

614

✓

Nellis
~~D-1~~ #AA

1984?

NEVADA WILD HORSE RANGE
HERD MANAGEMENT AREA PLAN

CALIENTE RESOURCE AREA
LAS VEGAS DISTRICT

TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| I. INTRODUCTION | 1 |
| II. BACKGROUND INFORMATION | 2 |
| A. Location and Size. | 2 |
| B. Resource Data | 2 |
| 1. Vegetative Resource. | 2 |
| 2. Range Condition and Trend. | 3 |
| 3. Soils. | 3 |
| 4. Water. | 3 |
| 5. Animals. | 3 |
| a. Wildlife | 3 |
| b. Livestock. | 5 |
| c. Wild Horses. | 5 |
| 1) Present Situation. | 5 |
| a) Population Size. | 5 |
| b) Color. | 6 |
| c) Gatherings | 6 |
| d) Condition. | 7 |
| e) Cover. | 7 |
| f) Seasonal Use and Home Range. | 7 |
| d. Burros | 7 |
| 6. Population Demography. | 8 |

| | <u>Page</u> |
|---|-------------|
| C. Existing Projects. | 8 |
| 1. Water. | 8 |
| 2. Fence. | 8 |
| D. Coordination | 9 |
| 1. Relationship to Other Resource Uses. | 9 |
| a. Wild Horse - Wildlife. | 9 |
| b. Wild Horse - U.S. Air Force & Department of Energy . . . | 9 |
| 2. Cooperation in Management. | 10 |
| 3. Management Number. | 10 |

III. OBJECTIVES

| | |
|---|----|
| A. Habitat. | 10 |
| 1. Determine Key Forage Plant Species | 10 |
| 2. Utilization. | 10 |
| 3. Maintain Static to Upward Trend. | 10 |
| 4. Water Availability | 10 |
| B. Population Objectives. | 10 |
| 1. Physical Condition | 10 |
| 2. Acquire Additional Information on Population Characteristics | 10 |
| 3. Determine Seasonal Movement Patterns | 10 |
| 4. Enhance Unusual or Unique Color. | 11 |
| 5. Preserve Pintos. | 11 |
| 6. Manage for Wild Horse Use on the NWHR Only | 11 |

| | <u>Page</u> |
|---|-------------|
| IV. MANAGEMENT METHODS | 11 |
| A. Habitat Management Methods | 11 |
| 1. Determine Key Forage Plant Species | 12 |
| 2. Utilization. | 12 |
| 3. Maintain Static to Upward Apparent Trend | 12 |
| 4. Water Availability | 13 |
| B. Population Management Methods. | 13 |
| 1. Physical Condition | 13 |
| 2. Acquire Additional Information on Population Characteristics | 13 |
| 3. Determine Seasonal Movement Patterns | 14 |
| 4. Enhance Unusual or Unique Color. | 14 |
| 5. Relocation of Pintos | 14 |
| 6. Manage Wild Horse Use on NWHR Only | 14 |
| C. Population Adjustment. | 15 |
| V. STUDIES AND ASSESSMENT | 15 |
| A. Habitat. | 15 |
| 1. Key Areas and Key Species. | 15 |
| 2. Apparent Trend | 15 |
| 3. Utilization. | 16 |
| 4. Actual Use | 16 |
| 5. Monitor Water Sources. | 16 |
| B. Wild Horses. | 16 |
| 1. Home Ranges and Seasonal Movement Patterns | 16 |
| 2. Productivity and Survival. | 17 |
| 3. Sex Ratio Determination. | 17 |

| | <u>Page</u> |
|--|-------------|
| 4. Age Structure Evaluation | 17 |
| 5. Condition. | 17 |
| 6. Color. | 17 |
| 7. Relocation | 18 |
| VI. MODIFICATION | 18 |
| VII. APPROVAL | 19 |
| APPENDIX 1 | 21 |
| Map #1 - C&C Area. | 22 |
| Map #2 - NRC & NWHR. | 23 |
| Map #3 - Home Range & Use Areas. | 24 |
| Map #4 - Existing Projects | 25 |
| APPENDIX 2 | |
| Agreement Summaries. | 26 |
| GLOSSARY | 28 |
| LITERATURE CITED | 32 |

VIII. INTRODUCTION

Preparation of a wild horse herd management area plan designed to specifically manage the wild horses populating the Nevada Wild Horse Range consistent with the U.S. Air Force use of the area in balance with the available forage was recommended through a Cooperative Agreement between the Bureau of Land Management, Nevada State Office, and United States Air Force, Nellis Air Force Base (November 12, 1973).

The Nevada Wild Horse Range (NWHR) Herd Management Area Plan (HMAP) is designed to effectively manage the wild horse population in accordance with the Bureau of Land Management NSO Manual Supplement 4730 (November 24, 1982), and 43 Code of Federal Regulations 4700. Effective management of the wild horse population is essential to ensure a net benefit to the valuable resources (i.e., vegetation, soils, wild horses, wildlife, etc.) which occupy the area.

The Nevada Wild Horse Range was established in 1962 by a Cooperative Agreement with the Commander, Nellis Air Force Base and the State Director, Nevada Bureau of Land Management. The NWHR was the first wild horse area established in the U.S. and was brought about in answer to pressure from across the nation by thousands of wild horse admirers. While the primary purpose of the Nellis Range Complex (NRC), a complex withdrawn from public use, is weapons development and flight training, the existence of wild horses on the NWHR is a secondary use of the lands.

In 1971 Congress passed the Wild Horse and Burro Act and promulgated 43 Code of Federal Regulations 4700 to implement the Wild Horse and Burro Act. In 1977 a five-party agreement was developed for protecting, developing, and managing the natural resources of fish and wildlife, vegetation, watershed, and wild horses with the U.S. Air Force (USAF), U.S. Fish and Wildlife Service (USFWS), Department of Energy (DOE), Bureau of Land Management (BLM), and the Nevada Department of Wildlife (NDOW).

Wild horse population estimates in 1962 were 200 head. These horses were mainly in the area designated as the Nevada Wild Horse Range. Since 1962 the wild horses have expanded their range and roam over most of the north side of the NRC. The present population, including areas on the NRC outside of the NWHR, is 4,890 wild horses (actual count, by aerial census, March 1, 1984, Table 2, page 7). The total area of the present home range is estimated at 1,780,000 acres.

Historically NRC was grazed by livestock, wild horses, and wildlife. Even though the primary purpose of the area was withdrawn primarily for military purposes in 1940, livestock grazing continued until 1979. Attempts were made during the fifties and sixties to discontinue livestock grazing to no avail. In 1979 a fence along the northern boundary was completed, thus eliminating livestock grazing from the area and movement in and out of the NRC by wild horses.

Nationally the NWHR is not well known and does not generate much public interest, because of its remoteness and inaccessibility. The National Wild Horse Association, a Las Vegas based organization, has shown considerable active interest and has been involved in helping develop and maintain water improvements along with the USAF.

The U.S. Air Force and the Department of Energy have on-going programs of weapons testing and training, which is the primary use of the withdrawal area. These activities require controlled access to the area because of this primary use.

This plan was developed through a Consultation and Coordination (C&C) process with various interest groups, and State and Federal Government agencies who have an interest in the well-being of wild horses and wildlife on the NRC. The C&C Committee, after visiting parts of the NRC and becoming completely familiar with the existing data, have recommended that 2,000 wild horses be managed initially on the Nevada Wild Horse Range only, with future analysis of monitoring studies to be used to determine the appropriate management number.

II. BACKGROUND INFORMATION

A. Location and Size

The Nevada Wild Horse Range is located in the northeast corner of the Nellis Range Complex (NRC) approximately 40 miles southeast of Tonopah, Nevada (see area map, Appendix 1). The Nevada Wild Horse Range is comprised of 394,000 acres. At present wild horses roam over a much larger area. The area the wild horses are presently using is shown in Appendix 1. Approximate acreage is as follows:

| <u>Wild Horse Use Areas</u> | <u>Acres</u> |
|--|------------------|
| NRC outside of NWHR | 1,390,000 |
| NWHR | 394,000 |
| NRC not known to be used by wild horses | 151,000 |
| Total NRC | <u>1,935,000</u> |

B. Resource Data

1. Vegetative Resource

No vegetative inventory has been conducted nor is one planned. Utilization studies initiated in 1980 on the NWHR show that heavy to severe use is being made within 1/2 mile of all water facilities. Outward from waters to about 4-1/2 miles the use is moderate to heavy.

Generally the vegetation in the NRC is composed of galleta grass, Indian ricegrass, numerous forbs, big sage, low sage, bud sage, rabbitbrush, buckwheat, desert globemallow, pinyon pine, and juniper.

2. Range Condition and Trend

Trend studies (photo plot method) were initiated in the spring of 1981 on the NWHR. Vegetative trends can only be determined after many years of data collection.

3. Soils

No intensive soil survey has been conducted.

4. Water (Appendix 1)

Water sources for the wild horses and wildlife on the NWHR consist mainly of developed springs and pipelines and natural catchment basins. Past livestock operations developed some of the springs and pipelines, but since these operations have been restricted from the NRC, these developments have deteriorated to the point that they provide water only at the source.

The BLM, with assistance from the National Wild Horse Association, USAF, and DOE are maintaining five springs; Rose Spring, Silverbow Spring, Tunnel Spring, Upper and Lower Corral Springs. Rose and Silverbow spring developments consist of pipelines for better water distribution.

Summer and Cedar Springs, along with George's Water, are used outside of the NRC area for livestock and are maintained by Mr. Joseph P. Fallini, Jr.

During the dryer seasons wild horse use is restricted to waters within the NWHR, which don't produce adequate amounts of water for the wild horse population.

5. Animals

a. Wildlife

Mule deer are found on all mountain ranges within the area. Antelope use the foothills and the valleys. Main concentrations of antelopes are in the northern portion of Cactus Flat and all of Kawich Valley with occasional sightings around Stonewall Mountain. The desert bighorn sheep are on and around Stonewall Mountain. Mountain lions are found throughout the entire area.

Other wildlife species found in the area include a variety of raptors, such as Golden eagles and hawks, numerous small birds and small mammals, and many reptiles. Jackrabbits and cottontails are common, but population levels fluctuate periodically in high/low cycles.

There are no known threatened/endangered plant species in the identified wild horse use area. There are, however, three candidate species within the area, that are being considered for federal listing under the endangered species act. Asclepias eastwoodiana; category 2, Sclerocactus polyancistrus; category 2, and Astragalus beatleyae; category 2 (Federal Register Vol. 45, No. 242 and Vol. 48, No. 229). Astragalus beatleyae is also listed critically endangered by Nevada State Status NRS 527.270.

In addition, the bald eagle may use the area as a pass-through species.

For wildlife population estimates see Table 1 below. Little emphasis has been placed on data collection, particularly due to the controlled access to the NRC because of its primary use.

TABLE 1
Wildlife Population Estimates*

| <u>Species</u> | <u>Location</u> | <u>Number</u> |
|----------------------|--------------------|---------------|
| Desert Bighorn Sheep | Stonewall Mountain | 50-75 |
| Pronghorn | Overall | 200 |
| Mule Deer | Stonewall Mountain | 50 |
| | Kawich Range | 50 |
| | Belted Range | 35 |
| Chukar Partridge | Stonewall Mountain | 400-500 |
| | Belted Range | 150 |
| | Kawich Range | 600 |
| Mountain Lion | Stonewall Mountain | 3 |
| | Belted Range | 2 |
| | Kawich Range | 5 |

*Estimates are not based on definitive inventory information.

b. Livestock

Livestock are no longer licensed to graze this area and only an occasional livestock trespass occurs.

c. Wild Horses

1) Present Situation

a) Population Size

Little emphasis has been placed on data collection, particularly due to the controlled access to the NRC because of its primary use.

The BLM and USAF have been conducting aerial horse inventories since 1976. Inventory results are disclosed in Table 2 below.

TABLE 2
Wild Horse & Burro Inventory

| <u>DATE</u> | <u>LOCATION</u> | <u>CENSUS/TYPE</u> | <u>HORSE</u> | <u>BURRO</u> |
|---------------|--|--------------------|--------------|--------------|
| 1963 | Nevada Wild Horse Range | (Estimate) | 200 | 0 |
| | | Total | 200 | |
| November 1973 | NWHR | Ground | 800 | 0 |
| | | Total | 800 | |
| March 1976 | Kawich Valley | Aerial | 114 | 0 |
| | Gold Flat & Cactus Flat | | 950 | 0 |
| | | Total | 1,064 | |
| May 1977 | Overall | Aerial | 1,300 | 0 |
| | | Total | 1,300 | |
| April 1980 | Stonewall | Aerial | 341 | 33 |
| | Goldfield | Aerial | 225 | 36 |
| | Cactus Flat & Kawich Valley & Belted Range | Aerial | 2,556 | 0 |
| | | Total | 3,122 | 69 |
| June 1982 | Stonewall Mountain | Aerial | 574 | 113 |
| | Goldfield/Mud Lake | Aerial | 314 | 82 |
| | Cactus Flat and Cactus Range | Aerial | 2,756 | 0 |
| | Kawich Valley & Range | Aerial | 401 | 0 |
| | | Total | 4,405 | 195 |

Table 2--Continued
Wild Horse & Burro Inventory

| <u>DATE</u> | <u>LOCATION</u> | <u>CENSUS/TYPE</u> | <u>HORSE</u> | <u>BURRO</u> |
|----------------|--|--------------------|--------------|--------------|
| August 1983 | Stonewall Mountain | Aerial | 604 | 49 |
| | Goldfield/Mud Lake | Aerial | 144 | 32 |
| | Cactus Falt and Goldflat (Areas A/C Incomplete) | Aerial | 3,138 283 | 0 0 |
| | Kawich Range/Valley | Aerial | 691 | 0 |
| | Total | | 4,860 | 81 |
| March 1984 | Stonewall (Top of Mountain not inventoried) | Aerial | 543 | 58 |
| | Goldfield/Mud Lake | Aerial | 284 | 60 |
| | Cactus/Gold Flat (Area A not Inventoried) | Aerial | 3,363 | 0 |
| | Kawich | Aerial | 700 | 0 |
| | Total | | 4,890 | 118 |

Aerial Censuses invariably undercount total number of wild horses per given area. There has been no correction factor developed for this area. Thus, total count data secured on the Nellis Range Complex is presumably below the actual population size. In addition, due to time allotted and security restrictions total use areas are not always flown resulting in less consistent data.

b) Color

Horse colors vary from white to black and all shades in between. However, the predominant colors are bay, brown and sorrel with a few pintos in the Stonewall Mountain Area. In addition, certain areas are developing certain colors; such as palominos, deers and buckskins in North Cactus Flat East of Mud Lake, and grays and roans in the Kawich Valley Area.

c) Gatherings

One minor gathering operation has been conducted on the NRC. This gathering occurred in the Spring of 1984 and five head of wild horses were gathered from the Stonewall Mountain Area. The animals were subsequently relocated in the Caliente Resource Area as part of a study.

d) Condition

Generally animals appear to be in fair to good condition. The population as a whole appear to be healthy with isolated maladies afflicting some animals. Lack of sufficient water during the summer does stress the population especially during very dry periods.

e) Cover

The main source of cover is provided by the pinyon-juniper on the mountain slopes. Some cover is provided by the canyons and rocky outcrops along the foothills.

f) Seasonable Use and Home Range

A comprehensive study has never been performed to determine the seasonal use patterns and home ranges of wild horse bands inhabiting the management area. Identification of major use areas, however, was accomplished (Appendix 1). Accurate knowledge pertaining to wild horse movement patterns is important in order to understand animal/vegetation interrelationships. The limited information obtained thus far shows the horses tend to concentrate in the areas close to the water source during the summer months. Most of these areas are along the upper portions of the piedmont slope. During the colder months, the horses use a much larger area extending 10-15 miles from known water sources.

Four wild horse use areas have been identified in the area, Kawich, Stonewall, Goldfield Hills, and Cactus Flat/Goldflat. Horses in the Stonewall home range seldom mix with the other three home ranges. Animals in the Cactus Flat/Goldflat home ranges and Goldfield home ranges do intermix (especially during the winter months near the Mud Lake Area) as do animals in the Cactus Flat/Goldflat and Kawich home ranges.

d. Burros

Burros do exist west of the Stonewall Mountain and the Goldfield Range. Present population (actual count) 1984 are:

Stonewall Mountain - 58 burros
Goldfield Range - 60 burros

Most of the burros are west of the Stonewall Mountains off the Range Complex, but they do occasionally migrate onto the range. The burros that migrate onto the NRC during construction of the west boundary fence will be removed from the NRC. There are no burros on the NWHR.

The animals appear to be in good physical condition.

6. Population Demography

There is no data for sex ratio, age structure, or mortality. Rate of increase based on limited data as calculated from one year's census is approximately nine percent. Effective management of wild populations is contingent on the acquisition and accurate interpretation of reliable sex and age data. Management of wild horse populations is no exception. Sex and age information secured through capture operations is a reliable technique utilized by the Bureau of Land Management to analyze population processes for management purposes. Thus far there have been no significant capture operations within the NRC. Analysis needs for the Nevada Wild Horse Range Herd Management Area population are: sex ratio, age structure, productivity, and mortality or conversely survival.

C. Existing Projects (Appendix 1)

1. Water

Water project consist of three spring developments with troughs at the source (Tunnel Spring, Upper, and Lower Corral Spring) and two spring developments with a pipeline distribution system (Rose Spring and Silverbow Spring). These projects are maintained by the BLM with assistance from USAF, DOE, and National Wild Horse Association.

Water projects left over from past livestock operations have deteriorated and are in need of repair. The pipeline projects are no longer functional and provide water only at the spring source. There are also several springs and silted in reservoirs that need maintenance or development to function better for wild horses and wildlife.

2. Fence

The northern boundary fence of the Nellis Range Complex was constructed between 1977-1979 to restrict cattle movement onto the range. The west boundary fence will be constructed in FY 1985, and will have the effect of eliminating wild horse and burro movement on the west side. There are no interior fences except for enclosures.

D. Coordination

1. Relationship to Other Resource Use

a. Wild Horse - Wildlife

Present estimate of big game are 50 to 75 Desert Bighorn Sheep, 200 antelope, and 135 mule deer.

In the Stonewall use area where a bighorn sheep population exists, the wild horses area making heavy demands on the water and forage resources. Even the highest mountain peaks show sign of horse use as indicated by the extensive trails.

The Cactus Flat/Gold Flat area has approximately 120 head of antelope, with additional antelope use in Kawich Valley.

The resident herd of mule deer is very small in number at the present. One hundred and thirty-five deer are estimated in the area on a seasonal basis mainly from a migratory herd.

Continued heavy use of forage by horses may result in reduced productivity of bighorn sheep, antelope, mule deer, and other wildlife species in the area. Should the heavy forage utilization by horses continue, a demise of native big game species could occur in the area.

b. Wild Horse - U.S. Air Force and Department of Energy

The U.S. Air Force has used the NWHR and surrounding area as a military training area for the past forty years which is a primary use of the withdrawn area. Sandia National Laboratories, through a contract with DOE, has used the northern portion of the Range Complex for military weapons test and development for more than ten years. These agency's activities are expected to increase with time. Although their impacts upon the wild horse population is unknown at this time, conflicts such as wild horse-vehicle collisions are likely to increase.

2. Cooperation in Management

Various state and federal agencies are involved in uses of the NRC and particularly the NWHR. Hence, a series of cooperative agreements have involved that affect the management of the resources. Therefore, included is a summary of cooperative agreements (Appendix 2) that affect wild horse management on the NRC.

3. Management Number

Through successive C&C meetings and field trips the C&C Committee members recommended an initial management number of 2,000 head of wild horses to be managed on the NWHR only. Future management numbers will be determined through subsequent analysis of monitoring data.

III. OBJECTIVES

The overall objectives are to maintain and manage populations of wild, free-roaming horses on the NWHR as recognized components secondary only to the primary uses the area was withdrawn. These horses are to be managed in conformity with the goals established in the Wild Horse and Burro Act.

A. Habitat Objective

1. Determine key areas and key forage plant species for wild horses within one year.
2. Allow utilization of key forage plant species by horses to exceed the allowable use factor, by no more than ten percent on the NWHR as established by the Nevada Range Monitoring Task Group (1984).
3. Maintain a static to upward apparent trend in vegetation characteristics through control of grazing pressure.
4. Minimize incidence of wild horses being unable to obtain sufficient drinking water at specific water sources.

B. Population Objectives

1. Monitor the physical condition of wild horses and maintain animals in fair to good condition.
2. Acquire additional data on wild horses to better understand the forces that affect wild horse populations.
3. Determine wild horse seasonal movement and distribution patterns within the next five years.

4. Enhance the gray and roan color marking in the Kawich Valley Area and palomino, deer and buckskin in Cactus Flat and Gold Flat Areas.
5. Preserve 10 head of pintos from the Starwall Mountain Area by relocating them in appropriate HMA.
6. Manage wild horses on the NRC with the objective to maintain the home range wholly within the NWHR.

IV. MANAGEMENT METHODS

Studies and assessment will be conducted based on controlled access and the primary use of the NRC.

A. Habitat Management Methods

1. Determine key areas and key forage species for wild horses. Within one year key areas and key species will be selected using the Nevada Range Monitoring Task Force Procedures. Within five years, these key areas and key species will be evaluated through field observations and study analysis to determine which key areas and key forage plant species to continue to monitor. Criteria for selection of key areas will be that they provide a significant amount of the available forage and be selected only after a careful evaluation of the current pattern of grazing by the wild horses has been determined. Key areas will be selected in a homogenous vegetation type and contain the key species or have the potential to produce the key species to be monitored. Areas removed from water or having limited accessibility should not be considered as key management areas but may be suitable for comparison areas.

Key forage plant species should be palatable to the wild horses during the season of use. Key species should provide more than 15 percent of the available forage in the grazing area or have the potential for greater production if it is critical to the needs of the wild horses. The key species must be a perennial forage plant; and be consistent with management objectives for the plant community.

The following types of studies may be conducted at each key area: Utilization, frequency, ground cover, climate, and apparent trend studies.

Within six years, all key areas and key species will be evaluated to determine their effectiveness in reflecting the current management on the HMA.

2. Allow utilization of key forage plant species to exceed allowable use factors by no more than ten percent on the NWHR as presented in the Nevada Range Monitoring Handbook (First Edition, 1984) and BLM Manual 4412.

Allowable use factors as established by the Nevada Range Studies Task Group are:

| <u>Plant Category</u> | <u>Spring</u> | <u>Summer</u> | <u>Fall</u> | <u>Winter</u> | <u>Yearlong</u> |
|------------------------------------|---------------|---------------|-------------|---------------|-----------------|
| Perennial Grasses and Grasslike | 50% | 50% | 60% | 60% | 55% |
| Shrubs, Half Shrubs and Trees | 30% | 50% | 50% | 50% | 45% |

If utilization levels exceed the allowable use factors by 10% then wild horses will be removed down to a level that would provide use at 10% less than the allowable use factors. Removals of wild horse would be based on analysis of all monitoring studies. Adjustments in grazing pressure would be made either HMA wide or from smaller use areas depending on results of monitoring studies.

Therefore, apparent trend will be determined, either upward or downward, using indicators of soil trend and indicators of trend in vegetation. Methodology for determining apparent trend will be as established by the Nevada Range Monitoring Task Group (Nevada Rangeland Monitoring Handbook, First Edition, 1984).

3. Maintain a static to upward apparent trend in vegetation characteristics by maintaining wild horses numbers at a compatible level with the vegetation resource. Apparent trend refers to one time observations of soil and vegetative conditions on rangelands. It is used in the absence of sufficient data to determine apparent trend.

Range sites have not been determined for the NWHR which limits the degree of monitoring to be accomplished.

4. Adjust the number of wild horses utilizing water sources which produce less water in a 24 hour period than required by the number of animals attempting to drink at that source during the same period to a level which provides 10 gallons of water per day for each animal.

Initially water sources need to be brought back into functional condition with adequate water storage, with annual maintenance thereafter.

Water sources needing minor repairs to major reconstruction and development are ranked by priority based on numbers of horses using area. Starting with highest priority they are as follows: Cedar Wells--develop with storage and troughs; Upper and Lower Corral Springs--reconstruction, add new troughs and storage; Silverbow pipeline--repair, add new troughs storage and consider extending pipeline. Rose Spring pipeline--add storage and consider pipeline extension; Tunnel Spring--add storage; Cedar Spring--develop with storage. Development of additional springs will be considered only through consultation with the five-party cooperators.

Completion of repairs and/or reconstruction is dependent upon feasibility and funding. Initially certain projects will be proposed in FY 1985 for funding and access to the NRC based on its primary use. Additional projects will be proposed every year until all projects are working.

Water sources will be monitored yearly to determine if adequate water is available for horses using the area. If not, the horses will be removed from that area and either relocated or put up for adoption.

B. Population Management Methods

1. Monitor the physical condition of wild horses and maintain animals in fair to good condition. Maintenance of animals in fair to good condition can be obtained by maintaining wild horses at the appropriate numbers as determined through analysis of monitoring data. Condition of wild horses will be observed when in the field and during the collection of other population data as described in the studies section.
2. Acquire additional data on wild horses to better understand the forces that affect wild horse populations. Studies to collect information relative to sex ratios, age structure, young/adult ratios, average band size will be established on wild horse population within the NWHR. All studies will be correlated with capture data, aerial census data and vegetation monitoring data. For more details on studies see studies and assessment section.

3. Determine wild horse seasonal movement and distribution patterns within the next five years. Seasonal movement and distribution patterns will be observed four times per year, during each season. Studies as described in studies section will be completed during censuses or field observations. Seasonal movement and distribution patterns will be correlated with vegetation monitoring data to aid in developing a better monitoring program for NWHR. Seasonal movement and distribution patterns should show to what extent the wild horses will remain on the NWHR once this plan is fully implemented.
4. Enhance the gray and roan color markings in the Kawich Valley Area and Palomino, buckskin, and deer in the Cactus Flat/Goldflat Areas. Enhancement of color markings in specified areas will be accomplished by selective retention of those animals during removal operations. The initial wild horse adjustment will not be concerned with selective removal concerning color except for preserving a portion of the pinto population from Stonewall Mountain. After the initial adjustment to 2,000 head, enhancement of color will be considered to aid in maintaining the unique development of certain colors.
5. Stonewall Mountain use area is identified for complete removal. Therefore preserve 10 head of Pintos from the Stonewall Mountain Area by relocating them during the Stonewall capture operation to an appropriate HMA. Specifics concerning capture will be address in capture plans. Although this is not a major objective of this plan it is a major goal of wild horse management within the CRA.
6. Manage wild horses on the NRC with the objective to maintain the home range wholly within the NWHR. Correlation of all monitoring studies will be used to determine the effectiveness of maintaining horses on the NWHR. Realizing wild horses will not remain totally on the NWHR under this plan, horses will be allowed to roam off the NWHR using ephemeral waters, provide use occurs only on a seasonal basis. If wild horses are determined to be using areas outside of the NWHR on a permanent basis then management actions will be initiated to alleviate problems or remove the wild horses.

C. Population Adjustment

Population adjustments will be conducted only when range monitoring studies demonstrate a need. Adjustments will be based on the utilization of key forage species (Range Studies Task Group, 1981). A basic utilization--population size formula will be employed for calculation of necessary adjustment as follows:

$$x = \frac{(\text{Desired Population Size})}{\text{Desired Utilization}} = \frac{\text{Present Population Size}}{\text{Present Utilization}}$$

All population reductions will be in accordance with guidelines established by the NWHR Gathering Plan, covering the NRC area, and 43 Code of Federal Regulation 4740.

V. STUDIES AND ASSESSMENT

Studies and assessment will be conducted based on controlled access and the primary use of the NRC. Bureau of Land Management will be responsible for installing and reading of monitoring studies.

A. Habitat

1. Key Areas and Key Specials

Key areas and key forage plant species will be selected within one year using the methodology as described by the Nevada Range Studies Task Group (Nevada Rangeland Monitoring Handbook, First Edition, 1984). Seasonal movement and distribution patterns of wild horses will be taken into consideration in selecting key areas. Monitoring studies will be conducted in key areas every year, although the types of studies may vary every three years.

2. Apparent Trend

Apparent trend will be recorded on each key area selected and recorded at approximately the same time each year. Apparent trend will be recorded every year for the first three years. Thereafter, apparent trend will be recorded every three years. Information obtained will be used to supplement other resource data to determine after analysis, management direction concerning wild horse management. The methodology used to determine apparent trend will be as established by the Nevada Range Monitoring Task Group (Nevada Rangeland Monitoring Handbook, First Edition, 1984). The data collected and plot locations will be reserved in the HMA files located in the Caliente Resource Area, Bureau of Land Management Office.

3. Utilization

The key forage plant method is the utilization technique adopted for this management plan. Section 4423.33B7C of the Bureau of Land Management Manual and the Range Studies Task Group (1984) describes this particular method adequately. Utilization transects will be conducted in the spring every year prior to start green up of key species in key management areas. Data will be reserved with apparent trend information.

4. Actual Use

Wild horse actual use estimates will be obtained from aerial census conducted by the Caliente Resources Area Wild Horse and Burro Specialist at a minimum of once every three years. In accordance with Nevada State Office manual supplement 4730. Census to be conducted in late June or early July. It will require 15 hours of helicopter time to complete each census, pending access to the NRC, based on its primary use. Data will be reserved with trend utilization information

5. Water sources will be monitored monthly during dry periods when horses consume more water to determine that there is an adequate supply for horses using the area.

B. Wild Horses

1. Home Ranges and Seasonal Movement Patterns

A comprehensive study will be conducted to secure information on home ranges and seasonal movement patterns. This information is essential to supplement utilization studies. Considering the present situation regarding the size and topography of the HMA and the number of wild horses, a study could be conducted with limited funding and access to the NRC based on its primary use as follows:

Phase 1 - October, January, April, July

Objective: Determine seasonal movement patterns and home range establishment.

Preferred Method: Aerial observations conducted seasonally (fall, winter, spring, and summer), with sighting locations plotted on a map.

Alternate Method: On the ground observations from vehicle conducted seasonally (fall, winter, spring, and summer), with sighting locations plotted on a map.

Phase 2 - Evaluation of information acquired through field work.

In addition, information regarding other population characteristics and population dynamics would be gathered at this time (i.e., color, condition, band size, age classes, sex ratio, etc.). This additional information would require use of a spotting scope positioned at strategic locations.

2. Productivity and Survival

Information on young/adult classification will be collected when funding is available, but should be gathered at a minimum of every three years. The survey should be conducted in July and again the following January. Aerial survey will be the preferred method used to collect data. However, data could be obtained from ground observations. Additional information should be collected during the survey that would enhance data already contained in the resource files concerning other characteristics of the population (i.e., color, condition, band size, actual count, home ranges, and seasonal movement patterns, etc.)

3. Sex Ratio Determination

Classification of captured animals--sex determination will be conducted on all horses captured during gathering operations.

Field observation--a spotting scope positioned at strategic locations (water sources, trails, natural salt licks, etc.) will be employed to obtain sex ratio information where possible. Sex ratio should be determined every three years. Studies should be conducted in June or July. Unless all animals in a band can be classified, the data will not be used.

4. Age Structure Evaluation

Relative age structure of the NWHR HMA population will be periodically evaluated from age data collected as a result of gathering operations.

5. Condition

Physical condition of wild horses will be determined concurrent with collecting other population studies, and general observation will be made while in the field.

6. Color

Color data for wild horses will be determine concurrent with collecting other population studies.

7. Relocation

The relocation of wild horses within the herd management area may be undertaken on a limited basis to meet management objectives. Relocation is a tool that has utility in maintaining vigor in herds and in enhancing selected characteristics which are managed in a population.

VI. MODIFICATION

Implementation of this plan will result in the first effort at managing wild horses. This plan will be modified as new data and evaluation deem necessary. Any modification of this plan will require public input into the planning process.

VII. APPROVAL

Prepared by:

RGE CON/WH&B Specialist, BLM
Caliente R.A.

Date

Recommend to Members of Five-Party Agreement:

Chairman C&C Committee, Sierra Club

Secretary C&C Committee, Wild Horse
Organized Assistance

Vice Chairman C&C Committee, Nevada Wild
Horse Federation

Vice Chairman C&C Committee, Clark County
Game Management Board

Vice Chairman C&C Committee, National
Wild Horse Association

Vice Chairman C&C Committee, HSSN

Vice Chairman C&C Committee, Fraternity
of Desert Bighorn

Recommended
for Approval:

Area Manager, BLM
CRA

Date

Commander
554 Operations Support Wing
Nellis AFB, NV

Date

Regional Director, U.S. Dept. of
Interior
U.S. Fish & Wildlife Service

Date

Director
Nevada Dept. of Wildlife

Date

Manager, Department of Energy
Nevada Operations Office

Date

Approved by:

District Manager
Las Vegas District

Date

Concurrence:

State Director
Nevada State Office

Date

APPENDIX 1

MAPS

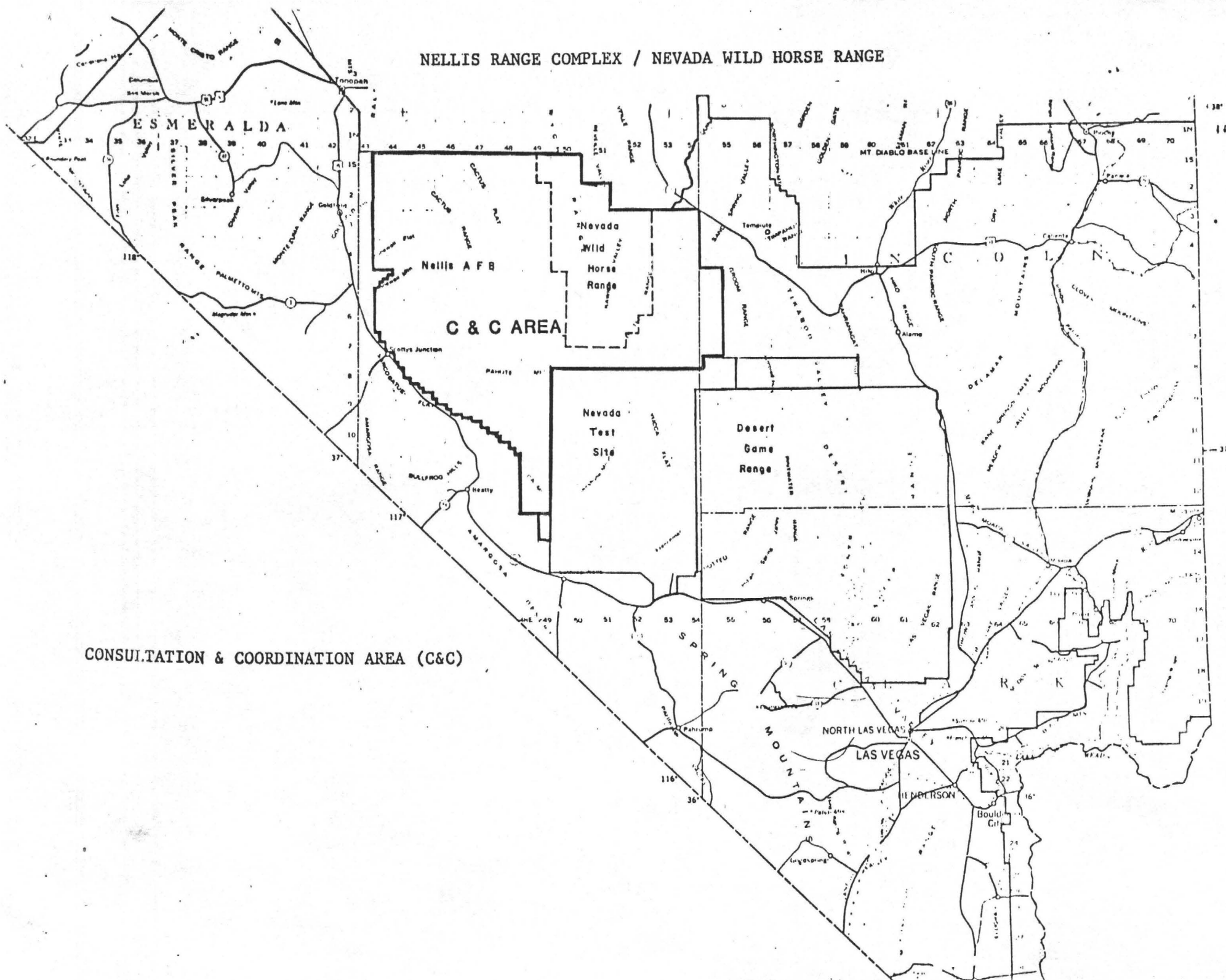
Map #1 - Map of C&C Area

Map #2 - NRC & NWHR

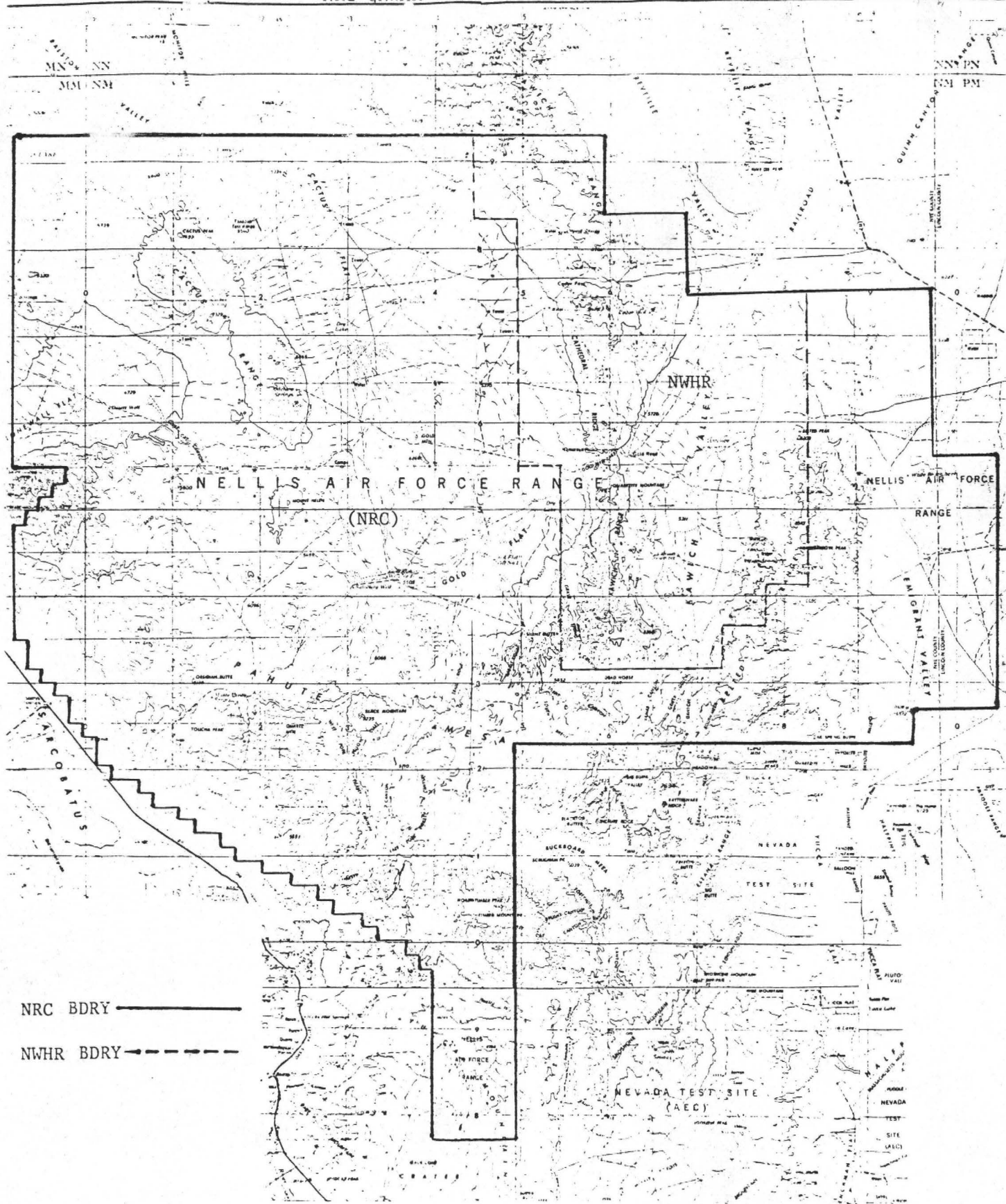
Map #3 - Home Range and Herd Use Area

Map #4 - Existing Projects

NELLIS RANGE COMPLEX / NEVADA WILD HORSE RANGE

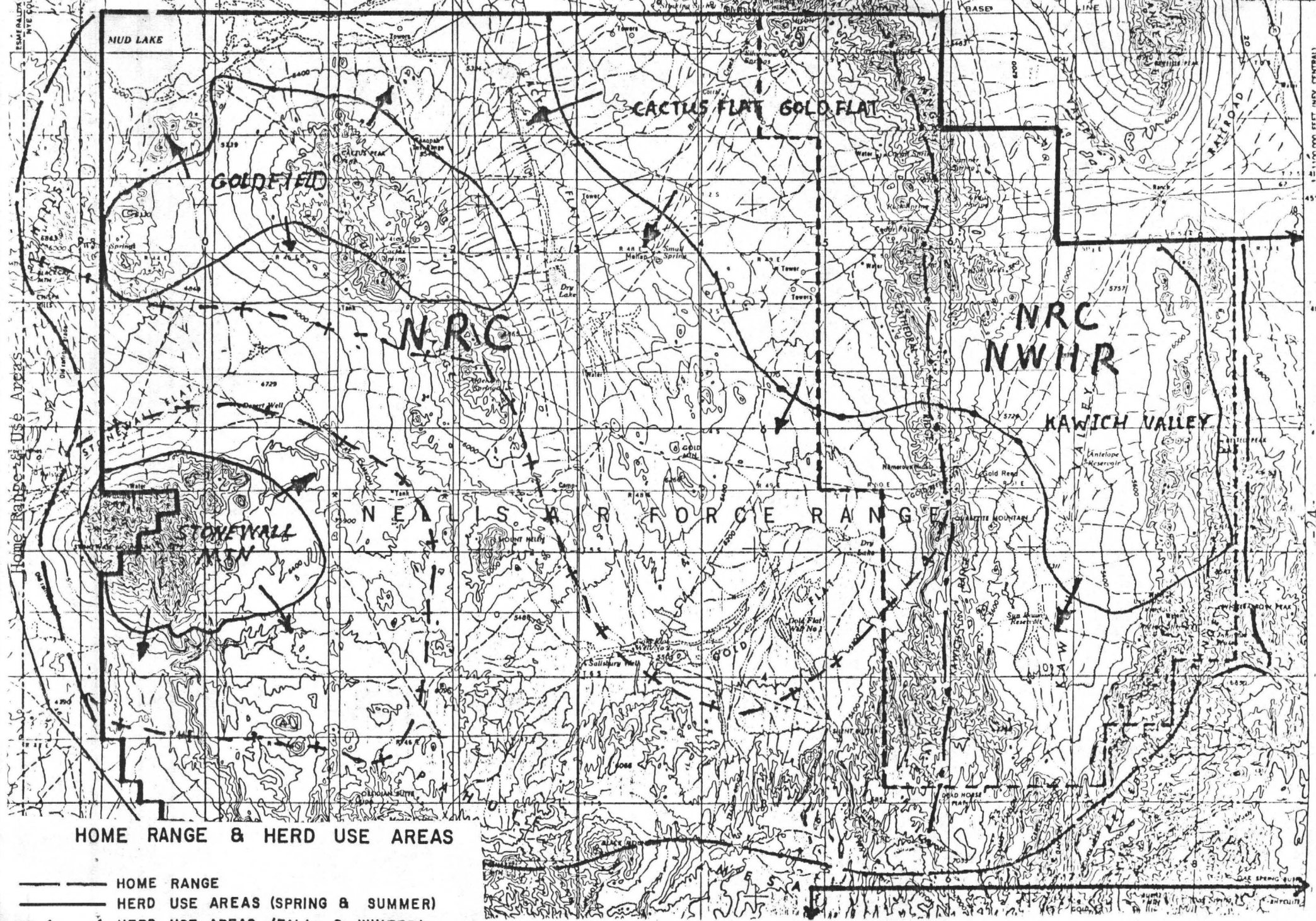


CONSULTATION & COORDINATION AREA (C&C)



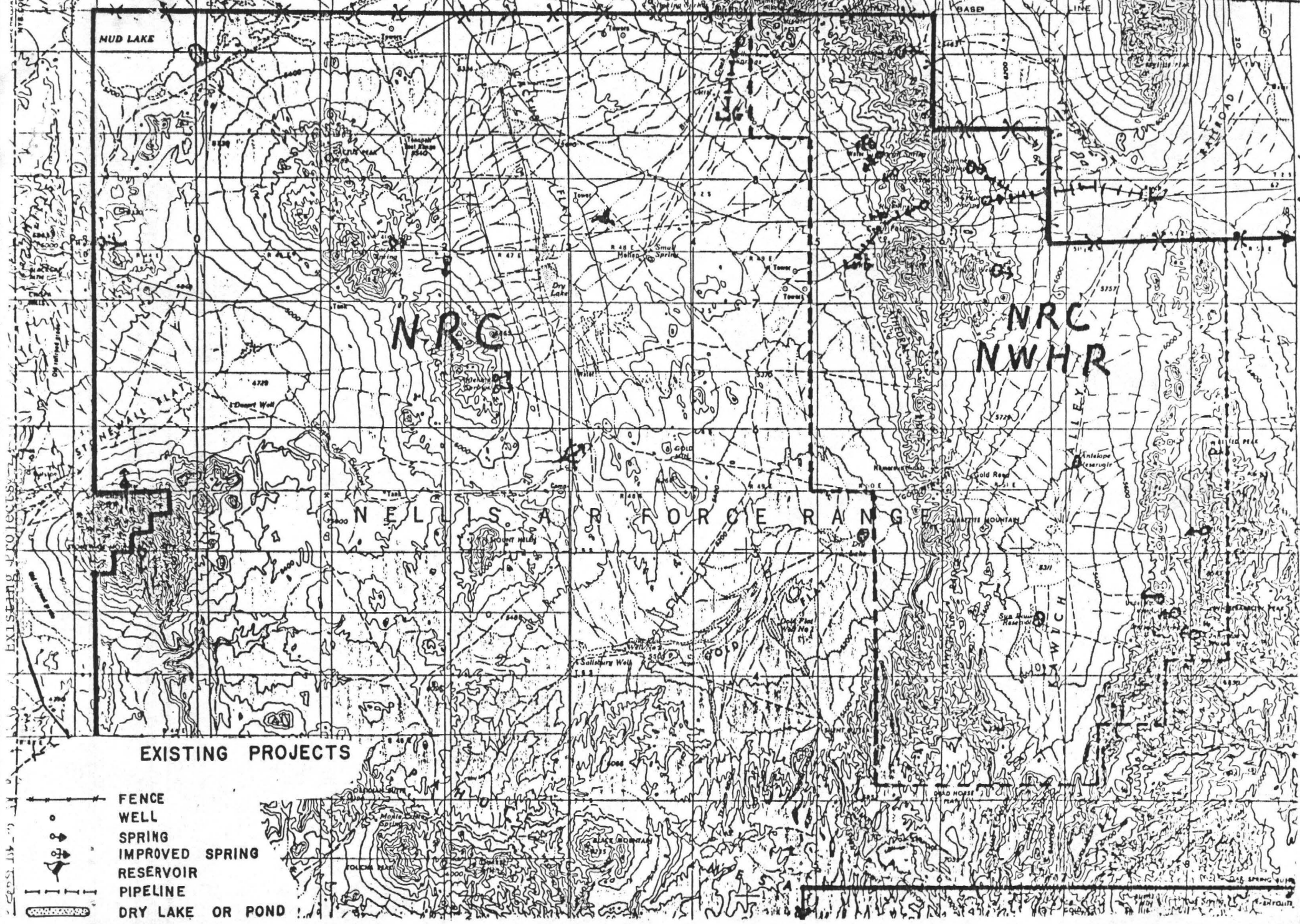
NRC BDRY —————

NWHR BDRY - - - - -









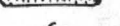



Home Range & Herd Use Areas

1:250,000 FEET (NAD CENTRAL)



EXISTING PROJECTS

EXISTING PROJECTS

-  FENCE
-  WELL
-  SPRING
-  IMPROVED SPRING
-  RESERVOIR
-  PIPELINE
-  DRY LAKE OR POND
-  CORRAL
-  TANK
-  TROUGH

GLOSSARY

Actual Count. Censuses invariably undercount total numbers of animals per given area, those animals actually seen and counted are referred to as actual count. Hence, actual count implies that there has been no correction factor added to numbers of animals counted, which if added would reflect the total population estimates for that area.

Age Structure. The ratio of one age class to another used in determining or understanding the population dynamics and identifying future or past problems in the herd.

Allotment. An area of land where one or more operators graze their livestock. It generally consists of public lands but may include parcels of private or state-owned lands. The number of livestock and season-of-use are stipulated for each allotment. An allotment may consist of several pastures or be only one pasture.

Allotment Management Plan (AMP). A livestock grazing management plan dealing with a specific unit of rangeland, based on multiple-use resource management objectives. The AMP considers livestock grazing in relation to other uses of the range and in relation to renewable resources-watershed, vegetation, and wildlife. An AMP establishes season-of-use, number of livestock to be permitted on the range, and rangeland developments needed.

Act, The. The Wild Free-Roaming Horse and Burro Protection Act of December 15, 1971, 16 U.S.C. 1331-1431.

Animal Unit Month (AUM). Amount of feed or forage by an animal-unit for one month.

BLM The Bureau of Land Management.

C&C Committee. Consultation and Coordination Committee made of up; Sierra Club, Nevada Wildlife Federation, Wild Horse Organized Assistance, Clark County Game Management Board, National Wild Horse Association, Humane Society of Southern Nevada. Fraternity of Desert Bighorn, all of whom made recommendation to the five-party cooperative agreement committee concerning development of a management plan for the NRC.

Carrying Capacity. The maximum number of animals possible without inducing damage to vegetation or related resources. It may vary from year to year on the same area due to fluctuating forage production.

Community. A group of plants and animals living in a specific region under relatively similar conditions.

Demography. The study of vital statistics of a population.

DOE. Department of Energy.

Erosion. The wearing away of the land surface by wind, running water, and other geological agents.

Enclosure. A small area set aside and protected from grazing, either to preserve representative areas in excellent range condition or to allow observation of succession on depleted rangeland without grazing.

Fecundity. Rate at which an individual produces offspring, usually expressed only for females.

Finite Rate of Increase (). Factor by which the population increases during each time unit.

Five-Party Cooperative Agreement. Agreement between five agencies; U.S. Air Force, U.S. Fish & Wildlife Service, Department of Energy, Bureau of Land Management, and Nevada Department of Wildlife, for the purpose of protecting, developing, and managing the natural resources of fish and wildlife, vegetation, watershed and wild horses and burros on the Nellis Air Force Range, the Nevada Test Site, and the Tonopah Test Range.

Forage - All browse and herbaceous food that is available to grazing animals.

Grazing System. A systematic application of grazing treatments to a management unit in a prescribed sequence over recurring periods of time; the manipulation of livestock to accomplish a desired result.

Habitat. A specific set of physical conditions that surround the single species, a group of species, or large community. In wildlife management, the major components of habitat are considered to be food, water cover, and living space.

Habitat Management Plan (HMP). A written and officially approved plan for a specific geographic area of public land that identifies wildlife habitat and related objectives, establishes the sequence of actions for achieving objectives, and outlines procedures for evaluating accomplishments.

Herd A number of wild animals of one species that remain together as a group.

Herd Management Area (HMA). A plan for management of the HMA.

Home Range. An area that an animal or group of animals travel in pursuit of their routine activity.

Key Management Area. These are areas that may be a relatively small portion of a range selected because of its location, use, or grazing values as a monitoring point for management decisions. It is assumed that key areas, if properly selected, will reflect the overall acceptability of current grazing management over all or part of the grazing unit.

Key Species. (1) Forage species whose use serves as an indicator to the degree of use of associated species; (2) those species which must, because of their importance, be considered in the management program.

Management Framework Plan (MFP). A planning decision document which establishes for a given area of land, land-use allocations, coordination guidelines for multiple-use, and objectives to be achieved for each class of land use or protection. It is BLM's Land Use-Use Plan.

Mortality. Ratio of the number of deaths of individuals to the population, often described as a function of age.

NDOW. Nevada Department of Wildlife.

NRC. Nellis Range Complex

NWHR. Nevada Wild Horse Range. Established in 1962 as the first wild horse area established in the United States. NWHR was established by a Cooperative Agreement with the Commander, Nellis Air Force Base and the State Director, Nevada Bureau of Land Management.

ORV. Off-Road Vehicle.

Perennial (Plant). A plant that has a life cycle of three or more years.

Public Land. Tracts of land administered by the Bureau of Land Management.

Range Condition. The current productivity of a range relative to what the range is naturally capable of producing.

Range Inventory. An itemized list of resources of a management area such as range site; range condition classes; range condition trends; range use; estimated proper stocking rates; physical developments; and natural conditions such as water, barriers, etc.

Range Trend. Change in vegetation and soil characteristics as a direct result of environmental factors, primarily climate and grazing.

Reasonable Numbers. That number of animals which the wildlife management agency is striving to maintain within a given planning unit under a multiple-use concept on a sustained yield basis.

Riparian. Of, on, or pertaining to the bank of a river, or a pond or small water source.

Sex Ratio. The ratio existing between the number of male and female animals within a given herd, band or population.

Shrub. A relatively low-growing, multiple branched, many stemmed, woody, perennial plant.

Soil. The unconsolidated mineral and organic material on the immediate surface of the earth that serves as a natural medium for the growth of land plants.

Soil Associations. A group of defined and named wild units occurring together in a characteristic pattern over a geographic region.

Unit Resource Analysis (URA). A comprehensive display of physical resource data and an analysis of the current use, production, condition, and trend of the resource and the potentials and opportunities within a planning unit. including a profile of ecological values.

USAF. United States Air Force.

USFWS. U.S. Fish and Wildlife Service.

Utilization (Range Utilization). A degree of use of current year's plant production made by grazing animals.

Vegetative Type. A plant community with distinguishable characteristics, described by the dominant vegetation present.

Watershed. The total area above a given point on a stream that contributes water to the flow at that point.

LITERATURES CITES

- M.E. Ensminger, S.S., M.A., PhD. 1978. The Stockman's Handbook (Animal Agricultural Series). Fifth Edition. The Interstate Printers & Publishers, Inc., Danville, Illinois.
- Tueller, P.T., G. Lorain, K. Kipping, and C. Wilkie. 1972. Methods for Measuring Vegetation Changes on Nevada Rangelands. Nevada Agriculture Experiment Station Technical Bulletin #16.
- U.S. Department of the Interior, 1984. Little Mountain HMAP. Bureau of Land Management, Caliente Resource Area, Caliente, Nevada.

NEVADA WILD HORSE
AND
NELLIS RANGE COMPLEX
GATHERING PLAN

Prepared by: _____ Date _____
 RGE CON/WH&B Specialist, BLM
 Caliente R.A.

Recommend to Members of Five-Party Agreement:

| | |
|---------------------|--|
| _____ Chairman | C&C Committee, Sierra Club |
| _____ Secretary | C&C Committee, Wild Horse Organized Assistance |
| _____ Vice Chairman | C&C Committee, Nevada Wild Horse Federation |
| _____ Vice Chairman | C&C Committee, Clark County Game Management Board |
| _____ Vice Chairman | C&C Committee, National Wild Horse Association |
| _____ Vice Chairman | C&C Committee, HSSN |
| _____ Vice Chairman | C&C Committee, Fraternity of Desert Bighorn |

Recommended
for Approval:

| | |
|---|------------|
| _____ Area Manager, BLM CRA | _____ Date |
| _____ Commander 554 Operations Support Wing Nellis AFB, NV | _____ Date |
| _____ Regional Director U.S. Dept. of Interior U.S. Fish & Wildlife Service | _____ Date |
| _____ Director Nevada Dept. of Wildlife | _____ Date |
| _____ Manager Department of Energy Nevada Operations Office | _____ Date |

APPROVED BY:

District Manager
Las Vegas District

Date

CONCURRENCE:

State Director
Nevada State Office

Date

Proposal

The proposed action is to reduce the wild horse population on the USAF Tactical Fighter Weapons Training Center Range (Nellis Range Complex) which includes the Nevada Wild Horse Range (NWHR). The Nellis Range Complex (NRC) covers approximately 1.9 million acres and included within the NRC in the NWHR which covers approximately 394 thousand acres. This reduction will leave a viable population of 2,000 wild horses on the NWHR, a unique area established in 1962 for a unique purpose. To accomplish this goal, all the wild horses on the Nellis Range Complex outside the NWHR will be removed. In addition, the number of the wild horses on the NWHR will be adjusted. To retain the viable population of 2,000 wild horses on the NWHR, 3,500 total 4,500 wild horses will be removed from the NRC.

BACKGROUND INFORMATION:

Gather Area

The gather area is the USAF Tactical Fighter Weapons Training Center Range approximately 409 miles Southeast of Tonopah, Nevada (map attached). The gathering operation will take place in Goldfield/Mudflat, Cactus Flat/Gold Flat, Stonewall Mountain, and Kawich areas with other small gatherings in isolated areas on the Range Complex, priority based on funding.

Existing Situation

Gather Area

The gather area is the USAF Tactical Fighter Weapons Training Center Range approximately 40 miles Southeast of Tonopah, Nevada (map attached). The gathering operation will take place in Goldfield/Mudflat, Cactus Flat/Bold Flat, Stonewall Mountain, and Kawich areas with other small gatherings in isolated areas on the Range Complex, priority based on funding.

Existing Situation

In March 1984, the Bureau of Land Management, with the aid of the U.S. Air Force, conducted the most recent census on the U.S. Air Force Tactical Fighter Weapons Training Center Range which includes the NWHR. Of the 4,890 (actual count) wild horses counted, over half the population roamed off the NWHR. A situation also exists with very limited perennial water sources available for the wild horses especially during summer months. The BLM is responsible for the vegetation soils, wild horses, and wildlife habitat on the Nellis Range Complex. The decision to remove horses from this area is based on concerns of various governmental and state agencies, Consultation and Coordination (C&C) committee members, other public comments, and proposed bureau planning documents.

REMOVAL PROCESS

Summary

Under this plan approximately 3,500 to 4,500 head of wild horses will be removed from within the gather area. Once captured, the horses will be transported to the Palomino Valley adoption center. From there, they will be adopted to qualified individuals.

Removal Methods

Any and all access or removal actions on the NRC, whether on the ground or in the air, will be coordinated with and approved by the USAF which is responsible for the NRC, a controlled access area based on its primary use.

The BLM would be responsible for the capture, care, temporary holding of wild horses and their transportation to the Palomino Valley adoption center.

The capture operation would utilize water and/or bait traps, and/or helicopters, if necessary, to gather horses.

Traps may be portable or permanent as long as they are approved by the BLM and USAF representatives.

If helicopter gathering is utilized to capture wild horses, then no trapping will be allowed between March 1 and June 15, due to foaling period. Only the BLM may contract for the use of helicopters to assist in capturing wild horses.

Trap locations and the time of trapping will be determined by Bureau of Land Management and USAF representatives.

The Bureau of Land Management will provide for brand inspector services, veterinarian services (if necessary), and a BLM representative to assure capture is being conducted in accordance with applicable regulations.

Due to the number of wild horses identified in this plan to be removed, this plan will remain in effect until all animals are gathered down to appropriate management levels and placed in adoption centers.

Justification

Justification for removal is based on a consultation and coordination process and is supported by Public Law 92-195.

Wild horses exist on areas outside and adjacent to the Nevada Wild Horse Range which was established as a sanctuary in 1962 for wild horses, which is secondary to the purpose of the withdrawal. Horses existing outside of the Nevada Wild Horse Range have been identified to be removed. The NWHR is partially within and adjacent to the Tonopah Test Range. Ground and air access are controlled by the USAF based on the primary use of the NRC. Monitoring studies cannot be conducted in the Tonopah Test Range because of the inherent danger and security restrictions. In addition, wild horses have been identified to be completely removed from Stonewall Mountain to optimize habitat for the existing bighorn sheep population.

Currently, the management of wild horses on the NRC range is undergoing a Consultation and Coordination (C&C) process. The C&C Committee is made up of various interest groups and government agencies who have an interest in the well being of wild horses and wildlife on the NRC. The C&C Committee, after visiting parts of the NRC and analyzing existing data have recommended that wild horses be managed only on the Nevada Wild Horse Range and that horses outside the Nevada Wild Horse Range be removed.

Analysis of monitoring studies on the Nevada Wild Horse Range will be used to determine what the future management numbers of wild horses will be. Future removals will be based on the results of these monitoring studies.

Brand Inspector

The services of the State Brand Inspector will be obtained and all inspections will comply with the procedures set forth in Instruction Memorandum NV-83-26, which outlines the procedure for processing private horses captured during removal operations.

Veterinarian Services

Provisions will be made to have a veterinarian available to the operation within a few hours notice. During the trapping operation the nearest full-time veterinary service is Las Vegas, Nevada, approximately 180 miles away from trap site. Also, the veterinarian in Caliente, Nevada, will be available to the trapping operation within a few hours notice.

The Bureau of Land Management's authorized representative or his designee will summon a veterinarian if, in his judgement, veterinary services are required to alleviate suffering of one or more horses, to ensure their well being, or to diagnose and/or treat disease, sickness or injury.

DISPOSITION AND HANDLING OF HORSES

Provisions for Humane Treatment

The welfare and humane treatment of wild horses will be of primary importance in handling them. Trapped wild horses which are seriously injured, obviously sick or lame, or very old, whose condition is such that it is obvious they will not recover will be humanely destroyed at the trap by the Bureau of Land Management's authorized Officer only, or by a veterinarian if authorized by the Bureau's representative. BLM's authorized officers have been trained by a licensed veterinarian in the state of humane euthanasia of wild horses.

Captured horses will be removed from the trap within ten hours from the time of capture. Water will be available in the holding corral at all times. Horses held for ten hours or more in the holding facility will be provided good quality grass, hay, or mixed alfalfa, and grass hay at the rate of not less than two (2) pounds of hay per 100 pounds of body weight per day.

The Inspection and Identification of Captured Horses

As soon as practical after entering the holding corral, each group of horses will be inspected. The horses will be identified and separated if necessary so as to assure the safety and well being of the captured animals.

Animals which are branded, which are suspected of being branded or which are known to be private, will be separated out and handled as outlined in IM 83-26 which is in accordance with applicable federal and state laws.

Destruction of Animals

Should it become necessary during the course of the gather to destroy a horse because of disease, age, or injury it will be the responsibility of the Bureau of Land Management's authorized representative's to destroy the horse in a safe, humane manner. No other individual will be allowed to destroy any captured horse unless the representative has specifically stated (and made reference to in writing) that he will be away from the job site for an extended period of time. During this time, the representative will appoint a qualified individual to take over his responsibilities.

Disposal of Animals Which are Destroyed During the Removal Operation

Carcasses will be disposed of by burial or consumed by fire or left to the environment as outlined by Instruction Memorandum NV-83-84. This will satisfy State and County sanitary requirements.

Prior to disposal, data which includes the date of death, apparent reason for death, sex, color, age, and freeze mark number (if assigned), will be collected.

Transport of Capture Animals

All motorized equipment employed in the transportation of captured animals shall, under the provisions of 43 CFR 4720.4(b), be subject to the following reservations and/or restrictions:

a. All such transportation shall be in compliance with appropriate state and federal laws and regulations and policies applicable to the humane transportation of horses and burros.

b. Vehicles shall be in good repair, of adequate rated capacity, and carefully operated so as to ensure that captured animals are transported without undue risk or injury with adequate ventilation and size.

Bobtail trucks, single deck trucks, can be used to haul horses from the capture site to the Palomino Valley adoption center. Single deck trucks with trailers 40 feet or longer are required to have two partition gates to separate horses. Trailers less than 40 feet need only one partition gate to separate the horses.

c. Vehicles shall be inspected and approved by a BLM representative prior to use.

d. Where required by the BLM representative, animals shall be sorted as to age, size, temperament, sex, and condition when transporting them so as to minimize, to the extent possible, injury due to fighting and trampling.

e. The BLM representative shall consider the condition of the animals, weather conditions, type of vehicles, and distance to be transported when planning for the movement of captured animals. The BLM representative shall provide for any brand and/or health services required for the captured animals.

Public Relations

In general, all publicity, formal public contact, and inquiries will be handled by the CIC subcommittee through the Public Affairs Officer, Las Vegas District BLM office.

Coordination

The Caliente Resource Area will coordinate with the Palomino Valley adoption center to assure that there is space available in the corrals for the captured horses and that they can be handled safely and efficiently.

DOCUMENTS ABOUT WILD HORSES AND LIVESTOCK ON THE NTTR.**March 1966 Management Plan for the Nevada Wild Horse Range**

Page 17: "Wild horses use the entire area to some extent and the Kawich Mountains show severe grazing use by horses, especially in the northwester portion of the range near the available waters."

1969 BLM Staff Study (R.E. Ferris):

Estimated Use reported by the Battle Mountain And Las Vegas Districts:

| <u>Operator</u> | <u>Numbers</u> | <u>Class</u> | <u>Season</u> |
|---------------------|----------------|--------------|---------------|
| Burns | 8-20 | Cattle | Yearlong |
| Moser | 0-30 | Cattle | Yearlong |
| Ben Colvin | 3500 | Cattle | Yearlong |
| Lida Livestock | 10-100 | Cattle | Yearlong |
| Owens | Unknown | Horses | Yearlong |
| Floyd Lamb | 700-1500 | Cattle | Yearlong |
| Arcularius | 100-1400 | Cattle | Nov-June |
| Colvin and Clifford | 1550 | Cattle | Nov-June |
| Fallini | 600 | Cattle | Yearlong |

September 1969 BLM Trip Report by James Brunner:

"Out on the Test Range, six to eight miles east of the Mustang Range were 60 to 80 horses or cattle, too far away to be sure."

Southwest (no distance provided) of Tunnel Springs were 33 horses.

"No horses seen east of Cedar Pass"

"The horses are mostly on the AEC, west of the Mustang Range. We saw none east of Cedar Pass. We saw no cattle west of Cedar Pass."6

May 1970: Tour of the NWHR, D. J. Walter and J. Brunner.

Numerous bands seen on west side of Kawich Range at Silver Bow Springs, Log (Pole) Springs, Tunnel Spring, Corral Spring, Wild Horse (White spot) Spring, and Cedar Spring.

274 Horses from Silver Bow to Cedar Pass.

"Horses are running in the big flat to the west of the horse range"

"Total estimates of horse population in the area, not just on the Mustang Range, must exceed 400 head as this is the number counted on Sunday a.m. in 2 different areas".

May 14, 1970 BLM Memo from D. E. Hess to State Director:

"There is a substantial population of horses in the northern portion of the range and areas adjacent to it. In actuality, the bulk of the horse is either not used or lightly used by the horses. The bulk of the horses heavily use the north end of the Kawich Range, and the valleys on the east and west sides. This is mostly outside of the horse range and partly outside the bombing range boundaries."

September 15, 1970. Meeting at Las Vegas BLM Office. Notes from J. Brunner.

The horses were mostly in the valley and foothills west and north of the Mustang Range.

September 30, 1971 Air Force Memo:

"This unauthorized grazing (livestock) has forced most of the horses out of the established range."

April 29, 1974 BLM Memo:

"... not made clear is whether they are talking about the whole bombing range or just that portion covered by the recent cooperative agreement, which is the designated Wild Horse Range."

September 25, 1974. BLM Memo from Battle Mountain Office to NSO.

"During the last count we made in the area (July 1974) we found most of the horses outside the Horse Range and within the area outlined in green."

(map shows Cactus Flat west of the NWHR)

1982 Horse Herd Management Area Plan:

" horses tend to concentrate in the areas close to the water source during the summer months.

"During the cooler months the horses use a much larger area extending 10-15 miles from known water sources."

"Three home ranges have been identified in the area, Kawich, Stonewall, and Goldfield Hills."

“Horses in the Stonewall home range do not mix with the other two herds. The Kawich and Goldfield herds do intermix during the winter months near the Mud Lake area.”

Stonewall herd is 500+ (570 is stated on Page 8)

Interpretation: A herd of over 500 head, with a 25% annual rate of increase, would have had a population size of about 75 head in 1971.