traps to start with. The only ground based "help" for the aircraft will be one to two men to shut the gate after horses enter the trap, and the contract inspector and/or radio control base at the heliport or other location. This may change depending upon experience gained during the actual operation.

In the event certain horses are identified for removal which are not captured with a band by helicopter, these individuals will be humanely destroyed by shooting in the field. One or more Bureau employees proficient as riflemen and hunters will be delegated this job.

Removal of wild horses from the Kawich critical deer area by herding with a helicopter may prove impractical or impossible because of the extremely rough terrain and the dense pinon pine cover. While the use of a helicopter will be the preferred method, removal by shooting may be required if gathering by helicopter is not successful. The District Manager will delegate one or more individuals who are proficient as riflemen and hunters to accomplish this.

The number of horses to be removed in the Stone Cabin Area north and south of Highway US-6 will be proportionate to the number of horses in each area immediately preceding the start of operations.

A plan of helicopter operations and procedures specific to this project is attached as Appendix B.

B. Time Frame

1. Term of the Contract

The term of the contract will be three months, July through September.

2. Gathering Considerations

a. Foaling Season and Weather

July through September is after the main foaling season and during the dry part of the year, when the horses will be coming into some of the traps regularly for water. The latter condition will facilitate herding them into those traps or water trapping operations. During this time of year the weather is generally favorable for flying except for localized thundershowers. There should be little or no time lost due to adverse weather. The only other problem with weather might be the low air density due to the hot, dry atmosphere. This could reduce passenger load of the helicopter.

b. Cattle

Flying will be scheduled and accomplished to cause the least practical disturbance to cattle. The greatest potential for disturbance would be denying their use of those waters where traps are located. While a given trap is being used, it would be denied to cattle for at least a day at a time, and very possibly longer. In the Stone Cabin project area cattle congregate in summer around Highway Reservoir and the Stone Cabin Ranch, and along the west side of valley from the highway north to Warm Spring. In the Reveille area cattle are generally scattered over the whole allotment wherever there is water. When herding horses in these areas, arrangements will be made with the grazing permittees to move their cattle to

an alternate water source during use of that trap. If congregations of cattle hamper the movement of horses through the area, flying in that area will be rescheduled to early in the morning or late in the afternoon when the cattle are scattered. If this is not practical, arrangements will be made to have the cattle moved.

C. Coordination With Other Agencies

1. U.S. Forest Service

When gathering in the Stone Cabin area along the National Forest boundary, it is very likely flying will be done over National Forest Lands (NFL). If horses are disturbed while flying in an adjacent area they will likely run up onto NFL. Horses may have to be gathered off NFL in such case. In the event this happens, and any other time gathering operations are going on adjacent to NFL the District Ranger will be notified and any necessary coordination with their activities will be done.

2. U.S. Air Force

The bombing and gunnery range of Nellis Air Force Base joins both project areas on the south. Aircraft from this area often overrun the boundary and fly over the project areas. In order to avoid mid-air collision with these aircraft, contact with the Air Force will be made not less than once a week during gathering operations to coordinate our flying with theirs.

I. FACILITIES

The estimated costs of facilities maintenance and new construction are given in Appendix E.

A. Existing Facilities.

The existing traps or corrals which will be used are shown on the maps in Appendix A. In the Stone Cabin project area all those shown, with

the exception of those at Stone Cabin and Five Mile ranches, will be used. Those to be used in the Reveille project are circled in green. Each of these are discussed below.

1. Stone Cabin Project Area

a. Italian Pipeline Trap

This is a BLM water trap built for the 1975-76 removal program. It can be used with minor modification. The gate needs to be strengthened and covered with canvas, polyethelyne, or burlap. The corners should be rounded by setting posts in each corner and stretching canvas or burlap between them. District force account crew will do this modification.

b. Two-Mile Pipeline Trap

Same situation as the Italian Pipeline Trap.

c. Buttes Trap

This trap is located on patented land and owned by Joe and Roy Clifford. It can be used to run horses into without repair or modification. See paragraph VI A for agreement for use of this trap.

d. Coyote Hole Trap

This facility is owned by Chet Meyer. It can be used without repair or modification except as noted for number a. above. See paragraph VI. A. for agreement for the use of this trap.

e. Haws Pipeline Trap

This is a BLM water trap constructed for the 1975-76 removal project. It can be used without repair or modification except as noted for number a. above.

2. Reveille Project Area

Each of the existing facilities which will be used is privately owned. They are all of similar construction and in satisfactory state of repair. They are essentially cattle handling corrals made with juniper posts and net wire. Each will need canvas attached to the inside of the wire to make them seem solid walled. Smooth wire or rope will be strung above the existing net wire and canvas hung from it to make the sides six feet high. Posts will be set in the corners of each and net wire strung with canvas attached to round the square corners. Six inches of dirt will be added to the floors of each wooden floored chute to deaden the sound of hooves on the wood. This will eliminate the possibility of horses "spooking" in the chute or refusing to enter it because of unfamiliar noises. This work will be done with BLM force account labor and government furnished material.

The facilities to be used are:

- 1) Witched Well
- 2) End of Reveille Mill Pipeline
- 3) Charlies Well
- 4) Echo Canyon Corral
- 5) Reveille Basin Well
- 6) Ray's Well

Deep Well, Sunrise Well, or Pryamid Well, all located in the southeastern part of the area may be used (each has a corral facility similar to those listed above) if there are horses within fifteen miles and not closer to one of the six listed above.

B. Needed Facilities

Facilities which will have to be built to accomplish the removal involve additional traps and a holding facility. These are shown in red on the maps in Appendix A. Appendix C contains specifications and a plan view of each needed facility.

1. Stone Cabin Project Area

a. Holding Facility

A permanent holding facility will be built near Highway US-6 in Stone Cabin Valley. The area is a Desert Land Entry which was abandoned and is in federal ownership. The location is in section 3, T. 3 N., R. 48 E. There is electricity and a well on the site

This facility will be used to hold captured horses after they are trapped and before they are shipped to the central corral near Reno.

b. Lone Tree Spring (Meyers Water)

Construct typical trap at this location with permanent chute and temporary corral. The exact location has yet to be determined, though it would probably be near or on the road for easy access. Horses could be run down the road, a natural path for them, and into the trap.

c. Point of Rocks

A trap of typical construction will be located here, though the configuration will be different in order to fit the local situation. It appears that the location will not be on private land.

d. Stinking Springs

There is currently a corral at this location which is federally owned. The facility will have to be rebuilt as shown in Appendix C for use as a horse trap.

e. Haws Canyon North

A trap of typical construction and configuration will be built around the trough on this leg of the pipeline.

2. Reveille Project Area

Milk Spring Trap

This facility will involve a permanent crowding pen and chute. The actual trap, or corral, will be constructed of portable corral panels and removed when not required for removal operations.

IV. DISPOSITION AND HANDLING OF HORSES

A. General Provisions for Humane Treatment

The welfare of wild horses and humane treatment of trapped animals will be of primary importance in handling them. Horses which are injured or sick to the extent they cannot recover to become normally healthy and active individuals will be humanely destroyed. They will be destroyed in the event treatment is not practical, and at the soonest practical time after discovery, whether the animal is in a trap or corral, or on the range.

B. At the Traps

Captured horses which are not moved from a trap within ten hours after capture will be fed and watered at the trap within that time.

If practical, problem animals will be identified by the project inspector at the traps. They will be sorted from the other horses at that time, if practical, and humanely destroyed. Animals which are obviously sick or diseased, lame, very old, or those with physical deformities or genetic abnormalities will be considered problem animals. Only the project inspector will destroy these animals.

A record will be kept of the date of capture, the approximate age and sex of each, and the number of horses caught at each trap: This recordation may be done at the trap or at the holding corral, whichever is most practical at the time.

Individual horses may be released from a trap back to the range for study purposes as outlined in the Herd Management Plan (HMAP). Only those animals will be released, however, which are not likely, in the judgement of the project inspector,

to be caught again during successive runs to that particular trap. Normally this will restrict those released to the horses among the last animals caught at a given time.

C. Transport from Traps to Holding Corral

Movement of captured horses from the traps to the holding facility will be done by contract. It may be the same contract as that for transporting these animals from the holding corral to the main holding and disposition site near Reno.

Animals less than a year old will be hauled from the traps separated from the older animals.

Animals one year old and older will be hauled from the traps only in trucks rated at one ton or larger and with stock racks not less than six feet high from the bed. Trucks rated greater than 1½ ton will have racks with a loading door both at the rear and the front.

D. Care and Feeding at the Holding Facility

Horses being held at this facility will be fed and cared for by two temporary BLM employees hired for this specific purpose. Additional permanent or temporary employees will be available as needed from the Tonopah Area Office. A holding corral foreman (a permanent or part time employee stationed at Tonopah) will supervise their work and be available at the corrals to talk to the public, to direct the movement of horses through the corrals, and to coordinate shipment of horses to the Reno holding facility. To insure the security of the horses and government property, the holding facility will be manned at all times.

As soon as practical after unloading into the holding corral, each load of horses will be inspected by the project inspector, or the holding corral foreman, and a designated brand inspector or deputy. Horses will be identified and separated as follows:

1. Mares with suckling colts. Foals will be allowed to mother up and each pair will be positively identified.

2. Animals which are branded, which are suspected of being branded, which are known to be private, or which otherwise fall under the purview of the agreement with the Nevada State Department of Agriculture.

3. Problem animals.

A record will be kept of the date of arrival and the number of each kind of animal as identified. If the horses have not been identified by approximate age and by sex at the trap, that will also be done at this time.

Animals one year and older will be separated by sex as soon as practical after unloading at the holding facility.

Each animal may be individually marked prior to shipment to Reno, if required by the operation of that holding and disposition facility.

As first preference, grass hay will be fed at the holding corral. Local sources will be utilized if the hay is available. An alfalfa-grass mixture will be fed if the supply of grass hay becomes limited. Straight alfalfa will be fed only as a last resort.

E. Transport from Holding Corral to Reno

The movement of captured horses from the Stone Cabin holding corral to the main facility near Reno will be done by contract. It may be the same contract as that for transport of horses from the traps to our holding facility. Separate contracts may be required, depending upon the ability of interested truckers.

Foals and colts less than a year old will be kept separate from the adult horses during transport.

Provision for brand inspection and the required shipping permit will be included in the agreement with the Nevada State Department of Agriculture. See paragraph VI of this plan.

F. Disposal of Carcasses

Prior to, or immediately after disposal, all carcasses will be aged by the tooth wear method

and the age, sex, and date of death of the animal recorded. If required by the Bureau for study purposes, the mandible will be detached and saved.

1. At Traps

Horses which die at or near a trap will be dragged or carried not less than one quarter mile from the trap and left to the environment.

2. At the Holding Corral

A disposal site will be located not less than one mile from the holding corral where carcasses of those animals which die at or near the holding corral will be buried.

3. In the Field

Animals which die in the field will be left to the environment at the place of death, except that no carcass will be left within three hundred feet of any road or vehicular trail.

G. Provisiion for Veterinary Services

Provision will be made to have a veterinarian available to the operation within four hours notice during the daylight hours. The nearest veterinarian is at Bishop, approximately 115 miles from the project area. This situation makes it impractical and excessively expensive to have a veterinary at the site, or on immediate call.

Either the project inspector or the holding corral foreman will summon a veterinarian if in his judgement veterinary services are required to alleviate the suffering of one or more horses, to insure their well being, or to diagnose and/or treat disease or sickness.

H. Determination of Health Status

The general health of captured animals, as determined from outward appearance and behavior, will be noted and recorded by the project inspector or the holding corral foreman. A veterinarian will be summoned by either of these individuals if, in his judgement, there is evidence of disease or chronic sickness. In addition, the Reno holding facility will be notified.

V. PUBLIC RELATIONS AND INFORMATION

In general all publicity, formal public contact, and inquiries will be handled by the District Manager. This will insure continuity in this part of the program. All tours, site inspections, filming expeditions, etc. by the media and/or members of the general public while the project is underway, will be conducted to insure that safety requirements are met, that gathering operations are not interfered with, and that the onlookers are accommodated to the fullest extent possible.

The Federal Land Policy and Management Act of 1976 requires a public hearing prior to any use of aircraft or motorized vehicles for the removal of wild horses. A public hearing will be held in Tonopah early in the planning of this project. More specific plans will be made when regulations and Bureau policy concerning the hearing are formulated

This public hearing will provide the focus for public involvement with the project. The normal publicity generated by the hearing will provide an opportunity for public announcement of the project and will provide a forum for public comment.

There will be at least three Bureau initiated news releases concerning the removal project. The District Office will write and release each of these. The first will be to announce the public hearing. The second will be released after the contracts are awarded and the starting date is set. It will identify the contractors, give relevant information about the contracts, and explain the project and its purpose. If appropriate, it may also respond to certain points brought up during the hearing and/or report on the hearing in general. The final news release will be a kind of wrap up story of the project.

VI. AGREEMENTS AND EASEMENTS

The following agreements are necessary for the accomplishment of this removal project. They will be consummated upon approval of this plan and attached as Appendix D.

A. Use and Maintenance of Private Facilities.

1. Chet Meyers for use of Coyote Hole Trap.

2. Joe and Roy Clifford for the use of Buttes Trap.
3. Joe Fallini et. al. for use of six traps and water facilities.

B. Use of Private Waters

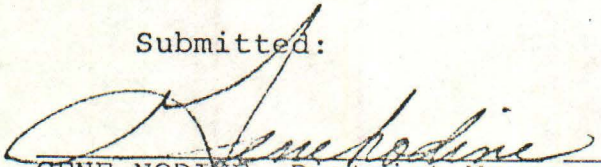
Tom Colvin for use of water at Reed's Ranch.

C. Agreement for Brand Inspection and Disposition of Private and Estray Animals.

This agreement with the Nevada State Department of Agriculture, Division of Brand Inspection, will be negotiated and consummated by the Nevada State Office and the Battle Mountain District Office.

I. SIGNATURES

Submitted:



GENE NODINE, District Manager

4/28/77

Date

Approved:

E. I. ROWLAND, State Director

Date

U. S. DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
BATTLE MOUNTAIN DISTRICT
TONOPAH RESOURCE AREA

ENVIRONMENTAL ASSESSMENT RECORD
for
WILD HORSE REMOVAL IN STONE CABIN AND
REVELLE ALLOTMENTS
1977

Range. The Reveille Allotment has a common border with the Stone Cabin Allotment in the southern end of the Hot Creek Range and the Kawich Range north of the Nellis Air Force Bombing Range Boundary, and in addition borders in the southern Pancake Range at elevations of 6,000 - 7,000 feet and in the Quinn Canyon Range at elevations of 6,000 - 7,400 feet, enclosing the Reveille Range, which has elevations of 6,000 - 8,800 feet. Slopes in the area vary from less than 1% to over 10% in the valleys and from 10% to 60 or 70% in the surrounding mountains.

3. Soils

Soils in the valley areas are generally alkaline, fine to medium textured, moderately fertile, and moderately erosive. Varying amounts of rock and sandy areas appear in all the valleys, as well as a dry lake in Railroad Valley. Soils in the mountain areas are generally shallow, medium to coarse-textured, neutral to slightly acid, moderately fertile and fairly erosive with a large amount of loose rock and rock outcrops.

4. Air and water Quality

Air quality is normally very good, with few pollutants and good visibility. Local intense windstorms sometimes create dusty conditions for short periods, primarily in spring and fall.

Water quality is generally fair to good in the few live streams that occur in the area. Most of the water used by livestock, wild horses, and wildlife in the area comes from scattered springs and seeps, and from wells drilled to provide livestock water.

B. Living Components

1. Plants

The vegetation in the mountains around Stone Cabin Valley and on the western border of Reveille Valley consists of pinion-juniper woodland; the eastern border of Reveille Valley is vegetated with shadscale, sagebrush, rabbitbrush, and greasewood. As the elevation decreases, the vegetative types intergrade to big sagebrush, black sagebrush, shadscale, with greasewood in the lowest areas. Grasses in the understory are galleta in the higher areas, Indian ricegrass in sandy spots, and saltgrass around the dry lake beds.

INTRODUCTION

With the signing of Public Law 92-195 (Wild Horse and Burro Act) the Bureau of Land Management was delegated the management responsibilities for the wild and free-roaming horses and burros using the public lands. The legislation requires that horses and burros be managed in such a manner as to achieve a healthy natural ecological balance. To accomplish this goal, the relative values and needs of wildlife, wild and free-roaming horses and burros, and livestock must be evaluated and a decision made as to the most appropriate proportions and numbers of each.

The Battle Mountain District has made these determinations through the use of the Bureau Planning System. (Tonopah Area Management Framework Plan, 1976 Revision, Wild Horses Recommendations WH-2.2, 2.3 and 2.4). The District Manager's decision regarding numbers of wild and free-roaming horses in Stone Cabin and Reveille Grazing Allotments is as follows:

Stone Cabin Allotment

"The optimum number of horses in the Willow Creek HMA ((Herd Management Area)) should be 55 head with the total number allowed to vary between 40 - 70 head.

The optimum number of horses in the Stone Cabin HMA should be 180 head with the total number allowed to vary between 145-250".

Reveille Allotment

"The optimum number of horses in this area should be 200 head with the total number allowed to vary between 175 - 225 head."

The estimated numbers of horses presently using these areas are:

Stone Cabin Allotment	--	785 head
Reveille Allotment	--	690 head

Since these numbers are considerably greater than the decision calls for, and the decision also specifies removal of excess horses under these conditions, the following numbers of horses will be removed:

Stone Cabin Allotment	--	600 head
Reveille Allotment	--	<u>515 head</u>
	total	1115 head

This document will assess the expected effects of various methods of horse removal on the environment, and the impacts expected to occur if the horses are not removed.

I. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

There are five feasible methods, under existing law, for removing horses from the subject area.

These methods are: chasing the horses into traps with a helicopter, chasing the horses into traps using horseback riders, roping the horses, water trapping, and destroying the horses in place. The major steps required to implement these methods are as follows:

A. Chasing the horses into Traps with a Helicopter

1. Setting up heliport and base of operations (use of trailer for living quarters, fuel/maintenance truck, vehicles for access, etc.).
2. Construction of horse traps and holding corral.
3. Chasing wild horse bands into the traps using a helicopter.
4. Loading and transfer of horses from traps to holding corral.
5. Feeding and watering horses while they are kept in the holding corral awaiting shipment to the main corral in Reno.
6. Caring for sick or injured horses.
7. Humane destruction of horses that will not recover from injuries or illness.
8. Disposing of carcasses of dead horses.
9. Transport of horses to central holding facility near Reno.

B. Chasing the Horses into Traps using Saddle Horses

1. Construction of horse traps and holding corral.
2. Chasing wild horse bands into the traps using saddle horses.

3. Loading and transfer of horses from traps to holding corral.
4. Feeding and watering horses while they are kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

C. Roping the Horses

1. Construction of a holding corral to hold captured horses.
2. Chasing wild horses individually using saddle horses, catching them with ropes, and bringing them under control.
3. Transporting the wild horses to the holding corral.
4. Feeding and watering horses kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

D. Water-trapping the Horses

1. Construction of five additional water traps and a holding corral.
2. Capturing wild horses when they come to water.
3. Loading and transfer of horses from the traps to the holding corral.

4. Feeding and watering horses kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

E. Destroying the Horses in Place

1. Construction of blinds in selected areas.
2. Stalking the horses or waiting in blinds until they are within range.
3. Shooting the horses with high-powered rifles.
4. Photographing and determining age and sex of each animal killed, and marking each kill location on a map.
5. Disposing of carcasses of dead horses, or leaving them to the elements, if other disposal methods are not feasible.

F. In addition, all the methods would be implemented subject to the following guidelines:

1. Horse removal by chasing into traps with a helicopter or with saddle horses, roping the horses, or water trapping (method A, B, C or D), would be done under contract with individuals or groups, and would be supervised by a Battle Mountain District employee designated as Contract Inspector by the Contracting Officer's Authorized Representative.
2. Horse removal by destroying the horses in place (Method E) would be done by skilled B.L.M. Employees, authorized in writing by the Battle Mountain District Manager.
3. Any branded animals captured would be turned over to the State of Nevada to be disposed of under the state estray laws.
4. Certain wild horses, after capture, might be marked, tagged, inspected by a veterinarian, and released.

5. Any capture or destruction of wild horses will be done in as humane a manner as possible.

The proposed action is wild horse removal by combining the use of a helicopter to chase the horses into traps, and by water-trapping the horses where feasible, using destruction of the horses in place as a removal method only when vegetation or other factors make the use of the other methods ineffective. The remaining methods described for horse removal (chasing on horseback, and roping), will be regarded as alternatives.

Another possible alternative is no action, or refusal to remove horses.

II. DESCRIPTION OF EXISTING ENVIRONMENT

A. Non-Living Components

1. Climate.

Annual precipitation in the area normally ranges 4 - 7 inches in the valley bottoms and 10 -14 inches in the higher country bordering the valleys; the bulk of the precipitation comes as rain and snow in winter and early spring and rain in later spring and summer. Temperatures range from summer time highs in the 80's and 90's (degrees F.) and lows in the 50's and 60's, to wintertime highs in the 40's and 50's and lows varying from the 30's to below zero. Humidity ranges from 20 - 30% in the summer to 50 - 60% in the winter. Windy periods commonly occur in the spring and fall.

2. Topography

The area is typical basin and range country, with long valleys separated by mountain ranges trending north and south. The land form is relatively flat in the valley bottoms, rising sharply at the foot of the mountains. Elevations in the Stone Cabin Allotment vary from slightly over 5,300 feet on the lowest valley floor to about 7,000 feet at the foot of the mountains; elevations in Reveille Allotment at comparable points are from slightly under 5,000 feet to over 6,000 feet. Elevations on the borders of the Stone Cabin Allotment are 6,000 - 7000 feet in the Monitor Range, 7,000 - 8,000 feet in the Hot Creek Range, and 7,000 - 9,400 feet in the Kawich

2. Animals

The most numerous grazing animals in the area are domestic livestock; four ranching operations are presently licensed in Stone Cabin Allotment with animal numbers varying between 100 and 1800 head, for a total of 15,783 Animal Unit Months Use, and one of these four operations is also the sole user in Reveille, licensed for numbers varying between 1750 and 2370 head, or a total of 25,197 AUMs use yearly. Wild horses, as previously stated, are estimated to number 785 head in Stone Cabin, using 9420 AUMs annually, and 690 head in Reveille Allotment, using 8,280 AUMs annually.

Estimated yearly deer use is 1379 AUMs in Stone Cabin and 871 AUMs in Reveille Allotment; Antelope use estimates are 370 and 434 AUMs. Numbers of deer and antelope are not stated here, since use is made by various sized herds or parts of herds in different places in the area at different times of the year. Various other small animals, birds, reptiles, etc, normally use the area.

A recent watershed survey done by the Battle Mountain District produced data which indicated the range condition in the Reveille Allotment to be poor on over 90% of the acreage, fair or less than 10%, and good on 1%. In the Stone Cabin Allotment, the situation is not much better, with poor condition on almost 50%, fair condition on slightly over 40%, and good condition on less than 10% of the acreage.

These data indicate that the total grazing use by all animals is too great to allow the forage resource to maintain itself in a healthy condition.

C. Ecological Interrelationships

The only ecological interrelationships not typical of the climate-vegetation complex of the area are as follows:

1. The excessive forage use situation mentioned above, in addition to lowering plant vigor and reducing reproduction, causes a decrease in plant cover and root material allowing increased erosion and sediment production.
2. A critical deer summer range has been identified on the Kawich Range. Summer ranges have been determined to be the limiting factor for deer population in this area, and competition from other

animals (predominantly horses) has led to reduction of deer populations, and could lead to further reduction or elimination if the competition became severe.

D. Human Interest Values

1. Aesthetic and scenic values

The entire area is moderately high in aesthetic and scenic value, due to its sparsely populated, undeveloped nature and the small amount of human activity.

2. Historical Values

Eleven historical sites have been identified in the Stone Cabin Allotment and nine in the Reveille Allotment. These historical sites are mostly the remains of mining operations, but also include associated mills, remains of mining communities, charcoal kilns, one arrastra (dragstone ore crusher) a stagecoach stopover, and a few abandoned ranch headquarters. Site conditions vary from well preserved to almost obliterated.

3. Archaeological Values

Numerous archaeological sites have been identified within the two allotments. These include chipping sites where projectile points and other tools were fashioned, habitation sites, and other task-oriented or stopover sites where artifacts occur. Site conditions vary from undisturbed to almost completely destroyed.

4. Wilderness Values

There are no designated wilderness areas within either allotment, or nearby. 55,000 acres around Kawich Peak in the Kawich Range have been designated for management as a defacto primitive area and will be evaluated for wilderness area suitability and possible future designation as wilderness.

III. ANALYSIS OF PROPOSED ACTION AND ALTERNATIVES

A. Horse Removal

1. Environmental Impacts

a. Impacts common to most or all removal methods:

The removal of 1115 horses, by whatever means, would produce the following impacts:

- 1) Erosion and sediment loss would be reduced through trampling reduction.
- 2) Forage plants would be grazed less heavily, allowing a recovery in vigor, better production, thickening of cover, and other related benefits.
- 3) More forage and water would be left for use by wildlife, livestock, and the horses remaining after removal was complete, allowing healthier herds and higher productivity. Elimination of horses would be especially beneficial in the Kawich critical deer summer range.
- 4) Funds expended for hiring men and equipment and purchasing feed would benefit the economy in Tonopah and Warm Springs, and to a lesser degree, the remainder of Southern Nevada; ranchers in the Stone Cabin and Reveille Allotment would benefit through the reduction of competition between horses and livestock.
- 5) The building and use of structures to aid in the capture and holding of horses would lead to soil disturbance, vegetation damage, and unaccustomed activity which would disturb wildlife, horses and livestock using the areas; the existence of the structures would constitute a certain visual impact (5 traps and 1 holding corral would be built). Strong smells and changes in appearance would result from additional manure deposited in and near the traps and holding corral, and organic matter would be added to the soil. Archaeological sites occurring where construction was proposed could be disturbed or destroyed. On the other hand, livestock management would be facilitated by the addition of traps and the corral.
- 6) Some horses might be accidentally injured or killed during operations, and some might have to be destroyed to accomplish their removal from areas where other gathering and trapping methods cannot be effective, or due to their not being able to recover from illness or injury; scavenger population would benefit temporarily from an

increase in food supply, and decomposition of the horse carcasses would return organic matter to the earth but air quality would suffer for short periods of time as the carcasses decompose.

- 7) Coliform contamination in streams would be reduced with a reduction in total animal numbers.
- 8) Local residents in the Tonopah and Warm Springs area would probably approve of the horse removal, but wild horse enthusiasts would probably vigorously disapprove.
- 9) Opportunities for wild horse viewing by the public would be diminished.
- 10) Eventual recipients of the horses removed would be extremely gratified.

b. Additional Impacts associated with specific horse removal methods:

1) Chasing horses into traps with a helicopter:

- a) Soil and vegetation disturbance from heavier than normal use at the heliport.
- b) Air pollution for short periods caused from dust stirred up by the helicopter and from helicopter exhaust.
- c) Disturbance of wildlife, livestock and uncaptured horses during capture operations.
- d) Significant stress produced in horses during gathering, transportation to holding corrals, or transportation to their eventual home after adoption.

2) Water Trapping:

- a) Barring other large animals from some waters periodically by enclosing the waters with, and using traps.
- b) Significant stress produced in horses during loading and transport to holding facilities.

3) Destroying Horses in Place:

- a) Possibility of only wounding horses instead of killing outright and wounded horses escaping to face a lingering death.

- b) Strong opposition by wild horse enthusiasts, and possible adverse publicity.
 - c) Possibility of inadvertent destruction of a private horse and consequent legal action against the Bureau.
- 4) Chasing horses into traps using saddle horses, and capture by roping the horses individually:
- a) Large crews with considerable equipment, gear, and feed required, resulting in more expense and more difficulty in managing operation.
 - b) Disturbance of soils and vegetation at base of operations.
 - c) High possibility of injury to crew, saddle horses, and wild horses.
 - d) Temporary air pollution from dust stirred up during chasing or roping operations.
 - e) Significant stress produced in horses during loading and transport to holding facilities.
- c. Impacts avoidable through use of specific methods:
- 1) Destroying horses in place:

Impacts associated with construction of traps and corral, hiring of crews, horses, and equipment, purchase of feed, the capture operation, transportation to the holding corral, maintenance and care of the captured horses until adoption, and the adoption process itself, could all be avoided through use of this method of horse removal.
 - 2) Horse capture by use of a helicopter, gathering or roping with saddle horses, or water trapping:

Strong and vocal opposition by wild horse enthusiasts and possible adverse publicity could probably be avoided by using these methods.
- d. Possible mitigating or enhancing measures in addition to those specified in the Horse Removal Plan:
- 1) Radio contact could be maintained with the Battle Mountain District Office, using a portable radio repeater if necessary, to enable medical, veterinary, or other assistance to be arranged, and other problems to be solved during operations.

- 2) Water trapping operations could be carried on at only some, instead of all, of the water traps during any one time period to allow wildlife, livestock and horses free access to water in parts of the area periodically; traps could also be left open at night.
- 3) Crews hired could be limited to men familiar with and accustomed to working horses, and they could be required to provide their own saddle horses to assure that strong horses in good condition are used; these restrictions could minimize injuries to wild horses, saddle horses and men through inexperience, or poor physical condition.
- 4) Ground clearing and soil disturbance associated with trap and holding corral construction could be limited to only that necessary to facilitate construction.
- 5) It could be required that handling and transportation of wild horses, as well as capture or destruction be accomplished in as humane a manner as possible to avoid causing needless injury or suffering to wild horses; this policy could also avert some of the probable opposition, criticism, and adverse publicity from wild horse enthusiasts.
- 6) A detailed cultural resources inventory could be carried out on proposed trap and corral sites and other disturbance sites prior to construction of disturbance to determine the extent of cultural resources present and the action necessary to protect or salvage the sites.
- 7) The project areas could be closed to unauthorized use by private horses to reduce the possibility of a private horse being shot. The closure could be issued prior to the start of operations and terminated upon completion of the project.

e. Recommendations for Mitigation or Enhancement:

Use the possible mitigating measures listed above, in addition to those specified by the removal plan, to avoid or minimize impacts.

f. Residual Impacts:

- 1) Some soil disturbance, vegetation damage, visual

impact, temporary disturbance to animals in the area, and temporary air quality degradation due to dust, engine exhaust, and carcass decomposition would occur.

- 2) Some injuries to crew members and saddle horses would still be likely to occur, and some wild horses would be accidentally injured or killed or deliberate destruction would be necessary.
- 3) Should a private horse be inadvertently destroyed, the owner could sue the Bureau for the price of the horse.

2. Relationship between Short-Term Use and Long Term Productivity

This short-term action (removal of 1115 wild horses) will benefit the long-term productivity of the area through reducing the total grazing and water use in the allotments; the effect of this will be to allow plant vigor to improve and plant cover to increase and protect the soil from erosion.

Removal will also reduce trampling and competition among all grazing animals with special benefits in the critical deer summer range on the Kawich Mountains, where the summer range is a limiting factor on deer population.

3. Irreversible Impacts and Irretrievable Commitments of Resource

None of the impacts will be irreversible; the only irretrievable commitment of resources will be the funds expended during the gathering, holding, and disposal operation.

B. No action Alternative

1. Environmental Impacts

a. Anticipated Impacts

- 1) The refusal to remove horses would produce the following detrimental impacts:
 - a) The unchecked natural increase in the horse population would produce an increase in vegetative and soil disturbance, competition for forage and water with livestock and wildlife, erosion, and sedimentation, coliform contamination, and air quality degradation through increased manure smells and carcass decomposition.

- b) Plant vigor would continue to suffer, and ecological conditions would continue to deteriorate.
- c) Ranchers' incomes would probably be diminished through the increasing forage competition with livestock, the local economy would be denied the benefit of increased spending for the gathering effort, and the local people would disapprove of the District's refusal to act.

2) Beneficial Impacts from refusal to remove horses:

- a) Proposed traps and corral will not be needed, avoiding the outlay of funds, disturbance during construction and use, visual impact, and concentration of trampling disturbance, manure deposition, carcass disposal and disturbance of cultural resources at trap and corral sites.
- b) Gathering will not take place, avoiding the production of dust and exhaust products, localized vegetation and soil disturbance during gathering, disturbance of other animals, stress affecting captured horses, the necessity for destruction of horses for removal or humane reasons, production of carcasses and their decomposition products, the strong disapproval of wild horse enthusiasts, the outlay of funds and the possibility of injury to crews and saddle horses. Wild horse viewing by the public would become easier with the natural increase in numbers.

b. Possible Mitigating or Enhancing Measures

The logical measure to mitigate the detrimental impacts of no action would be to carry out horse removal in accordance with the guidelines in the removal plan and the mitigating measures recommended earlier in this EAR.

c. Recommendations for Mitigation or Enhancement

Employ the procedure outlined in b. above.

d. Residual Impacts

Residual impacts would be identical to those listed earlier in section III A.1.F.

2. Relationships Between Short-term Use and Long-term Productivity

This short-term use (no horse removal) would impair long-term productivity through the continuation and intensification of soil and vegetative disturbance, excessive forage removal and suppression of plant vigor, excessive competition with livestock and wildlife for forage and water, and worsening of ecological conditions.

3. Irreversible or Irretrievable Commitments of Resources

Soil losses resulting from trampling by excessive horse numbers would be irretrievable. Irreversible impacts on vegetation and on wildlife populations might result if excessive horse use damaged vegetation or supplanted wildlife populations past the point of no return.

IV. PERSONS, GROUPS, AND AGENCIES CONSULTED

U.S. Forest Service; Glade Quilter, Tonopah District Ranger. Various other persons, groups, and agencies (County, State, and Federal) were consulted during development of the Tonopah Management Framework Plan which specifies wild horse removal down to population levels discussed in the Introduction.

A public information and review effort will be made as outlined in the horse removal plan and the associated public participation plan.

V. INTENSITY OF PUBLIC INTEREST

Interest in any horse removal proposal is high among wild horse enthusiasts and ranchers in the Stone Cabin and Reveille Allotments, moderate in the Nevada Fish and Game Department and U.S. Forest Service personnel in Tonopah, and moderate to low or undetermined in others.

VI. PARTICIPATING STAFF

F. Rex Rowley --	Tonopah Area Manager
Don Peterson --	Range Conservationist, Tonopah Area
Tom Curry --	Range Conservationist, Tonopah Area

Kurt Ballantyne -- Wildlife Biologist, Tonopah Area
Dorothy Mason -- Range Conservationist, Tonopah Area
Sam Ball -- Archaeologist Tonopah Area
Michael C. Mitchel -- Wild Horse Specialist
Henry W. Riedeman III -- Environmental Coordinator

VII. SUMMARY CONCLUSION

A. Residual Impacts .

Some soil disturbance, vegetation damage, visual impact, temporary disturbance of animals in the area, and temporary degradation of air quality would occur.

Some injury to crew members and saddle horses, and some accidental injury or death of wild horses would be likely. Destruction of some individual wild horses would probably be necessary.

B. Short-term Use vs Long-term Productivity

This short term use would benefit long-term productivity by decreasing grazing use, water use, competition with other animals, and trampling.

C. Irreversible Impacts and Irretrievable Commitments of Resource

None of the expected impacts are irreversible; only the funds expended during removal operations would be irretrievable.

D. Level and Nature of Public Interest.

High Favorable - Ranchers in the allotments

High Unfavorable - Wild Horse Enthusiasts

Moderate Favorable - Tonopah Office of the U.S. Forest Service and Nevada Fish and Game Department.

Probable Mixed Interest in remaining public.

E. An additional conclusion should be expressed at this point. If the District does not take action to control the horse population, nature will, through starvation, disease, exposure, or other processes, and these will probably come into full operation only after significant damage to the natural resources has occurred through massive overuse.

VIII. SIGNATURES

Prepared by	<u>Herbert W. Redman III</u>	- Environmental Coordinator	Date	<u>16-June-77</u>
Reviewed by	<u>Michael J. Mitchell</u>		Date	<u>6/16/77</u>
Reviewed by	<u>Ken Pauling</u>		Date	<u>6/28/77</u>
Reviewed by	<u>Sheridan Hansen</u>		Date	<u>7-3-77</u>
Reviewed by	<u>Randy Taylor</u>		Date	<u>7-20-77</u>

Appendix A

LEGEND

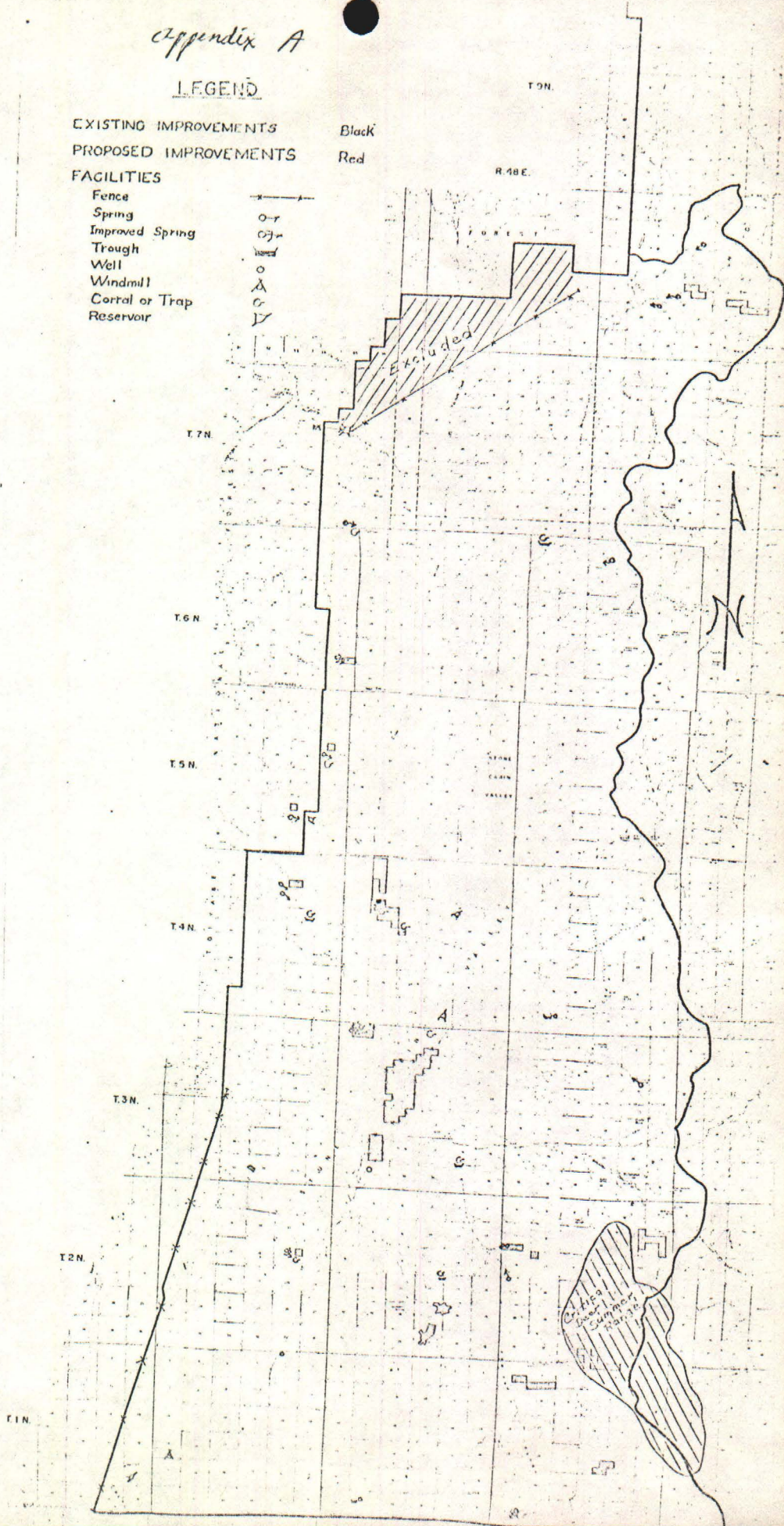
EXISTING IMPROVEMENTS Black

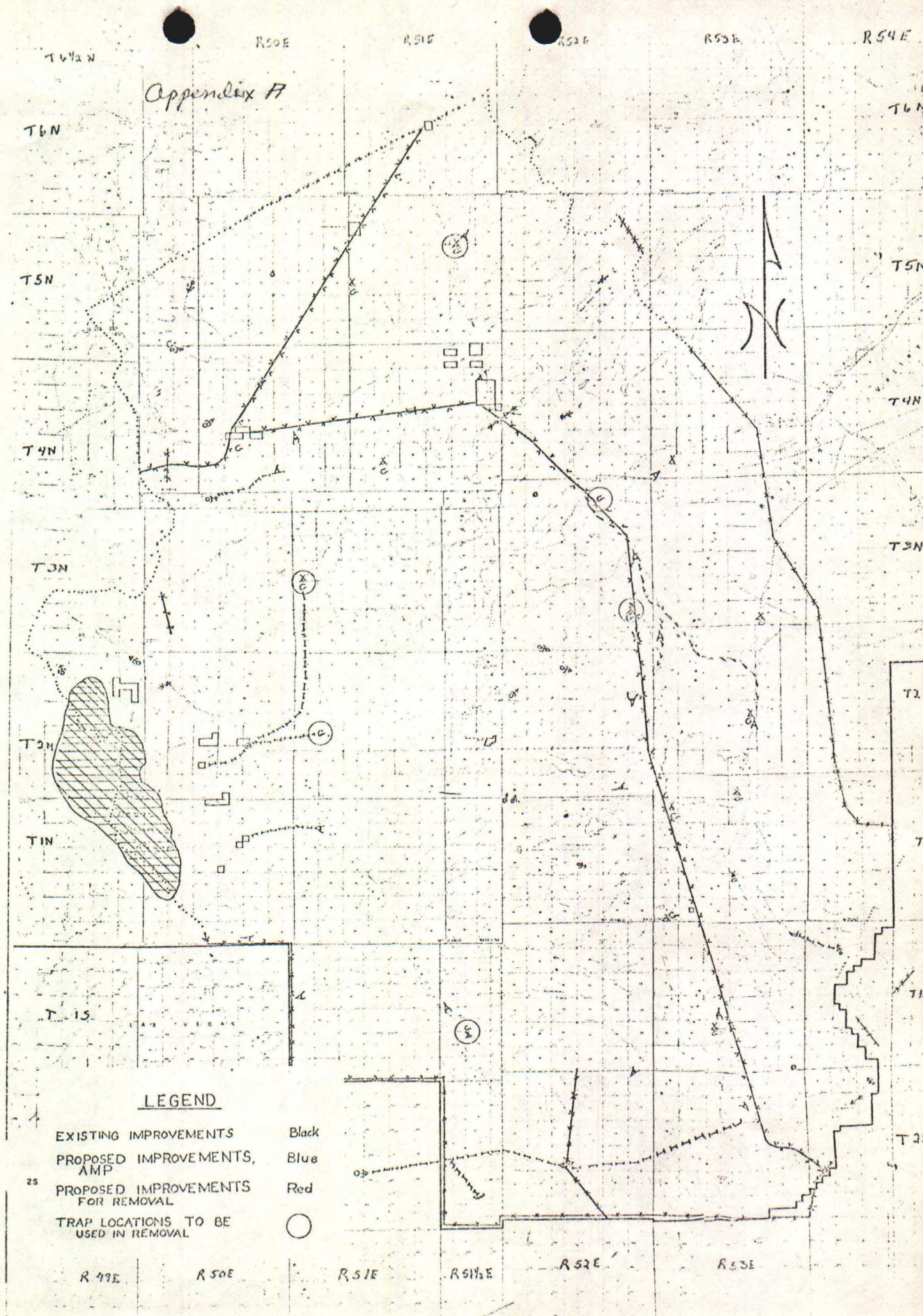
PROPOSED IMPROVEMENTS Red

FACILITIES

- Fence
- Spring
- Improved Spring
- Trough
- Well
- Windmill
- Cortal or Trap
- Reservoir

-
-
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Appendix A

LEGEND

- | | |
|--------------------------------------|-------|
| EXISTING IMPROVEMENTS | Black |
| PROPOSED IMPROVEMENTS, AMP | Blue |
| PROPOSED IMPROVEMENTS FOR REMOVAL | Red |
| TRAP LOCATIONS TO BE USED IN REMOVAL | ○ |

T6N
T5N
T4N
T3N
T2N
T1N
T1S

R50E R51E R52E R53E R54E

R49E R50E R51E R52E R53E R54E

Appendix B

Plan for Helicopter Operations Stone Cabin and Reveille Horse Removal

The purpose of this plan is to specify guidelines within which a helicopter will be used in the removal of approximately 1115 wild horses from Stone Cabin and Willow creek valleys, and the Reveille grazing allotment (See paragraph I.B. of the removal plan).

I. General

A. Responsibility

The project inspector will have overall responsibility for all aircraft operations in connection with the removal. He will be responsible for the action of the helicopter during its operation, excepting that responsibility normally reserved to the pilot.

The project inspector will be either in the aircraft or on the ground in the area whenever gathering operations are in progress.

B. Aircraft and Pilot Specification

The helicopter will be a Bell Model 47G3B1 or equivalent. Pilot qualifications will be as specified in Manual 9400.

II. Heliport

A heliport will be established at Reed's Ranch located in southern Stone Cabin Valley for the duration of the project. A base of operations with radio base station will be located there and manned 24 hours per day. A heliport manager-base station operator will be designated by the project inspector or COAR; this person will live at the heliport for the duration of the project. The helicopter will be stationed at the heliport during the project.

III. COMMUNICATIONS

There will be provision for continuous radio contact between the helicopter, project inspector and/or base station, and ground crew whenever the helicopter is in the air. Within the aircraft there will be provision for intercom between the pilot and all passengers and for radio contact between the pilot and one passenger, and the ground.

IV. AIRCRAFT OPERATIONS

Provisions for safety, aircraft and pilot standards, inspections, flight time restrictions, and other standard regulations on aircraft operations will be as specified in Manual 9400. There will be provision for flying at least six days a week.

During actual gathering operations either the project inspector or another Bureau employee designated by him will accompany the pilot in the aircraft. A second passenger may also be along if the extra weight does not limit the maneuvability of the helicopter..

At least once each day while the helicopter is flying, radio or telephone contact will be made between the gathering operation and the Tonopah Resource Area Headquarters. This will keep the Area and District Managers informed as to the progress of the operation and provide an opportunity to report special occurrences or problems, to ask for temporary help or additional supplies, and for the Area or District Manager to contact the gathering operation for their own purposes.

V. COORDINATION

Each day that horses are run a coordination or strategy meeting will be held prior to the start of activities. If special conditions warrant, the meeting could be held the night before. At the option of the project inspector, a critique meeting may be held after an individual run to discuss problems and solutions. Attendance at these meetings will include the project inspector, pilot, pilot's helper or fuel truck operator, ground crew, and base station operator. Normally, the project inspector will conduct the meeting.

The purpose of the coordination meeting will be to discuss the day's operation, issue instructions, and make certain everyone involved knows the plan and is aware of his role. Items discussed may include: the plan of operations for the day; helicopter refueling locations; where horses will be gathered and the approximate number; which trap(s) will be in use; amount of flight time that day; special considerations, such as visitors; assessment of weather and flight conditions, who will be in the aircraft; establish radio checkin times.

VI. RECONNAISSANCE FLIGHTS

Two kinds of reconnaissance flights will be made: initial and special.

A. Initial Recon

Prior to running horses in a general vicinity the pilot and project inspector will fly over the area to generally familiarize themselves with the terrain, relative number of horses, landmarks, etc.

B. Specific Recon

As often as deemed necessary by the pilot and/or project inspector, specific reconnaissance flights will be done to assure safety in flight, the welfare of the horses, and to assure flight time profitable to the operation. Specific purposes would include to learn and assess local short term flight conditions, to map specific hazards to flight or to horses, to plan a specific run, or to locate horses.

VII. HERDING AND HANDLING HORSES

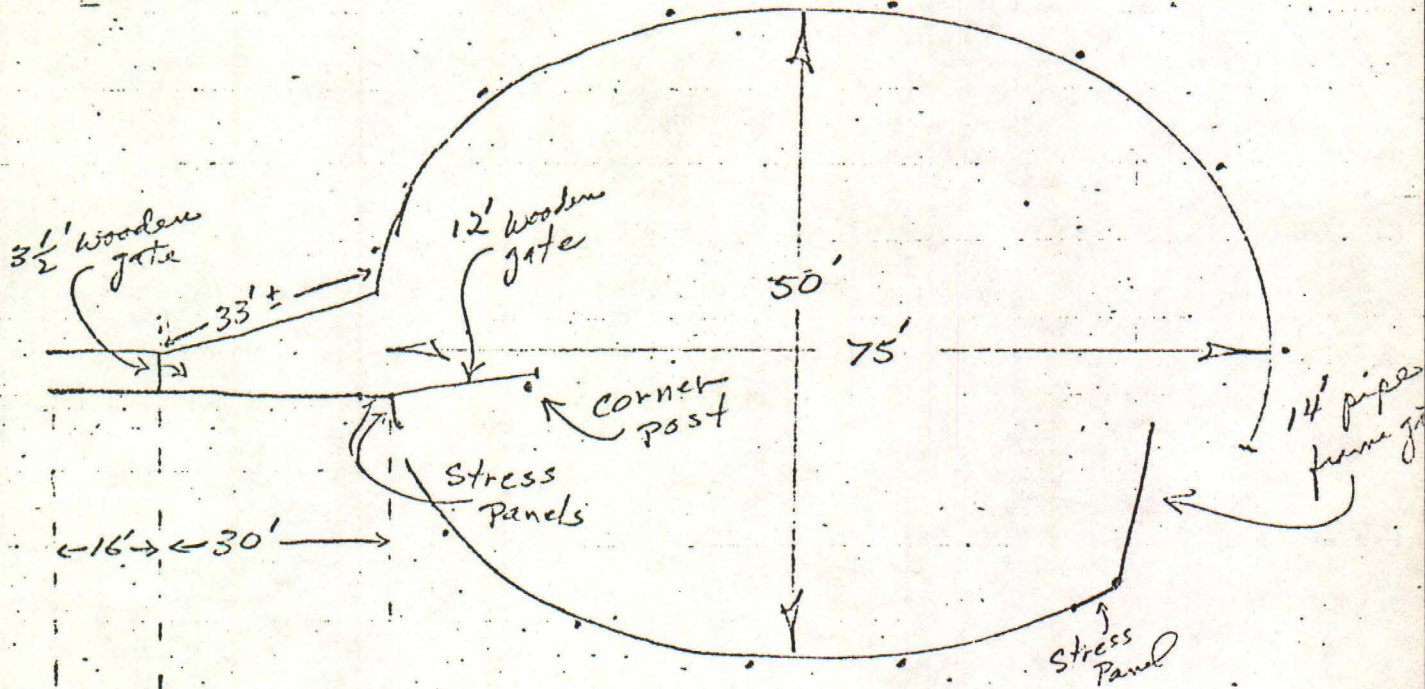
The safety and well-being of wild horses will rate next in importance to the safety of aircraft and personnel. Regulations 43CFR 4740.4 stipulates certain conditions and methods for herding horses by helicopter which will govern these operations.

Specific techniques and facilities used in herding horses will depend upon what is found to work and probably will vary between trap locations and may vary with time at the same location. Discussion of these items at this time is not practical or useful. For example, whether wings will be used on traps, how much of a ground crew will be required, whether riders will be used, etc. is unknown. Operations will commence using traps without wings and one or two people to close the gate at the trap.

The daily or cumulative number of captured horses will not exceed that number which can be safely and humanely transported out of the traps at one time or which can be adequately cared for at the holding corral. We will not run more horses into any one trap than can be safely loaded out, nor will we overload the holding corral.

Appendix C.

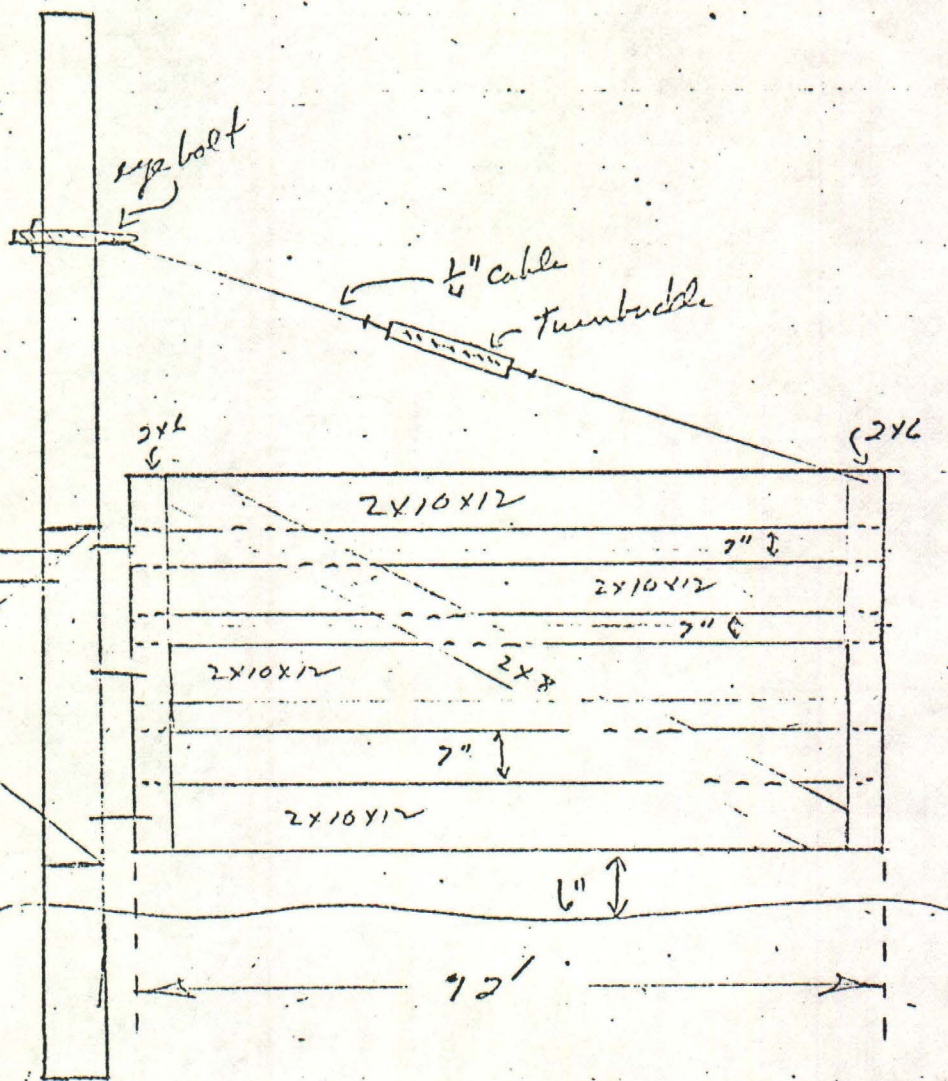
Standard Plan for Typical Trap with
Standard Shute and Crowding Pen.



Specifications for Typical Trap.

1. Oval trap to be constructed of portable round panels, each 12 feet long with top rail not less than six feet above ground and bottom rail not more than twelve inches above ground level.
2. Canvas to be stretched tight ^{and tied} on the inside of the panels and main gate.
3. Corner posts to be set at every other panel joint and panels wire securely to them.
4. Skute and crowding pen to be permanent installations as shown on typical drawings, and the oval round to be portable, except for stress panels and corner posts.

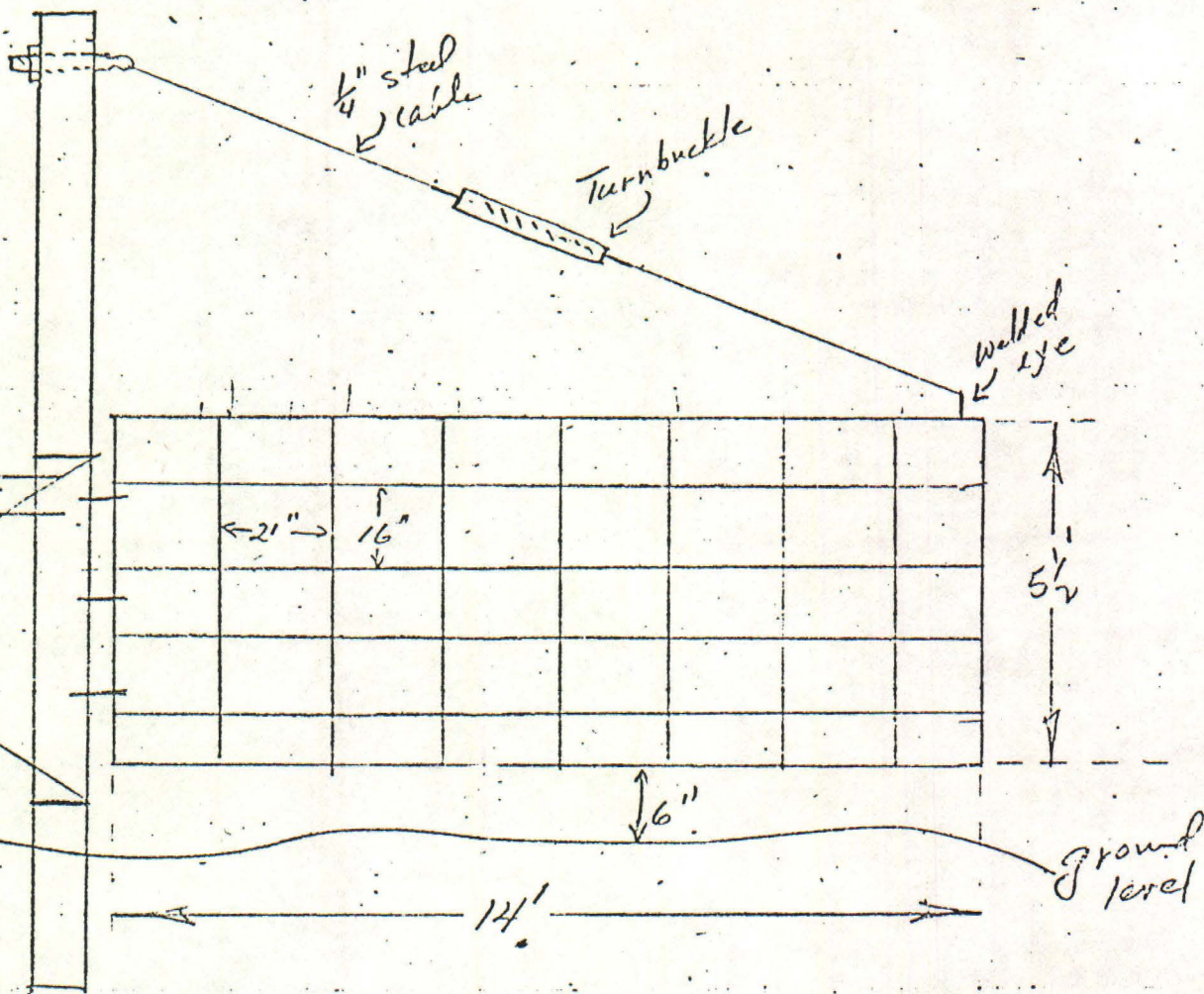
Typical 15' Wooden Gate Construction



General Specifications

1. 2x6 ends bolted together w/ carriage bolts; nuts counter sunk
2. 2x8 cross brace nailed to 2x10s w/ 16d nails one on each side of gate, ends bolted into 2x6 ends.
3. 2x10 panels held in place by 2x6 on each side on each end.
4. hinge and latch hardware not specified

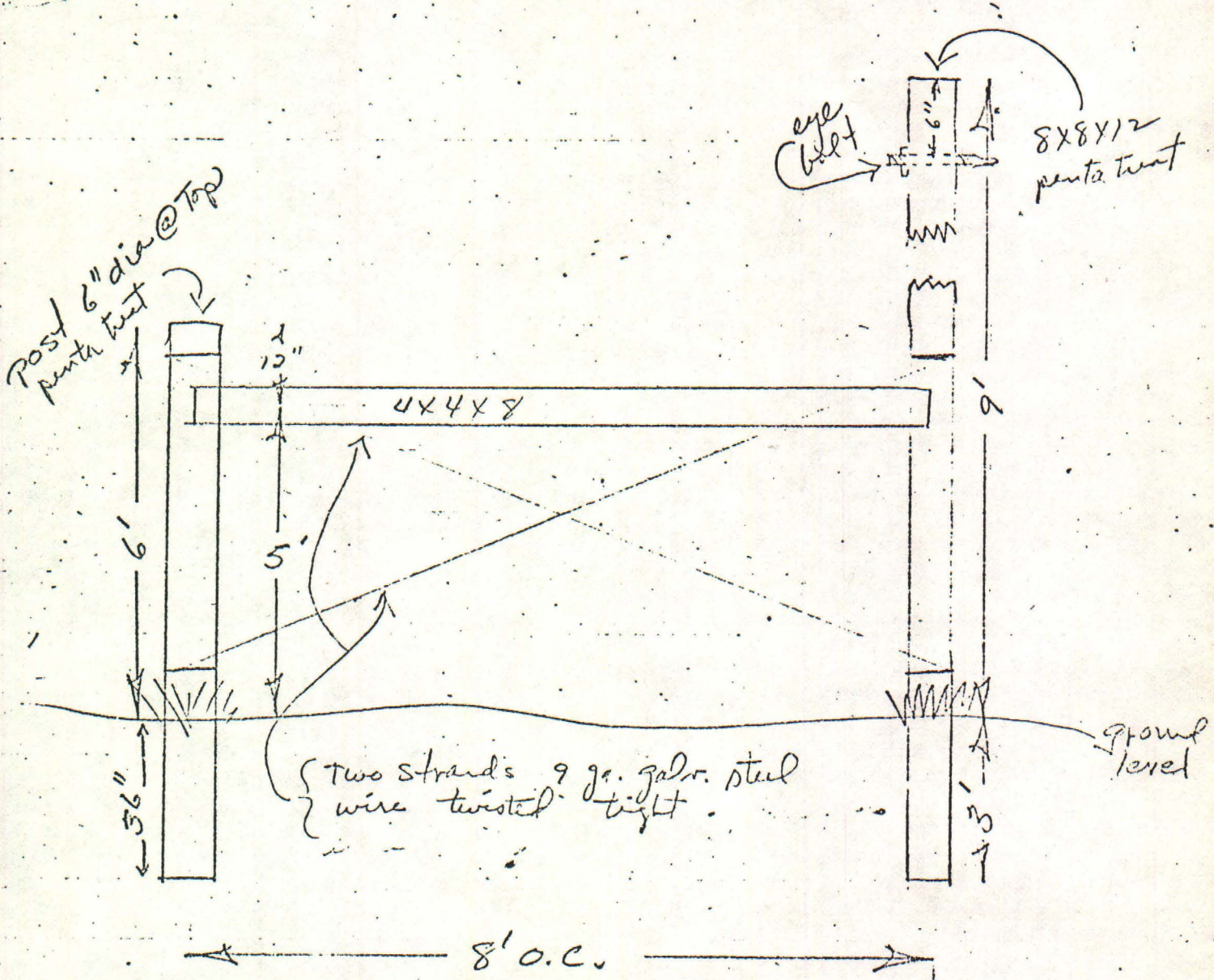
Typical 14' Pipe Frame Detachable Gate



Specifications for 14' Pipe Frame Gate

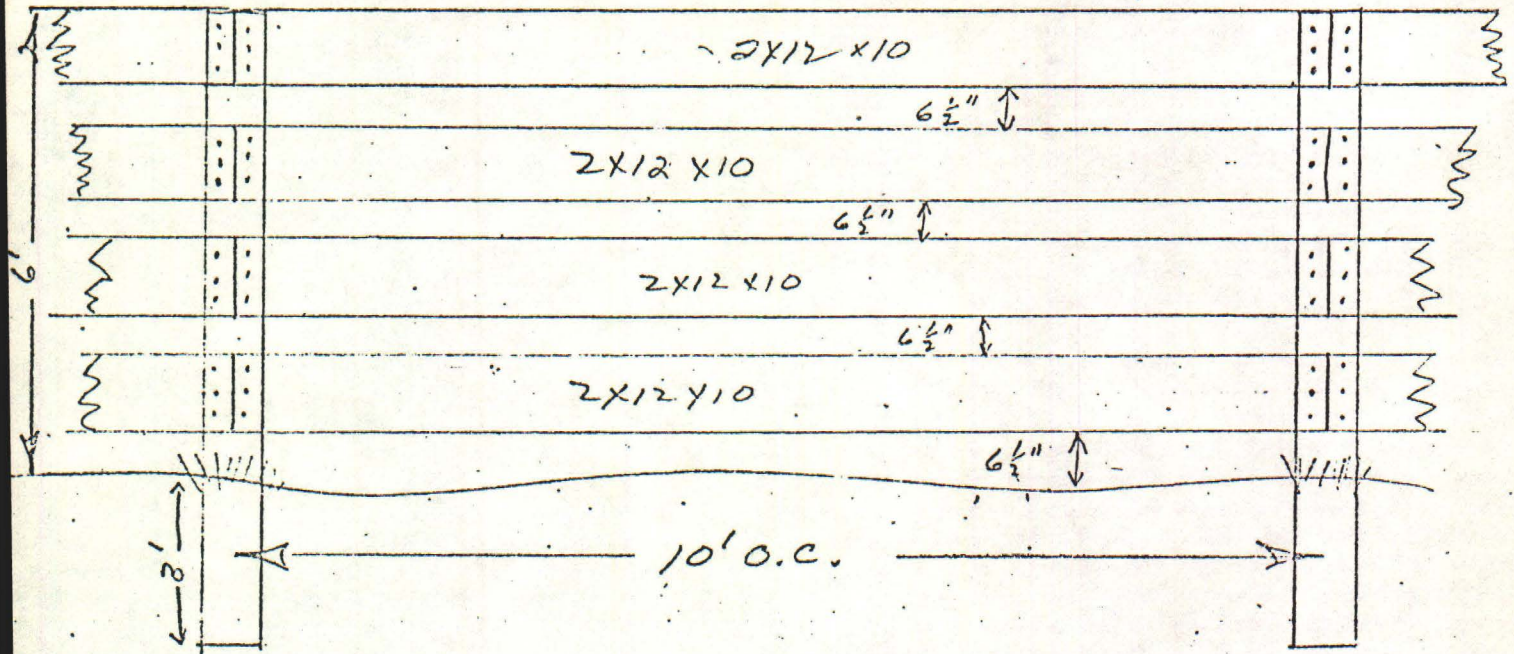
1. Outside frame of $1\frac{1}{2}$ " black steel pipe
2. Interior mesh of 1" black steel pipe
3. all joints and intersections welded
4. Painted same color as ^{fence} panels.
5. gate to be covered with 13oz. canvas, tied in place over the frame.
6. hinges and latches not specified, except that hinges must allow the gate to be easily detached from the gate post.

Typical Stress Panel Construction



Cross brace mortised into uprights 1" and nailed in place with two 20d nails each end.

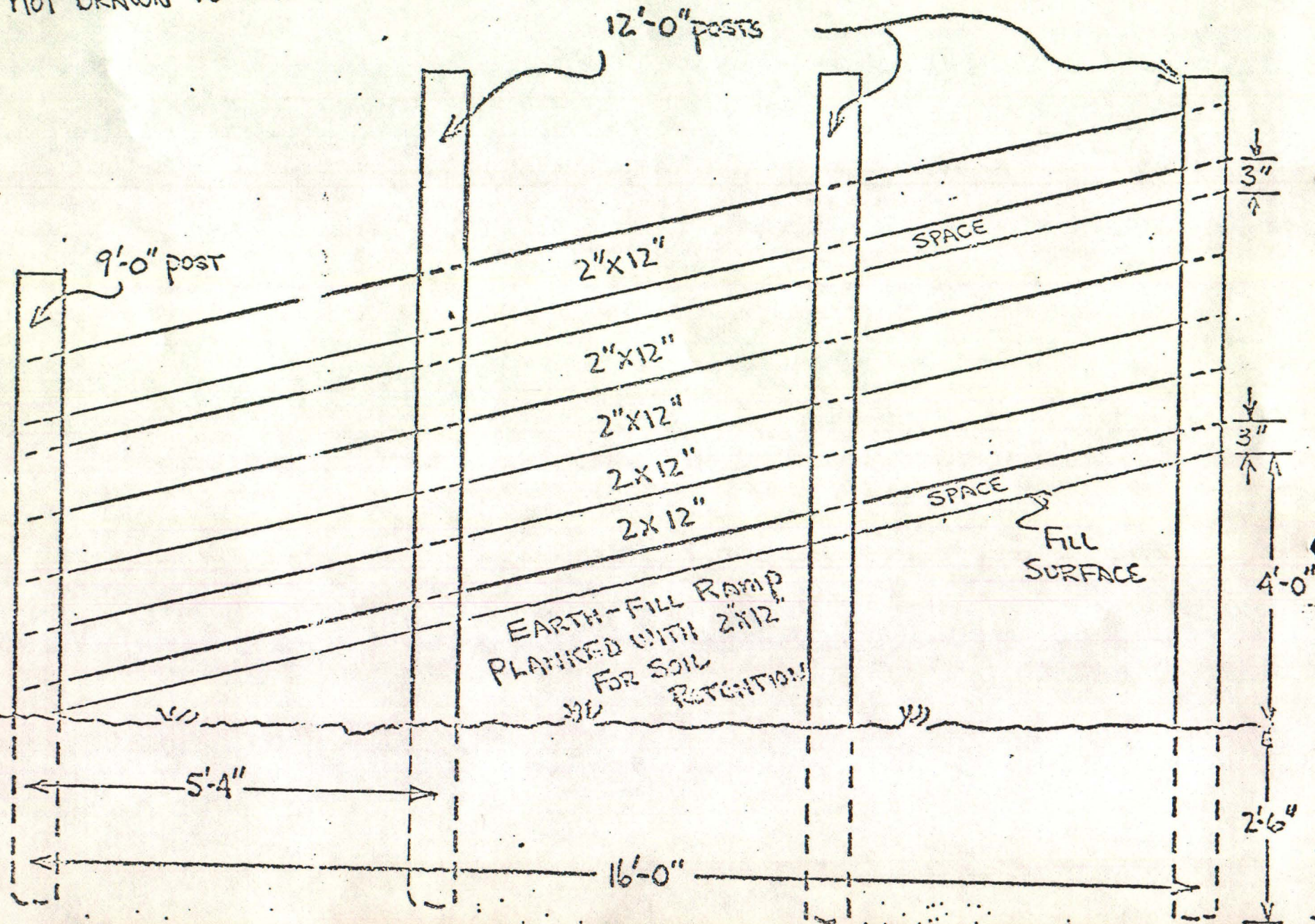
Crowding Pen Construction
Typical fence section

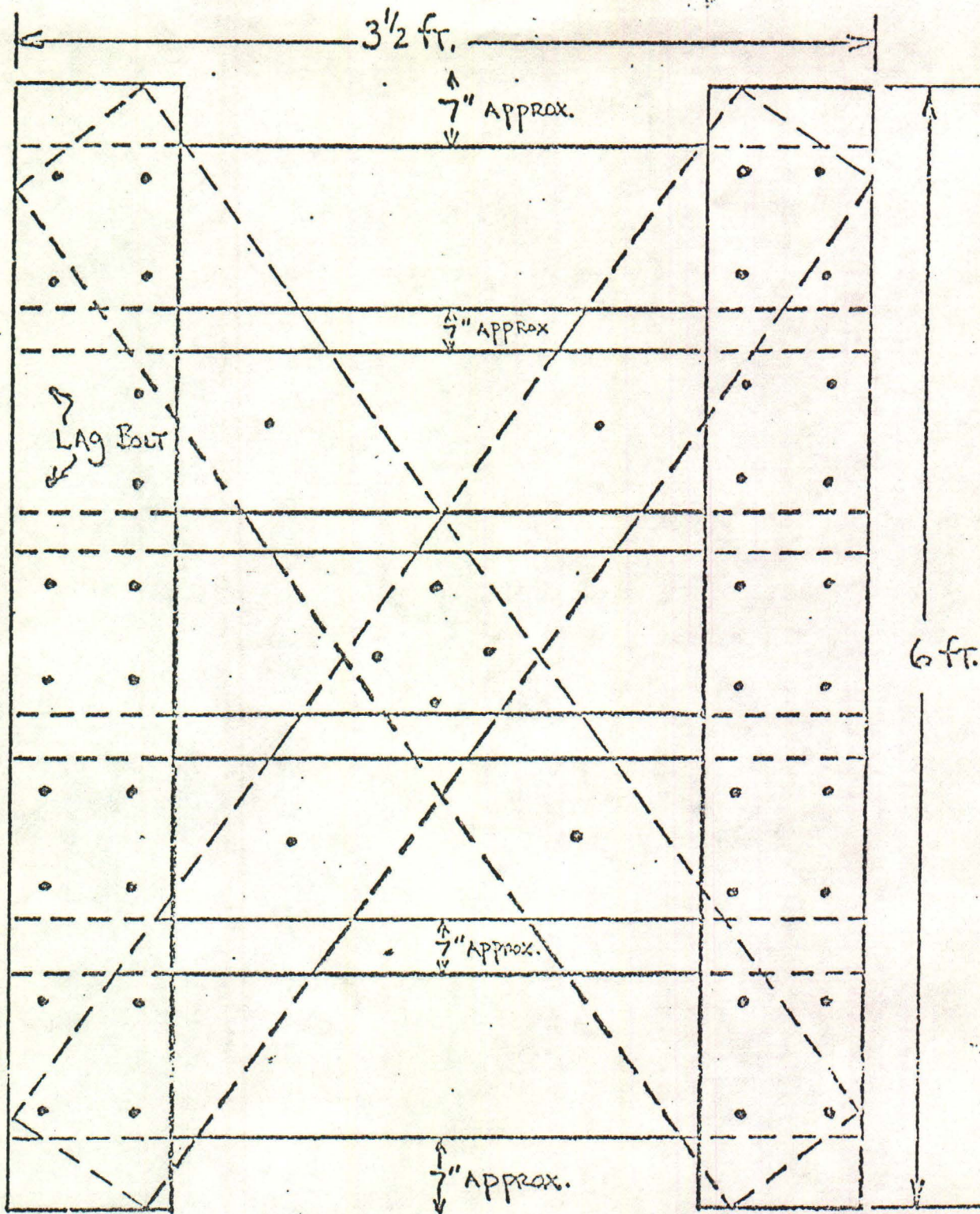


posts - 8x8x9 timbers, butt treated w/ penta solution
206 nails

LOADING CHUTE & Ramp

NOT DRAWN TO SCALE

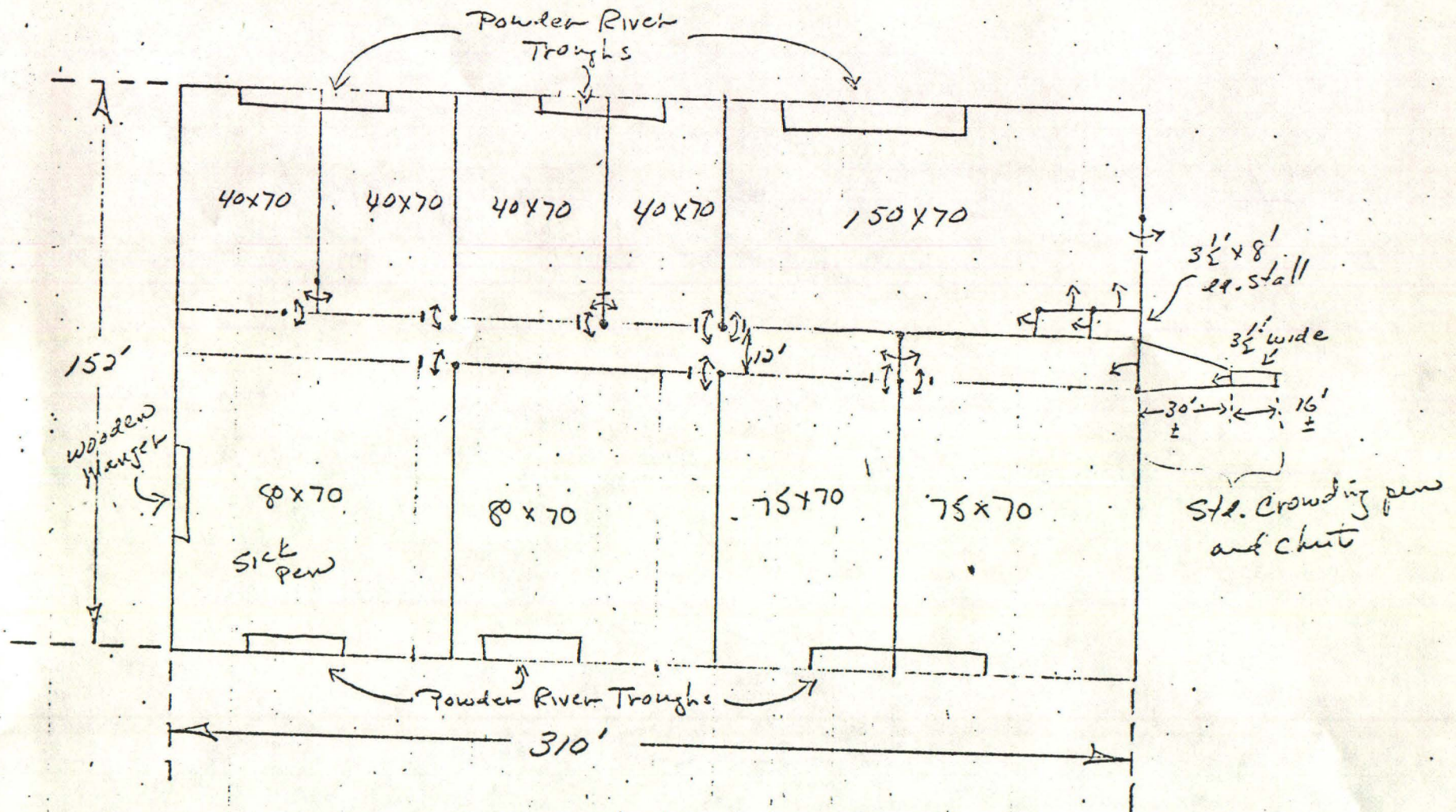




2" X 6" PLANK CONSTRUCTION
 NOT DRAWN TO SCALE

CHUTE GATE

Central Holding Canal



All gates 12' wide unless otherwise specified.

General Specifications for Central Holding Pen

1. All gate 10' wide unless otherwise specified
2. Gate in the alley and between alley and crowding pen are standard 10' wooden gates, supported by ⁵ posts
3. Gates between pens and between pen and alley are portable panels covered with canvas
4. Alley and stalls to be of wood construction as specified below.

top plank 6' above ground

bottom plank 6" above ground

Posts 8x8x9 10' O.C. set 36" in ground

Planking 2x8x12 spaced w/ 10" void between

5. Pens of portable coral panels with top rail not less than six feet above ground and bottom rail not more than twelve inches above ground.

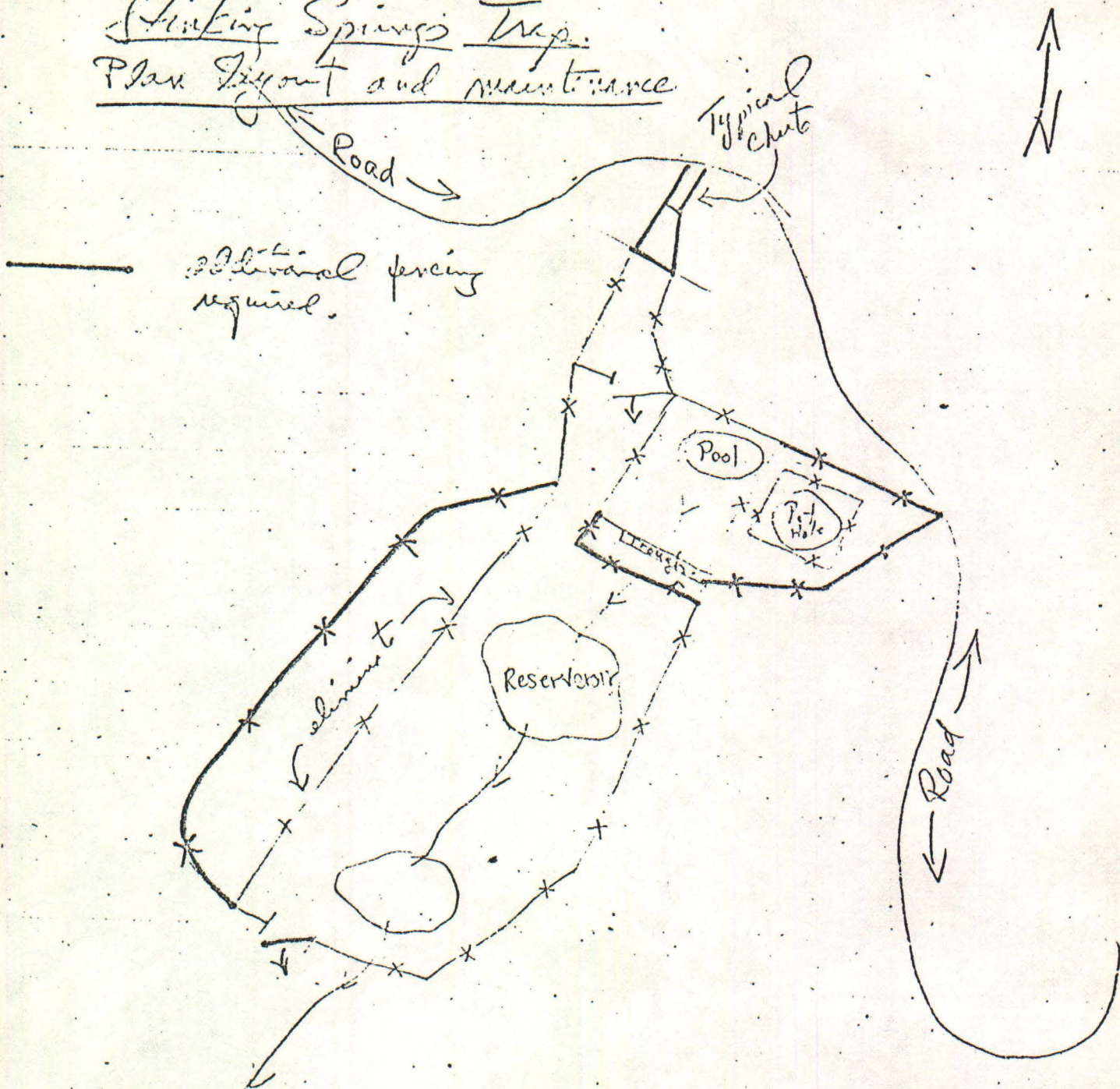
Corner posts set at each panel junction with panels securely wired to them

6. Chute and crowding pen to be of standard construction as shown elsewhere except that the dirt fill floor of chute will be overlaid with 2x12 planking, and 2x4. Rafts will be nailed to the floor on 36" centers.

Appendix C

Sinking Springs Trap.

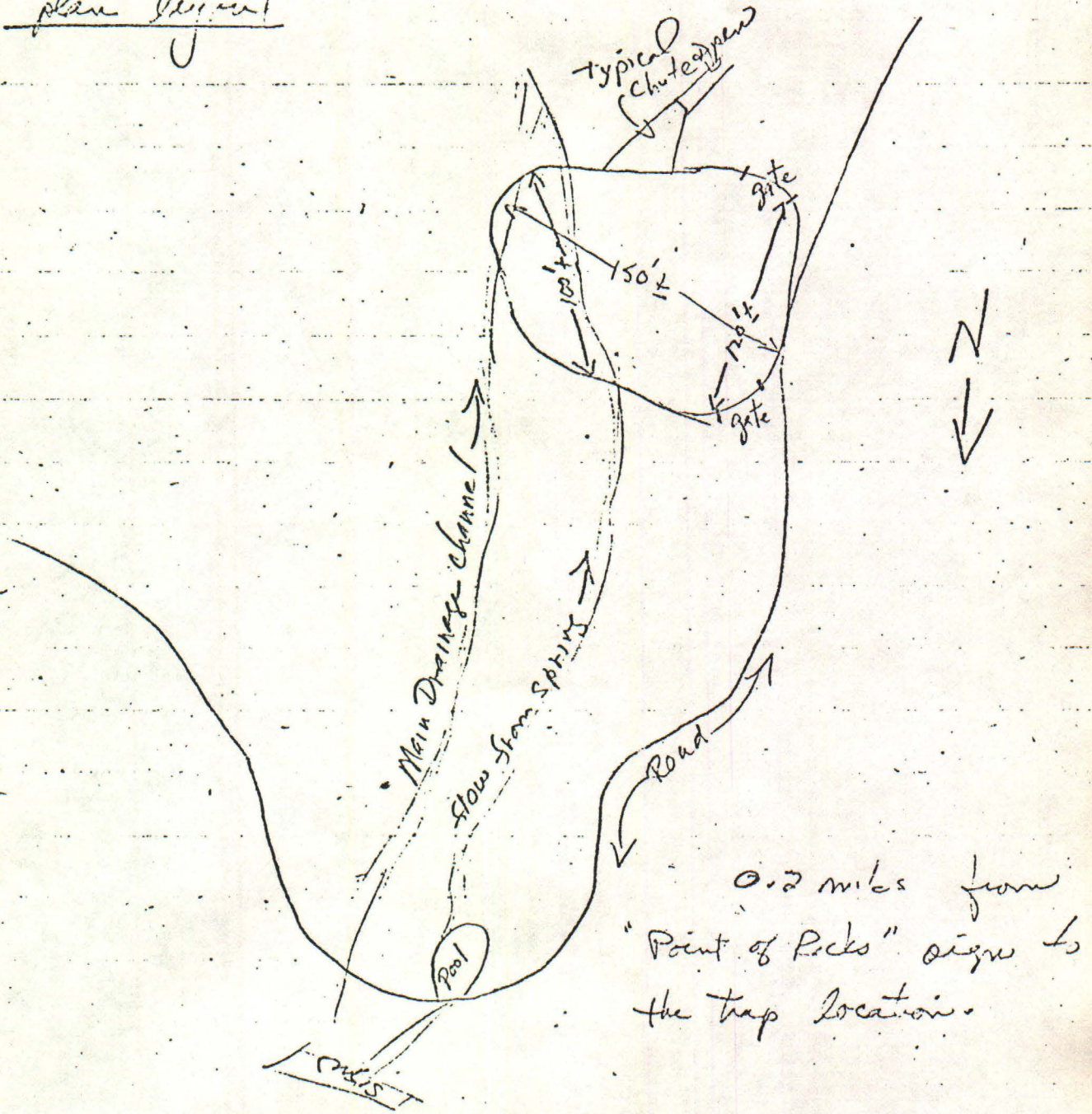
Plan Layout and maintenance



In general, existing fences to be utilized with
mod strengthening.

Appendix C

Point of Rocks Trap
plan layout



Appendix E

Summary of Costs

Facilities const. + maint.	Flying contract	Transport Contract	Temp. mm	Perm. mm.
\$ 33,000	\$ 18,000	\$ 16,000	20	8