SOUTH STEENS GATHER PLAN FOR THE SOUTH STEENS HERD MANAGEMENT AREA

ENVIRONMENTAL ASSESSMENT OR-03-027-068

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April 30, 2003

TABLE OF CONTENTS

CHAPTER I: INTRODUCTION: PURPOSE OF AND NEED FOR ACTION

A. Introduction

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) Burns 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 percent 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 South Steens Herd Management Area (HMA) has been previously established, based on monitoring data and following a thorough public review, as a range from 159 to 304 wild horses. Documents containing this information are available for public review at the Burns District Office.

A July 2004 census established South Steens HMA wild horse numbers at 647 head, with 32 head being counted outside of the HMA on private property. This number of wild horses is over double the high end of AML. The purpose of the action is the gather wild horses from within the South Steens HMA in order to return the herd to numbers within AML. In addition, those horses outside of the HMA will either be returned to the HMA or included in the number of horses gathered and removed from the South Steens wild horse herd. The results of the action will be to achieve and maintain a wild horse AML which reflects the normal thriving ecological balance, collect information on herd characteristics, determine herd health, maintain sustainable rangelands, and maintain a healthy and viable wild horse population.

In addition to the excessively high number of wild horses currently within the HMA, the gather is further necessitated by ongoing drought conditions which are resulting in increased resource degradation. Climatic data documents varying degrees of drought conditions in the area from 1985 to present. These prolonged “below normal” precipitation conditions have reduced forage production, stressed plants, and the vigor and health of many vegetative communities has declined. Plants which are generally in a low vigor condition are being further stressed by yearlong wild horse grazing. Areas near water during summer and fall have been extremely impacted by the concentration of livestock, wild horses and wildlife on the few available water sources. Therefore, horses need to be reduced in number to prevent further resource degradation in key areas of horse concentrations.

The numbers, age, and sex of animals proposed for removal are derived from the WinEquus Wild Horse Population Model Version 1.2, April 2002, developed by Dr. Steve Jenkins, Associate Professor, University of Nevada, Reno. Appendix A establishes the parameters used for this HMA population modeling.

The South Steens HMA was last gathered in 1998. The South Steens HMA lies south of Burns 75 miles. The South Steens HMA lies adjacent to Catlow Valley on the west and Steens Mountain on the east. The topography varies from slightly rolling hills to steep mountainous country. Elevation varies from approximately 4,000 to 7,400 feet. Precipitation ranges upwards of 20 inches annually and comes mainly in the form of snow. Temperatures vary from -40 °F in winter to 95 °F in summer. The major vegetation types are low sagebrush/Idaho fescue, big sagebrush/Idaho fescue, big sagebrush/bluebunch wheatgrass, and all of which have a significant portion of their sites invaded by western juniper.

Objectives include:

1. Reduce reproductive rates to levels that will accommodate a minimum 4-year gather schedule allowing for the maintenance of AML.

2. Reestablish the preselective removal gather sex distribution toward a more "normal" distribution as indicated by herd sex structure found during the first documented BLM gather in this area.

3. Reestablish preselective removal gather age class distribution toward a more "natural" year gather.

4. Reestablish or maintain herd characteristics which were typical of the South Steens HMA at the time of the passage of the Act.

5. Maintain the genetic diversity of the South Steens herd.

6. Capture approximately 582 wild horses and remove approximately 488 wild horses from the South Steens HMA to attain a thriving ecological balance between wild horses, wildlife, livestock, and vegetation.

B. Conformance with Existing Land Use Plans

The 1982 Andrews Management Framework Plan (MFP), the 1983 Andrews Grazing Management Program Final Environmental Impact Statement (EIS), and 1987 Drewsey, Andrews and Riley MFP Amendment have been reviewed. The proposed action is in conformance with these plans. Applicable sections from these plans are Pages 34 and 35 with Map 5 of the Andrews MFP; Pages 2-11 and 2-12 with Map 5 of the Andrews Grazing Management Program Final EIS; and Appendix 1 of the Drewsey, Andrews, and Riley MFP Amendment.

The proposed action is also in conformance with the Proposed Andrews/Steens Resource Management Plans (RMP), due to be completed in late 2004.

The Andrews MFP, which constitutes the land use plan for Andrews Resource Area, stresses the prevention of excess horse utilization of vegetative resources. In addition, the gathering of excess wild horses is consistent with the South Steens Allotment Management Plan (AMP). The proposed action also conforms to the South Steens Herd Management Area Plan.

C. Relationship to Statutes, Regulations, Policies, Plans or Other Environmental Analyses

This action is governed by the Wild Free-Roaming 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). Section 302(b) of FLPMA, states "all public lands are to be managed so as to prevent unnecessary or undue degradation of the lands."

The following are excerpts from the CFR:

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 - "Herd Management Areas shall be established 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 4180.1."

Gathering excess wild horses conforms to the August 12, 1997 Standards for Rangeland Health and Guidelines for Livestock Management for Public Lands Administered by the Bureau of Land Management in the States of Oregon and Washington (S&Gs). These S&Gs were developed with full public participation and in consultation with Southeastern Oregon's Resource Advisory Council. They have been reviewed by the Departmental Review Team that found they comply with the requirements of the regulations.

The proposed action is also consistent with the 1991 Final Oregon Wilderness EIS and the Endangered Species Act Section 2(c) and 7(a) 2.

The proposed action is also in conformance with relevant portions of the Wilderness Act, BLM Wilderness Management Manuals 8560 and 8560-1, Interim Management Policy H-8550-1 and 43Code of Federal Regulations 6300. For those portions of the HMA that fall within the boundaries of the Steens Mountain Wilderness, a Minimum Requirements Decision Guide (Appendix B) has been completed, and is attached to ensure that Standard Operating Procedures (SOP) for this action are in conformance with the Wilderness Act.

The proposed action is in conformance with PL 106-399 Steens Mountain Cooperative Management and Protection Act of 2000 which includes the following purposes:

Section. 1(b)(1) To maintain the cultural, economic, ecological, and social health of the Steens Mountain Area of Harney County, Oregon;
Section 1(b)(11) To promote viable and sustainable grazing and recreation operations on private and public lands; and
Section 1(b)(12) To conserve, protect, and manage for healthy watersheds and the long-term ecological integrity of Steens Mountain.

Section 112(b)(2)(A) does not prohibit the use of motorized or mechanized vehicles on Federal lands included in the Cooperative Management and Protection Area (CMPA) if the Secretary determines that such use is needed for administrative purposes or to respond to an emergency.

D. Interim Management Policy for Lands under Wilderness Review

The proposed action and Alternatives 1 and 2 would be in conformance with the Interim Management Policy (IMP) for Lands under Wilderness Review for the following reasons:

The preservation of Wilderness values is the "overriding consideration" of Wilderness Study Area (WSA) management. The proposed action and Alternative 1 could affect the Wilderness value of naturalness. Previously disturbed areas are preferred for trap sites and reseeding small areas would restore naturalness. Alternative 2 would preserve the existing Wilderness values. The proposed action and alternatives would meet the "overriding consideration."

The proposed action and alternatives would meet the "nonimpairment criteria" because no permanent structures would be required, the traps are temporary, and the trapping activities would not degrade Wilderness values. Any surface disturbance associated with the trap sites and activities would not require reclamation, other than some minor reseeding.

The proposed action and alternatives would not impair the WSA's suitability for preservation as Wilderness. There would no long-term effects to the Wilderness values of roadlessness, naturalness, and opportunities for solitude or primitive and unconfined recreation. During all gather operations, solitude in the WSAs would be decreased by sights and sounds of people, vehicles, and helicopters for about 2 weeks. Once the gather is completed, opportunities for solitude would return.

The proposed action and alternatives would be substantially unnoticeable, in the long term. The trap sites, when they are in use, would be recognizable as human-made. Once the traps are removed, there would be few signs of human activities.

CHAPTER II: ALTERNATIVES INCLUDING THE PROPOSED ACTION

The proposed action and alternatives represent a reasonable range of alternatives based on the issues and goals identified through public scoping efforts.

A. Proposed Action

The proposed action is to capture approximately 582 wild horses (90 percent of the population) in the summer/fall of 2004, and approximately 488 wild horses would be removed from the South Steens HMA (Map A). Approximately 94 wild horses (58 mares and 36 studs) would be returned to the HMA at completion of the gather, leaving a post gather population of approximately 159 head, which is the lower level of the AML. This alternative would include determining sex, age and color, acquiring blood samples, assessing herd health (pregnancy/parasite loading/physical condition/etc.), monitoring results as appropriate, sorting individuals as to age, size, sex, temperament and/or physical condition, and returning selected animals, primarily in the 6 to 10-year age group. This would ensure a vigorous and viable breeding population, reduce stress on vegetative communities and wildlife, and be in compliance with the Wild Free-Roaming Horse and Burro Act of 1971 and land use plans.

It is anticipated that up to eight capture sites (traps) may be used to capture wild horses from the HMA. Whenever possible, capture sites would be located outside of Steens Mountain Wilderness if effective herd gathering can still be accomplished. It is estimated that three to five capture sites would be placed inside of WSA, using existing roads and previously disturbed sites. Traps would typically be approximately 800 square feet in size. Trap wing configuration will vary, depending on terrain and materials would be hand carried into WSA and Wilderness. A holding facility of approximately 2,000 square feet will be constructed, potentially on private property. Gathering personnel will stay in self-contained trailers at the holding site. The gather operations will last 2 weeks.

Gather sites will not be selected until just prior to the gather, by contractor in consultation with the BLM (Appendix C – Wild Horse and Burro Contract Specifications). All capture and handling activities (including capture site selections) would be conducted in accordance with SOPs described in Appendix D.

Selection of capture techniques would be based on several factors such as herd health, season of the year, and environmental considerations. Horses are typically herded across country and into the traps utilizing a helicopter, which reduces herding time, and thereby reduces stress and potential injury for the wild horses. A decoy horse is often placed at the entrance to the trap to lure the wild horses into the mouth of the trap. Mounted wranglers are utilized to retrieve abandoned foals and occasionally herd stragglers into the trap. Once captured, the wild horses are loaded into gooseneck stock trailers and transported to a holding facility, where horses are sorted and selected for herd retention or transported for preparation for adoption. Determination of which horses would be returned to the range would be based on an analysis of existing population characteristics which are saddle horse type confirmation with some draft horse influence.

B. Alternative 1

Alternative 1 would be the same as the preferred alternative, except for the following differences as described. All of the mares to be released back to the HMA, following treatment with an immunocontraceptive vaccine, Porcine zona pellucidae (PZP), administered by trained BLM personnel. The inoculation of mares would consist of a liquid dose of PZP vaccine and a time released portion of the drug in the form of pellets. The approach incorporates the PZP into a nontoxic, biodegradable material which can be formed into small pellets. The pellets are injected with the liquid and are designed to release PZP at several points in time much the way time-release cold pills work. This formulation would be delivered as an intramuscular injection by a jabstick syringe, while mares are restrained in the working chute. Upon impact the liquid in the chamber would be propelled into the muscle along with the pellets. This delivery method has been used previously to deliver inmmunocontraception vaccine with acceptable results. Such a vaccine would permit a single injection to cause up to 2 years of contraception at approximately 94 percent effectiveness in year one, and 82 percent effectiveness in year two.

Delivery of the vaccine would be by means of a syringe with a 12-gauge needle, with 0.6 cc of the PZP vaccine emulsified with 0.6 cc of Freund's complete adjuvant (a compound that stimulates antibody production). The pellets would be placed in the barrel of the syringe needle that is dipped in Furazone to prevent bacterial infection at injection site. Due to the cost per head (approximately $210 for materials; PZP, adjuvant, syringes, and needles) and the exacting nature of fertility control application, only trained personnel would mix and/or administer the vaccine.

All treated mares would be identified and marked to enable positive identification of animals in the research project during the data collection phase. The effectiveness of treatments (efficacy of the immunocontraceptive drug) would be determined by counting foals produced in each of the next 4 years during helicopter census of the HMA. All mares treated would remain on the HMA for a minimum of 3 years. Collection of monitoring data to determine the efficacy of the drug is dependent upon available funding.

C. Alternative 2 (No Action)

Under this alternative, wild horses would not be removed from the South Steens HMA during the summer/fall of 2004. The existing population of 647 horses would continue to increase at approximately 20 percent per year, making the 2005 population 776.

D. Alternatives Considered but Eliminated from Further Analysis

1. One alternative considered was wild horse management using fertility control measures only 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 immunocontraceptive vaccine has not been formally approved by the Food and Drug Administration for management-based applications. Even with formal approval, an effective remote delivery methodology (aerial or water based) has not been developed for current formulations. The current data suggest that repeated long-term applications of the vaccine may affect fecundity.

2. 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 concur with previous land use plan decisions. The Wild Free-Roaming Horse and Burro Act of 1971 does not require that these areas of public lands be managed for wild horses but states under Section 2a (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 plans.

3. Gathering the wild horses utilizing only mounted wranglers was eliminated from further consideration based on serious safety factors. Herding wild horses on horseback over long distances and rough terrain exposes both wranglers and saddle horses to almost certain serious injury or death. The extended period of time required for herding and capture also increases stress and the potential for injury of wild horses, most particularly, foals. Increased cross-country travel by saddle horses could potentially result in greater environmental impacts to vegetative and soil resources.

CHAPTER III: AFFECTED ENVIRONMENT

A. Critical Elements

Critical Element	Affected	Not Affected
Areas of Critical Environmental Concern		X
Air Quality		X
Cultural Resources		X
Environmental Justice		X
Prime or Unique Farmlands		X
Floodplains		X
Noxious Weeds	X	
Special Status Species (Plant)	X	
Special Status Species (Animal)	X	
Migratory Birds	X	
Hazardous Materials		X
American Indian Religious Concerns		X
Paleontology		X
Water Quality	X	
Wetlands and Riparian Zones	X	
Wild and Scenic Rivers	X	
Wilderness and WSAs	X	
Adverse Energy Impact		X

1. Areas of Critical Environmental Concern

One area within the HMA is a designated Area of Critical Environmental Concern (ACEC). The Steens Mountain ACEC was designated to protect the scenic qualities of the high elevation areas. Wild horses may add to the scenic qualities of this ACEC for some observers. There are negative impacts to the ACEC in those localized areas having heavy grazing and around trampled springs. This ACEC is proposed for elimination in the Andrews/Steens Proposed RMP/final EIS due to adequate management by other area designations. ACECs will not be discussed further in this document.

2. Cultural Resources

Various portions of the HMA have been inventoried for cultural resources. The entire area, inclusive of the HMA, was used by prehistoric people for hunting and gathering and by homesteaders settling the region. There are no known cultural sites within the areas being used to trap the wild horses. Cultural surveys will be completed prior to gathering to assure that trap sites and concentrated gathering activities do not occur within a cultural site. Cultural resources will not be discussed further in this document, except as a component of Wild and Scenic River Outstandingly Remarkable Values (ORVs).

3. Noxious Weeds

Noxious weeds have been documented on several sites within the HMA, especially in the vicinity of reservoirs, springs, creeks, roads, and trails. The largest infestations consist of whitetop, scotch thistle, and Canada thistle. Other noxious weed species present in smaller infestations include spotted knapweed, yellow starthistle, Russian knapweed, morning glory, and Mediterranean sage.

4. Special Status Species

California bighorn sheep, ferruginous hawks, Preble's shrew, and Greater sage-grouse, sage sparrow, and some species of bats are BLM Special Status species and present within the HMA. Two Special Status fish species inhabit streams within the HMA; the Malheur mottled sculpin and redband trout. The Columbia spotted frog, which is also a candidate species for listing as threatened, has been identified on the Donner und Blitzen River. The bald eagle is the only Federally-listed species known in this area. It is a wintertime resident with possible roosts along the Donner und Blitzen River.

Steens Mountain paintbrush is a BLM sensitive plant species that occurs in the HMA.

5. Migratory Birds

Approximately 70 species of migratory birds are known to inhabit the HMA. These species include Brewer's sparrow, song sparrow, western kingbird, gray flycatcher, American robin, house finch, Townsend's solitaire, kestrel, red-tailed hawk, turkey vulture, golden eagle, Canada goose, common merganser, great blue heron, and many other species.

6. Water Quality/Riparian Areas/Floodplains

There are 44.2 miles of perennial streams within the HMA, including most of the South Fork Donner und Blitzen River, Home Creek, and Threemile Creek. The South Fork Donner und Blitzen River, its major tributaries, and Home Creek are on the Clean Water Act Section 303(d) list of water quality limited waters because of failure to meet the Oregon water temperature standard. Other impacted water quality parameters include increased streambank erosion, increased turbidity, loss of instream habitat and reduced aesthetics (algal production).

7. Wild and Scenic Rivers

The 1993 Donner und Blitzen National Wild and Scenic River Management Plan Environmental Assessment identified ORVs as features which the BLM is charged with protecting and enhancing. These values are scenic, geologic, recreational, fisheries, wildlife, vegetation, and cultural resources (Pages 2-6 Donner und Blitzen National Wild and Scenic River Management Plan EA). Current wild horse use (Rangeland Monitoring Summary, Appendix E) is impacting the vegetation ORVs within a portion of the river corridor and may be impacting the fisheries and wildlife ORVs within the river corridor. Portions of Donner und Blitzen River, Little Blitzen River, Big and Little Indian Creeks, Ankle Creek, and Mud Creek are within the Wild and Scenic River system.

8. Wilderness

A portion of South Steens HMA lies within the Steens Mountain Wilderness. The Wilderness consists of 170,084 acres located in two parcels (Home Creek Unit and Steens Mountain Unit) which are divided by South Fork Blitzen WSA. The 43,116 acres of the South Steens HMA that lies within the Wilderness includes the Home Creek Unit and Mud and Ankle Creek area of the Steens Mountain Unit. These areas are being affected by wild horse use with the greatest effects being to the Wilderness values, primarily to naturalness. Other values in the Wilderness would also be impacted including fish, wildlife, and vegetation.

Some of the most unique attributes of Steens Mountain Wilderness are the scenic vistas and spectacular geology. Visitors can experience a diversity of habitats where above the trees, severe climate and thin soils result in a belt of grasses, low-growing plants, and stunted, wind-formed shrubs. At the base of the mountain where water is scarce, sagebrush is common. Stands of quaking aspen can be seen along inviting streams. Mountain mahogany occupies the dryer ridge tops. Observant visitors may catch glimpses of large raptors such as golden eagles and mammals such as the pronghorn antelope. The most observant visitors may glimpse a piece of living history, the South Steens wild horse herd, which descended from horses that escaped from early explorers, settlers, miners, American Indians, and ranchers.

Steens Mountain Wilderness has ‘Wilderness characteristics’ which are the same as WSAs. These characteristics include naturalness, outstanding opportunities for solitude, primitive and unconfined recreation, and the presence of special features.

Naturalness: Steens Mountain Wilderness is in a relatively natural condition. The Wilderness contains a diversity of habitats from sagebrush grasslands at the lower elevations, to alpine habitats at the upper elevations of Steens Mountain.

These habitats contain a wide variety of plant and animal species. Unnatural features occur throughout the Wilderness. These features include fences and corrals, spring developments, reservoirs and waterholes, and abandoned cabins. In addition, a number of open roads bisect the Wilderness at various locations.

Solitude: The Wilderness has outstanding opportunities for solitude. The area contains a substantial amount of topographic and vegetative screening and large expanses of open undeveloped landscape. Solitude would mainly be affected near the roads where the sight and sound of vehicles could be evident. During all gather operations, solitude in the Wilderness would be decreased by sights and sounds of people, vehicles, and helicopters for about 2 weeks. Once the gather is completed, opportunities for solitude would return.

Primitive and Unconfined Recreation: Steens Mountain Wilderness provides outstanding opportunities for primitive forms of recreation. These activities include day hiking, backpacking, cross-country skiing, camping, horseback riding, hunting, fishing, wildlife viewing, nature study, sightseeing, and photography.

Special Features: Special features in Steens Mountain Wilderness include those of ecological, geological, scientific, educational, scenic, and historical value. All of these features are available in the Wilderness.

9. Wilderness Study Areas

The Blitzen River (2-86E), South Fork Donner und Blitzen River (2-85G), and Home Creek (2-85H) WSAs are located within the South Steens HMA. Wilderness characteristics include naturalness, outstanding opportunities for solitude or primitive and unconfined recreation, and the presence of special features. The following definitions are from BLM Manual Handbook H-8550-1 – Interim Management Policy for Lands under Wilderness Review. *Naturalness* - refers to an area which "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable." *Solitude* - is defined as "the state of being alone or remote from habitations; isolation. A lonely, unfrequented, or secluded place." *Primitive and Unconfined Recreation* - is defined as nonmotorized and undeveloped types of outdoor recreation activities. *Supplemental Values* - are listed in the Wilderness Act as "ecological, geological, or other features of scientific, educational, scenic, or historical value." Where possible, the following wilderness characteristic descriptions have been amended to reflect the designation of portions of these WSAs as the Steens Mountain Wilderness.

The Blitzen River WSA was reduced to 31,737 acres from 55,880 with the designation of the Steens Mountain Wilderness. Wilderness characteristics of the Blitzen River WSA are summarized from Volume I of the Oregon BLM Wilderness Study Report (1991).

Naturalness: Blitzen River WSA is in a relatively natural condition. The WSA contains a variety of wildlife habitats with a diversity of animals. There are 84 unnatural features which influence approximately 7 percent of the WSA: 52 reservoirs, 1 developed spring, a 2-mile irrigation ditch, 12 fences totaling 33 miles, and 18 ways totaling 58 miles. (The number of unnatural features has not been adjusted to reflect new structures in the WSA or changes resulting from the designation of wilderness.) Many of the developments and ways are visible from the higher elevations around them. The fences are generally screened by topography or vegetation. Outside influences include several small reservoirs along the west boundary, the Page Springs Campground, and a power line along the northwest boundary.

Solitude: Blitzen River WSA has outstanding opportunities for solitude. The area contains a substantial amount of topographic and vegetative screening. There are small portions of the WSA, mostly near the western border, where finding seclusion would be difficult because the areas lack of topographic or vegetative screening.

Primitive and Unconfined Recreation: The Blitzen WSA provides outstanding opportunities for primitive forms of recreation. These activities include day hiking, backpacking, camping, horseback riding, hunting, wildlife viewing, sightseeing, and photography. Game species in the WSA include mule deer, pronghorn antelope, elk, and chukars.

Special Features: Special features of the Blitzen River WSA are scenic quality and wildlife. The topography of the WSA offers spectacular scenery of ridges covered by juniper and sagebrush, intermixed with outcroppings of dark basalt rock. Special wildlife features include a Greater sage-grouse strutting ground and mule deer winter range. Greater sage-grouse, a BLM Special Status species, is proposed for listing under the Endangered Species Act.

The South Fork Donner und Blitzen River WSA was reduced to 27,969 acres from 37,555 with the designation of the Steens Mountain Wilderness. Wilderness characteristics of the South Fork Donner und Blitzen River WSA are summarized from Volume I of the Oregon BLM Wilderness Study Report (1991).

Naturalness: South Fork Donner und Blitzen River WSA is in a relatively natural condition. Juniper and low sagebrush are the dominant vegetation. The WSA provides habitat for a variety of big game, upland game birds, and other wildlife species. The WSA contains 30 unnatural features that influence about 2 percent of the WSA: 15 reservoirs, 11 ways totaling 28 miles, a corral, 2 fences totaling 2 miles, and an old abandoned habitation. (The number of unnatural features has not been adjusted to reflect new structures in the WSA or changes resulting from the designation of wilderness.)

Solitude: Opportunities for solitude are outstanding. The WSA's size, numerous shallow drainages, deeper river tributaries, and juniper trees enhance the opportunities for a visitor to find seclusion.

Primitive and Unconfined Recreation: The South Fork Donner und Blitzen River WSA has outstanding opportunities for primitive recreation. Day hiking, backpacking, camping, and horseback riding opportunities are available. Water and camping spots are available throughout the WSA. Game species in the WSA include mule deer, pronghorn antelope, elk, and upland game birds.

Special Features: A Greater sage-grouse strutting area is located in the WSA. Greater sage-grouse, a BLM Special Status Species, is proposed for listing under the Endangered Species Act.

The Home Creek WSA was reduced to 1,165 acres from 26,590 with the designation of the Steens Mountain Wilderness. Wilderness characteristics of the Home Creek WSA are summarized from Volume I of the Oregon BLM Wilderness Study Report (1991).

Naturalness: Home Creek WSA is in a natural condition. The WSA has good populations of pronghorn antelope and chukar and provides habitat for a variety of nongame species. There are no unnatural features in the 1,165-acre WSA.

Solitude: Opportunities for solitude are outstanding. These opportunities are enhanced by vegetative screening and the remoteness of the Home Creek WSA.

Primitive and Unconfined Recreation: The Home Creek WSA offers outstanding opportunities for hunting, wildlife viewing, camping, and horseback riding. Game species in the WSA include mule deer, pronghorn antelope, and chukars.

Special Features: The identified special features of wildlife, geology, and scenery for the Home Creek WSA are now in the Steens Mountain Wilderness.

B. Noncritical Elements

1. Wild Horses

The South Steens HMA has been periodically gathered since 1976. Numbers of wild horses captured and removed for each successive gather are documented in the Burns District Office. The last gather was completed in 1998, in which 168 wild horses were removed, leaving 377 wild horses.

The last census in the complex was done on July 7, 2004. The population was 647 in the South Steens HMA. Of these 647 wild horses, 108 were foals under 1-year of age, which indicates a 20 percent population increase.

Adult wild horses in the HMA weigh an average of 950 to 1,050 pounds and stand between 14.2 and 15.2 hands, with some stallions being slightly larger. The herd is managed for horses with pinto color markings. Other common colors within the herd include sorrel, bay, palomino, gray, brown, black, and roans. Most have saddle horse type confirmation with some draft horse influence.

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 complex is approximately 50/50.

A few reservoirs and some small perennial streams are the only natural late season water sources within the South Steens HMA. There is significant pressure on theses water sources late in the grazing season, making impacts higher on all resources involved. With the addition of new fencing surrounding the No Livestock Grazing Area, the HMA is continually being broken into pieces with small bands separated from the majority of the herd area.

Water is a limiting factor in certain years throughout the South Steens HMA. Most of the watering areas in the HMA are in the form of seasonal reservoirs and streams that provide water during the spring through fall seasons or until they dry up.

Forage is allocated for 159 to 304 wild horses in the South Steens HMA or 3,648 Animal Unit Months (AUMs). Inventory data shows that horses have concentrated in the few areas with perennial water sources. Utilization levels are in the 60 to 80 percent range within these areas and are increasing due to the concentration of horses. Utilization for the rest of the HMA is within acceptable limits of 40 to 45 percent. However, the numbers of wild horses using the area has increased in the past several years and there is no rest provided for key cool season grasses. Utilization levels have reached the upward limits of the acceptable range.

2. Grazing Management

Forage allocations for livestock in the South Steens HMA are currently 9,577 AUMs of active preference. There is only one permittee who grazes livestock on the South Steens Allotment. Forage allocation is 500 AUMs for deer, 22 AUMs for antelope, 60 AUMs for elk, and 3,540 AUMs for horses (wildlife AUMs are at the pre-Steens exchange levels). Although California bighorn sheep utilize this area, there has been no forage allocated for them; instead in 1987, wild horses were removed from the Alvord Peak portion of the South Steens HMA where they were competing with California bighorn sheep for forage.

Water for livestock and wild horses is mainly available from springs, creeks, and reservoirs during early spring through late fall. Throughout the summer, spring flow and reservoir storage diminish. By the late part of the grazing season most water resources become dry, thus causing some excessive use around permanent watering areas, especially during periods of drought.

Overall rangeland trend is static throughout the South Steens Allotment. Current utilization levels in many areas of the South Steens Allotment are within the maximum utilization level of 50 percent on native range set forth in the South Steens AMP (1995).

3. Fish and Wildlife

Pronghorn antelope, mule deer, and Rocky Mountain elk use the HMA for summering and wintering ranges. Other important mammals that utilize the area include, but are not limited to, mountain lion, bobcat, coyotes, badger, jackrabbit, and cottontail. Some of the common birds include golden eagle, chukar, California quail, mourning dove, red-tailed hawk, kestrel, and the great horned owl.

4. Vegetation

Current rangeland monitoring indicates heavy utilization by horses in portions of the riparian zones of Home Creek, the South Fork Donner und Blitzen River, Deep Creek and Mud Creek on public and private lands within the HMA. These are .1-mile segments or less which is at a level of utilization that is inhibiting woody species establishment and impacting streambank stability (Appendix E – Rangeland Monitoring Summary).

The most common vegetative communities at lower elevations include mountain big sagebrush/Thurber's needlegrass, western juniper/mountain big sagebrush, Idaho fescue, and low sagebrush/Sandberg's bluegrass. In higher elevations, the common vegetative types include mountain big sagebrush/Idaho fescue and mountain brome. Riparian vegetation includes willow, alder, redosier dogwood, chokecherry, bluegrass, sedges, and rushes.

The mountain sagebrush, aspen, and to a lesser extent, low sagebrush communities are fire-dependent ecosystems. These communities have been impacted by increasing western juniper density and/or increase in juniper size and canopy cover. The South Steens AMP has directed the reintroduction of fire into this HMA. This reintroduction of fire has created a mosaic of vegetation seral stages and increased species diversity, as well as improved structural diversity, which results in habitat improvements for most wildlife species, livestock, and wild horses.

By managing wild horses at the AMLs, these burns will be allowed recovery time for germination and plant community establishment. These burn areas are typically rested from livestock use for two growing seasons following the burn treatment. This is generally done by not licensing the pasture or, if that is not possible, by herding or temporary fencing.

Monitoring studies indicate a stable to upward trend in condition of upland plant communities. However, yearly utilization monitoring studies indicate areas of moderate to heavy use by wild horses in upland plant communities. Because of repeated defoliation by, and timing of, wild horse grazing on these sites, forage plant species are not able to complete their life cycle which results in reduced plant vigor and eventual death if this level and timing of annual utilization is continued. This is impeding management objectives for uplands as outlined in the South Steens AMP.

Monitoring studies indicate upward trend in riparian condition with stable trend on some sites for riparian areas within the HMA. However, as indicated in the Fish and Wildlife section of this EA, short-term utilization studies indicate levels of utilization of riparian vegetation in some portions of riparian zones which are inhibiting achievement of management objectives for riparian habitat as outlined in the South Steens AMP, and the two objectives for the Catlow Valley Redband Trout and Catlow Tui Chub Conservation Agreement and Strategy.

5. Soils

The soils are shallow, rocky, and fine-textured in the low sagebrush areas, and are deeper and loam to clay loam textured in the mountain sagebrush communities, juniper, and aspen types. In most of the HMA, the soils on the uplands are well-drained and stable. Some streambank erosion occurs along the Catlow basin streams and the South Fork Donner und Blitzen River. Current rangeland monitoring indicates streambank stability impacts on segments of steams within the HMA, due to wild horse grazing, which increases streambank erosion on these stream segments.

6. Recreation

The South Steens HMA is primarily located in the Steens Mountain CMPA. The Steens Mountain Area is a destination for many summer and fall visitors. Much of the HMA is not accessible by motorized vehicle during the winter and spring because of locked gates, a seasonal road closure, and poor route conditions. The South Steens Loop Road, part of the Steens Mountain Back Country Byway, traverses the HMA and is a major access route. The Steens Loop Road, a graded gravel road, is maintained, while most of the side roads are rough and rocky. Approximately 22,000 people per year travel the South Steens Loop Road.

Recreational opportunities in the HMA include hunting, four-wheel driving, backpacking, wildlife viewing, hiking, camping, fishing, sightseeing, and wild horse viewing.

7. Visual Resources

The South Steens HMA is located within Visual Resource Management (VRM) Class I, II, and IV areas. The WSAs are VRM Class I, while the non-WSA portions are VRM Classes II and IV. The VRM Class I objective is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention. The VRM Class II objective is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. The VRM Class IV objective is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

In the Proposed RMP, scheduled for completion in late 2004, the VRM Class IV areas in the South Steens HMA would be redesignated as VRM Class III. The VRM Class III objective is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the causal observer. Changes should repeat the basic elements found in the predominant natural features of the landscape.

CHAPTER IV: ENVIRONMENTAL CONSEQUENCES

A. Proposed Action

1. Anticipated Effects – Critical Elements

a. Noxious Weeds

Existing noxious weed infestations could be spread to other areas within the HMA by wild horses eating the seed or carrying the seed in their hair.

By maintaining horse numbers at or below AML, the chance of noxious weed spread would be greatly reduced. Limiting vehicle travel to existing roads and ways, combined with avoidance of noxious weed infestations when selecting trap sites, would limit the potential of noxious weed spread during gathering operations.

b. Special Status Species

There would be no effect of the proposed action on the bald eagle or the Columbia spotted frog. Habitat conditions for Greater sage-grouse would be improved. By returning the wild horse herd to AML, the number of horses grazing and watering along perennial streams would be reduced thereby helping to improve water quality and allowing the vegetation to reestablish in portions of riparian areas impacted. This would improve water quality and habitats for special status fish species. This action would contribute toward meeting the objectives contained in the Catlow Valley Redband Trout and Catlow Tui Chub Conservation Agreement and the South Steens AMP. No direct effects on fish habitat from the gathering procedures would be expected.

c. Migratory Birds

Gathering horses and reducing the herd population to AML would improve availability of sagebrush and woodland habitat for migratory birds associated with those habitats. The quality of the habitat would be improved due to the decreased number of horses. Reproductive capabilities of migratory birds would be improved as a result of increased food sources. Cover for most ground-nesting species would be increased. Migratory bird species abundance and diversity would be increased within the HMA.

d. Water Quality/Riparian Areas/Floodplains

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 reduce use near water sources and riparian areas by minimizing degradation to these resources. The improved shading, bank stability, and floodplain development of these portions of stream by deciduous woody and desired herbaceous species would help to improve water temperatures and overall water quality. Achieving AMLs for wild horses would also accelerate improvements of upland plant communities and increase capture and infiltration capability. This, along with increased floodplain development, would help provide later release of water and improved summer flows. 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.

e. Wild and Scenic Rivers

The proposed action would have no effect on the geologic or cultural resources ORVs for the designated Wild and Scenic River segments within the HMA. Returning the horse herd population to AML would provide long-term improvement for recreational, fisheries, wildlife, and vegetation ORVs, through removal of concentrated wild horse grazing use. Gathering operation would have short-term effects on scenic ORVs, due to helicopter overflights and increased traffic on adjacent roads, but mid to long-term effects would be fewer opportunities to view wild horses within the Wild and Scenic River corridors. Gathering operations would have similar short-term effects on recreational ORVs.

f. Wilderness

Most or all of the horse traps needed for the gather will likely be placed out side of the Wilderness. The July 7, 2004, South Steens census only indicated 20 horses within the boundary of the Steens Wilderness, which would negate the need for a trap to be placed within Wilderness. If substantial numbers of horses were to move into Wilderness prior to gathering, there would be the potential need to locate one or two trap sites in Wilderness in order to return the herd to AML. This potential would only be considered after all other feasible options have been exhausted.

If there is a need to place a trap in or near the Wilderness and/or the Wilderness boundary, wherever and whenever possible the traps will be set on the open road corridors within the boundary setbacks which are outside of the Wilderness. In some instances there may be a need to place the 'wings' of the gather traps within the Wilderness. In those instances the work of placing those wings will be accomplished without the use of motor vehicles or mechanized equipment whenever possible and feasible.

It is possible that vehicles may have to drive off road and into Wilderness at or near trap sites, even if trap sites are placed outside of Wilderness. Vehicles pulling horse trailers may have to drive off road to turn around in Wilderness. Every effort will be made to minimize these types of actions and the resulting impacts. Field personnel would participate in field checking potential trap sites. Appropriate rehabilitation, such as raking and seeding with native species, would be conducted after gathering operations are completed.

If there were no alternative to placing a trap site within Wilderness, there would be a need to drive motor vehicles off road and into the Wilderness.

There would also be a need to use mechanized equipment in this case. In any instances such as these, the intrusion of motor vehicles into the Wilderness and the use of mechanized equipment in the Wilderness would be the minimum necessary to accomplish the task. Wilderness personnel would participate in field checking of potential trap sites. Appropriate rehabilitation, such as raking and seeding with native species, would be conducted after gathering operations are completed.

Helicopters will be used to herd the horses into the trap sites but the helicopters will not land in the Wilderness on a routine basis. Helicopter landing would only be allowed in Wilderness under extreme circumstances, such as equipment failure.

Every effort will be made to time gathering within the Wilderness during mid-week so as to limit disturbance to solitude. Impacts to primitive recreation and solitude would be short term and have no lasting effects as they would only occur during gathering operations.

Elements of the South Steens gather that could or would affect Wilderness include construction of traps, use of motorized vehicles to transport trapping personnel and wild horses, and use of helicopters.

Naturalness: Naturalness in the Wilderness would temporarily be diminished by the presence of traps, vehicles, people, and helicopter use. Such effects should not last any longer then the time needed to complete the gather. Naturalness would be affected for a longer period of time at the trap sites and may include the trampling of vegetation and some soil compaction by wild horses and people. In addition there may be some crushing of vegetation and some soil disturbance if the use the motor vehicles are necessary. The imprints of human's work could be more noticeable and the primeval character of the Wilderness could be affected.

Solitude: During gather operations solitude in the Wilderness would be decreased by sight and sound of people, vehicles, and helicopters. Such impacts may last approximately 2 weeks. Such impacts to solitude should be primarily limited to those areas of the Wilderness where gathering is taking place though the sight and sound of the helicopter may affect a larger area and more Wilderness visitors. Once the gather is completed, opportunities for solitude would return.

Primitive and Unconfined Recreation: During all gather operations, primitive and unconfined recreation opportunities would be constrained by the presence of people, vehicles, traps and wings, holding facilities, helicopters, and the closure of access routes for about 2 weeks. These effects would only occur within the vicinity of gathering operations.

During the fall big game seasons, hunters would especially be constrained by low-level helicopter overflights and route closures. Once the gather is completed, opportunities for primitive and unconfined recreation would return.

Special Features: No special features in the Wilderness would be affected, because of the location of gather operations on or adjacent to existing roads and the planned summer/fall timeframe.

g. Wilderness Study Areas

Elements of the South Steens gather that could or would affect WSAs include construction of traps, use of motorized vehicles to transport trapping personnel and wild horses, and use of helicopters. Wilderness/WSA personnel would participate in field check of potential trap sites. Use of all vehicles off road and way would be minimized. Appropriate rehabilitation, such as raking and seeding with native species, would be conducted after gathering operations are completed.

Naturalness: Naturalness in the three WSAs would temporarily be diminished by the presence of traps, vehicles, people, and a helicopter. Naturalness would be affected for a longer period of time at the trap sites through the concentrated hoof action. More than 2,400 square feet of soil and vegetation could be disturbed in and around these areas. The imprints of human's work could be more noticeable and the primeval character of the WSAs could be affected.

Solitude: During all gather operations, solitude in the WSAs would be decreased by sights and sounds of people, vehicles, and helicopters for about 2 weeks. Once the gather is completed, opportunities for solitude would return.

Primitive and Unconfined Recreation: During all gather operations, primitive and unconfined recreation opportunities would be constrained by the presence of people, vehicles, traps and wings, holding facilities, helicopters, and the closure of access routes for about 2 weeks. During the fall big game seasons, hunters would especially be constrained by low-level helicopter overflights and route closures. Once the gather is completed, opportunities for primitive and unconfined recreation would return.

Special Features: No special features in the WSAs would be affected, because of the location of gather operations on or adjacent to existing roads and the planned summer/fall timeframe.

2. Anticipated Effects – Noncritical Elements

a. Wild Horses

Under the proposed action effects to wild horses would take the form of direct and indirect effects and may occur on either the individual or the population as a whole. Direct individual effects are those effects which occur to individual horses and are immediately associated with implementation of the proposed action. These effects include stress associated with the roundup, capture, sorting, animal handling, and transportation of the animals. The intensity of these effects varies by individual, and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individuals from this effect is infrequent, but does occur in .5 to 1 percent of horses gathered in any given roundup.

Indirect individual effects are those effects which occur to individual horses after the initial stress event. Indirect individual effects may include spontaneous abortions in mares, and increased social displacement and conflict in studs. These effects, like direct individual effects, are known to occur intermittently during wild horse gather operations. An example of an indirect individual effect would be the brief skirmish which occurs with older studs following sorting and release into the stud pen which lasts less than 2 minutes and ends when one stud retreats. Traumatic injuries do not occur in most cases, however, they do occur. These injuries typically involve a bite and/or kicking with bruises which do not break the skin. Like direct individual effects, the frequency of occurrence of these effects among a population varies with the individual. Spontaneous abortion events are very rare among mares following captures.

Populationwide direct effects are immediate effects which would occur during or immediately following implementation of the proposed action (Appendix A – Population Modeling). They include the displacement of bands during capture and the associated redispersal which occurs following release, the modification of herd demographics (age and sex ratios), the temporary separation of members of individual bands of horses, and the reestablishment of bands following releases, and the removal of animals from the population. With exception of changes to herd demographics, direct populationwide effects have proven, over the last 20 years, to be temporary in nature with most if not all effects disappearing within hours to several days of release. No observable effects would be expected within 1-month of release, except for a heightened awareness of human presence.

The effect of band displacement on a population as a result of gather operations has been observed in several HMAs following releases.

Observations have been made of individual and populationwide horse response following releases from both the trap site where particular animals were captured and from the central holding facility where all captured animals were held. Most horses relocated themselves from the release site back to their home ranges within 12 to 24 hours and, at times, much faster. This redistribution occurred following a brief "reorientation swing" involving horses ranging out from the release site in a curving arc until their bearings were apparently restored. Following this initial random travel, most horses lined out and headed off in a particular direction often without deviating from that line until they disappeared from sight. Assertions that horses are simply taking the most direct route away from humans are not accurate, as instances where horses reverse their original direction crossing back in front of the release trailer or holding area are fairly common following the reorientation swing.

Specialists have also observed horse behavior, following releases, as it relates to bands which are separated at capture. While the affinity of individual animals to their band would be expected to vary, it was a very common observation that mares or studs broke from the group they were released with (unexpected behavior for a social animal exercising the flight response) and headed toward a particular animal or group of animals. Following this activity, the pair or trio of horses continue the reorientation swing and then lined out together in a common direction. In some cases, individual groups were observed later together in a new area presumed to be the site of their original home range. Some specialists have noted individual mares reassociated with specific studs or mare groups following capture.

The removal of horses from the population would not be expected to have effect on herd dynamics or population variables; as long as the selection criteria for the removal ensured a "typical" population structure was maintained. Obvious potential effects on horse herds and populations, from exercising poor selection criteria not based on herd dynamics, includes modification of age or sex ratios to favor a particular class of animal.

Effects resulting from successive removals causing shifts in sex ratios away from normal ranges are fairly self evident. If selection criteria leave more studs than mares, band size would be expected to decrease, competition for mares would be expected to increase, recruitment age for reproduction among mares would be expected to decline, and size and number of bachelor bands would be expected to increase.

On the other hand, a selection criterion which leaves more mares than studs would be expected to result in fewer and smaller bachelor bands, increased reproduction on a proportional basis with the herd, lengthening of the time after birth when individual mares begin actively reproducing, and larger band sizes.

Effects resulting from successive removals causing shifts in age dynamics away from normal ranges are likewise, fairly obvious. Herd shifts favoring older age horses (over 15 years) have been observed resulting in a favoring of studs over mares in some herds. Explanations include sex-based differences in reproductive stress (relative demand for individual contributions to reproduction) and biological stress (timing the most physically demanding period of the annual cycle).

For studs, reproductive stress is based on dominance in the herd and by definition is confined to a fairly narrow period in their lifespan when they are capable of defending a mare group. For mares, recurrent reproductive stress starts as early as age 2 and continues until as late as age 15 or 16, and sometimes as late as 20. Biological stress in wild horses tends to indicate a selection against mares. Biological stress is based on the degree, duration, and timing of biologically demanding activities during the annual reproductive cycle.

For mares, the greatest biological stress is during pregnancy and lactation. In wild horse populations, this occurs in late winter or early spring when forage availability is at its lowest level, and body condition is at its poorest. For studs, biological stress is at its peak during the breeding season. This peak biological demand is in the late spring and early summer and is more suited to a rapid recovery and a lower energy deficit than for mares.

The susceptibility of the older herd to extreme climatic events would depend on the age of the dominant class in the group. Generally, survival rates of horses are very high (exceeding 98 percent) for mature animals and lower for very young. This survivability declines again at some older age. Similarly, reproductive success also declines at some age. The threshold age has not been established at which susceptibility to extreme events and reproductive senescence occurs. It is reasonable to conclude that the older the population, the more prone it would be to a catastrophic die-off as a result of reduced resistance to disease, lowered body condition, and/or reduced reproductive capacity.

The effects of successive removals on populations causing shifts in herd demographics favoring younger horses (under 15 years) would also have direct consequences on the population. These effects are not typically thought of as adverse to a population. They include development of a population which is expected to be more biologically fit, more reproductively viable, and more capable of enduring stresses associated with traumatic natural and artificial events.

The proposed action and Alternative 1 would mitigate the potential effects on wild horse populations by establishing a procedure for determining what selective removal criteria is warranted for the herd. This more flexible procedure of removing horses under 6 years and over 10 years old, would allow for the correction of any existing discrepancies in herd dynamics which could predispose a population to increased chances for catastrophic impacts. The proposed action and Alternative 1 would establish a standard for selection which would minimize the possibility for developing negative age or sex-based selection effects in the population in the future.

b. Grazing Management

The proposed action would minimize competition for forage and water between livestock and wild horses.

c. Fish and Wildlife

Some wildlife could be temporarily disturbed or displaced by the helicopter or by the placement of the trap. The impacts would be short term and many species of wildlife would return to regular use of the areas after the disturbance has passed. The reduction of wild horse numbers to AML would reduce utilization of forage and water resources by horses and allow for improvement of habitat conditions for wildlife species.

d. Vegetation

Some short-term disturbance to the vegetation would occur in and around the trap sites due to trampling and vehicle use. The disturbance would be kept to as small an area as possible. Reducing the number of wild horses would subsequently reduce impacts to those portions of uplands and riparian communities currently with heavy utilization or grazed during critical growth stages each year, which effects plant health. This would improve forage species vigor, cover, and allow the plant communities to provide for maximum plant density to site capability. This would allow progress toward meeting riparian and upland objectives outlined in the South Steens AMP.

e. Soils

Soil loss and compaction would be expected to decrease in those areas near water sources where horses are forced to concentrate. Lower populations of horses would result in less hoof traffic, thereby decreasing impacts to biological soil crusts. Reducing the number of wild horses in the area of Home Creek, Threemile Creek, and the South Fork Donner und Blitzen River would decrease the amount of use on the riparian areas and allow establishment of desired deciduous woody species and desired herbaceous species on the portions of these streams currently grazed by horses.

f. Recreation

For a period of 2 weeks, vehicle access to some areas would be temporarily blocked by gather activities and facilities, displacing recreationists to other, nearby areas. People recreating in the HMA may be bothered by low-flying helicopters. Conversely, gather activities may attract additional people to the area. Wildlife would be disturbed by helicopter overflights, reducing opportunities for hunting and wildlife viewing. Public notification regarding gathering activities has been, and will continue to be, distributed prior to commencement of gather operations. Effects to recreation in the WSAs are described in the WSA section.

g. Visual Resources

The traps and holding facilities would temporarily add complex rectangular and circular forms which would contrast with the surrounding landscape. These forms would be composed primarily of short vertical and long horizontal lines. A longer lasting color contrast would be caused by vegetation trampling and soil exposure. Any needed reseeding, and eventual revegetation, of the trap sites and holding facilities would reduce the contrast.

The use of pick-ups and ATVs for trap wing construction and removal outside of the WSAs could create sinuous linear features through the crushing of vegetation and exposure of soil. Line and color contrasts could be created. The trap wings themselves are made from jute and t-posts. Only temporary, minor color contrasts would result from the trap wings.

VRM Class II, III, and IV objectives would be met for the non-WSA portion of the HMA. VRM Class I objectives may not be met for the WSA portions of the HMA. Additional mitigation would be needed for the gather operations in the WSAs.

B. Alternative 1 (Immunocontraception)

Effects would be the same for Alternative 1 as for the proposed action, with the following exception. Population modeling found that Alternative 1(Immunocontraception) results in the lowest average population size in 5 years. However, the difference in population size in 5 years between Alternative 1 and the proposed action (Gather) is only a 10 percent increase in average median population size from 319 to 351, respectively. The average growth rate for Alternative 1 was 13.6 percent versus 19.1 percent for the proposed action. Implementation of either the proposed action or Alternative 1 would prevent the wild horse population from increasing beyond the upper level of the AML (304 head) until 4 years following implementation of the proposed action. The proposed use of immunocontraception in Alternative 1 does not provide a statistically significant reduction in population growth when compared to a projected gathering interval of 3 to 5 years. The additional handling required to administer the immunocontraception would increase the handling stress experienced by mares during the gathering operation.

C. Alternative 2 (No Action)

1. Anticipated Effects – Critical Elements

a. Noxious Weeds

The increase of horse numbers above the AML would increase the likelihood of spreading existing noxious weeds to areas within the HMA that have not been infested, primarily along riparian areas, springs and reservoirs.

b. Special Status Species

Heavy grazing use along perennial streams would cause water quality and riparian condition to deteriorate, directly affecting the habitat of the Malheur mottled sculpin and redband trout. The objectives outlined in the Catlow Valley Redband Trout and Catlow Tui Chub Conservation Agreement and Strategy and the South Steens AMP would not be met. Nesting and brood-rearing habitat for sage-grouse would continue to be degraded as wild horse numbers increased and upland riparian conditions deteriorated. The loss of cover in nesting areas would allow for more predation of nests while loss of forb species important to sage-grouse for nutrition during nesting and brood rearing would decrease the general health and reproductive status for the hens. Loss of cover around important water sources leaves hens and broods susceptible to predation as well. Habitat for Columbia spotted frog could be affected due to the increase in wild horse herd numbers as riparian/wetland areas are degraded.

c. Migratory Birds

While sagebrush and woodland habitat would still be available for migratory birds associated with these habitats, the quality of the habitat would be reduced due to the increased number of wild horses. Reproductive capabilities of migratory birds would be affected as a result of decreased food sources. Cover for most ground-nesting species would be reduced. Migratory bird species abundance and diversity would be reduced within the HMA.

d. Water Quality/Riparian Areas/Floodplains

Increasing numbers of wild horses in the HMA would result in greater use and degradation of riparian areas. This would result in an unacceptable decline in water quality through increased sedimentation and water temperatures. Riparian area vegetation would be degraded as additional horse use would decrease vegetation recruitment, reproduction, and survivability. In addition, riparian vegetation community types and distribution would be changed, root density lessened, and canopy cover reduced. This would lead to reduced stream channel and spring/seep dynamics and further deterioration of these systems.

e. Wild and Scenic Rivers

Alternative 2 would have effects on the identified ORVs for those segments of Wild and Scenic Rivers within the HMA. Increased horse population, concentration and utilization of riparian areas associated with the Wild and Scenic River segments would affect scenic, recreational, fisheries, wildlife, and vegetation ORVs. There would be no effect on geologic ORVs. Increased horse numbers could potentially affect cultural resources ORVs within the Wild and Scenic River corridors.

f. Wilderness

Increased horse use would impair primary Wilderness values. Degradation of vegetation and soils would primarily effect naturalness, as a result of increased population, concentration, and utilization by wild horses within the Wilderness. Additional effects of not removing the horses include the degradation wildlife habitat and the loss of the natural appearance of the Wilderness.

Naturalness: In the long term, naturalness in the Wilderness could be affected by increasing numbers of wild horses. Overgrazing by wild horses would change the character of the landscape through loss of vegetation and an increase in soil erosion and invasion by annual grasses or noxious weeds. This would also have direct effects on wildlife habitat and populations.

Solitude: Opportunities for solitude in the Wilderness would not be affected by increased horse numbers as most Wilderness visitors would consider the horses to be native and natural.

Primitive and Unconfined Recreation: Opportunities for primitive and unconfined recreation in the Wilderness would not be affected as wild horses would have no effect on Wilderness recreation opportunities.

Special Features: Special features in the Wilderness would be affected by increased horse use that would lead to increased resource damage and degradation.

g. Wilderness Study Areas

Naturalness: Naturalness in the Blitzen River, South Fork Donner und Blitzen River, and Home Creek WSAs would not be affected.

Solitude: Opportunities for solitude in the Blitzen River, South Fork Donner und Blitzen River, and Home Creek WSAs would not be affected.

Primitive and Unconfined Recreation: Opportunities for primitive and unconfined recreation in the Blitzen River, South Fork Donner und Blitzen River, and Home Creek WSAs would not be affected.

Special Features: Special features in the Blitzen River, South Fork Donner und Blitzen River, and Home Creek WSAs would not be affected.

2. Anticipated Effects – Noncritical Elements

a. Wild Horses

The horses would continue to multiply and the population would increase at a rate of 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 endangers the entire population. Domestic stock in the vicinity could also be threatened by disease.

If the number of wild horses is allowed to further expand beyond the AML, portions of uplands and riparian conditions would continue to deteriorate or not improve. As numbers of animals increase, the areas of deteriorated upland and riparian communities would increase, impacting watershed condition, habitats for other animals, water quality; and, therefore, disrupting the ecological balance within the HMA.

Population modeling found that Alternative 2 (No Action) resulted in the highest average population size in 5 years of 904 head versus 319 head for Alternative 1 and 351 head for the proposed action. The average growth rate for Alternative 2 (No Action) was 16.5 percent versus Alternative 1 at 13.6 percent, and 19.1 percent for the proposed action. Under this alternative, natural controls would regulate wild horse numbers through predation, disease, and forage, water, and space availability. Wild horses in the South Steens HMA are not substantially regulated by predators. In addition, wild horses are a long-lived species with documented foal survival rates exceeding 95 percent. This alternative would result in a steady increase in numbers that would exceed the carrying capacity of the range. The Wild Free-Roaming Horse and Burro Act of 1971 mandates the Bureau to "prevent the range from deterioration associated with overpopulation" and "preserve and maintain a thriving natural ecological balance and multiple use relationships in that area."

b. Grazing Management

The HMA would potentially continue to support an existing population of 647 horses. Assuming that livestock and wildlife populations are managed to allocated levels, the carrying capacity of the HMA would be over allocated as the horse population continued to increase over time. 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 suspend or reduce the permitted use of livestock in the area to compensate for the excess number of horses. This, in turn, would affect the financial income of these operations.

Livestock and increased numbers of wild horses would be in direct competition for forage and water as the population increases. Livestock management on public land would require shorter periods of use and increased rest cycle. However, negative impacts would still occur from yearlong grazing by horses (i.e., repeated defoliation of plants, grazing at critical times for plants, and in yearlong grazing in recovering riparian areas). Wild horses would also graze private land within the HMA more intensively, providing incentive to the landowner to fence the private land from the HMA and not allow wild horse use.

c. Fish and Wildlife

Wildlife populations (deer, elk, and antelope) in the HMA would be forced to compete more for limited water and forage, which would most likely alter use patterns. Habitat degradation would decrease wildlife populations and wildlife use in the HMA.

d. 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.

e. Soils

Soil loss and compaction would 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 impact soil surface features and would increase erosion in the HMA.

f. Recreation

Overall, recreation in the HMA would not be affected. Opportunities for viewing wild horses would be improved, because of the larger number of wild horses, until natural die-off begins to occur.

g. Visual Resources

Visual resources would not be affected. VRM Class I, II, and IV (III) objectives would be met.

CHAPTER V: CUMULATIVE IMPACTS

A. Proposed Action (Gather)

The potential for cumulative impact on most of the identified resources other than wild horses is minimal. 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 (159 head) 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.

B. Alternative 1 (Immunocontraception)

The potential for cumulative impact on most of the identified resources other than wild horses is minimal. 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 (159 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 2 (No Action)

The horses would continue to over populate the HMA until numbers would reduce or eliminate the herds 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 would be eliminated. Lasting, long-term, adverse effects would occur across the entire landscape.

These direct impacts of wild horse grazing are impeding progress on management objectives for the Catlow Valley redband trout as outlined in the Conservation Agreement.

Monitoring studies document areas on upland sites which have moderate to heavy grazing by wild horses. This level of utilization may have impacts on sage-grouse nesting habitat as well as impacts on other wildlife species.

CHAPTER VI: CONSULTATION AND COORDINATION

The Steens Mountain Advisory Council (SMAC) participated in development of recommendations for management of the Steens Mountain CMPA, including specific recommendations for wild horse management in the South Steens HMA. The SMAC identified gathering the South Steens herd as a priority for management in the Steens Mountain CMPA.

CHAPTER VII: PERSONS, GROUPS, AND AGENCIES CONTACTED

Karla Bird, Andrews Resource Area Field Manager
Darren Brumback, Fisheries Biologist
Jim Buchanan, Supervisory Natural Resource Specialist
Stacy Davies, Ranch Manager, Roaring Springs Ranch
Gary Foulkes, Planning and Environmental Coordinator
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Rick Hall, Natural Resource Specialist
John Neeling, Outdoor Recreation Planner, Wilderness
Matt Obradavich, Wildlife Biologist
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Tom Seley, Wild Horse and Burro Management Specialist
Scott Thomas, Archaeologist
Evelyn Treiman, Outdoor Recreation Planner