

6/1977

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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 6-8-77
Norman L. Murray Date
Lahontan Area Manager

Reviewed by:

Archie P. Melancon 6-9-77
Archie P. Melancon Date
Environmental Coordinator

Approved by:

L. Paul Applegate 6-10-77
L. Paul Applegate Date
District Manager

APPENDIX II

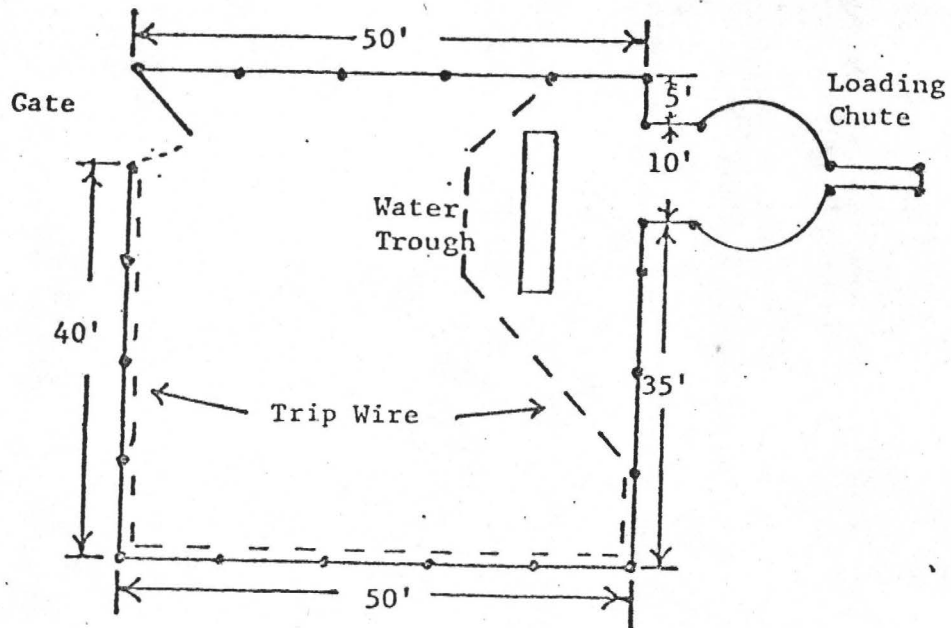
HORSE MOUNTAIN HERD POPULATION CONDITION TABLE

	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

<p>1. Public Purpose or Environmental Goal to be Served by (this/these) Bureau Action(s)</p> <p><input type="checkbox"/> fulfill the responsibilities of each generation as trustee of the environment for succeeding generations</p> <p><input type="checkbox"/> assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings</p> <p><input type="checkbox"/> attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences</p> <p><input checked="" type="checkbox"/> 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</p> <p><input type="checkbox"/> achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities</p> <p><input type="checkbox"/> enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources</p>	<p>Office</p> <p>Carson City</p> <p>EAR number</p> <p>NV-030-7-27</p> <p>Environmental assessment reference number (only for EAR update or supplement)</p>
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		DECISION*			
		a	b	c	d
PREFERRED ACTIONS(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 ACTIONS(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"/>				
<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, 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.

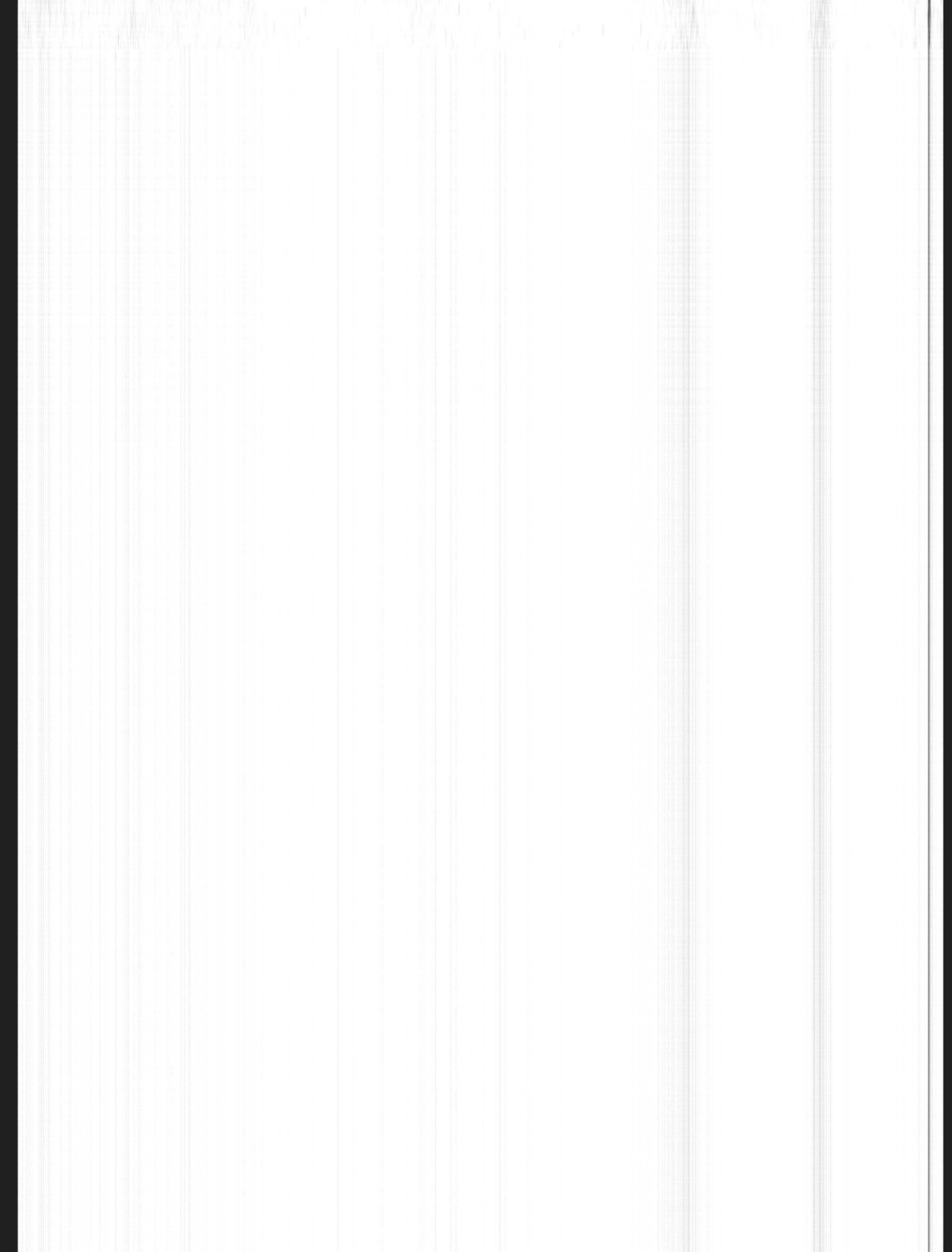
ENVIRONMENTAL ASSESSMENT RECORD

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 north-east 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.

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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.

SIGNATURES

Prepared by: Chris D. Erb, Range Conservationist
Pardee Bardwell, Wildlife Biologist
Bill R. Stewart, Range Technician

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

E. I. Rowland
Nevada State Director

Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action Proposed - Capture, transport and dispose of approximately 35 wild horses in the Horse Mountain Herd Unit. Maintain the horse population within the herd unit at 27 animals until an AMP and HMAP can be prepared concurrently.
2. Stages of implementation

3. DISCRETE OPERATIONS

Capture, Transport,
and Disposal
Maintenance of
Herd Unit

4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR					
	Exhaust Emission	N	0			
	Particulate Matter	N	0			
II. LIVING COMPONENTS	B. LAND					
	Trap Sites	0	0			
	Herd Unit	0	+L			
III. LIVING COMPONENTS	C. WATER					
		0	0			
IV. LIVING COMPONENTS	A. PLANTS (Aquatic)					
	None	0	0			

DISCRETE OPERATIONS

Capture, Transport
and Disposal
Maintenance
Herd Unit of

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Cont.)	B. PLANTS (Terrestrial)					
	Trap Sites	0	0			
	Common Use Area	0	+L			
	Horse Use Area	0	-L			
	C. ANIMALS (Aquatic)					
	None	0	0			
II. LIVING COMPONENTS (Cont.)	D. ANIMALS (Terrestrial)					
	Horses (Captured)	-H	0			
	Horses (Not Captured)	0	+L			
	Livestock	0	+L			
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
	Trap Sites	0	0			
	Herd Unit (year round use)	0	-L			
	Herd Unit (seasonal use)	0	+L			
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
		+L	N			
IV. HUMAN VALUES	B. SOCIOCULTURAL INTERESTS					
	Wild Horse Interests	-H	+L			
	Livestockmen	+L	+L			

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.

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action ALTERNATIVE #1 - No Action

2. Stages of implementation

3. DISCRETE OPERATIONS

4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR	0				
	B. LAND	-L				
	C. WATER	0				
II. LIVING COMPONENTS	A. PLANTS (<i>Aquatic</i>)	0				

DISCRETE OPERATIONS

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)					
	Common Use Area	-L				Increasing as horse population
	Horse Use Area	-M				expands.
	C. ANIMALS (Aquatic)					
		O				
	D. ANIMALS (Terrestrial)					
		-L				As the horse population increases, less forage will decrease condition of all animals within the herd unit.
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
		-L				Increasing as the horse population expands.
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
		N				Negligible at present. Negative low and increasing with expanding horse population.
	B. SOCIOCULTURAL INTERESTS					
		-L				Increasingly negative as over utilization becomes apparent.
		+L			Increasing opportunity to view wild horses	

INSTRUCTIONS

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

5. **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.

- a. 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.
- b. 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.

6. **Remarks** - Enter clarifying information.

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action ALTERNATIVE #1 - No Action

2. Stages of implementation

3. DISCRETE OPERATIONS

4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR	0				
	B. LAND	-L				
	C. WATER	0				
II. LIVING COMPONENTS	A. PLANTS (Aquatic)	0				

DISCRETE OPERATIONS

Before Desired Stocking Rate
After Desired Stocking Rate

	COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED	ANTICIPATED IMPACTS				REMARKS
		+L	-L			
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)					
	C. ANIMALS (Aquatic)					
	D. ANIMALS (Terrestrial)					
	Livestock					
Horses						
III. INTERRELATIONSHIPS	A. ECOLOGICAL PROCESSES					
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER					
	B. SOCIOCULTURAL INTERESTS					
	Livestock Operator					

INSTRUCTIONS

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- Remarks** - Enter clarifying information.

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action ALTERNATIVE # 3 - Remove all wild horses from the herd unit. Disposition of the horses will be in accordance with Bureau policy. Allocate additional forage to wildlife and livestock. Maintain proper use of the unit.
2. Stages of implementation

3. DISCRETE OPERATIONS

Capture, Transport,
 and Disposal
 Maintenance of
 the Herd Unit

		4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR			N	O			
	B. LAND							
	Soil Structure			N	+L			
II. LIVING COMPONENTS	A. PLANTS (Aquatic)			O	O			

DISCRETE OPERATIONS

Capture, Transport, and Disposal Maintenance of the Herd Unit

	COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED	ANTICIPATED IMPACTS				REMARKS
II. LIVING COMPONENTS (Con.)	B. PLANTS (Terrestrial)	0	+L			
III. INTERRELATIONSHIPS	C. ANIMALS (Aquatic)	0	0			
IV. HUMAN VALUES	D. ANIMALS (Terrestrial)					
	Wild Horses	-H	0			Stress, and possible destruction
	Livestock	0	+L			
IV. HUMAN VALUES	A. ECOLOGICAL PROCESSES	0	+L			
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER	0	+L			
IV. HUMAN VALUES	B. SOCIOCULTURAL INTERESTS					
	Livestockmen	+L	+L			
	Wild Horse Interests	-H	0			

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UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action ALTERNATIVE # 3 - Remove all wild horses from the herd unit. Disposition of the horses will be in accordance with Bureau policy. Allocate additional forage to wildlife and livestock. Maintain proper use of the unit.
2. Stages of implementation

3. DISCRETE OPERATIONS

Capture, Transport,
 and Disposal
 Maintenance of
 the Herd Unit

		4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR			N	0			
	B. LAND							
	Soil Structure			N	+L			
II. LIVING COMPONENTS	A. PLANTS (Aquatic)			0	0			

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ENVIRONMENTAL ANALYSIS WORKSHEET

1. Action ALTERNATIVE # 4 - Reduce livestock and wild horses on an equally proportionate basis until a desired stocking rate is attained. Disposition of excess wild horses is to be in accordance with Bureau policy. Maintain proper use in unit.
2. Stages of implementation

3. DISCRETE OPERATIONS

Capture, Transport,
and Disposal
Reduction of
Livestock Licenses
Maintenance of
the Herd Unit

4. COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		5. ANTICIPATED IMPACTS				6. REMARKS
I. NONLIVING COMPONENTS	A. AIR					
	Exhaust Emission	N	N	0		
	Particulate Matter	0	0	0		
B. LAND						
Soil Structure	N	+L	+L			
II. LIVING COMPONENTS	A. PLANTS (Aquatic)	0	0	0		

DISCRETE OPERATIONS

Capture, Transport
and Disposal
Reduction of
Livestock
Maintenance of
the Herd Health

COMPONENTS, SUBCOMPONENTS, AND ELEMENTS IMPACTED		ANTICIPATED IMPACTS			REMARKS
II. LIVING COMPONENTS (Cont.)	B. PLANTS (Terrestrial)				
	Trap Sites	0	0	0	
	Common Use Area	+L	+L	+L	
	Horse Use Area	0	+L	-L	
	C. ANIMALS (Aquatic)	0	0	0	
III. INTERRELATIONSHIPS	D. ANIMALS (Terrestrial)				
	Horses (Captured)	-H	0	0	Stress and possible destruction
	Horses (Not Captured)	0	+L	+L	
	Livestock	N	+L	+L	
	Wildlife	0	+L	+L	
IV. HUMAN VALUES	A. ECOLOGICAL PROCESSES				
	Succession	+L	+L	+L ¹	
IV. HUMAN VALUES	A. LANDSCAPE CHARACTER	0	0	+L	
IV. HUMAN VALUES	B. SOCIOCULTURAL INTERESTS				
	/ Wild Horse Interests	-L	+L	+L ¹	
	Livestockmen	+L	-L	+L	

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