

**Three Fingers Herd Management Area Gather EA**

**OR-030-06-013**

**July 18, 2006**

**Vale District Office**

**Gather Plan for Three Fingers**

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## **BACKGROUND INFORMATION**

With passage of the Wild Horse and Burro Act of 1971, Congress found that: “Wild horses are living symbols of the pioneer spirit of the West”. In addition, the Secretary was ordered to “manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands”. From the passage of the Act, through present day, the Bureau of Land Management (BLM) Vale District has endeavored to meet the requirements of this portion of the Act. The procedures and policies implemented to accomplish this mandate have been constantly evolving over the years.

Throughout this period, BLM experience has grown, and the knowledge of the effects of current and past management on wild horses has increased. For example, wild horses have been shown to be capable of 18 to 25% increases in numbers annually. This can result in a doubling of the wild horse population about every 3 years. At the same time, nationwide awareness and attention has grown. As these factors have come together, the emphasis of the wild horse and burro program has shifted.

Program goals have expanded beyond simply establishing “thriving natural ecological balance” (setting appropriate management level (AML) for individual herds), to include achieving and maintaining viable, vigorous, and stable populations.

AML for the Three Fingers Herd Management Area (HMA) has been previously established at a range from 75 to 150 horses based on monitoring data and following a thorough public review. The Three Fingers HMA was last gathered in FY02. Documents containing this information are available for public review at the Vale District office.

The numbers, age, and sex of animals proposed for removal are derived from [The Wild Horse Population Model Version 3.2](#) developed by Dr. Steve Jenkins, Associate Professor, University of Nevada, Reno.

## **PURPOSE OF AND NEED FOR ACTION**

Gathering and removal of excess wild horses from the Three Fingers Herd Management Area (HMA) is necessary to maintain a thriving natural ecological balance which protects public land resources from deterioration. Both actions are consistent with necessary population controls that maintain appropriate management levels established in the Southeastern Oregon Resource Management Plan (SEORMP, 2002). Recent monitoring has indicated heavy utilization of key vegetative species in riparian zones along perennial streams, springs, and reservoirs. Vegetation and soils have been extremely stressed in the summer when horses concentrate on the few available water sources.

During the most recent aerial inventory of July 8, 2006 242 wild horses were counted within the HMA. The SEORMP stipulates minimum and maximum population levels of 75 and 150 horses. With an estimated 20% average annual increase, the forage consumption rate would increase a like amount for each succeeding year if not gathered.

The purpose and need of the proposed action is to remove an estimated 160 horses from the Three Fingers HMA to attain a thriving ecological balance between horses, wildlife, livestock, and vegetation. It will also allow for fertility treatment of mares to slow estrus to aid in maintaining wild horse populations at appropriate management levels (AML) and extend the gather period required to maintain AML.

## **CONFORMANCE WITH LAND USE PLANS AND REGULATIONS**

This action is governed by the Wild Horse and Burro Act of 1971 (Public Law (PL) 92-195 as amended) and Title 43 Code of Federal Regulations (CFR) part 4700. Gathering and disposal of the wild horses would be in accordance with PL 92-195 as amended by PL 94-579 (Federal Land Policy and Management Act (FLPMA)) and PL 95-514 (Public Rangelands Improvement Act (PRIA)). Section 302(b) of 4700 CFR of FLPMA, states that all public lands are to be managed so as to prevent unnecessary or undue degradation of the lands. The proposed action is in compliance with: 1) 43 CFR 4720.1 - “Upon examination of current information and a determination by the authorized officer that an excess of wild horses or burros exists, the authorized officer shall remove the excess animals immediately.”; 2) 43 CFR 4710.3-1 - HMAs shall be established (through the land use planning process) for maintenance of wild horse and burro herds; 3) 43 CFR 4180.2(b) - “Standards and guidelines must provide for conformance with the fundamentals of 43 CFR 4180.1.” The Standards and Guidelines for Grazing Management

for public lands have been reviewed by the Departmental Review Team who found that they comply with the requirements of the regulations. Gathering excess horses conforms to the standards and guides which were developed with full public participation and in consultation with Oregon/Washington's resource advisory councils and are in conformance with appropriate land use plans. Attainment of a thriving natural ecological balance which prevents excess utilization of vegetative resources would meet the objectives established in the Southeastern Oregon Resource Management Plan that constitutes the land use plan for Malheur Resource Area. In addition, the gathering of horses in excess of the appropriate management level (AML) is consistent with the Three Fingers HMA Plan and the Wild Horse HMA Monitoring Plan for the Vale District. All monitoring is coordinated with the range management program and the wild horse programs to identify areas of conflict between wild horses, wildlife, and domestic livestock. This effort is used to identify areas where resource damage is taking place due to excess wild horses, including but not limited to riparian areas, and helps to set priorities for determining where removal is needed to achieve or maintain a thriving ecological balance in accordance with the above statutes, plans, and regulations. The proposed action would be in conformance with the current selective removal policy as established in Instruction Memorandum #05-206.

## **PROPOSED ACTION AND ALTERNATIVES**

### **A. PROPOSED ACTION**

The proposed action would be to remove an estimated 160 horses from the Three Fingers HMA in the fall of 2006. The Bureau Selective Removal Policy will be used on this gather as listed below.

- 1) Wild horses five years of age and younger should be the first priority for removal and placed into the national adoption program.
- 2) Wild horses six to fifteen years of age should be removed last and only if management goals and objectives cannot be achieved through the removal of younger animals.
- 3) Wild horses aged sixteen years and older should not be removed from the range unless specific exceptions prevent them from being turned back and left on the range.

Other criteria for returning horses to the HMA would be to maintain herd characteristics.

All capture and handling activities (including capture site selections) would be conducted in accordance with Standard Operating Procedures described in Appendix I.

Gathering may be delayed as a result of unforeseen reasons including weather limitations and scheduling. All wild horses in the Three Fingers HMA would be helicopter-drive trapped at an appropriately located trap site specified by BLM and agreed to by the contractor. Depending on the location of the horses, more than one trap site may be used. Trap sites would be located in close proximity to the horses during gather operations which would minimize stress and injury to the horses during capture and the least possible damage to the natural resources. The catch pen and loading areas would be the most heavily disturbed. The native vegetation would be expected to fully reestablish without reclamation within one to three years. All trap sites have been previously established so no new sites would be established without approval and clearances. The selected trap would be constructed using the existing right-of-way road or way as the center of the trap with portable panels extending approximately 60 feet from the center of the catch pen. A portable loading chute would be placed in the road or at the edge of the roadway within the existing right-of-way to allow loading without creating a new road.

The gathering and removal of wild horses would be conducted by a contractor authorized by the National Wild Horse and Burro Program Office in Reno, Nevada. The contractor would be responsible for trap construction, all gathering activities, transportation of wild horses, and trap removal. The Vale District BLM would provide a resource advisor/on-site project inspector while any horse activities are occurring. Proven gathering and transport practices would be used to provide maximum safety and protection for horse wranglers and horses. Standard Operating Procedures would follow established procedures for the gathering, handling, and transportation of horses in a humane manner and all safety measures would be adhered to.

The horses would be herded into a temporary trap constructed of portable metal panels and "jute" wings which would be removed when the proposed action is completed. No permanent structures would be constructed and no new road construction would occur. The trap and corral facilities would be portable and temporary and would be on the site only for as long as required to complete the gathering operation. The entire operation is expected to be completed in less than one week. Appropriate clearances, including cultural and botanical surveys, would be completed prior to any surface disturbance.

The proposed action would include fertility control on all captured mares in the Three Fingers HMA. They would be treated with an immunocontraceptive vaccine (Porcine zona pellucidae (PZP)) administered by trained BLM personnel. All actions regarding administering the fertility control are outlined in the Standard Operating Procedures (Appendix II).

**B. ALTERNATIVE 1**

Alternative 1 would be the same as the proposed alternative, except none of the mares in the HMA would be treated with an immunocontraceptive vaccine.

**C. ALTERNATIVE 2**

Under this alternative, wild horses would not be removed from the Three Fingers HMA during the fall of 2006. The existing population of 242 horses would continue to increase at approximately 20% per year.

**D. ALTERNATIVES CONSIDERED BUT ELIMINATED FROM FURTHER ANALYSIS**

1. One alternative considered was wild horse management using fertility control measures without gather-to-adopt to regulate wild horse populations. Periodic capture operations would be required to administer the vaccine to mares, or suitable remote delivery methods would need to be developed. This alternative was eliminated from further analysis since the use of the immunocontraceptive vaccine would not address the current wild horse population exceeding the high end AML. Also, the current data suggest that repeated long-term applications of the vaccine may affect long-term fecundity.
2. The helicopter/roping method of gathering entails moving wild horses to a roping site by helicopter and then capturing the horses by roping. This is feasible, but this technique has only been used in limited circumstances where a small number of wild horses were difficult to trap. This method poses a safety hazard to wild horses, personnel, and their saddle horses. Due to these reasons, this alternative as a primary method of gathering has been eliminated from further consideration.
3. Closure of the area to livestock use or reduction of permitted use was eliminated from consideration since it would not meet existing law, regulation, policy, nor would it concur with previous land use decisions. The Wild and Free Roaming Horse and Burro Act does not require that these areas of public land be managed exclusively for wild horses but states under Section 2 (Act) that even in case of ranges that are devoted principally for wild horse management, it is not necessary to devote these lands exclusively to their welfare in keeping with multiple-use management concept for public lands, but rather that these determinations be made through the land use plan. Existing planning decisions provide for maintaining populations of wild horses in these areas and for providing the opportunity for livestock grazing.

**AFFECTED ENVIRONMENT**

**A. WILD HORSES**

Total area of the Three Fingers Herd Management Area (HMA) is 62,508 acres. It is located in the Mahogany Grazing Unit in the Malheur Resource Area of the Vale District. The HMA is bordered on the east by the Owyhee Reservoir, on the south by the Leslie Gulch Road, and on the north by the Owyhee Dam (Map 1). The HMA is made up of the Wildhorse Basin pasture/Board Corral Allotment and Riverside pasture/Three Fingers Allotment. The central portion of the Riverside pasture is made up of steep, highly

dissected sediments referred to as the canyon lands. The southern portion of the Riverside pasture is made up of the Shadscale Flat area and surrounding ridges.

The Three Fingers herd has been periodically gathered since it was first gathered in 1977. Numbers of horses captured and removed for each successive gather are documented in the Burns District Office.

Last census in the HMA was done on July 8, 2006. Current population is 242 horses. Of these 242 horses, 37 were foals under one year of age, which indicates a 15% population increase. Adult horses in the HMA weigh an average of 950 to 1050 pounds and stand between 14.2 and 15.2 hands, with some stallions being slightly larger. The dominant colors are sorrel, bay, roan, black, pinto, dun, and brown. Most have saddle horse type conformation. Some of the horses in the HMA are probably descendants of army remount studs. Characteristics of the herds have remained the same since 1975.

Peak foaling period for these herds is from March through May. Peak breeding period is from April through June. Currently, the existing sex ratio within the HMA is approximately 50/50.

The Owyhee Reservoir and a few springs or seeps are the only natural perennial water sources within the Three Fingers HMA. The reservoir is not used regularly by the horses due to limited access. Water is a limiting factor in most years throughout the Three Fingers HMA, with concentrations of horses around the few perennial water sources. Most of the other water sources in the HMA are seasonal seeps, springs, reservoirs, and drainages. These water sources are used in the winter and early spring.

Forage is allocated for 75 to 150 horses in the Three Fingers HMA or 1800 animal unit months (AUMs). Inventory data show that horses have historically concentrated in the Wildhorse Basin area and Shadscale Flat during the summer and fall. During the winter and early spring, the horses can graze the canyon lands and the northern portion of the Wildhorse Basin pasture if there is sufficient precipitation to provide seasonal surface water.

Utilization levels in the Shadscale Flat area were in the 40 to 60% range, while the Wildhorse Basin area ranged from 35 to 65%. Utilization levels in the southern portion of the Wildhorse Basin pasture are currently ranging from 60 to 90% in proximity to perennial water sources. The northern portion of the Wildhorse Basin pasture and the canyon lands area of the Riverside pasture has lower utilization levels due to a lack of perennial (hot season) water sources.

The numbers of horses using the HMA has steadily increased and there is no rest provided for key cool season grasses. Heavy use of these grasses is beginning to deplete their health and vigor, which leads to a rangeland condition that is at risk. Loss of perennial grasses results in an increase in less desirable species, an increase in frequency and intensity of wildfires, and a decrease in forage production.

Other issues driving the Proposed Action include continuing drought conditions in the area leading to water shortage and excessive riparian impacts around the springs, seeps, and creeks. The results are degradation of water quality, riparian functionality and riparian habitat in the Three Fingers HMA.

In most herds that have not been selectively gathered for some time, the approximate age structure may be broken down as follows:

- Age Class 0-5: 60-70 percent of herd
- Age Class 6-20+: 30-40 percent of herd

Selective removal has typically increased the ratio of male wild horses to female wild horses. Prior to selective removal, most herds seem to have a 53:47 ratio favoring females. Where all horses 5 years and younger are removed, the sex ratio may be adjusted to around 50/50. Previous selective removal criteria used in earlier gathering efforts called for the release of all horses over the age of nine. Under this criterion, the sex ratio was skewed more toward males than it is under current policy. This effect is mitigated by several factors: (1) Increased males in the population increases the likelihood that fertile mares will be bred and can result in smaller band size. This not only results in increased reproduction rates but

also decreases the potential for inbreeding. (2) Research has shown that older mares are more fecund and successful at raising their foals than younger mares. (3) Large herd size (AML) dilutes these effects.

Peak foaling period for these herds is from March through May. Peak breeding period is from April through June. Currently, the existing sex ratio within the HMA is approximately 50/50.

#### B. SURFACE WATER SOURCES AND RIPARIAN AREAS

The only perennial water sources in the HMA are springs associated with the drainages. Most of the perennial springs in the HMA have been developed. The herbaceous and woody riparian vegetation in all of the riparian areas is typically heavily utilized. There is very little recruitment or regeneration of the herbaceous or woody vegetation. There are also many areas that are trampled and pawed by the horses looking for water. Trails into the perennial sources are heavily utilized and are causing stream bank instability. Season-long horse grazing in these areas becomes a resource concern as horse numbers increase.

Springs associated with Cherry Creek and Three Fingers Gulch are the major perennial water sources. The Three Fingers Gulch is located in the southern portion of the Riverside pasture. Much of Three Fingers Gulch and the surrounding uplands burnt in the 2002 fire. The horses that typically used these riparian areas are currently displaced and putting pressure on other water sources. Some of the horses have moved into the Roger Spring area near the upper end of Three Fingers Gulch, but there is very little nutritional feed in this area. Cherry Creek is located in the Wildhorse Basin pasture and is typically a major summer water source for the wild horses. The 2002 fire has concentrated more horses in this area.

There are also many seasonal or intermittent seeps, springs, and creeks that the horses impact. Many of these cool season water sources are severely impacted by hoof traffic and pawing. Horses tend to paw in these areas as the water dries up during the hot season. This type of hoof action negatively impacts the water sources as much of the capability of the area for soil-water storage is decreased with soil loss.

#### C. SOILS

The soils found in the Three Fingers HMA were surveyed and described in Oregon's Long Range Requirements for Water 1969, Appendix I-11, Owyhee Drainage Basin. Unit 60, Unit 98 and portions of Unit 76 occur on 20 to 60 percent slopes, while remaining portions of Unit 76 occur on 3 to 12 percent slopes. Microbiotic crusts have not been inventoried, but are known to exist throughout the HMA.

The area has Unit 60 soils that are moderately fine textured, well drained soils underlain by old lacustrine sediments. They occur on gently sloping to hilly uplands. This makes up approximately 60% of the HMA.

Unit 76 soils are shallow, clayey, very stony, well drained soils over basalt, rhyolite, or welded tuff. These soils occur on gently undulating to rolling lava plateaus and some very steep faulted and dissected terrain. This soil occurs mixed with Unit 77 soils in the northern end of the HMA on 3 to 12 percent slopes. It also occurs mixed with Unit 60 soils on steeper slopes. This soil makes up approximately 20% of the HMA.

Unit 98 is a miscellaneous land unit that makes up approximately 10% of the HMA. It consists of highly eroded and dissected raw old lacustrine sediments occurring as "badlands". Vegetative cover is very sparse in this soil.

#### D. VEGETATION

Vegetation in the HMAs primarily consists of big sagebrush (Artemisia tridentata), low sagebrush (Artemisia arbuscula), shadscale (Atriplex confertifolia), spiny hopsage (Grayia spinosa), greasewood (Sarcobatus vermiculatus), winterfat (Ceratoides lanata), bluebunch wheatgrass (Agropyron spicatum), bottlebrush squirreltail (Sitanion hystrix), and Sandberg bluegrass (Poa sandbergii). The present ecological condition of the vegetation is considered to be in the middle seral stage with static trend.

E. WILDLIFE

Pronghorn antelope (*Antilocapra americana*), and mule deer (*Odocoileus hemionus*), frequently use the HMA primarily in winter. Chukar partridge (*Alectoris chukar*) and sage grouse (*Centrocercus urophasianus*) are found in the area. A variety of small mammals, reptiles and nongame animals common to southeast Oregon can be found throughout the area.

Wildlife species and populations found in the proposed project area are typical of Wyoming big sagebrush/bluebunch wheatgrass and sagebrush/cheatgrass disturbed habitat types in the northern Great Basin and Owyhee Uplands communities. The steeper “badland” topography near the Owyhee Reservoir, including the area burned, and the main side canyons provides important habitat for a herd of California bighorn sheep. Big game species in the project area include pronghorn antelope, California bighorn sheep, mule deer, and mountain lion. Some chukar partridge and California quail are found in the area year-round. Small mammals such as black-tailed jackrabbits and woodrats, reptiles including western rattlesnakes, numerous species of neotropical migratory birds and several raptor species common to southeast Oregon can be found throughout the area. Reptiles will be hibernating at the time of the proposed gather and most neotropical migratory bird species will have migrated from the area by October therefore will not be directly affected by any alternative.

Forage allocation is 79 AUMs for deer and is 12 AUMs for antelope in the Three Fingers Allotment. About 25-30% of this use occurs in the Three Fingers HMA. Although bighorn sheep utilize this area, there has been no forage allocated for them at present.

No fish occur in the proposed project area. Pacific tree frogs are abundant in reservoirs and springs throughout the Vale District, but no other amphibians have been observed.

A major concern in the Three Fingers HMA is competition for winter forage and summer water at the few natural springs in the area between bighorn sheep and wild horses.

F. THREATENED AND ENDANGERED SPECIES

Four special status plant species are known to occur in the HMA. These include Ersters senecio (*Senecio ertterae*), sterile milkvetch (*Astragalus sterilis*), Owyhee clover (*Trifolium owyheense*), and grimy ivesia (*Ivesia rhypara* var. *rhypara*). None of these are listed under the federal Endangered Species Act, although the U.S. Fish and Wildlife Service consider them Species of Concern. Owyhee clover and grimy ivesia are listed by the state of Oregon as Endangered, and Ersters senecio and sterile milkvetch are listed by the state as Threatened. The senecio and grimy ivesia occupy highly specific ash sites, with the senecio on loose talus rubble at few sites in Malheur County only, and the ivesia on six sites of shallow, more compacted ash in this area and with limited sites in Lake County, Oregon. While Packard's blazing star (*Mentzelia packardiae*) has not been identified in the portion of the HMA which burned, it is suspected to occur with Ersters senecio in the talus rubble sites and is listed by the state as Threatened. It is found in the HMA in Leslie Gulch. Owyhee clover and sterile milkvetch grow in less definitive habitat within the Wyoming big sagebrush type, but are restricted globally to the ash soils of the Owyhee River canyon area between Birch Creek and Owyhee Dam. Although the milkvetch has been found both east and west of Owyhee River, the clover has not yet been found west of the river. Several sites of these two species are known in Idaho just to the east at the edge of their eastern range. Inventory has been incomplete for all five species within the area due to the extremely rugged topography. It is anticipated that more sites would be found, particularly of the clover and milkvetch, with additional inventory.

The project area contains habitat for the following special status wildlife species: sage grouse, loggerhead shrike, western burrowing owl, California bighorn sheep, long-nosed leopard lizards, Mojave black collared lizards, northern sagebrush lizards and desert horned lizards. Mountain quail have been reported from the general area within the last 10 years but apparently have been extirpated since. At the time of year of the proposed gather western burrowing owls and loggerhead shrikes typically have migrated from the project area, and reptiles are hibernating and would not be directly affected by any proposed activity. Sage grouse and California bighorn sheep likely will be in the area during the gather and some individuals could be disturbed by the proposed action.

Astragalus solitarius and Allium lemmonii may occur in isolated areas of the HMA, and both are considered to be "district sensitive".

G. LIVESTOCK MANAGEMENT

Forage allocation for livestock in the Three Fingers HMA is currently 3362 AUMs of active preference. Prior to the 2002 wildfire, there were no livestock grazing reductions made in Three Fingers or Board Corrals Allotments within Three Fingers HMA.

There are 8 permittees who graze livestock on the Three Fingers and Board Corrals Allotments. The grazing system in the Riverside pasture is March 1<sup>st</sup> to May 1<sup>st</sup> every year. The grazing system for the Wildhorse Basin pasture is a three year rotation of spring/early summer one year, summer/fall the next year, and late fall/winter the third year. Water for livestock is the same as mentioned above for wild horses.

H. CULTURAL RESOURCES

Cultural inventory of the proposed trap sites have been done. No cultural resources were found.

I. RECREATION

The area within the HMAs receives regular recreational use, mainly big game and upland game bird hunting, rock hounding, and wild horse viewing.

J. WILDERNESS STUDY AREAS (WSAS)

The Honeycombs WSA (OR-3-77A) and the Wild Horse Basin WSA (OR-3-77B) are associated with the HMA (Map 2). There would be aircraft use over the WSAs, however, there would be no surface disturbing activity within the WSAs.

WSAs are managed in accordance with BLM's *Interim Management Policy for Lands under Wilderness Review* (Handbook H-8550-1, commonly referred to as WSA IMP). The WSA IMP provides for the management of wild horse populations at appropriate levels to ensure thriving natural ecological balance while not allowing populations to degrade wilderness values, or vegetative cover as it existed on the date of the passage of FLPMA. The WSA IMP provides for the use of aircraft to support population management.

K. AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)/RESEARCH NATURAL AREAS (RNAs)

There are two Areas of Critical Environment Concern (ACEC) within the HMA: Leslie Gulch ACEC and Honeycombs ACEC/Research Natural Area (RNA). The first is the 11,963 acre Leslie Gulch ACEC . Relevant and important values for this ACEC include high scenic values associated with the colorful ash talus cliffs, bighorn sheep and habitat, and five special status plant species, which include Packards mentzelia, grimy ivesia, Ertters senecio, sterile milkvetch, and Owyhee clover. Relevant and important values for Honeycombs ACEC/RNA include scenery, geologic formations, bighorn sheep and habitat, four special status plant species (sterile milkvetch, Ertters senecio, grimy ivesia, and Owyhee clover), and big sagebrush/needle and thread grass on cinders plant community which meets a vegetation cell need identified by the Oregon Natural Heritage Program. Only a southern portion of the existing 12,469 acre ACEC/RNA was burned. However, much of the 3,378 acre area proposed in the Southeast Oregon Resource Management Plan (RMP) as an addition to the ACEC/RNA in the eastern and southern areas burned in the fire and is part of the HMA also.

L. OTHER

The following critical elements are either not affected by the proposal and alternatives or are not present:

Critical Element	Not Affected	Not Present
Air Quality	X	
Prime and Unique Farmlands		X

Floodplains	X
Wild and Scenic River	X
Native American Religious Concerns	X
Visual Resources	X
Cultural and Historic Resources	X
Hazardous and Solid Wastes	X
Invasive Weeds	X
Ground Water Quality	X
Environmental Justice	X
Adverse Energy Impacts	X

M. MONITORING

Extensive monitoring was done throughout the spring and summer beginning in March, 2006 and continuing through August, 2006. The riparian areas mainly being affected by the wild horses during this time period include a number of springs in both the Wildhorse Basin portion of the HMA, and the Riverside portion of the HMA. There is no domestic livestock grazing from May 2 and February 28 in Wild Horse Basin pasture during late spring, summer, and early fall. The livestock grazing is dispersed and shortened in a rotational period to minimize adverse impacts to riparian resources. All of the areas of concern were carefully evaluated and utilization levels taken. Photographic documentation is on file in the Vale District Office along with the utilization readings of horse use in the fore mentioned areas. As the hot season progressed the wild horses were forced to congregate in the riparian areas more often and in greater numbers as other water sources within the Three Fingers HMA were depleted. Competition for limited water and forage was increased thus creating more confrontations and conflict among the bands. Excessive trailing by increasing numbers of wild horses coming into these water sources is apparent. These water sources are very important to wildlife in providing food and cover. By September, the monitoring studies show there was very little riparian vegetation left remaining in the various areas of concern.

**ENVIRONMENTAL CONSEQUENCES**

A. PROPOSED ACTION

1. Wild Horses

The chase and capture would subject the wild horses to considerable stress. There would be a possibility that some horses would be seriously injured or killed, that foals could become separated from their mothers, and that minor injuries could occur. Behavioral traits and band composition of the herd would be temporarily disrupted. Late-term abortions in mares would be insignificant to nonexistent as gathers would occur in fall.

Released wild horses would increase interband encounters and confrontations. A short-term adjustment period would be required. Wild horses are highly adaptable and no long-term adverse effects to returned animals are anticipated. Released wild horses would increase the average age within the HMA slightly which may result in a small scale increase in mortality during a severe winter. However, the impacts of the loss of these individuals to the population will be short-term as it is unlikely that many of these animals are still reproductively active.

Population-wide indirect impacts that would not appear immediately are difficult to quantify. Concerns related to the proposed participation in research for PZP are associated primarily with the use of fertility control drugs, and involve reductions in short term fecundity of initially a large percentage of mares in a population and potential genetic issues regarding the control of contributions of mares to the gene pool. Again, as AML is achieved with increasing herd health, the potential for these impacts would be expected to lessen as the need to gather excess horses and impose fertility control treatments on a high proportion of the mare population would be less frequent and all mares would be expected to successfully recruit some

percentage of their offspring into the population. Decreased competition coupled with reduced reproduction as a result of fertility control should result in improved health and condition of mares and foals and in maintaining healthy range conditions over the longer-term. Additionally, reduced reproduction rates would be expected to extend the time interval between gathers and reduce disturbance to individual animals as well as herd social structure over the foreseeable future.

Impact analysis assumes that fertility control will slow wild horse reproduction rates. Previous research on winter application of the two-year drug has shown that mares that are already pregnant will foal normally, but the fertility control treatment will be 94% effective the first year, 82% the second year, and 68% the third year.

Wild horse populations would experience a decrease in stress due to extending the period of time between gathers. Mares would experience some stress during the administration of the fertility control drugs and would not produce progeny for two years if successful. Mares which are not supporting young would be expected to experience an increase in health and condition during their non-productive time. Animals would be exposed to potential hazards during treatment. If contraception is used, genetic contributions from individual animals will be only delayed, not removed. Fertility control would also decrease gather frequency and disturbance to individual animals and the herd, and provide for a more stable wild horse social structure.

Population modeling was completed to illustrate the differences in the alternatives and will be used for a comparison. Modeling helps to determine future herd demographics and population growth. The modeling for the proposed action indicates that the average wild horse population growth rate of the median of 100 trials should be 9.9% over ten years. The average population size of the median of 100 trials would be 187 wild horses at the end of ten years. Modeling also indicates that the population after the gather would not put the population at risk of catastrophic loss or “crash” (Appendix III).

## 2. Surface Water/Riparian Areas

The proposed action would limit the intensity of use at water sources and surrounding uplands. Regulating the number of wild horses in the HMA would protect the water sources and riparian areas and lessen degradation of these resources. Protecting the water sources, riparian areas, and water quality is important to wildlife, recreationists, and livestock.

The trap sites would not be located adjacent to any surface water sources or riparian areas; therefore, there would be no anticipated impact due to the gather.

Regulating the increase in wild horse numbers through fertility control would have a positive and immediate impact on water sources and lessen the degradation of these resources. The proposed action would further limit the intensity of use at water sources and surrounding uplands as addressed in the original EA. Remaining horses would continue to impact are water sources, but at a reduced level.

## 3. Soils

Soil loss and compaction would be expected to decrease in those areas near water sources where horses are forced to concentrate.

Soil would be displaced and/or compacted on approximately 2 acres at each site in the construction of the trap panels, use of the access routes, and in the round-up and loading of the wild horses. The area of severe surface disturbance is normally less than 2,000 square feet. Minimal surface wind and water erosion is expected on these areas during the vegetative rehabilitation period (approximately 1 to 3 years).

Fertility control treatments would delay wild horse population increases thereby delaying impacts to soil resources.

## 4. Vegetation

In the immediate vicinity of the catch pens or corrals and the loading chute short-term disturbance would occur. The soil would be compacted and vegetation would be trampled during panel installation by humans

and vehicles and severely trampled in the catch pen area during the round-up by wild horses, domestic horses, and the wranglers. It is estimated and anticipated that 1 to 3 years would be required for native vegetation to become reestablished under average conditions with no reclamation. The total area of impact per trap would be approximately 2 acres, with less than ¼ acre severely disturbed. Less than one AUM of livestock forage would be temporarily destroyed for one grazing season at each trap site used.

There would be a positive impact to the upland and riparian vegetation by reducing the total numbers of wild horses grazing year long within the HMAs. Lessened utilization would allow critical growth period rest for key cool and warm season grasses. The composition of vegetation would change to a higher percentage of desirable plants, soil cover would increase and erosion would decrease.

Applying fertility control measures as part of the proposed action would slow reproduction rates of mares returned to the HMA following the gather, allowing vegetation resources time to recover.

5. Wildlife

Wildlife populations in the areas from which horses are gathered by the helicopter would be forced to seek cover in areas adjacent to the flight path. This would not cause them to abandon their normal habitat areas as the disturbance would be of short duration (8 to 10 days) and very localized. Competition for water and/or forage that might exist between wild horses and wildlife would be reduced.

6. Threatened and Endangered Species

The proposed action would lessen the trampling impacts to *Lepidium davisii* due to wild horses at the playas. Competition for forage between bighorn sheep and wild horses would be lessened.

The trap sites would not be located adjacent to or on any threatened and endangered or special status species; therefore, there would be no anticipated impact due to the gather.

7. Livestock Management

The proposed action will allow present livestock use at allocated levels to continue. Fertility control would delay wild horse populations for one to two years thereby delaying competition between wildlife, livestock and wild horses.

8. Cultural

No impact is anticipated.

9. Recreation

A fall gather may adversely affect hunting activities temporarily.

10. Special Management Areas

The proposed action would not impair the area's wilderness values. If the proposal's impacts had existed at the time of intensive inventory, those impacts would not have disqualified the area from being identified as a wilderness study area. Also, the addition of this proposal would not produce an aggregate effect upon the area's wilderness characteristics/values that would constrain the Secretary's recommendation with respect to the area's suitability or unsuitability for preservation as wilderness.

During the gathering operation, the opportunity for outstanding solitude would be temporarily reduced within the WSAs as a result of the helicopter activity. The panels would be removed upon completion of the gather, eliminating any visual impacts from the trap. The beneficial impacts of removing the horses include an improvement in vegetation, soil, wildlife habitat, and the natural appearance of the entire WSA.

Trap sites will be situated outside of WSA boundaries whenever possible.

11. Other

This proposal is consistent with SEORMP objectives to manage wild horse populations which established AML to maintain a thriving natural ecological balance within the Three Fingers HMA. This action is in

conformance with management objectives found in the land use plan and any proposed change to the AML is beyond the scope of this analysis.

B. ALTERNATIVE 1

1. Wild Horses

Impacts from this alternative would be the same as in the Proposed Action, except that fertility control would not be applied. Individual mares would not receive the fertility control shot, and would undergo less stress due to decreased handling. Mares would continue to foal normally. Past gather experience has shown that the wild horse population will be at the high end of AML four years after the gather. Without slowing reproduction, a gather to maintain AML may be needed sooner than in the Proposed Action.

Population modeling indicates that the average wild horse population growth rate of the median of 100 trials should be 16.8% over ten years. The average population size of the median of 100 trials would be 166 wild horses at the end of four years. Modeling also indicates that the population after the gather would not put the population at risk of catastrophic loss of “crash” (Appendix III).

2. Surface Water/Riparian Areas

Riparian areas may not get as much recovery as proposed action.

3. Soils

Soils may be impacted more than proposed action.

4. Vegetation

Vegetative resources may not get as much recovery as in the proposed action but a thriving natural ecological balance would still be achieved. Without slowing reproduction a steady increase in the number of horses would have a more steady impact on vegetation.

5. Wildlife

Wildlife may be displaced sooner than in proposed action during to increased gather frequency. Competition for forage may occur sooner with natural foaling rates of wild horses.

6. Threatened and Endangered Species

Threatened and endangered species may not get as much recovery as in proposed action.

7. Livestock Management

Livestock management would continue.

8. Cultural

Cultural resources around springs may be less protected than in proposed action.

9. Recreation

Recreation values may be impacted sooner than in proposed action.

10. Special Management Areas

Special management areas may be impacted sooner than in proposed action.

11. Other

Same as proposed action.

C. ALTERNATIVE 2

1. Wild Horses

The horses would continue to multiply and the population would increase at a rate of 15 to 20 percent per year until the habitat would no longer support the horse population and a natural die off would occur. Until this happens the horses would continue to overuse the available forage and water. The horses would begin

to show signs of malnutrition, and a decrease in the population rate can be expected. In concentrated, overabundant animal populations, the individuals become much more susceptible to disease, which would endanger the entire population. Domestic stock in the vicinity could also be threatened by disease.

To facilitate easy comparison of alternatives, the no action alternative was also modeled for ten years. The average of 100 population modeling trials indicates that if the current wild horse population continues to grow without a removal the median population size would be 570 wild horses at the end of ten years. Modeling indicates the average growth rate is expected to be a 20.4% annual increase (Appendix III).

2. Surface Water/Riparian Areas

Increasing numbers of wild horses in the HMA would result in greater use and degradation of surface water sources and riparian areas. More wild horses would adversely affect the water sources and could potentially damage or change spring flows. The vegetation associated with riparian areas would be degraded as the horses would concentrate on it more in the summer. This would result in an unacceptable decline in water quality through increased sedimentation and an increase in water temperatures. This would impact other users of the water sources in the area. Gathering excess wild horses would help keep water quality within acceptable standards.

3. Soils

Soil loss and compaction can be expected to increase in those areas near water sources where horses are forced to concentrate. Increased wild horse numbers on uplands and riparian areas would negatively impact soil surface features and would increase erosion in the HMA.

4. Vegetation

Areas which are presently over utilized, such as areas adjacent to water sources, would continue to be used excessively. The area of over utilization would continue to increase in both size and degree. The composition of vegetation would change to a higher percentage of undesirable plants, soil cover would be reduced, and erosion would increase.

5. Wildlife

Wildlife populations in the HMA would be forced to compete for limited water and forage, which would most likely alter use patterns.

6. Threatened and Endangered Species

Colonies of *Lepidium davisii* would receive an increase in trampling as a result of the increase in wild horse numbers. This increased use would have a negative impact on the species. Competition for forage between bighorn sheep and wild horses would increase as horse numbers increased. Riparian vegetation browsing, eroding banks by trampling, and increased water temperatures due to lack of bank cover and shade is primarily due to wild horse use during the hot season.

7. Livestock Management

The HMA would increase at approximately 20% per year on average from the existing population of 242 horses. Assuming that livestock and wildlife populations are managed to allocated levels, the carrying capacity of the HMA would be over allocated in 2006. The weight gains of the livestock would decrease as the quality and quantity of available water and forage decreases. The BLM may be forced to temporarily suspend or reduce the permitted use of livestock in the area to compensate for the excess number of horses. This in turn, would significantly affect the financial income of these operations.

8. Cultural

An increased horse population would compound the use near available water sources, and may damage or displace artifacts in the immediate vicinities.

9. Recreation

Some negative impacts to hunters would occur with degraded conditions for wildlife populations. The visual resources would be negatively impacted with increased use of the water sources and vegetation. There would be increased horse numbers in the area, thus increasing the horse viewing opportunities.

10. Special Management Areas

The increased horse use would impair the wilderness values of the affected WSAs by changing the manner and degree of use. Vegetative changes would occur with the increased use. The negative impacts of not removing the horses include the degradation of vegetation, soil, wildlife habitat, and the natural appearance of the entire WSA. The no action alternative is not in compliance with the Wilderness Interim Management Policy.

The no action alternative would have negative impacts on the ACECs because of increased use by wild horses.

11. Other

This alternative would not impact any prime and unique farmlands or air quality. The water quality and visual characteristics would be negatively affected. The reduction in livestock use would cause a negative impact in the social and economic element. This alternative is not consistent with the SEORMP objectives to manage wild horse populations.

## **MITIGATION MEASURES**

### **A. PROPOSED ACTION**

Gathering operation would generally occur early in the day and trap sites within a reasonable distance from the horses thereby minimizing the possibility of having wild horses succumb to exhaustion and reducing the chance of mares aborting a fetus.

### **B. ALTERNATIVE 1**

Mitigation measures would be the same as the proposed action.

## **CUMULATIVE IMPACTS**

Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The area of cumulative impact analysis is the Three Fingers HMA. The cumulative analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, the issues of major importance that are analyzed are maintaining rangeland health and proper management of wild horses.

### **A. PAST ACTIONS**

Herd Areas were identified in 1971 as areas occupied by wild horses. The HMA was established in the late 1980s through the land use planning process as areas where wild horse management was a designated land use. Since the mid-1980s, AMLs have been established on the Three Fingers HMA.

The BLM also moved to long range planning with the development of Resource Management Plans and Grazing Environmental Impact Statements (EIS). These EISs analyzed impacts of the Land Use Plan's management direction for grazing and wild horses, as updated through Bureau policies, Rangeland Program direction, and Wild Horse Program direction. Forage was allocated within the allotments for livestock use and range monitoring studies were initiated to determine if allotment objectives were being achieved, or that progress toward the allotment objectives was being made.

Due to these laws and subsequent court decisions, integrated wild horse management has occurred in the Three Fingers HMA. Gathers would be scheduled on a 4-or 5- year gather cycle. Wild horses have been removed periodically from the Three Fingers HMA in the last 25 years and populations are thriving and

have not been negatively impacted. An Appropriate Management Level determination for the Three Fingers HMA was established through BLM Multiple Use Decisions.

Similarly, adjustments in livestock season of use, livestock numbers, and grazing systems were made through the allotment evaluation process. In addition, temporary closures to livestock grazing in areas burned by wildfires, or due to extreme drought conditions, were implemented to improve range condition.

Standards and guidelines for rangeland health have been the basis for managing wild horses and livestock grazing within the Vale District. Adjustments in numbers, season of use, grazing season, and allowable use are based on evaluating progress toward reaching the standards.

B. PROPOSED ACTION

The potential for cumulative effects on the identified resources other than wild horses is minimal. Any known or potential deleterious impacts to non wild horse resources would be mitigated through preplanning and gather placement. There would be lessened competition for forage and limited water with fewer numbers of horses. The current selective removal policy states there would be a restoration of age structure and sex ratio within the bands to historical levels with the long term welfare of wild horse herds being critical. In addition, a quality cross section of horses in all age groups can be released back into the HMA and older, less desirable or defective horses removed from the HMA. Gathering the HMA to the lower level of the AML (75 head) and administration of the immunocontraception vaccine, PZP, may reduce the frequency of gathers that are needed to maintain a thriving, ecological balance, thereby, reducing the stress on the horses related to gather activities.

C. ALTERNATIVE 1

The potential for cumulative effects on the identified resources other than wild horses is minimal. Any known or potential deleterious effects to other resources would be mitigated through preplanning and gather placement. There would be lessened competition for forage and limited water with fewer numbers of horses. By removing horses without the selective removal policy there would be a restoration of age structure and sex ratio within the bands to historical levels. In addition, a quality cross section of horses in all age groups can be released back into the HMA and older, less desirable or defective horses removed. Gathering the HMA to the lower level of the AML (75 head) may not reduce the frequency of gathers as compared to the proposed action, but may maintain a thriving, ecological balance as compared to the No Action Alternative.

D. ALTERNATIVE 2

The horses would continue to overpopulate the HMA until the herds would be reduced or eliminated by natural means. Range condition would deteriorate, watershed cover would be reduced, water quality would be reduced, soil erosion increased, wildlife use patterns and numbers would be altered, and domestic livestock could be reduced or eliminated. Lasting, long-term effects would occur across the entire landscape.

Monitoring studies document areas on upland and riparian sites which have moderate to grazing by wild horses. These levels of utilization have effects on wildlife and habitat suitability and use.

### **CONSULTATION AND COORDINATION**

In accordance with the Wild Horse and Burro Act (Public Law 92-195), a public meeting to discuss the use of helicopters in gathering wild horses and the proposed gathering schedule for FY 2006 was held in Burns District Office. The meeting was announced in the Federal Register. The intensity of a public interest concerning the proposed action has been low in past years.

A notice of the action was sent to the groups and individuals on the District Mailing List including wild horse and burro and wilderness special interest groups.

Livestock operators in the Three Fingers HMA have been consulted.

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