

ENVIRONMENTAL ASSESSMENT
MAINTAINING THE POPULATION OF WILD HORSES IN THE
LITTLE HIGH ROCK HOME RANGE OF THE HIGH ROCK HMA
AT PLANNED MANAGEMENT LEVELS

CA-028-90-16

I. Introduction:

A. Purpose/Need:

The purpose of this environmental assessment is to analyze the impacts of maintaining a structured wild horse herd at planned population levels of 30 to 40 wild horses in the Little High Rock Home Range of the High Rock Herd Management Area (HMA) CA-264, in accordance with the Cowhead Massacre Management Framework Plan (MFP) and in accordance with the High Rock Herd Area Management Plan (HMAP) CA-264.

The need for this action is to provide for a planned balance of uses and to provide for forage, water, and other essential habitat requirements for wild horses, sheep, cattle, antelope, deer, sage grouse and other wildlife species in accordance with the objectives of

the Cowhead Massacre MFP and with the High Rock HMAP, in a manner as not to deteriorate the ecological balance of the area.

B. Authorizing Law, Policy and Planning Documents:

The authorizing law, policy and planning documents that directly or indirectly relate to this proposed action are as follows:

1. Authorizing Law:

a. Taylor Grazing Act - June 28, 1934

The Taylor Grazing Act is the basic law governing grazing on Bureau of Land Management lands.

b. PL 86-234 - Horses and Burros on Public Lands - Methods of Hunting

This law prohibited the use of aircraft to hunt certain wild horses or burros on land belonging to the United States, and for other purposes.

c. PL 92-195 - December 15, 1971

PL 92-195 is the basic law governing the protection, management and control of wild free-roaming horses and burros on lands administered by the Bureau of Land Management and the National Forest Service.

- d. PL 94-579 - Federal Land Policy and Management Act
- October 21, 1976

Section 404 of this act gave the BLM and NFS the authority to use helicopters for gathering wild horses and burros.

Section 202 of this Act is a basic authority for the BLM to plan for uses to be made on specific tracks of public land. This Act provided for the "Management Framework Plan" (MFP) to be the basic document to describe such planned uses.

This planning process provides for public input into how uses are to be allocated.

- e. PL 95-514 - Public Rangelands Improvement Act,
October 24, 1978

Section 14 of 95-514 recognized that wild free-roaming horses and burros exceeded the grazing capacity of the range in certain areas. It set forth certain actions to deal

with this problem.

2. Regulations:

- a. Regulation governing wild free-roaming horses and burros is covered in 43 CFR 4700.

3. Policy:

- a. Wild Free-Roaming Horse and Burro Program Guidance - January 1983.
- b. Policy Statement for the Management of Wild Free Roaming Horses and Burros - Susanville District Bureau of Land Management June 15, 1989.

This policy statement provides for "Structured Herd Management" in the Susanville District and other actions to be taken in the management of wild horses and burros in the Susanville District.

4. Specific Plans:

- a. Cowhead/Massacre Environmental Impact Statement - 1980. This EIS includes the High Rock HMA.
- b. Cowhead/Massacre Management Framework Plan - 1981. This MFP includes the High Rock HMA.

c. High Rock Herd Management Area Plan (CA-264)

September 1985 - Revised July 1989.

All specific plans included public participation.

C. Location and Area:

The High Rock Herd Management Area CA-264 is located approximately 40 miles southeast of Cedarville, California. It is located in the Massacre Mountain Allotment No. 1008 and in the Little High Rock Allotment No. 1018.

The High Rock Herd has two home ranges. There is very little intermixing of horses between these home ranges. The location of these home ranges are as follows:

1. East of the Canyon Home Range:

One home range uses the area east of High Rock Canyon. However, horses from here do make some use west of High Rock Canyon, during the winter. All of this area is in Massacre Mountain Allotment No. 1008. This home range is referred to as East of the Canyon Home Range.

2. Little High Rock Home Range:

The Little High Rock Home Range is an area between the Little High Rock Canyon on the south and Mahogany Canyon on the north. This area includes all of the Little High Rock Allotment No. 1018 and the southern tip of the Massacre Mountain Allotment No. 1008. The area by allotment is as follows:

Little High Rock Allotment	23,805 acres
Massacre Mountain Allotment	<u>3,738 acres</u>
Total	27,543 acres

Topography of the area is generally broken with irregular ridges, upland plateaus, terraces, mountain tops and side slopes. Elevation ranges from 5,000 to 6,000 feet.

D. Background Information:

The Cowhead Massacre MFP in 1981 established the minimum planned management level for the High Rock HMA at 70 horses and the maximum planned management level at 100 horses. (See High Rock Sub-Unit 1 - Page 16, Decision 7) The High Rock HMAP divided the planned numbers between the two home ranges as follows:

Planned Management Levels

<u>Home-Range</u>	<u>Minimum</u>	<u>Maximum</u>
Little High Rock	30	40
<u>East of The Canyon</u>	<u>40</u>	<u>60</u>
High Rock HMA	70	100

The East of the Canyon Home Range was adjusted to the minimum planned management level in the fall of 1989 and is not part of this EA. Observation and calculated reproduction rates indicate that the Little High Rock Home Range has about 58 horses in the fall of 1990. This is 18 head over the maximum planned management level and 28 head over the minimum planned management level.

The Little High Rock Allotment part of the Little High Rock Home Range area has a preference for cattle use as follows:

	Total	Suspended	Active
<u>Allotment</u>	<u>AUMS</u>	<u>AUMS</u>	<u>AUMS</u>
Little High Rock	2622	1622	1000

This active preference is for 181 head of cattle from April 16 to September 30 - 1000 AUMs. Also the Massacre Mountain Allotment

part of the Little High Rock Home Range area has an active preference for 134 AUMs of use by either sheep or cattle from April 16 to September 30.

The total active preference for the area is for 1134 AUM for use between April 16 and September 30.

There has been no use of the cattle preference made for the past 7 years. Prior to that time licensed cattle use was made in the spring and they mostly drifted into the Massacre Mountain Allotment to the north, mostly into High Rock Canyon.

Actual livestock use, at least for a number of years, has been made mostly by sheep in the spring. No sheep use has been made in 1990.

Because of non-use and because of actual use being made different than licensed use there is no way to relate authorized use as to how it would affect range condition (ecological condition).

Actual use for a number of years has been by sheep in the spring, wild horses, antelope, deer and other wildlife species. This actual use has resulted in generally good to excellent vegetative conditions over much of the area except for the areas close to water. An inspection in August of 1990 found that only about 320 acres of vegetation was being over used.

The August 1990 inspection found that the limiting factor for the area is water. Horses and wildlife (mostly antelope with some deer and other species) are watering mostly at one location, Cherry Springs. There is water at three other locations but this is very limited with two locations having very poor quality of water (muddy and warm). The amount of water that is available for horses and wildlife in the summer of 1990 is very limited. In a drought year such as 1990 it would not be possible to graze cattle or support many more horses than the present populations. Even in a normal year water is still a limiting factor in the summer.

II. Descriptions of the Proposed Action and the Alternative Action:

A. Proposed Action - Maintaining the Population of Wild Horses in the Little High Rock Home Range of the High Rock HMA at Planned Management Levels:

The proposed action of maintaining the Little High Rock Home Range planned management levels of 30 to 40 horses will consist of three specific actions as follows:

1. Gather by use of helicopter and trap 50 to 60 horses. This will be all the horses in the area that can be gathered without undue stress to the horses. This action is planned for the fall of 1990 (probably October).
2. Select from those horses gathered a sufficient number to bring the Base Herd up to 30 head. The Base Herd is the breeding herd to be left on the range. Thirty head is the minimum planned level in accordance with the HMAP.
3. Return these selected Base Herd horses to the range where they will be allowed to increase to 40 horses before they are gathered again. This is in accordance with the MFP and HMAP.

B. Alternative Action - Expanding Population the of Wild Horses in the Little High Rock Home Range Above the Planned Management Levels:

The alternative action, of not gathering, selecting and returning Base Herd horses to the range as planned, is to expand the herd at an increasing number each year. This action will expand the herd at about 17% per year.

III. Description of Affected Environment

A. Non-Living Components

1. Soils

Soils are volcanic in origin, generally shallow to very shallow loam with a stony surface and slight to moderate erosion hazard. However there are areas of deeper soils especially on north slopes and on the toe of Mahogany Mountain.

2. Water

Water is available in the HMA in springs and small reservoirs. When runoff is poor in the spring the reservoirs do not fill and even in normal years they do not hold water into the summer. Cherry Spring is the main watering location for the majority of

the horses and antelope in the area.

3. Cultural Resources

The area has scattered cultural resources such as lithic scatters of obsidian chips, hunting blinds and camp sites. Cultural field inventories will be limited to each new corral site. Most corral sites will be the same as those used in the past.

The original MFP2 decision was to eliminate all wild horse use from the High Rock HMA, to protect archaeological values in High Rock Canyon. At that time horses were making use in the [?]canyon.

The MFP3 decision was to allow from 70 to 100 horses in the High Rock HMA. However, the decision does provide for wild horse removal, reduction of herd size, or other management actions necessary to prevent major deterioration of archaeological values, if monitoring shows that such damage is occurring. (See MFP3 High Rock Sub-Unit 1 - Rationale, page 20, No. 7.).

4. Wilderness

Three Wilderness Study Areas (WSA) are located within the proposed gather area. These are Little High Rock WSA #CA-020-913A/NV-020-008, Yellow Rock Canyon WSA #CA-020-913A, and High Rock Canyon WSA #CA-020-913B. IMP guidelines allow temporary facilities for the management of wild horses and burros to be installed as long as they satisfy the non impairment criteria which states the use is temporary and does not create surface disturbance.

5. Mandatory Elements

The following elements are either not present or not affected by the proposed action: air quality, ACESs, prime or unique farmlands, floodplains, Native American religious concerns, hazardous or solid wastes, and Wild and Scenic rivers.

B. Living Components

1. Vegetation

The vegetation is typical of the Great Basin shrub/grass community. The dominant shrub is low sagebrush with an understory of bunch grass. The most abundant grass associated

with low sagebrush is Sandberg's bluegrass. There are some areas that support big sagebrush associated with the larger bunchgrass species such as Idaho fescue, bluebunch, wheatgrasses and squirreltail. Also there are some areas with bitterbrush in the composition associated with big sagebrush. There are some north slopes with a very good cover of Idaho fescue.

Range condition of large portions of the area is from good to excellent. Much of the range is in high vigor. Only about 320 are being held in lower ecological status because of grazing.

2. Wildlife

Mule deer, pronghorn antelope, sage grouse and chukar are dominant game species occurring in the area. Antelope and deer are the major game species using vegetation in the area. The major predators in the area are coyotes and bobcats. Also there are a few cougar in the general area.

3. Threatened and Endangered Species

No federally threatened or endangered plants or animals are

known to occur. Several sensitive plants occur in the High Rock HMA's. These plants are Ivesia rhypara, BLM sensitive, NV watch list, Eriogonum crosbyae, BLM sensitive, Trifolium andersonii ssp. beatleyae, CNPS-List 5, Cryptantha schoolcraftii, no listing as yet.

4. Wild Horses

The estimated number of horses in the High Rock HMA, Little High Rock Home Range is 58.

5. Livestock

Little High Rock Allotment is not currently under an allotment management plan. For the last seven (7) years there has been no cattle use in the area, also there was no sheep use in the area in 1990.

Livestock grazing in the area in the future has not been decided. However, at this time it must be assumed that 1134 AUMs of livestock use will be activated.

6. Maintaining A Thriving Natural Ecological Balance

PL92-195 Section 3(a) states that "The Secretary shall manage

wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on public lands.

This calls for a balance of uses while at the same time protecting the soil, water and vegetation.

IV. Analysis of the Proposed Action of Maintaining Wild Horse Populations at Planned levels

A. Analysis of the Proposed Action on Non-Living Components

1. Soils

The removal of 28 head of horses will have no measurable effect on the soils of the area.

2. Water

Since water is a very scarce resource in the area the removal of 28 head of horses would have at least some effect on the water supply of the area. This would allow a little more water to collect at Cherry Spring improving the quality of water. At present the small pool of water is very shallow.

If the drought continues into the summer of 1991 the removal of 28 head of horses may become very important for the water supply for horses and other animals using the area.

3. Cultural Resources

The gathering of 50 to 60 head of horses will have no measurable effect on the cultural resources, since all trap sites are cleared prior to the gathering operations.

The present population of wild horses from this area is not using High Rock Canyon.

4. Wilderness

Gathering will occur in three WSAs. However, the trap will be located at the outer edge of a WSA on an existing way.

Gathering will have a short term affect on the solitude in the WSAs as the helicopter flies overhead and horses move about. At the trap site there will be the added activity of trapping, loading of the horses into trucks, and hauling out. All of this will occur on parts of 2 to 3 days.

Gathering will occur on or adjacent to roads or ways. Metal panels will be set up as wings on either side of a way.

No surface disturbance takes place where the panels are set up. Temporary surface disturbance due to trampling will take place inside the enclosures in which the animals will be gathered. After gathering, all panels will be removed and there will be only short term evidence of horses being concentrated in the area of the activity. The operation meets non-impairment criteria for wilderness. This use is temporary, creates short term surface disturbance and does not involve permanent placement of structures.

Gathering to maintenance levels will maintain a viable horse herd that will provide opportunities to view wild horses as part of a wilderness experience.

Consistency with BLMs Management Policy is as follows:

- a. Is the action temporary? Yes.

The proposed action would take approximately 2 to 3 days in the WSA.

- b. Are the temporary impacts caused by the proposed action capable of being reclaimed to a condition of being substantially unnoticeable in the WSA as a whole? Yes.

The scope of the project and the extremely limited disturbance will not measurably affect the Secretary's recommendation. The only wilderness value to be measurably affected is naturalness. The analysis indicates minor impacts to solitude and naturalness. Solitude will be affected for two to three days due to the noise of the helicopter and the presence of wranglers and trucks to transport the gathered horses. Naturalness will be affected due to turning around at the trap site by the truck and trailer that hauls the trap and by the truck that transports captured horses. All other vehicle traffic will be kept to a minimum

on existing ways.

Travel routes will be kept to a minimum of trips and distance from the existing ways. Reclamation will be done at the turn around areas at the trap site and the trap site itself. Reclamation will include removing crushed vegetation, removing tire tracks, replacing displaced soil and rock, reseeding with native species if needed and returning the disturbed area back to its naturalness.

- c. Does the Proposed Action significantly constrain the Secretary of the Interior's recommendation on Little High Rock WSA #CA-020-913A/NV-020-088, Yellow Rock Canyon WSA #CA-020-913A and High Rock Canyon WSA #CA-020-913B with respect to the area's suitability or non-suitability for preservation as wilderness? No.

The scope of the proposed action and the extremely limited disturbance will not measurably affect the Secretary's recommendation. The only wilderness value to be

measurably affected is naturalness. With proper reclamation the naturalness will be restored to the disturbed area.

B. Analysis of the Proposed Action on Living Components

1. Vegetation

Present horse use is preventing vegetation from improving on only about 320 acres of this 27,543 acre area. With the removal of about 28 horses the remaining 30 head of horses will continue to impact (over use) the same area. The removal will do very little to improve vegetative conditions.

Riparian vegetation has been nearly destroyed around existing sources of water. This has shown no recovery in the absence of sheep and cattle grazing. The removal of about 28 head of horses is not expected to improve this situation. The remaining 30 head of horses will continue to over use this area. Improvement would only be expected with no use by horses, sheep or cattle.

2. Wildlife

The removal of about 28 head of horses will do little to improve either forage quality or quantity for antelope or deer.

The removal of about 28 head of horses has the potential to improve water quality and the amount of water for deer, antelope, sage grouse, and other wildlife species. If the summer of 1991 is another drought this will be very important.

3. Threatened and Endangered Species

The four sensitive plants found in Little High Rock Allotment are not affected by the current horses numbers.

4. Wild Horses

Gathering and structuring this herd will be of benefit to this horse herd as follows:

- a. This herd has some horses that are very light palomino to albino color with light pigmented skin. Structuring the herd will reduce the tendency towards albinism (lack of pigment). Horses lacking pigment often get infected eyes, and some may have very poor eye sight. In general these

horses have health problems. The lethal white gene can also cause fetuses to be aborted or foals may die soon after birth.

- b. By structuring the herd, excess animals removed in the future will be highly adoptable. The excess will be removed before they are 5 years of age and will be of good conformation. It is more humane to remove horses 5 years of age and less since they domesticate much better.
- c. The removal of about 28 head of horses will improve the water situation for the remaining 30 horses.
- d. By gathering to the minimum level of 30 head then allowing the herd to increase up to 40 head will space the gathering of the herd creating less overall long-term disturbance to the herd.

5. Livestock

When livestock are returned to the area, at full authorized use for the season from April 16 to September 30 there will be direct conflict for water especially in drought years. This competition will be most severe during the months of July, August, and September.

Also there will be competition for forage within reach of water during the summer months.

6. Maintaining a Thriving Natural Ecological Balance

The purpose of the MFP was to allocate the use of resources in a manner to have a planned balance of uses, while at the same time maintaining a thriving ecological balance in each area.

With spring sheep use and wild horses at the planned management level it appears that the ecological balance of the area has been maintained except for a small acreage close to water.

If summer cattle use is made in the area as authorized this balance will no longer exist.

V. Analysis of the Alternative of Expanding the Wild Horse Population of the Little High Rock Home Range Above the Planned Management.

A. Analysis of the Alternative Action on Non-Living Components

1. Soils

Grazing by horses, cattle, and sheep removes vegetation that provides a protective cover for the soil. In addition to this the

soil is disturbed by trampling.

There is a relationship between the number of grazing animals and soil disturbance. In general the greater amount of use by grazing animals the greater amount of disturbance and size of the area disturbed. However, often there is an area close to water that is affected as much by a few animals as with many animals.

With the existing population of wild horses (about 60 head) and the existing use by wildlife, soil disturbance is visible on only about 320 acres.

If the wild horse population is expanded the area of impact will increase in relationship to the number of horses. However, this will not be a serious problem until the herd is much larger.

When authorized use by sheep and cattle is added then the additional horses plus authorized grazing use will reduce

vegetative cover and in combination with trampling will increase the erosion hazard in the area.

2. Water

Water is a very limited resource in this area, resource in this area, during the summer months, especially during drought years.

Expanding the wild horse population above the maximum planned level of 40 head places additional pressure on the water supply.

3. Cultural Resources

If wild horses are not gathered there will be no area of special concern at the trap site.

As horse numbers increase the greater the chance that they will step on and break arrowheads and similar objects. Trampling and churning of sensitive, buried sites is a greater concern than breakage of objects. These horses congregate on canyon bottom sites now and larger numbers would mean even greater

degradation.

If the herd expands beyond the water supply these horses will be forced to go into High Rock Canyon or die. In High Rock Canyon they will also create a conflict with archaeological values.

4. Wilderness

Expanding the wild horse population by not gathering will eliminate the immediate short term disturbance of gathering.

Expanding the wild horse population will cause a shortage of water, cause degradation of vegetation and soil, and reduce the amount of wildlife that can use the area. This will decrease the values of naturalness and wilderness of the area.

B. Analysis of the Alternative Action on Living Components.

1. Vegetation

There is a relationship that exists between soil, vegetation and the numbers of grazing animals (see the discussion of soils).

The area of excessive utilization of vegetation will increase as the number of horses increases. The 320 acres of over use will increase as the population increases.

Riparian vegetation has been nearly destroyed around existing sources of water. This has shown no recovery with the existing population of wild horses in the absence of sheep and cattle grazing. This situation will be no worse with an added population of horses.

2. Wildlife

The most direct effect of expanding the wild horse population is to create competition for water to sustain life. The water supply is stretched to its limits, with the present populations. Any increase above this in combination with another year of drought will over utilize the water in the area for wildlife.

3. Threatened and Endangered Species

It is not known at what level horse populations would have to be before they would affect the four sensitive plants found in the area.

4. Wild Horses

Expanding the wild horse population above the maximum planned level of 40 head will create greater competition for the scarce resource of water during the summer months, especially during drought years. This will become critical for survival at a population somewhere between 60 and 80 head of horses.

Severe competition between horses for forage, in the absence of authorized grazing by cattle and sheep, would not be reached until the wild horse population has expanded by a considerable number.

The failure to gather and structure this herd will cause it to produce a high number of unadoptable horses in the future.

The failure to remove horses with a tendency toward albinism from the herd will affect the health of the herd in the future.

5. Livestock

Expanding the wild horse population will have no effect on livestock until livestock are again licensed in the area.

When livestock use is licensed at the authorized level there will be immediate competition for the limited water supply during the summer. There is not sufficient water for increased wild horse numbers and livestock, during the summer. There is not even sufficient water for either authorized livestock use or for increased wild horse numbers during the summer months.

With authorized livestock use being made and with increased wild horse numbers there will develop a shortage of forage for livestock within reach of water.

6. Maintaining a Thriving Natural Ecological Balance

A thriving natural ecological balance can not be maintained in

this area with an expanding wild horse population.

The disruption of the balance will increase in relationship to the number of horses over the planned level. The critical point will be reached somewhere between 60 and 80 head of horses, in the absence of any livestock use during the summer.

If livestock use were to be made, as authorized, there will be disastrous results for the ecological balance of the area, in the absence of any horse use. In combination, the problem is compounded.

Note that livestock use has probably never been made as authorized.

VI. Mitigation Measures

A. Travel and Trap Sites

Mitigation for travel and disturbance at trap sites will be as follows:

1. Travel will be on existing roads and ways to the greatest extent possible.

2. Reclamation at turn around areas and at the trap sites will consist of removing crushed vegetation, removing tire tracks, replacing displaced soil and rock, and reseeding with native species if the need exists.
3. All trap sites are cleared for cultural resources and T&E plant species prior to gathering operations.

B. Gathering and Handling

Gathering will be under direct supervision of a duly authorized employee of the Department of Interior. Humane procedures prescribed by the Secretary of the Interior, in accordance with Section 404 of the Federal Land Policy and Management Act of 1976 will be used.

All gathering, handling, sorting and hauling will be by employees of the Susanville District. These personnel use maximum care in these operations.

Gathering in the Susanville District is done between October 1 and

winter shutdown. At this time, nearly all of the foals are 6 months of age or older. At this age the foals can be gathered and handled with less stress than occurs when younger foals are gathered.

C. Wildlife

With October 1 to winter shutdown gathering, young wildlife are several months old and less affected by gathering activities than if gathering is done earlier in the season.

VII. Unavoidable Adverse Impacts

A. Adverse Impacts to Horses and Burros

In spite of using great care in gathering, hauling and sorting wild horses and burros, some level of stress is always created for the animals. There is always a chance of injury and on rare occasions, an animal dies. These adverse impacts cannot be totally mitigated.

B. Adverse Impacts to Wildlife

Some disturbance will be created for wildlife as the helicopter moves wild horses or burros through an area. This adverse impact can not be mitigated. However, this disturbance is minor and occurs only at widely spaced intervals (every 2 to 4 years).

C. Adverse Impacts to Naturalness

The noise of the helicopter and the movement of animals through an area disrupts the naturalness of an area.

This adverse impact cannot be avoided but is of very short duration and only at widely spaced intervals (every 2 to 4 years).

VIII. Consultations From Outside of the Bureau of Land Management

A. The MFP was completed with input from a number of private individuals and agencies.

B. The Modoc/Washoe Experimental Stewardship had a great deal of input into the Final MFP.

C. Dawn Lappin, Wild Horse Organized Assistance-
September 24, 1990.

D. Nancy Whitaker, Animal Protection Institute of
America- September 25, 1990.

E. Nevada Department of Wildlife

Jim Jeffress- September 24, 1990

Mike Doble- September 27, 1990

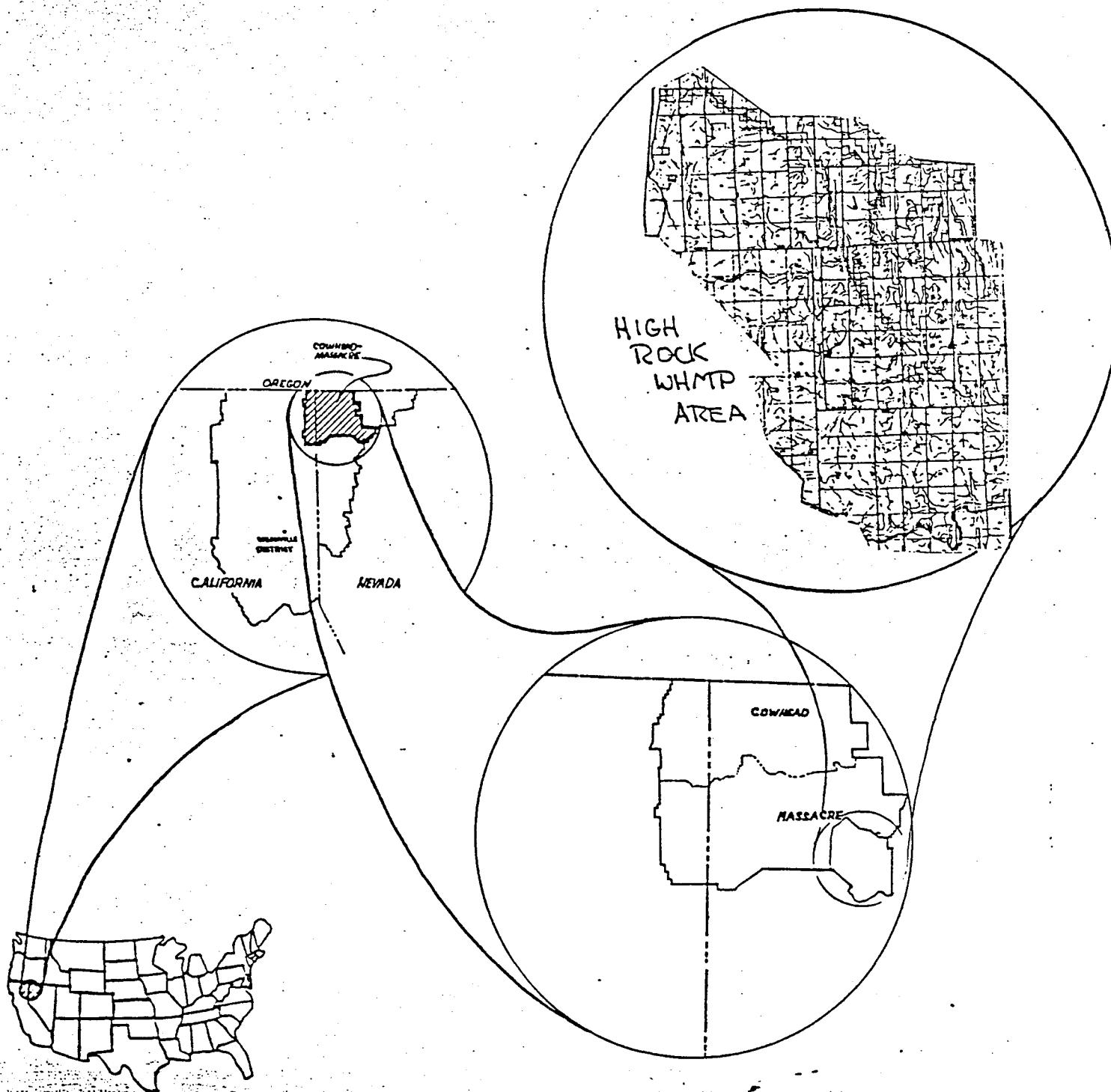
IX. List of BLM Contributors

Tracey Irons Range Conservationist
Bill Phillips District Range Conservationist
Rob Jeffers District Wild Horse Specialist
Paul Roush Wildlife Biologist
Gary Schoolcraft Botanist
Rick Ekwortzel Wrangler
Larry Teeter Outdoor Recreation Planner

Attachments

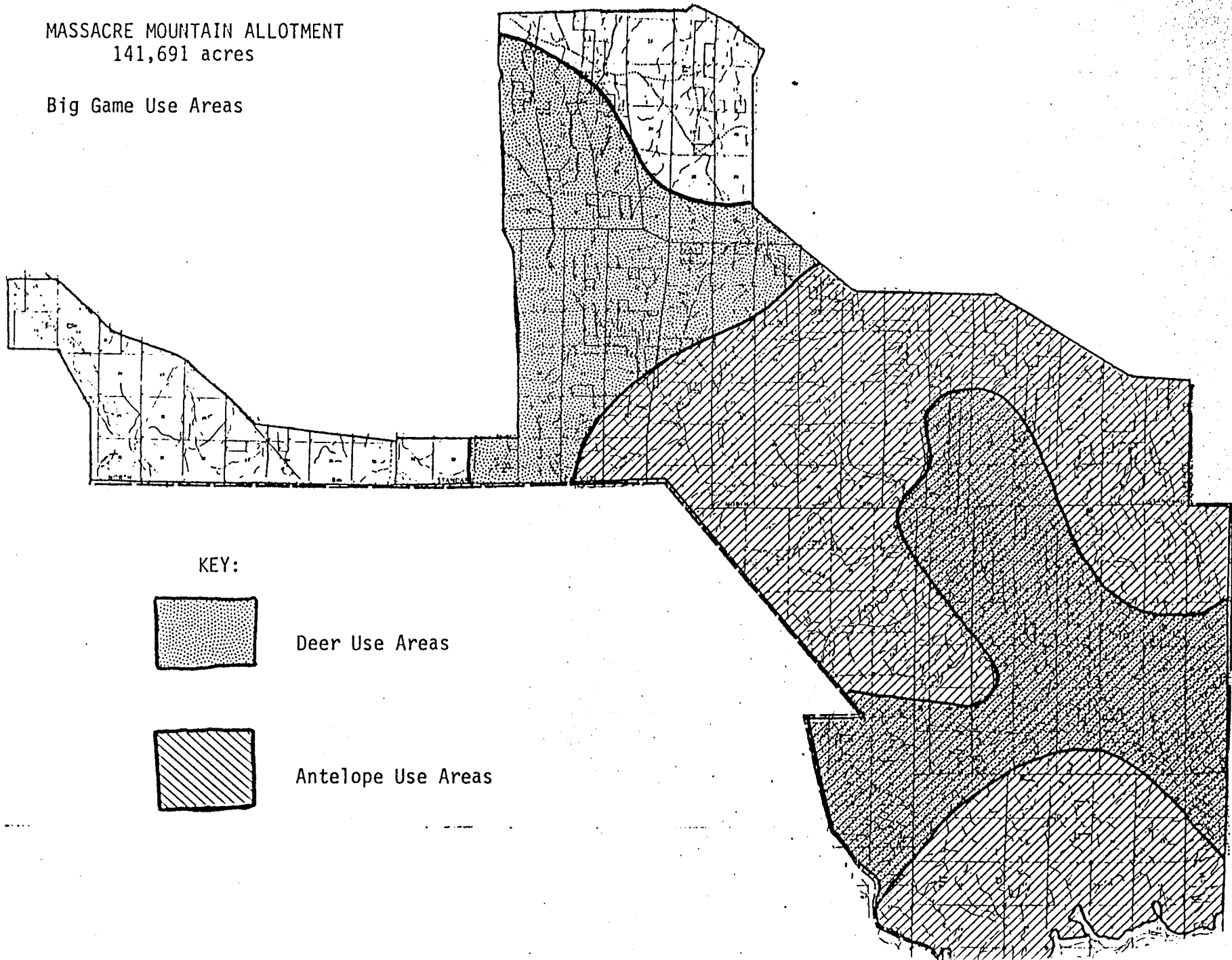
Location Map
HMA Map
Big Game Use Area Map

HIGH ROCK WHMA
Location Map
Map 1

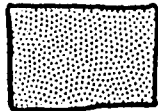


MASSACRE MOUNTAIN ALLOTMENT
141,691 acres

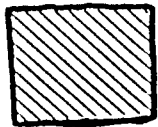
Big Game Use Areas



KEY:



Deer Use Areas



Antelope Use Areas

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One home range uses the area east of High Rock Canyon. However, horses from here do make some use west of High Rock Canyon, during the winter. All of this area is in Massacre Mountain Allotment No. 1008. This home range is referred to as East of the Canyon Home Range.

2. Little High Rock Home Range:

The Little High Rock Home Range is an area between the Little High Rock Canyon on the south and Mahogany Canyon on the north. This area includes all of the Little High Rock Allotment No. 1018 and the southern tip of the Massacre Mountain

Allotment No. 1008. The area by allotment is as follows:

Little High Rock Allotment	23,805 acres
Massacre Mountain Allotment	<u>3,738 acres</u>
Total	27,543 acres

Topography of the area is generally broken with irregular ridges, upland plateaus, terraces, mountain tops and side slopes. Elevation ranges from 5,000 to 6,000 feet.

D. Background Information:

The Cowhead Massacre MFP in 1981 established the minimum planned management level for the High Rock HMA at 70 horses and the maximum planned management level at 100 horses. (See High Rock Sub-Unit 1 - Page 16, Decision 7) The High Rock HMAP divided the planned numbers between the two home ranges as follows:

Planned Management Levels

<u>Sub-Herd</u>	<u>Maximum</u>	<u>Maximum</u>
Little High Rock	30	40
<u>East of The Canyon</u>	<u>40</u>	<u>60</u>
High Rock HAM	70	100

The East of the Canyon Home Range was adjusted to the minimum

planned management level in the fall of 1989 and is not part of this EA. Observation and calculated reproduction rates indicate that the Little High Rock Home Range has about 58 horses in the fall of 1990. This is 18 head over the maximum planned management level and 28 head over the minimum planned management level.

The Little High Rock Allotment part of the Little High Rock Home Range area has a preference for cattle use as follows:

	Total	Suspended	Active
<u>Allotment</u>	<u>AUMS</u>	<u>AUMS</u>	<u>AUMS</u>
Little High Rock	2622	1622	1000

This active preference is for 181 head of cattle from April 16 to September 30 - 100 AUMs. Also the Massacre Mountain Allotment part of the Little High Rock Home Range area has an active preference for 134 AUMs of use by either sheep or cattle from April 16 to September 30.

The total active preference for the area is for 1134 AUM for use between April 16 and September 30.

There has been no use of the cattle preference made for the past 7

years. Prior to that time licensed cattle use was made in the spring and they mostly drifted into the Massacre Mountain Allotment to the north, mostly into High Rock Canyon.

Actual livestock use, at least for a number of years, has been made mostly by sheep in the spring. No sheep use has been made in 1990. Because of non-use and because of actual use being made different than licensed use there is no way to relate authorized use as to how it would affect range condition (ecological condition).

Actual use for a number of years has been by sheep in the spring, wild horses, antelope, deer and other wildlife species. This actual use has resulted in generally good to excellent vegetative conditions in the area except for the areas close to water. An inspection in August of 1990 found that only about 320 acres of vegetation was being over used.

The August 1990 inspection found that the limiting factor for the area is water. Horses and wildlife (mostly antelope with some deer and other species) are watering mostly at one location, Cherry Springs.

There is water at three other locations but this is very limited with two locations having very poor quality of water (muddy and warm). The amount of water that is available for horses and wildlife is very limited and in a drought year such as 1990 it would not be possible to graze cattle or support many more horses than the present populations. Even in a normal year water is still a limiting factor in the summer.

II. Descriptions of the Proposed Action and the Alternative Action:

A. Proposed Action - Maintaining Population of Wild Horses in the Little High Rock Home Range of the High Rock HMA at Planned Management Levels:

The proposed action of maintaining the Little High Rock Sub-Herd at planned management levels of 30 to 40 horses will consist of three specific actions as follows:

1. Gather by use of helicopter and trap 50 to 60 horses. This will be all the horses in the area that can be gathered without undue stress. This action is planned for the fall of 1990 (probably October).

2. Select from those horses gathered to be returned to the range as "Base Herd" horses. (Base herd horses being a selected breeding herd.) A sufficient number will be selected to bring the Base Herd up to 30 head. this is the minimum planned number for the area. This is in accordance with the HAMP and the policy statement for the District.
3. Return the Base Herd horses to the range where they will be allowed to increase to 40 horses before they are gathered again. This is in accordance with the MFP and HMAP.

B. Alternative Action - Expanding Population the of Wild Horses in the Little High Rock Home Range Above the Planned Management Levels:

The alternative action, of not gathering, selecting and returning base herd horses to the range as planned, is to expand the herd at an increasing number each year. This action will expand the herd at about 17% per year.

III. Description of Affected Environment

A. Non-Living Components

1. Soils

Soils are volcanic in origin, generally shallow to very shallow loam with a stony surface and slight to moderate erosion hazard. However there are areas of deeper soils especially on north slopes and on the toe of Mahogany Mountain.

2. Water

Water is available in the HMA in springs and small reservoirs. When runoff is poor in the spring the reservoirs do not fill and hold water into the summer. Cherry Spring is the main watering location for the majority of the horses and antelope in the area.

3. Cultural Resources

The area has scattered cultural resources such as lithic scatters of obsidian chips, hunting blinds and camp sites. Cultural field inventories will be limited to each new corral site. Most corral sites will be the same as those used in the past.

The original MFP2 decision was to eliminate all wild horse use

from the High Rock HMA, to protect archaeological values in High Rock Canyon. At that time horses were making use in the canyon.

The MFP3 decision was to allow from 70 to 100 horses in the High Rock HMA. However, the decision does provide for wild horse removal, reduction of herd size, or other management actions necessary to prevent major deterioration of archaeological values, if monitoring shows that such damage is occurring. (See MFP3 High Rock Sub-Unit 1 - Rationale, page 20, No. 7.

B. Living Components

1. Vegetation

The vegetation is typical of the Great Basin shrub/grass community. The dominant shrub is low sagebrush with an understory of bunch grass. The most abundant grass associated with low sagebrush is Sandberg's bluegrass. There are some areas that support big sagebrush associated with the larger bunchgrass species such as Idaho fescue, bluebunch,

wheatgrasses and squirreltail. Also there are some areas with bitterbrush in the composition associated with big sagebrush. There are some north slopes with a very good cover of Idaho fescue.

Range condition of large portions the area is mostly from good to excellent. Much of the range is in high vigor. Only about 320 are being held in lower ecological status because of grazing.

2. Wildlife

Mule deer, pronghorn antelope, sage grouse and chukar are dominant game species occurring in the area. Antelope and deer are the major game species using vegetation in the area. The major predators in the area are coyotes and bobcats. Also there are a few cougar in the general area.

3. Threatened and Endangered Species

No federally threatened or endangered plants or animals are known to occur. Several sensitive plants occur in the High Rock HMA's. These plants are Ivesia rhypara, BLM sensitive, NV watch list, Eriogonum crosbyae, BLM sensitive, Trifolium

andersonii ssp. beatleyae, CNPS-List 5, Cryptantha
schoolcraftii, no listing as yet.

4. Wild Horses

The estimated number of horses in the High Rock, Little High Rock Area is 58. These horses show more of the light horse characteristics are of smaller sizes and lighter boned than some of the other herds in the Resource Area.

5. Wilderness

Three Wilderness Study Areas (WSA) are located within the proposed gather area. These are Little High Rock WSA #CA-020-913A/NV-020-008, Yellow Rock Canyon WSA #CA-020-913A, and High Rock Canyon WSA #CA-020-913B. IMP guidelines allow temporary facilities for the management of wild horses and burros to be installed as long as they satisfy the non impairment criteria which states the use is temporary and does not create surface disturbance.

6. Livestock

Little High Rock Allotment is not currently under an allotment management plan. For the last seven (7) years there has been

no cattle use in the area, also there was no sheep use in the area in 1990.

Livestock grazing in the area in the future has not been decided. However, at this time it must be assumed that 1134 AUMs of livestock use will be activated.

7. Maintaining A Thriving Natural Ecological Balance

PL92-195 Section 3(a) states that "The Secretary shall manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on public lands.

This calls for a balance of uses while at the same time protecting the soil, water and vegetation.

IV. Analysis of the Proposed Action of Maintaining Wild Horse Populations at Planned levels

A. Analysis of the Proposed Action on Non-Living Components

1. Soils

The removal of 28 head of horses will have no measurable effect on the soils of the area.

2. Water

Since water is a very scarce resource in the area the removal of 28 head of horses would have at least some effect on the water supply of the area. This would allow a little more water to collect at Cherry Spring improving the quality of water. At present the small pool of water is very shallow and warm.

If the drought continues into the summer of 1991 the removal of 28 head of horses may become very important for the water supply for horses and other animals using the area.

3. Cultural Resources

The gathering of 50 to 60 head of horses will have no measurable effect on the cultural resources, since all trap sites are cleared prior to the gathering operations.

The present populations of wild horses from this area is not using High Rock Canyon.

4. Wilderness

Gathering will occur in three WSAs. However, the trap will be located at the outer edge of a WSA on an existing way.

Gathering will have a short term affect on the solitude in the WSAs as the helicopter flies overhead and horses move about. At the trap site there will be the added activity of trapping, loading of the horses into trucks, and hauling out. All of this will occur on parts of 2 to 3 days.

Gathering will occur on or adjacent to roads or ways. Metal panels will be set up as wings on either side of a way.

No surface disturbance takes place where the panels are set up. Temporary surface disturbance due to trampling will take place inside the enclosures in which the animals will be gathered. After gathering, all panels will be removed and there will be only short term evidence of horses being concentrated in the area of the activity. The operation meets non-impairment criteria for wilderness. This use is temporary, creates short term surface disturbance and does not involve permanent placement of structures.

The gathering of animals will help maintain the naturalness of the WSAs by preventing degradation of the vegetation. Gathering to maintenance levels will maintain a viable horse herd that will provide opportunities to view wild horses as part of a wilderness experience.

Consistency with BLMs Management Policy is as follows:

a. Is the action temporary? Yes.

The proposed action would take approximately 2 to 3 days in the WSA.

b. Are the temporary impacts caused by the proposed action capable of being reclaimed to a condition of being substantially unnoticeable in the WSA as a whole? Yes.

The scope of the project and the extremely limited disturbance should not be measurably affect the Secretary's recommendation. The only wilderness value to measurably affected is naturalness. The analysis indicates minor impacts to solitude and naturalness. Solitude will be

affected for two to three days due to the noise of the helicopter and the presence of wranglers and trucks to transport the gathered horses. Naturalness will be affected due to turning around at the trap site by the truck and trailer that hauls the trap and by the truck that transports captured horses. All other vehicle traffic will be kept to a minimum on existing ways.

Travel routes will be kept to a minimum of trips and distance from the existing ways. Reclamation will be done at the turn around areas at the trap site and the trap site itself. Reclamation will include removing crushed vegetation, removing tire tracks, replacing displaced soil and rock, reseeding with native species if needed and returning the disturbed area back to its naturalness.

- c. Does the Proposed Action significantly constrain the Secretary of the Interior's recommendation on Little High Rock WSA #CA-020-913A/NV-020-088, Yellow Rock Canyon WSA #CA-020-913A and High Rock Canyon WSA

#CA-020-913B with respect to the area's suitability or non-suitability for preservation as wilderness? No.

The scope of the proposed action and the extremely limited disturbance should not measurably affect the Secretary's recommendation. The only wilderness value to be measurably affected is naturalness. With proper reclamation the naturalness will be restored to the disturbed area.

B. Analysis of the Proposed Action on Living Components

1. Vegetation

Present horse use is preventing vegetation from improving on only about 320 acres of this 27,543 acre area. With the removal of about 28 horses the remaining head of horses will continue to impact (over use) the same area. The removal will do very little to improve vegetative conditions.

Riparian vegetation has been nearly destroyed around existing sources of water. This has shown no recovery in the absence of sheep and cattle grazing. The removal of about 28 head of horses is not expected to improve this situation. The remaining 30 head of horses will continue to over use this area. Improvement would be expected with no use by horses, sheep or cattle.

2. Wildlife

The removal of about 28 head of horses will do little to improve either forage quality or quantity for antelope or deer.

The removal of about 28 head of horses has the potential to improve water quality and the amount of water for deer, antelope, sage grouse, and other wildlife species. If the summer of 1991 is another drought this will be very important.

3. Threatened and Endangered Species

The four sensitive plants found in Little High Rock Allotment are not affected by the current horses numbers.

4. Wild Horses

Gathering and structuring this herd will be of benefit to this horse herd as follows:

- a. This herd has some horses that are very light palomino to albino color with light pigmented skin. Structuring the herd can reduce the tendency towards albinism (lack of pigment). Horses lacking pigment often get infected eyes, and some may have very poor eye sight. In general these horses have health problems. The lethal white gene can also cause fetuses to be aborted or foals may die soon after birth.
- b. By structuring the herd, excess animals removed in the future will be highly adoptable. The excess will be removed before they are 5 years of age and will be of good conformation. It is more humane to remove horses 5 years of age and less since they domesticate much better.
- c. The removal of about 28 head of horses will improve the water situation for the remaining 30 horses.
- d. By gathering to the minimum level of 30 herd then allowing the herd to increase up to 40 head will space the gathering

of the herd creating less overall disturbances to the herd.

5. Livestock

When livestock are returned to the area at full authorized use for the season from April 16 to September 30 there will be direct conflict for water especially in drought years.

Also there will be competition for forage within reach of water during the summer months.

7. Maintaining a Thriving Natural Ecological Balance

The purpose of the MFP was to allocate the use of resources in a manner to have a planned balance of uses, while at the same time maintaining a thriving ecological balance in each area.

With spring sheep use and wild horses at the planned management level it appears that the ecological balance of the area has been maintained except for a small acreage close to water.

If summer cattle use is made in the area as authorized this balance will no longer exist.

V. Analysis of the Alternative of Expanding the Wild Horse Populations of the Little High Rock Home Range Above the Planned Management.

A. Analysis of the Alternative Action on Non-Living Components

1. Soils

Grazing by horses, cattle, and sheep removes vegetation that provides a protective cover for the soil. In addition to this the soil is disturbed by trampling.

There is a relationship between the number of grazing animals and soil disturbance. In general the greater amount of use by grazing animals the greater amount of disturbance and size of the area disturbed. However, after there is an area close to water that is affected as much by a few animals as with many animals.

With the existing population of wild horses (about 60 head) and the existing use by wildlife, soil disturbance is visible on only about 320 acres.

If the wild horse population is expanded the are of impact will increase in relationship to the number of horses. However, this will not be a serious problem until the herd is much larger.

When authorized use by sheep and cattle is added then the additional horses plus authorized grazing use will reduce vegetative cover and in combination with trampling will increase the erosion hazard in the area.

2. Water

Water is a very limited resource in this area, resource in this area, during the summer months, especially during drought years.

Expanding the wild horse population above the maximum planned level of 40 head will place additional pressure on the water supply.

3. Cultural Resources

If wild horses are not gathered there will be no area of special concern at the trap site.

As horse numbers increase the greater the chance that they will step on and break arrowheads and similar objects.

If the herd expands beyond the water supply these horses will be forced to go into High Rock Canyon where they may create a conflict with archaeological values.

B. Analysis of the Alternative Action on Living Components.

1. Vegetation

There is a relationship that exists between soil, vegetation and the numbers of grazing animals (see the discussion of soils).

The area of excessive utilization of vegetation will increase as the number of horses increases. The 320 acres of over use will increase as the population increases.

Riparian vegetation has been nearly destroyed around existing sources of water. This has shown no recovery with the existing population of wild horses in the absence of sheep and cattle grazing. This situation will be no worse with an added population of horses.

2. Wildlife

The most direct effect of expanding the wild horse population is to create competition for water to sustain life. The water supply is stretched to its limits, with the present populations. Any increase above this in combinations with another year of draught will over utilize the water in the area for wildlife.

3. Threatened and Endangered Species

It is not known at what level horse populations would have to be before they would affect the four sensitive plants found in the area.

4. Wild Horses

Expanding the wild horse population above the maximum planned level of 40 head will create greater competition for the scarce resource of water during the summer months, especially during draught years. This will become critical for survival at a population somewhere between 60 and 80 head of horses.

Severe competition between horses for forage, in the absence of authorized grazing by cattle and sheep, would not be reached until the wild horse population expanded by a considerable number.

The failure to gather and structure this herd will cause it to produce a high number of unadoptable horses in the future.

The failure to remove horses with a tendency toward albinism from the herd will affect the health of the herd in the future.

5. Wilderness

Expanding the wild horse population by not gathering will eliminate the immediate short term disturbance of gathering.

Expanding the wild horse population will cause a shortage of water, cause degradation of vegetation and soil, and reduce the amount of wildlife that can use the area. This will decrease the values of naturalness and wilderness of the area.

6. Livestock

Expanding the wild horse population will have no effect on livestock until livestock are again licensed in the area.

When livestock use is licensed at the authorized level there will be immediate competition for the limited water supply during the summer. There is not sufficient water for increased wild horse numbers and livestock, during the summer. There is not even sufficient water for either authorized livestock use or for increased wild horse numbers during the summer months.

With authorized livestock use being made and with increased wild horse numbers there will develop a shortage of forage for livestock within reach of water.

7. Maintaining a Thriving Natural Ecological Balance

A thriving natural ecological balance can not be maintained in

this area with an expanding wild horse population.

The disruption of the balance will increase in relationship to the number of horses over the planned level. The critical point will be reached somewhere between 60 and 80 head of horses, in the absence of any livestock use during the summer.

If livestock use were to be made, as authorized, there will be disastrous results for the ecological balance of the area, in the absence of any horse use. In combination, the problem is compounded.

Note that livestock use has probably never been made as authorized.

VI. Mitigation Measures

A. Travel and Trap Sites

Mitigation for travel and disturbance at trap sites will be as follows:

1. Travel will be on existing roads and ways to the greatest extent possible.
2. Reclamation at turn around areas and at the trap sites will consist of removing crushed vegetation, removing tire tracks, replacing displaced soil and rock, and reseeding with native species if the need exists.
3. All trap sites are cleared for cultural resources and T&E plant species prior to gathering operations.

B. Gathering and Handling

Gathering will be under direct supervision of a duly authorized employee of the Department of Interior. Humane procedures prescribed by the Secretary of the Interior, in accordance with Section 404 of the Federal Land Policy and Management Act of 1976 will be used.

All gathering, handling, sorting and hauling will be by employees of the Susanville District. These personnel use maximum care in these operations.

Gathering in the Susanville District is done between October 1 and winter shutdown. At this time, nearly all of the foals are 6 months of age or older.

At this age the foals can be gathered and handled with less stress than occurs when younger foals are gathered.

C. Wildlife

With October 1 to winter shutdown gathering, young wildlife are several months old and less affected by gathering activities than if gathering is done earlier in the season.

VII. Unavoidable Adverse Impacts

A. Adverse Impacts to Horses and Burros

In spite of using great care in gathering, hauling and sorting wild horses and burros, some level of stress is always created for the animals. There is always a chance of injury and on rare occasions, an animal dies. These adverse impacts cannot be totally mitigated.

B. Adverse Impacts to Wildlife

Some disturbance will be created for wildlife as the helicopter moves wild horses or burros through an area. This adverse impact can not be mitigated. However, this disturbance is minor and occurs only at widely spaced intervals (every 2 to 4 years).

C. Adverse Impacts to Naturalness

The noise of the helicopter and the movement of animals through an

area disrupts the naturalness of an area.

This adverse impact cannot be avoided but is of very short duration and only at widely spaced intervals (every 2 to 4 years).

VIII. Contributions From Outside of the Bureau of Land Management

IX. List of BLM Contributors

Tracey Irons Range Conservationist

Bill Phillips District Range Conservationist

Rob Jeffers District Wild Horse Specialist

Paul Roush Wildlife Biologist

Gary Schoolcraft Botanist

Rick Ekwortzel Wrangler