



United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
CARSON CITY DISTRICT OFFICE  
1050 E. William St., Suite 335  
Carson City, Nevada 89701

m 1/16/84  
IN REPLY REFER TO:

4730  
(NV-033)

JAN 16 1984

Wild Horse Organized Assistance  
P.O. Box 555  
Reno, NV 89505

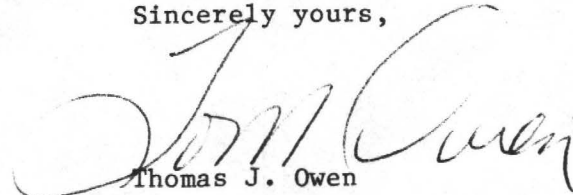
Dear Gentlemen:

Enclosed is a draft of the Horse Mountain Herd Management Area Plan and accompanying Environmental Assessment. Please review and provide this office with any comments you may have by February 21, 1984.

If you have any questions, please feel free to contact this office.

Thank you for your assistance in this matter.

Sincerely yours,

  
Thomas J. Owen  
District Manager

Enclosures:  
As Stated Above

# DRAFT

## HORSE MOUNTAIN

### HERD MANAGEMENT AREA PLAN

#### I. INTRODUCTION AND BACKGROUND

##### A. Location and Area

The Horse Mountain Wild Horse Herd Management Area (HMA) is located approximately 18 miles south of Fallon, Nevada (see Map (a)). The area contains approximately 70,000 acres, of which approximately 160 acres are private, approximately 4200 acres are under reclamation withdrawal, and the remainder being public lands administered by the Bureau of Land Management (Map (b)). The area is flat and rolling in the northern portion to steep and rocky in the southern portion. The elevation varies from 3920 feet to 6404 feet above sea level.

##### B. History

Little is known about the early history of this horse herd. It is assumed that the herd started from strays and horses turned out by local ranchers.

An Interim Herd Management Area Plan for this herd was prepared and approved in June of 1977. The primary objective of that plan was to reduce the wild horse population to a level of 27 head as an interim measure until land use planning and proper stocking rates were finalized. Partial implementation of the reduction was begun in the fall of 1977 with 8 head being captured. The full implementation was halted due to a lawsuit brought against the BLM by the American Horse Protection Association, Inc., et al.

Changes in rangeland policy eliminated allocating forage to the different types of large herbivores based on one-time range surveys. The emphasis is to establish monitoring studies and adjust numbers of grazing animals based on the results of these studies.

B. Resource Information

1. Wild Horses

a. Population

In 1966, the Carson City District Office estimated 50 head of feral horses in the area. In March of 1969, the area was flown with 24 head being sighted. A helicopter census was conducted in February of 1973. Thirty-five wild horses were reported, eight of which were colts. In another helicopter census in February of 1975, fifty wild horses were counted; two of these were colts. As mentioned in the previous section, 8 head were removed in the fall of 1977. In August of 1982, a helicopter census resulted in 63 wild horses being counted; seven were classified as colts (Carson City District Office, 4700 Files). From this information, it appears that reproduction is quite variable, probably due to climatic and habitat condition fluctuations.

Data and information on other population factors (i.e., sex ratios, age classifications, reproduction, survival, and mortality) are lacking, so the rate of increase or decrease and the overall health of the population is not known.

b. Population Movement Patterns

Observations of the wild horses indicate that their movement and distribution is related to water availability. During the winter months, the horses use the majority of the HMA when the cooler temperatures reduce the need for watering on a daily basis. During the summer months, the wild horses make the majority of their use in the eastern portion of the HMA (Map (d)).

Although movement is restricted to the north and south by fences (Map (c)), they have been in place for a number of years and the horses have adapted within these confines. It is unknown why the horses limit their movement on the east and west portions of the HMA, although these ends are not fenced. Future fences could result in disruption of the herd's normal movement patterns.

c. Habitat

The wild horse habitat contains basically three general vegetation types (Map (e)). These include a sagebrush-grass type on the higher mountainous areas in the southern portion of the HMA. The grasses here include bluegrass, cheatgrass, galleta, needle-and-thread, desert needlegrass, and Indian ricegrass. A desert shrub type occurs on the northeastern lowland area of the HMA which includes wolfberry, greasewood, and shadscale. In the northwestern portion of the HMA, there is a predominately grass type including needle grasses, cheatgrass, Indian ricegrass, galleta and squirreltail. Some shrubs occur on the slopes in this area.

The HMA contains most of the Horse Mountain livestock allotment and a portion of the Desert Mountain livestock allotment.

Condition and trend of the vegetation has been compiled for these allotments. The breakdown is as follows:

<u>Allotment</u>	<u>%Ecological Condition</u>			<u>Trend</u>
	<u>Poor</u>	<u>Fair</u>	<u>Good</u>	
Horse Mtn.	2	51	47	Static
Desert Mtn.	1	47	52	Upward

Utilization studies in the HMA have been conducted since 1976. The studies have concentrated on the livestock use areas. In most years, the studies have not included the major wild horse summer use area (Map (d)). When utilization studies have been conducted in this area, the utilization has been recorded as slight. (Carson City District, 4412 Files)

d. Water

As discussed in the Wild Horse Movement section, water plays a very important role in the movement, distribution, and use of the vegetation by wild horses. During the summer months, the horses must rely on the Truckee-Carson Irrigation District Ditch for their water. Occasionally, the water is diverted

for short periods, but water remains standing in the ditch. However, this makes it much more difficult for the wild horses to drink. During a drought year, this diversion may be more frequent and for a longer duration. This could be detrimental to the horses. The long distance trailing to water, from the wild horses' "normal" habitat to the location of the ditch, undoubtedly places stress upon the horses and lowers the health of the population. Vehicular traffic along the dirt road from Highway 95 to Sam Spring Wash occasionally disrupts the movement of the horses as they trail to and from the watering source.

During the winter, water may collect in small depressions for short periods of time. Also, during the winter, from November to April, the wild horses use some waters that are pumped by the livestock operator in the Horse Mountain Allotment. The waters used include Horse Mountain Well, Wild Horse Basin Well, and Wild Horse Basin Well No. 2 (Map (c)). This allows some of the wild horses to disperse over the entire HMA.

## 2. Other Resources

### a. Livestock

As stated in the Habitat section, most of the Horse Mountain Allotment lies within the HMA. The allotment is permitted for cattle use during the winter (11/1 to 3/31). During this period, the livestock operator pumps the wells to provide water for his livestock. Since dependable water is lacking at the higher elevations, the majority of the livestock use occurs in the lower elevations, in the areas surrounding the wells. The utilization in this area has varied over the years depending on climatic factors and stocking rates of livestock.

A portion of the Desert Mountain Allotment occurs within the HMA. This livestock allotment is also licensed for winter use (11-1 to 4-30) by cattle. Water is either pumped or hauled for the livestock, but there does not appear to be any use of these watering facilities by wild horses. Utilization in the allotment within the HMA has not exceeded moderate use.

At present, the wild horses use the livestock use areas only slightly during the winter months. This is probably a result of the majority of the wild horses

continuing to use their major use area. Conversely, the livestock utilize very little of the wild horse major use area, due to the distance from the water developments.

b. Wildlife

A Wildlife Habitat Management Plan (HMP) was prepared for this area in 1983. The objectives of the HMP and this plan do not conflict, as there are no conflicts between the animals at their present and proposed levels.

3. Land Use Plans

The Management Framework Plan Decisions of 1976 included reducing the population of this herd to 27 head as an interim level until studies indicated the proper stocking level. As stated in the History section, full implementation of this decision was never completed.

The Lahontan Resource Management Plan (LRMP) is currently being prepared. The Preferred Alternative would maintain wild horse populations at the current (1982) levels with adjustments being made as monitoring studies indicate. The available resource data, at this time, indicates that the utilization of forage by wild horses in their major use area is well below proper use.

4. Problem Summary

The following is a summary of present and potential problems associated with the well being of the wild horse population and its habitat:

- a. The small population in this wild horse herd may not contain a large enough genetic pool to adapt to environmental fluctuations. (National Academy of Sciences, 1980). There is little population data (i.e., age, sex, survival information, etc.) to determine the health and viability of the population.
- b. The only known source of water during the summer months is not dependable. This source, the Truckee/Carson Irrigation District ditch, is located away from the "normal" habitat and the horses are subject to stress as they trail to water across the

flat. Livestock waters exist, but pumping these for the horses would cause greater conflicts for forage use between livestock and wild horses. Nineteen Well is too close to Highway 95 to be used safely by wild horses.

- c. It is unknown, from available data, what the proper population management level is for the habitat.

## II. OBJECTIVES

### A. Wild Horse Population Objective

Maintain or improve the health and long-term genetic viability of the wild horse population consistent with its habitat.

### B. Wild Horse Habitat Objective

Maintain or improve the ecological condition in the key wild horse habitat (major use area).

## III. MANAGEMENT ACTIONS

### A. Wild Horse Population

#### 1. Health of the Population

To maintain or improve the health of the wild horse population, the stress associated with the long distance travel to water must be reduced. Also, since the existing water is not dependable and the health of the entire population could be in jeopardy should the water be shut off, initially one additional water will be provided. A well, windmill, storage tanks and troughs will be constructed within the area indicated on Map (c). Water from this well will be provided to the wild horses during the critical summer months. Future monitoring may indicate the need for additional watering sites.

A second management action is to develop a memorandum of understanding between the Bureau of Land Management and the Truckee Carson Irrigation District and/or the Bureau of Reclamation (see Section V. Coordination for discussion).

#### 2. Genetic Viability of the Population

##### a. Maintenance

Genetic viability will be maintained in the horse herd by allowing the population to increase to the point where proper forage utilization is reached (see paragraph B).

b. Improvement

Genetic improvement will be through relocation of wild horses from other herds into this herd. Relocation will occur when:

- (i) reductions of the populaton are made for proper use of their habitat; or,
- (ii) the population level is declining or without growth over a five-year period.

When reductions are made, an additional ten percent in numbers of animals will be removed. This additional number of animals will be replaced by wild horses from another herd. The sex of the replacement animals will depend on the estimated sex ratio of the herd remaining in the HMA. An attempt will be made to maintain a 50:50 ratio of males to females.

When the population level is declining or without growth over a five-year period, an additional ten percent of the estimated number of animals in the herd will be relocated into the HMA. If the total number of animals exceeds the amount for proper utilization, then a reduction of horses of the same number as being relocated will be made. The sex of the relocated animals again will depend on the estimated sex ratio of the remaining herd.

B. Habitat

Maintaining or improving the ecological condition in the key wild horse habitat will be accomplished through proper use of the key wild horse forage species. The key species to be used in the utilization studies will be Indian ricegrass and galleta grass. If utilization on other species is evident for a particular location then that species may also be recorded. The utilization studies for the horses will be conducted in the major wild horse use area. Any utilization of key species above 55% will be considered as excessive. When proper use is exceeded, there are two possible reasons.



1. Improper Distribution

Improper distribution may cause excessive utilization in portions of the horse use area. Other areas would have light utilization. When this occurs, additional waters will be developed where feasible.

2. Need for Reductions

Where additional waters are not feasible and/or overall utilization is exceeded, then a reduction in wild horse numbers will be necessary. The number of animals within the population will be ten percent below that as calculated for proper stocking. This will allow for the population to increase at a natural rate for several years without the need for annual reductions to the population.

Since there is minimal overlap of the foraging areas by livestock and wild horses, the need for reduction will be based only on wild horse use in the major use area. A capture plan will be prepared before any reductions are made.

IV. EVALUATION AND REVISION

A. Study Methods

1. Population Studies

a. Aerial Censuses

Aerial Censuses will be conducted every three years to estimate the population size. These censuses will be conducted to be as consistent as possible between censuses. The past censuses have been conducted by helicopter (Bell, B model). Should a conversion to a super cub fixed wing aircraft be made for cost efficiency, it will be necessary to initially fly with a helicopter, then with the fixed wing aircraft to establish a comparison factor.

The census will place the animals in adult, foal and, if possible, yearling categories. Locations of the animals and the flight line will be recorded.

b. On-the-Ground Sex and Age Classifications

Twice a year, once in late summer (August/September) and once in late winter (January/February) on-the-ground determination of age and sex of the animals will be made.

c. Animal Condition

Since animal conditions are also indications of population health and habitat conditions, during the on-the-ground determinations of sex and age, any negative animal conditions of the animals will be noted. This may include animal weights, size and possible deformities.

d. Age and Sex Classifications from Capture Data

When reductions are made, the age and sex of the captured animals will be compiled.

2. Habitat Studies

a. Utilization

Forage utilization studies will be conducted once a year, at the end of the vegetation growing season, in the major use area.

In the livestock/wild horse overlap areas, utilization data will be collected twice a year, once just prior to livestock turnout and once just after livestock are removed to determine if overlap is more significant than now believed, which could relate to future adjustments in both livestock and wild horses.

b. Frequency Trend Plots

Frequency trend plots will be established in the major use area to evaluate changes in occurrence of key forage species, which are indicators of ecological condition.

c. Key Areas

Key areas within the major use area will be identified within the next year to aid in locating the frequency trend plots and utilization studies.

d. Monitoring Methods

The habitat studies indicated above will be conducted in accordance with the Nevada Range Monitoring Procedures.

3. Evaluation

Censuses and utilization will be the two primary datum to determine the management level of the wild horse population. This information can be entered into the Proper Stocking Rate Formula to calculate the proper number of wild horses which should be managed within the habitat. Utilization studies also will be used to identify any wild horse distribution problems. Comparison of censuses will allow for obtaining the trend of the population whether it is increasing, decreasing or is static. Age class distribution, sex ratios and animal conditions are indications of the health of the population and will be used in conjunction with the population trend to determine if relocation of animals into the HMA is necessary. Results of the frequency trend plots will show over time any changes in plant composition, which in turn affects the ecological condition of the vegetation in the habitat. This information may indicate a need for adjustments in the wild horse population management level.

4. Revision

Revision of this plan may be necessary when:

- a. The Lahontan Resource Management Plan is completed to include any decisions made in that plan, which would dictate a change to the HMAP.
- b. Studies data is adequate to establish a population management level for the wild horses.
- c. A decreasing population is not reversed by relocation of animals.
- d. Any other information that becomes available or management actions are taken which affects the management of this wild horse population.

V. COORDINATION

Coordination within the Carson City District Office is required when planning any new livestock developments (both water and fencing) within the HMA to determine any impacts to wild horses.

A Memorandum of Understanding will be developed between the Bureau of Land Management and the Truckee Carson Irrigation District (TCID) and/or the Bureau of Reclamation. The agreement should provide for a notification by TCID and/or the Bureau of Reclamation prior to diverting water from the ditch where the horses water, so BLM is able to monitor the behavior of the horses and to ensure alternative water is made available.

VI. REFERENCES

National Academy of Sciences, National Research Council, Committee on Wild and Free-Roaming Horses and Burros, Phase I Report, National Academy Press, Washington, D.C., 1980.

USDI, Bureau of Land Management, Carson City District Office, 4700 (Wild Horse and Burro) files.

USDI, Bureau of Land Management, Carson City District Office, 4412 (Utilization Studies) files.

VII. APPROVAL

Prepared by:

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Timothy B. Reuwsaat  
Wild Horse Specialist

1-12-84  
Date

Reviewed by:

Norman L. Murray  
Norman L. Murray  
Assistant District Manager, Resources

1-12-84  
Date

Recommended for approval by:

James M. Phillips  
James M. Phillips  
Lahontan Resource Area Manager

1/12/84  
Date

Approved by:

Thomas J. Owen  
Thomas J. Owen  
District Manager

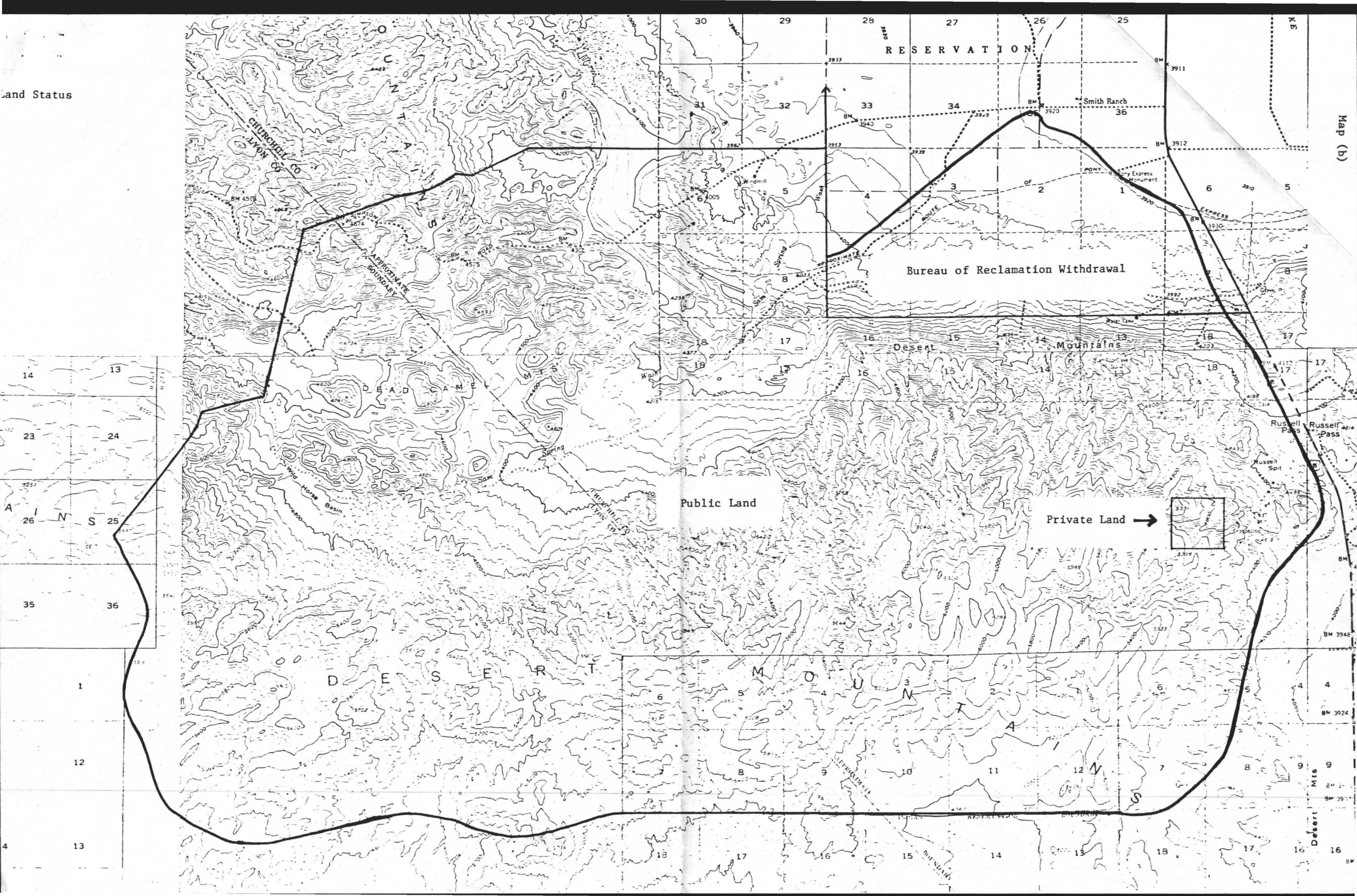
1-13-84  
Date

Map (a) General Location



Land Status

Map (b)



RESERVATION

CHURCHILL CO.  
LYON CO.

APPROXIMATE  
BOUNDARY

Bureau of Reclamation Withdrawal

Public Land

Private Land →

Desert Mountains

D E S E R T

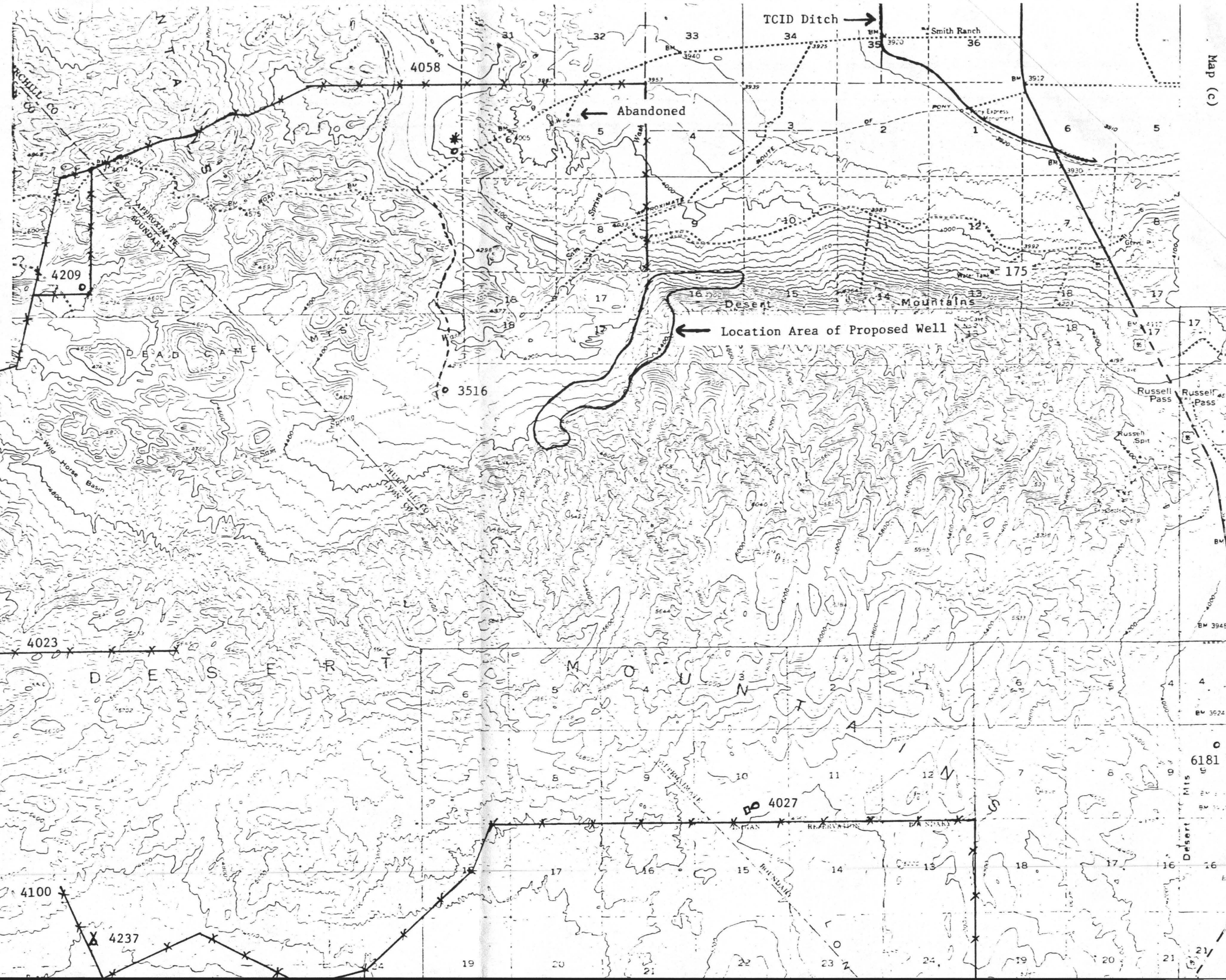
M O U N T A I N S

A

Desert Mts

RANGE IMPROVEMENTS

Project No.	Name
175	Nineteen Mile Well
3516	Horse Mtn. Well
4027	Horse Mtn. Reaper
4209	Wild Horse Basin Well
4237	East Julian Well
6181	Rolling "A" Well
*	Wild Horse Basin Well #2
237	Julian Drift Fence
4058	South TCID Fence
4063	Wild Horse Basin Fence
4100	Desert Wash Drift Fence
4023	Desert Mountain Fence



Map (c)

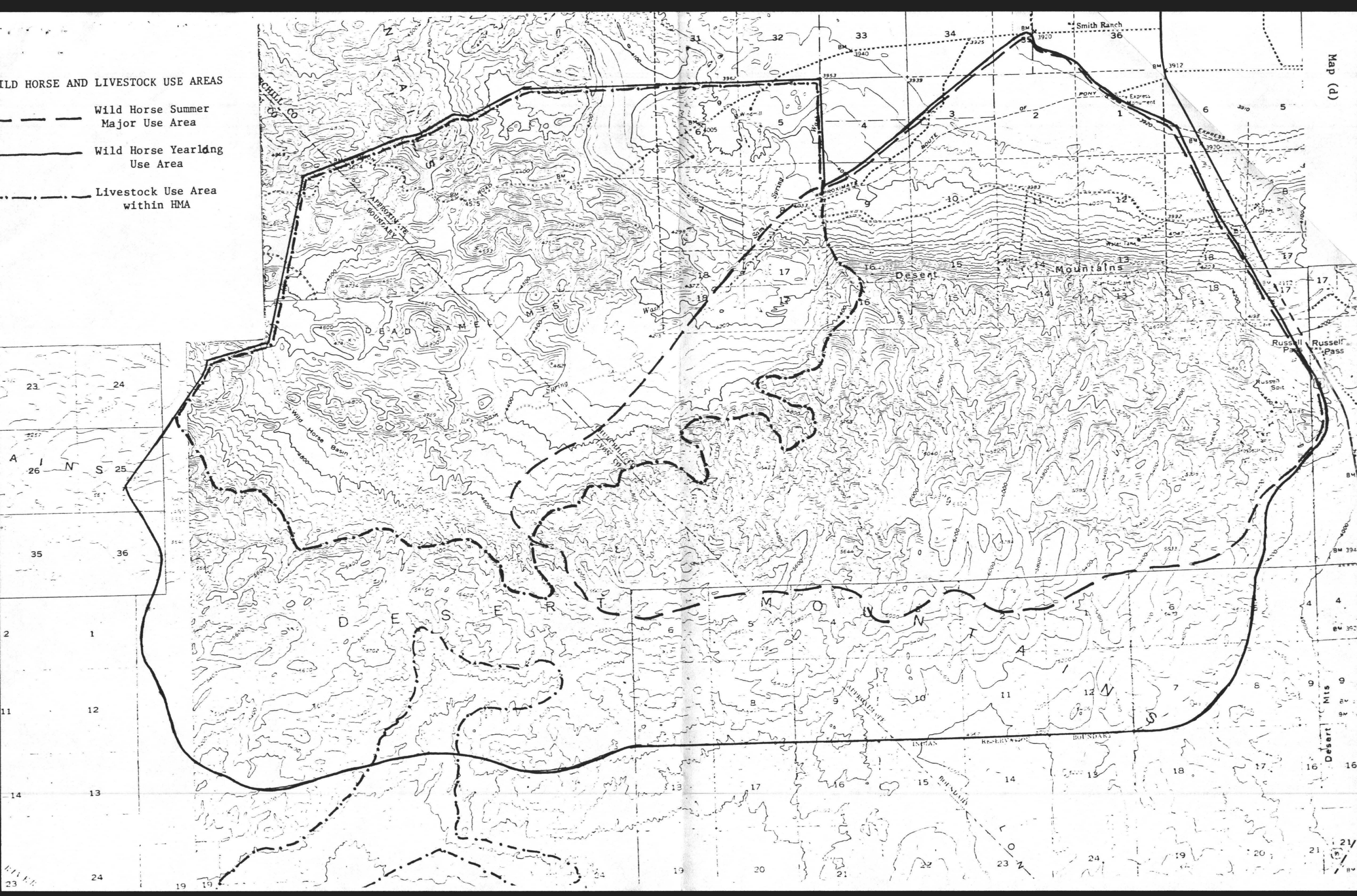


WILD HORSE AND LIVESTOCK USE AREAS

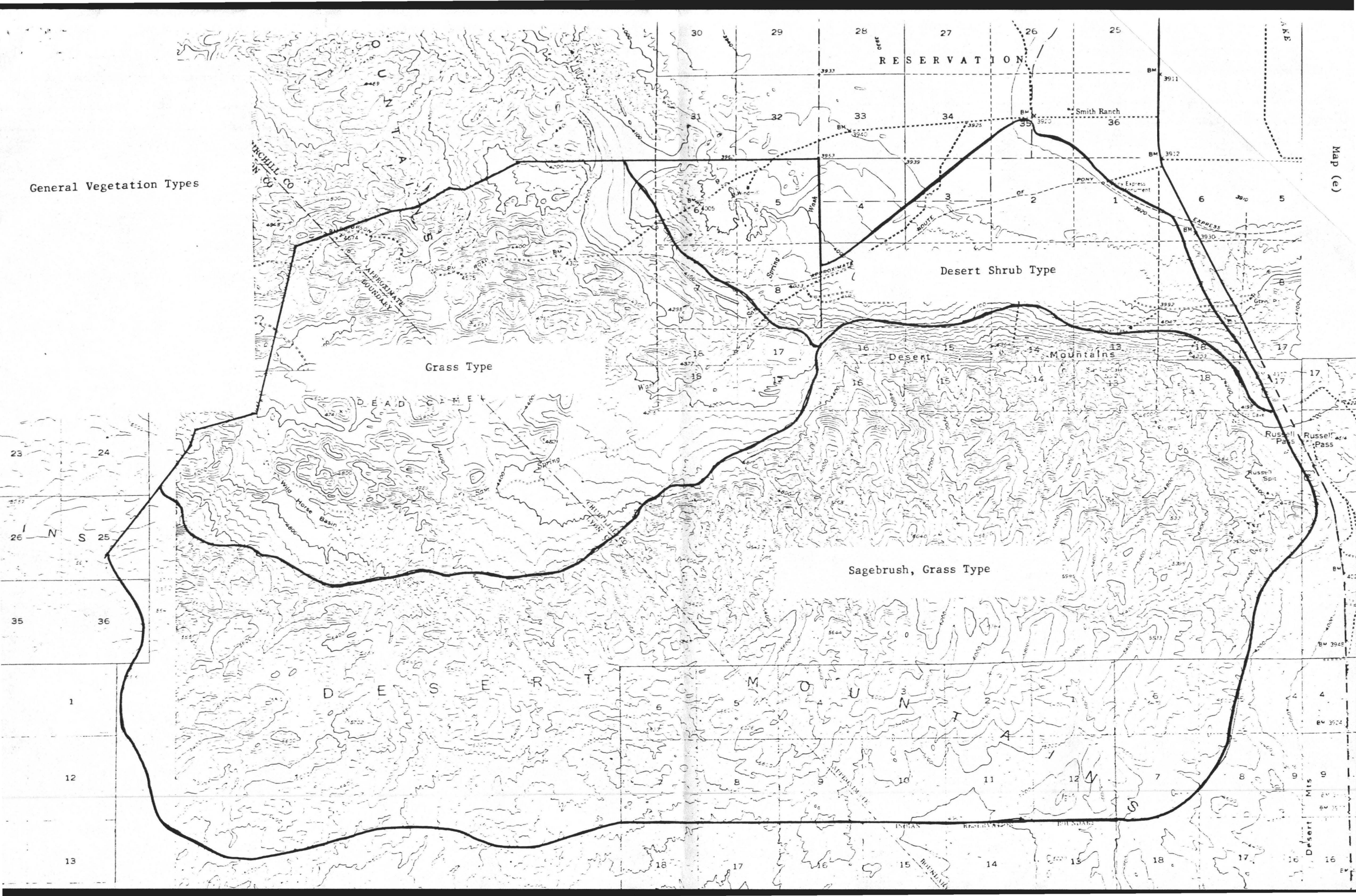
Wild Horse Summer  
Major Use Area

Wild Horse Yearling  
Use Area

Livestock Use Area  
within HMA



General Vegetation Types



Map (e)

**DRAFT**

ENVIRONMENTAL ASSESSMENT  
for the  
Horse Mountain Herd Management Area Plan

The purpose of this Environmental Assessment is to analyze the effects of managing the wild horse population and its habitat and the no action alternative.

I. Description of the Proposed Action and Alternatives

The proposed action is to implement the Horse Mountain Herd Management Area Plan. The major actions include allowing the population to increase to the point proper utilization of key forage species is obtained, relocating wild horses into the population at selected times, providing initially one additional water source, and establishing studies to determine the proper management level for the wild horses (see the Horse Mountain Herd Management Area Plan for a more detailed description).

The alternative to the proposed action is "no action". The no action alternative would maintain the population at current levels until monitoring studies indicated adjustments could be made in the population level. There would be no relocation of wild horses into the population and no additional water source would be developed.

II. Description of the Existing Situation

Refer to the Introduction and Background section in the Horse Mountain Herd Management Area Plan for the description of the existing situation.

III. Analysis of the Proposed Action and Alternatives

A. Proposed Action

1. Impacts

Providing an additional water source nearer to the wild horses' normal habitat will reduce the stress associated with the trailing to water at the Truckee-Carson Irrigation District (TCID) ditch. Vehicular traffic along the dirt road to Sam Spring wash would not disrupt the horses. This will result in a healthier population.

Allowing the population to increase will perpetuate the existing gene pool, maintaining the traits of this particular population.

Relocating animals from other populations will introduce both negative and beneficial genetic traits. The negative traits, if substantial enough to be harmful to an animal, will disappear with the death of that animal. Therefore, the beneficial traits will influence the long-term genetic pool. These added traits from the relocated animals will allow for genetic variability and the population will be more likely to withstand environmental fluctuations and extremes.

Maintaining or improving the ecological condition of the key wild horse habitat will assure that long-term forage and living space will be available to the wild horses. Although additional waters may slightly change traditional movements and distribution of the horses, the improvement of forage and habitat quality will benefit the population.

Removal of horses to maintain the habitat will also remove some beneficial traits of the population. This, however, may be offset by the reintroduction of other animals back into the population. Those animals removed will lose their wild, free-roaming nature. Some animals (1-2%) may be injured or killed during capture operations in spite of all humane and safety precautions taken.

2. Possible Mitigating Measures

None necessary.

3. Irreversible and Irretrievable Commitments of Resources

Some traits in the population may possibly be lost by removing a portion of the wild horses for habitat maintenance. Some animals may be killed or injured during capture operations.

B. No Action Alternative

1. Impacts

The wild horses will have to continue to rely on the TCID ditch for their water source during the summer months. They will still be subject to the stress of exposure to harassment while trailing to the water. Their travels to water may be disrupted at times by vehicular traffic. In the event that the water in the TCID ditch is diverted for an extended period of time, the remaining standing water may dry up. This would be detrimental to the population as many or all of the horses could die of thirst.

Initially maintaining the population at existing levels may require periodic removals of wild horses. With the removal of these horses certain traits may be eliminated from the population. This could lower the ability of the population to adapt to environmental extremes.

During the periodic removals some animals (1-2%) may be injured or killed during capture operations in spite of humane and safety precautions. Those animals removed will lose their wild, free-roaming nature.

The vegetation resource will continue to receive light use by horses in the major use area and should not decline in ecological condition.

2. Mitigating Measures

Any mitigating measures possible are those management actions presented in the proposed action.

3. Irreversible and Irretrievable Commitments of Resources

Some traits in the population may possibly be lost by removing a portion of the horses to maintain the population level at existing numbers. Some animals may be killed or injured during capture operations.

IV. Persons, Groups and Government Agencies Consulted

This environmental assessment was sent to the following persons, groups and government agencies for review and comment:

American Horse Protection Association  
National Mustang Association  
Fund for Animals  
International Society for the Protection of Wild Horses and Burros  
U.S. Humane Society  
Nevada State Division of Agriculture  
Animal Protection Institute  
American Humane Association  
National Wild Horse Association  
Wild Horse Organized Assistance  
Save the Mustangs  
American Bashkir Curley Register  
Humane Society of So. Nevada  
Nevada Farm Bureau Federation  
Sierra Club  
Tina Nappe  
Nevada Cattlemen's Association  
Nevada Wildlife Federation  
Nevada Humane Society  
Lyon County Board of Commissioners  
Churchill County Board of Commissioners  
J. Julian  
Rolling "A" Ranch  
Nevada State Clearinghouse  
Truckee-Carson Irrigation District  
Bureau of Reclamation

V. Intensity of Public Interest

Public interest is anticipated to be low to moderate.

VI. Participating and Reviewing Staff

Prepared by:

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Wild Horse and Burro Specialist

1-12-84  
Date

Reviewed by:

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Norman L. Murray  
Asst. District Manager for Resources

1-12-84  
Date

Stephen A. Weiss  
Stephen A. Weiss  
Environmental Coordinator

January 13, 1984  
Date

James M. Phillips  
James M. Phillips  
Area Manager  
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Date