

ENVIRONMENTAL ASSESSMENT

for

WILD HORSE GATHERING

SAGEBRUSH BASIN WILD HORSE HERD MANAGEMENT AREA

EA Number AA-080-EA9-041

BUREAU OF LAND MANAGEMENT

JUNIPER MOUNTAIN FIELD OFFICE, WYOMING

MAY 1994

CHAPTER I - INTRODUCTION

PURPOSE OF AND NEED FOR THE ACTION

The Proposed Action is to remove excess wild horses from the Sagebrush Basin wild horse herd management area (HMA) located within the Juniper Mountain Field Office area. This action would be implemented under the authority of the Wild Free-Roaming Horse and Burro Act of 1971, as amended. The Capture Plan (Appendix A) and this Environmental Assessment (EA) cover gathering in the HMA.

The purpose of gathering wild horses is to achieve the appropriate management level (AML) in accordance with exiting land use plan and herd area management plan. This action reduces wild horse numbers to a level consistent with the AML established in the Juniper Mountain Resource Management Plan (RMP). The RMP established use levels for domestic livestock, wildlife, and wild horses to prevent resource damage which could be caused by excess numbers of animals. The established AML, when achieved and maintained, will allow for the attainment or maintenance of *BLM Statewide Standards for Healthy Rangelands* (see Appendix B) on public lands and ensure that failure to meet standards will not be the result of the presence of excess wild horses.

The AML established in the RMP allows wild horses will be managed to maintain populations within a range of numbers to maintain a viable herd.

Wild horses that exceed a properly established AML are defined as excess (as defined in the Wild and Free-Roaming Horse and Burro Act and Federal Land Management and Policy Act). Excess wild horses are subject to removal. Wild horse gathering has been on-going in the Field Office area since 1975. In addition, BLM has been conducting rangeland monitoring on portions of the HMA and will continue monitoring efforts. Annual aerial inventories of wild horse populations have been conducted throughout the Field Office area. Such inventories will continue but are subject to changing budget priorities. Available data have established that the historical annual rate of increase in wild horse populations in the Juniper Mountain Field Office area is 20 percent.

For analysis purposes in this EA, the number of excess wild horses subject to gathering in the HMA (Table 1) was calculated from the low range of AML to keep wild horse populations in or close to compliance with the land use plan, the herd management area management plan, and to minimize the need for more frequent gathering.

TABLE 1

WILD HORSE POPULATION AND APPROPRIATE MANAGEMENT LEVEL

Area	A AML (Range)	B Current Pop.	C Projected 1994 Post- Foaling Pop.	D Summer 1994 Excess Horses (C - A)	E Number of Excess Horses	F Number that can be removed-selective criteria	G Number of horses <6 yrs. old that can be released
Sagebrush Basin HMA	500 (415- 600)	568	681	266	306	306	100

CONFORMANCE WITH LAND USE PLANS

Gathering and removal of excess wild horses from the HMA is in conformance with the Juniper Mountain Resource Management Plan approved August 8, 1992. Wild horse numbers were addressed in developing the land use plan. The wild

horse HMA was established through the planning process. This action is in conformance with management objectives found in the land use plan management. Any proposed change to the AML would require amending the land use plan.

RELATIONSHIP TO STATUTES, REGULATIONS, OR OTHER PLANS

In addition, gathering of excess wild horses is in conformance with Public Law 92-195 (Wild and Free-Roaming Horse and Burro Act of 1971) as amended by Public Law 94-579 (Federal Land Policy and Management Act), and Public Law 95-514 (Public Rangelands Improvement Act). Public law 92-195, as amended, requires the protection, management, and control of wild free-roaming horses and burros on public lands.

As provided in 43 CFR 4700.0-6(a-c), BLM policy for management of wild horses is to: a) "...manage as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat; b)...considered comparably with other resource values; and c)...maintaining free-roaming behavior."

No other permits or authorizing actions are required prior to implementing the Proposed Action.

PUBLIC SCOPING AND PUBLIC MEETING

A public hearing on the use of helicopters and motorized vehicles during calendar year 1994 was held at the Juniper Mountain Field Office on February 8, 1994. There were no public concerns expressed for use of helicopters. Most of the public comments made at the public meeting concerned the proposed 1994 spring gather. A decision was made to not gather in the spring and to address those issues in a separate environmental analysis.

In early and mid-March 1994, BLM issued scoping letters seeking comment on the proposal to gather excess wild horses in the Juniper Mountain Field Office area. The comment period closed April 12, 1994. Two comment letters were received that provided issues or concerns. Those issues identified by the public include:

State Game and Fish Department

Support effort to maintain wild horse numbers at population objectives.

Include a comparison of methodologies for data collection and population modeling.

Analyze implications of wild horse numbers over objective and the cost to other resources.

People for Animals

Analyze full range of alternatives including changing AML, removal of cattle, and implementing fertility control. Discuss criteria used to arrive at AML for HMA.¹

Analyze previous removals and impact on livestock AUMs.²

Predator control activities in HMA.³

Discuss RMP decisions and specific impacts on wild horse management in HMA.⁴

Discuss age/sex structure and genetic viability in wild horse herds.

Discuss selective removal policy/criteria and impacts from implementing.

Discuss potential impacts of removal/transportation/holding operations on pregnant mares and foals and how horses are treated at the holding facility.

Define "thriving ecological balance" and the role of wild horses and cattle.

Discuss the number of livestock, wildlife, and wild horses in HMAs at different times of the year and analysis of habitat use of the various animals.

Location and condition of watering areas and which species utilize them during the year.

Analyze the methodology used and information gathered from rangeland and resource inventories, and monitoring.

Discuss weather patterns, climatic conditions and the impact on wild horses, wildlife, vegetation production, water levels, and winter kill.

Discuss implementation of the *Strategic Plan for Management of Wild Horses on Public Lands*.

Identify trap locations and impacts from construction and operation activity.

Discuss the impact of helicopter use on wild horses and other wildlife in the HMA.

Impacts from terrain and weather conditions during round-ups on wild horses.

¹ - Analyzing alternatives identified in the comment letter is beyond the scope of this analysis. Approval of the land use plan set management levels for wild horses and domestic livestock and was done so with full public participation.

² - Previous removals have no bearing on the current proposal. The reason that BLM is proposing to remove wild horses is because of their reproduction success.

³ - Predator control activities on public lands managed by BLM are administered and analyzed by the APHIS-WS.

⁴ - See Juniper Mountain Resource Management Plan Draft and Final Environmental Impact Statements for a discussion of impacts on wild horses due to planning decisions. This EA tiers off those EISs.

CHAPTER II - PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

To achieve appropriate management level (AML) throughout the Juniper Mountain Field Office area will require removal of approximately 306 excess wild horses from the HMA.

Approximately 500 wild horses must be gathered to remove the 306 excess wild horses under current selective removal guidelines. Animals that do not meet selective removal criteria are turned back onto the range. Gathering operations would be conducted as described in the Wild Horse Capture Plan (Appendix A), would start no earlier than July 15, 1994, and continue until AML is achieved.

The Proposed Action would be in conformance with the current selective removal policy as established in Instruction Memorandum 94-053 (Appendix C). The current selective removal policy is a feature of the *Strategic Plan for Management of Wild Horses on Public Lands*. This plan was developed in June of 1992 to implement a long range strategy for the management of wild horses and burros. The goal was to develop a plan that recognized wild horses and burros as important and perpetual components of the rangeland ecosystem. Selective removal based upon sex and/or age was recommended for population control. Current policy also reflects the desire of BLM to remove only the most adoptable animals. Gathering and handling methods would be conducted as described Appendix A and is made part of the Proposed Action.

Monitoring

All monitoring is coordinated with the range management program and will attempt to identify areas of conflict among wild horses, wildlife, and domestic livestock. It will also provide for identifying areas where there is or may be resource damage due to excess wild horses, including use around riparian areas. This information will help to set priorities for determining where removal is most needed to achieve or maintain a thriving ecological balance. Monitoring the impacts of grazing animals on range and soil resources is coordinated between the wild horse and range management programs including assessment of grazing allotments for compliance with *BLM State Standards for Healthy Rangelands*.

NO ACTION (No Gathering or Postponement of Gathering)

Under the No Action alternative, BLM would not gather wild horses or would postpone gathering of excess wild horses.

ALTERNATIVES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

Closure of Wild Horse Herd Management Area to Livestock

The HMA in the Juniper Mountain Field Office area was established in accordance with 43 CFR 4710.1, 4710.3, and 4710.4. In addition, 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 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 plan. Existing planning decisions provide for maintaining populations of wild horses in these areas and for providing the opportunity for livestock grazing. Closure of the HMA, or a part of it, to livestock grazing other than by domestic horses would not be in conformance with the Juniper Mountain Resource Management Plan. Impacts of livestock grazing have been analyzed in the land use plan.

Alternative Gathering Methods

Hay and water trapping methods require that these resources be scarce. In Wyoming, abundant forage, except during severe winters with substantial snow cover, makes hay trapping impractical. When conditions might allow some limited success, drifting snow and road conditions limit access. Abundant water supplies and occasional rain showers make water trapping impractical. Also, rounding up wild horses with saddle horses alone has proven to be inefficient and impractical.

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. It poses safety hazards to wild horses, personnel, and their saddle horses. Due to these reasons, this alternative as a primary method of gathering is dropped from further consideration.

CHAPTER III - AFFECTED ENVIRONMENT

INTRODUCTION

The resources affected by the Proposed Action and No Action Alternative include wild horses, vegetation and soils, domestic livestock and wildlife, lands, and recreation users. Wildlife, livestock, and wild horses utilize vegetation and can affect vegetative cover and diversity, soil stability, erosion, and sedimentation.

The following critical elements of the human environment and other potential concerns were considered but were determined not to be affected nor impacted by the Proposed Action and will not be discussed further in this EA:

-Air Quality

-Areas of Critical Environmental Concern (ACEC)

- Cultural, Historic, and Paleontologic Resources
- Threatened and Endangered, Candidate, or Sensitive Plant or Animal Species
- Water Quality or Sole Source Aquifers
- Environmental Justice
- Wilderness Areas and Wilderness Study Areas
- Prime and Unique Farmlands
- Native American Concerns
- Wild and Scenic Rivers
- Hazardous Wastes
- Social and Economic Resources

GENERAL ENVIRONMENT

The Juniper Mountain Field Office area is located in the southwest part of the state and contains the HMA. The area within the HMA is 1,193,283 acres.

The established AML for the Sagebrush Basin area is between 1,105 and 1,600 head. Currently there are an estimated 568 wild horses and with the 1994 post-foaling population, the number is predicted to be approximately 681 wild horses. Historically, BLM has been able to maintain the numbers at or close to AML.

Climate

The climate within the areas proposed for gathering is typical of a cold desert. Summers are generally hot and dry with long, cold winters. Temperatures can range from well below zero to the upper 90s. Annual precipitation ranges from a low of 7 inches up to 15 inches at higher elevations. Some wind is seemingly inevitable. Direction of prevailing winds is variable but is generally westerly.

Topography

Topography within the areas proposed for gathering is highly variable, ranging from mostly flat to slightly rolling foothills carved by drainages, and desert mountains featuring steep slopes, cliffs, and canyons. Preferred habitat for wild horses in the Sagebrush Basin HMA is the rolling hills and flats found at lower elevations.

Human-made Hazards

The only human-made hazards to wild horses of importance would be fences. Portions of the HMA are fenced on the boundary. This fencing is associated with major highways and the field office area boundary, and the state line. Minimal fencing exists within the HMA, mostly associated with deeded property. Most grazing allotments within the HMA is unfenced. However, wild horses may occasionally be moved through fences; when this is necessary, actions are taken to minimize risks.

WILD HORSES

The wild horses that would be affected by the Proposed Action are the estimated 500 wild horses that must be gathered to accomplish the removal of approximately 306 excess wild horses from inside the HMA.

Wild horses in the Juniper Mountain Field Office area have many domestic bloodlines in their background including American Quarter Horse, Thoroughbred, Standardbred, Arabian, and smaller draft breeds such as Percheron. Nearly every coat color, pattern, and combination thereof, can be found within the herds. The animals tend to be of moderate to large sized for light horses. Habitat conditions are such that the horses are in very good condition. The combinations of size, conformation, coat colors and patterns, and excellent physical condition have become a draw for potential adopters and a matter of reputation for "Juniper Mountain" horses.

The normal breeding period runs from March through September each year but peaks around mid- to late-June. The peak of foaling for wild horses in the Juniper Mountain Field Office area has been documented to be on or around June 1. For planning purposes, it is considered to be June 1.

The horses' social structure, combined with their size, strength, and adaptability allows them to compete favorably with wildlife and domestic livestock. Horses traveling up to 10 miles to water have been noted, although 2- to 5-mile distances are more common. An adult horse normally consumes 10 to 12 gallons of water per day. Horses usually have adequate water from winter snows and spring runoff which fill reservoirs and intermittent streams. During late summer and early fall, horses depend on the fewer perennial sources of water (i.e., reservoirs, streams, springs, and flowing wells), and on water wells pumped for domestic livestock and wildlife. No predation of wild horses has been documented in the Juniper Mountain Field Office area and is considered to have little or no effect on wild horse populations.

DOMESTIC LIVESTOCK AND WILDLIFE

Most rangelands in the Juniper Mountain Field Office area provide seasonal and yearlong grazing for livestock (cattle, sheep, horses). Approximately 45 percent of the rangelands in the field office area are public lands which are used in conjunction with State and private lands for the grazing of domestic livestock.

Livestock water is provided by springs, wells, intermittent and ephemeral streams, pipelines, and reservoirs. Sheep use snow in the winter as a water source, as do the wild horses and native wildlife. There has been a substantial amount of non-use of permitted livestock AUMs (animal unit month) in recent years.

Wildlife are an integral part of the environment. The Juniper Mountain Field Office area provides habitat for a variety of wildlife species, including big game species (elk, mule deer, pronghorn antelope, and moose).

There is potential for competition between wild horses and antelope, deer, and elk; however, this potential is generally minimal during all four seasons. This potential is minimized by maintaining wild horse populations at AML, and evidence suggests the relationship might be symbiotic. While there is no research, there are a number of documented cases where antelope and elk follow wild horse herds during bad winters because the horses are able to break through deep and crusted snow, allowing the antelope and elk to feed behind. This, however, would turn to competition if horse numbers are over AML. The seasons of greatest potential competition between wild horses and elk are fall and winter, and with antelope are winter/early spring.

There are some important fisheries in the Field Office area. Most of the area included in the HMA is desertic in nature and few perennial streams exist in the HMA. The number and size of perennial drainages limits the number of potentially important fisheries. There is opportunity to enhance some fishery habitat with improved management directed at enhancing riparian ecosystems throughout the Field Office area. Achieving and maintaining wild horse numbers at AML is an important part of achieving such objectives.

VEGETATION AND SOILS

Wild horses generally prefer perennial grass species as forage. Shrubs are more important during the fall and winter. The species of grasses preferred depends on the season of the year. Needle and thread, and Indian ricegrass are most important during the winter and spring and wheatgrasses during the summer and fall.

There are a variety of vegetation types in the Juniper Mountain Field Office area including sagebrush, sagebrush/grass, saltbush, greasewood, desert shrub, juniper, grass, meadow, broadleaf trees, conifer, mountain shrub, half shrub and perennial forb, and badlands. The predominant vegetation type is sagebrush/grass.

Riparian areas are very important for wild horses, wildlife, and domestic livestock. They generally have deeper, richer, loamy soils, higher in organic matter. Natural meadows and cottonwood bottoms are valuable components for all foraging animals (domestic or wild). The communities along stream courses provide food, cover, and water for many species of wildlife.

Because of the use demands on riparian areas, management considerations have focused on protecting these areas from depletion. Fencing and utilization limits with herding of domestic livestock have been effective tools in maintaining and improving the qualities of riparian ecosystems. Achieving and maintaining AML of wild horse herds is important to keeping

utilization at acceptable levels and preserving riparian habitat.

Since the area is arid, its soils generally lack profile development. As a result, the soils lack structure and are highly susceptible to erosion. In the Juniper Mountain Field Office area, the soils are predominantly in the order of Entisols and Aridisols.

Soils are dependent on vegetation cover to remain in place and to continue the geologic process of soil development. Vegetation cover prevents raindrops from directly impacting the soil surface and slows runoff and erosion. Major climatic factors affecting soil development include elevation, aspect, precipitation, and the pattern of snowdrifts.

Drainages and stream bottoms have accumulated silts and clays in alternate layers of varying texture. These soils are more resistant to wind erosion but are very susceptible to headcutting by water movement.

Varying amounts of soluble salts occur in all the soils. In some soils, the level of soluble salts affects their management (reduced infiltration of water, limitation of nutrient availability, and reduction of water available to plants).

Soil compaction occurs from livestock use and concentrations of other large animals, including wild horses, around water sources. The effects of winter grazing does not impact soils as severely because the soils are frozen. Overland runoff is greater from compacted than from uncompacted soils. The trampling and cutting effects of hooves of grazing animals, including livestock, big game, and wild horses, are most harmful to soils during wet periods.

LANDS

Lands in the Juniper Mountain Field Office area include BLM-administered public land, lands managed by other Federal agencies, State land, and private land. The location of private lands throughout the Juniper Mountain Field Office area affects wild horse management on public lands, in part, because private lands are not fenced from public lands.

RECREATION

The public enjoys seeing wild horses roaming free in the Juniper Mountain Field Office area. Visitor use has not been documented due to its random nature and the fact that anyone is free to drive out and see wild horses.

Adoption of a wild horse or horses provides the opportunity for a more in-depth, up-close, and long-term recreational experience for interested and qualified members of the public. In some instances, wild horse adoptions have become locally important social events.

CHAPTER IV - ENVIRONMENTAL CONSEQUENCES

INTRODUCTION

Resources impacted by the Proposed Action and No Action Alternative include wild horses, domestic livestock and wildlife, vegetation and soils, lands, and recreation. The direct, indirect, and cumulative impacts are addressed for each resource.

PROPOSED ACTION

Wild Horses

The gathering of an estimated 500 wild horses will be required so that approximately 306 excess wild horses can be removed from within the HMA. Gathering will comply with selective removal criteria. The number of excess wild horses to be removed is based on the projected 1994 post-foaling population. Maintaining the populations at AML would benefit the remaining horses by improving the quality and quantity of forage. Gathering would not begin before July 15, 1994, 45 days after the peak of foaling.

Wild horses would be placed under stress as a result of being captured, transported, prepared, and adopted. Some horses may be injured or killed; however, in 25 years of experience and documentation, this number has been less than 1 percent of horses gathered.

There is potential for foals to become separated from their mothers. Every effort would be made to reunite the foal with its mother.

Minor injuries such as scrapes, bites, and bruising are likely to occur. Some sorting of animals may occur at the trap to sort off small foals or other horses with special handling requirements. Extensive handling of horses in the trap can result in a slight increase in potential for injury.

Transporting horses from the trap to a field holding/sorting facility, Juniper Mountain, or other cooperating facility has the potential for causing some injury to the transported animals. Transporting horses would be done in a manner that would allow the horses to keep their footing during the trip, minimizing injury. Wood shavings would be used on the flooring to help provide secure footing. Horses would be loaded loosely enough to ensure that if one did get down, it would have enough

room to regain its footing. If horses are transported to cooperating facilities, additional stress would occur.

Sex Ratio

Selective removal of all or most wild horses gathered that are aged 5 and under has some impact on the sex ratios within a wild horse herd. In most herds that have not been selectively gathered for some time, the sex ratio is approximately 53 percent female and 47 percent male. 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 criteria, the sex ratio was skewed more toward males than it is under current policy. This effect is somewhat mitigated by several factors:

- Not all wild horses in an HMA are gathered in any one or several years. In some instances, some horses live out their lives having never been captured.
- Excess males in the population increases the likelihood that fertile mares will be bred and can result in smaller average band size. This results in increased reproduction rates and decreases the potential for in-breeding due to competition for available mares;
- Research has shown that older mares are more fecund and successful at raising their foals than are younger mares; and
- Larger herd size (maintaining AML dilutes this effect somewhat).

Population Modeling

A wild horse population model, developed by the state university, has been used to predict the outcome of removal activities on the wild horse population in the HMA analyzed in this EA. The results of this modeling are presented in Appendix D. Additional narrative regarding population modeling is presented under the No Action Alternative.

Sagebrush Basin

This model was run with Sagebrush Basin HMA specific parameters, assuming the beginning population is at the mid-range of 500 wild horses, horses are removed every other year, and the current selective removal criteria apply. The model (see Sagebrush Basin 1, Appendix D) indicates that with this management strategy, the population can be maintained at or slightly above the high range AML of 600 head over a 10-year period. At no time would the population fall below 576 horses.

Age Structure

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

Maintaining wild horse populations at AML will result in no cumulative impacts to the long-term viability of the managed wild horse herds and will aid in the attainment of a thriving ecological balance in their habitat.

Domestic Livestock And Wildlife

Reaching and maintaining the populations at AML would assure that the quality and quantity of forage for domestic livestock, wildlife, and wild horses would be available. Improved quality and increased quantity of forage allows the continuation of authorized livestock use and helps to obtain or maintain objective wildlife populations as defined by the State Game and Fish Department.

Wildlife populations in areas where excess wild horses are gathered could be disrupted for a short time during the gathering operations. Once gathering operations cease, these effects would stop. There is no long-term adverse effect on wildlife. The short-term effects are a result of human presence and the noise of the helicopter which may cause wildlife to seek cover in areas away from gathering routes. Capture activities will not cause abandonment of normal habitat areas.

BLM data and past experience show that removal of excess horses from areas of wild horse concentration will improve habitat conditions for wildlife. This effect is most pronounced around water sources and would benefit both game and non-game wildlife. Maintaining wild horse populations at AML through the removal of excess wild horses enables wildlife populations to utilize the forage that would otherwise be used by the excess wild horses. No adverse cumulative impacts to domestic livestock and wildlife are anticipated.

Vegetation and Soils

The removal of excess wild horses from inside the wild horse HMA would avoid potential over-utilization of forage and reduction in vegetative ground cover. Vegetation composition, cover, and vigor could improve or be maintained near water sources where wild horses tend to congregate. An improvement in forage condition could lead to improved livestock distribution, which would prevent over-utilization and reduction in vegetation cover.

Removal of excess wild horses would maintain vegetation cover. Potential for competition for forage and water between wild horses, wildlife and livestock, and surface disturbing activity in general around water sources would be reduced. Quantity of forage would be increased. The increased vegetation cover would protect soils and reduce erosion of the surface soil layer, and would not impede the attainment or maintenance of *BLM State Standards for Rangeland Health*.

The only disturbance would be from the erection of the posts, trampling, and vehicle traffic. However, when the horses are

herded some vegetation is disturbed. Extreme surface disturbance occurs within the paddocks of the trap due to the milling about by the horses; however, the total impacted area is less than one-quarter acre per trap site.

When the wranglers on horseback begin to herd the horses (approximately the last 1/4 mile) and the horses' pace is increased, disturbance to vegetation would increase. This disturbance would be greatest between the wings of the trap. Vehicles can damage vegetation but the impact is minimized by staying on existing roads and trails to the extent possible.

Maintaining wild horse populations at AML will produce no adverse cumulative impacts to vegetation and soils.

Lands

Removal of excess wild horses to AML would reduce or prevent damage (in the form of trampling, compaction, and overgrazing) from occurring on private, state, and Federal lands. There are no adverse cumulative impacts to lands as a result of implementing the Proposed Action.

Recreation

Maintaining wild horse populations at the established AML guarantees opportunity for the public to view wild horses in a wild and free-roaming state. Additional recreation opportunities would be provided by wild horse adoption and adoption events. There are no adverse cumulative impacts to recreation as a result of implementing the Proposed Action.

Mitigation Measures

Compliance with the planned actions in the attached capture plan precludes the necessity for additional mitigation measures.

Residual Impacts

Except for a temporary visual impact to the trap and wing area until vegetation is reestablished (most likely the next growing season), there are no other residual impacts from implementing the Proposed Action.

NO ACTION ALTERNATIVE (No Gathering or Postponement of Gathering)

Under the No Action Alternative, BLM would not gather or remove excess wild horses in the Juniper Mountain Field Office area. As a long-term approach to wild horse management, the No Action Alternative would be contrary to Federal regulations at 43 CFR 4710-3-1 which call for the establishment of AMLs in HMAs. Any alternative that would allow excess wild horses to remain on the range would violate Federal regulations, and the land use plan.

Wild Horses

The impacts described below would be cumulative over time.

No wild horses would be gathered or removed from public or private lands. Previously identified impacts to wild horses resulting from gathering, transporting, handling, and entry to private care would not occur.

There would be some moderation of previous impacts to sex and age structure of the herds due to earlier selective removals. These impacts would be subtle and would only be expressed over time as a normal distribution of age structure and sex ratios are reestablished.

In the Juniper Mountain Field Office area, wild horse populations have demonstrated an annual rate of increase of approximately 20 percent.

As wild horse numbers increase, competition for available forage and water would increase. Overpopulation would result in lower reproductive rates, poor body condition, and the potential for substantial overwinter mortality. Adverse impacts to the vegetative and soil resources could be expected.

Density dependent factors such as the requirement for the habitat component of space would become more important as the population increases. Wild horses are highly social herd animals, practice a polygamy form of reproductive strategy where males are highly competitive for mates and space; therefore, adequate space may not be available for increased numbers of wild horses within the HMA even though there may be adequate forage, cover, and water.

As populations continue to increase so does the potential for horse induced damage to their habitat. Reduced habitat quality as a function of over-use results in reduced carrying capacity. The established AML reflects this fact and was set at a conservative level to ensure that wild horses would not have a negative impact on their habitat or the habitat of other species (a thriving ecological balance).

Domestic Livestock and Wildlife

Allowing the wild horse population to exceed the AML will upset the balance of resource uses evaluated in the Juniper Mountain Resource Management Plan. Increased use of vegetation and surface water by larger numbers of wild horses increases the potential for competition for these limited habitat components. These impacts would accrue at the expense of domestic livestock use, wildlife habitat, and watershed function. Larger numbers of wild horses could (short term) or would (long term) cause reductions in the allowable livestock grazing use and number and diversity of wildlife and wildlife habitat. Reduction in the number of permitted domestic livestock would have negative economic impacts to existing livestock producers.

Increased competition for adequate forage and water would be the major impact on domestic livestock grazing. Wildlife habitat components impacted by the No Action Alternative include forage, water, cover, and space. Wild horses are large, aggressive, and can easily dominate preferred habitats when they are limited by scarcity or competition. In a head-to-head competition for habitat components in short supply, the wild horse would succeed against any other large ungulate including cattle and elk with whom they share large areas of overlapping habitat. Wild horses are more likely to directly impact cattle and elk. However, direct and indirect impacts due to increased numbers of wild horses could occur to habitat for pronghorn antelope, mule deer, moose, sage grouse, Colorado River cutthroat trout, and many other avian, reptilian, amphibian, and fish species.

Even in the absence of competition for habitat, as with any large ungulate, wild horses can, through their selective forage use, cause changes in the plant community that are deleterious to some plant and animal species and possibly enhance the habitat for others. As wild horse numbers increase, so does the likelihood that adverse cumulative impacts to plants and other animals would occur over time.

Vegetation and Soils

Impacts described below would be cumulative over time.

Many of the impacts to vegetation and soils also affect wildlife habitat and have already been addressed above. The impact from wild horses on vegetation and soils is essentially the same as the Proposed Action but more numerous and larger in scope. This is primarily due to increased forage use either by grazing or trampling, increased use of water, and soil compaction. Increased numbers of wild horses will inhibit the ability of BLM to obtain and maintain compliance with *BLM State Standards for Healthy Rangelands*.

Recreation

Short-term impacts to recreationists observing wild horses on the range would be positive as there would be more horses in more places. Over time, however, the condition of wild horses would decline as would the habitat (an adverse cumulative impact). Increases in wild horse numbers would likely mean a decline in the opportunity to enjoy wildlife related consumptive and non-consumptive recreation. The opportunity to adopt a wild horse from this area would not exist.

Possible Mitigation Measures

Possible mitigation measures include:

- Reduce or eliminate active livestock grazing on public lands within the HMA;
- Reduce State Game and Fish Department's big game population objectives and reduce big game numbers accordingly.
- Install additional fencing to protect sensitive areas and to control wild horse distribution.
- Review and modify HMA boundaries to remove checkerboard lands.

Residual Impacts

Many of the impacts to livestock grazing, wildlife habitat, and other ecosystem functions (i.e., watershed) would be so long term as to be considered permanent. Postponement in removing excess wild horses also has negative impacts.

CHAPTER V - CONSULTATION AND COORDINATION

DISTRIBUTION

This EA has been distributed to the public for review and comment. A press release was issued in the local and state media informing the public that the EA had been prepared and is available to the public. Copies of the EA are available at the Juniper Mountain Field Office and Wyoming State Office in Cheyenne. The EA has been distributed to the following organizations and individuals:

Federal

U.S. Senator

U.S. Senator

U.S. Representative

Bureau of Land Management, Wild Horse & Burro National Program Office

State/County Governments

State agencies via State Clearinghouse

State Senators and Representatives

Mayors of cities within County

County Commissioners

Land Use Planning Office

Wild Horse Organizations

Other Organizations

News Media

Individuals

LIST OF PREPARERS/REVIEWERS

GLOSSARY

APPROPRIATE MANAGEMENT LEVEL (AML): The optimum number of wild horses that provides a thriving natural ecological balance on *the public* range.

BAND: A group (1 or more) wild horses banded together.

EXCESS WILD HORSES: Wild free-roaming horses which have been removed from public lands or which must be removed to preserve and maintain a thriving ecological balance and multiple-use relationship.

THRIVING NATURAL ECOLOGICAL BALANCE: An ecological balance requires that wild horses and burros and other associated animals be in good health and reproducing at a rate that sustains the population; that key vegetative species are able to maintain their composition, production and reproduction; that soil resources are being protected, maintained or improved; and that a sufficient amount of good quality water is available to the animals. Determining if ecological balance is being maintained over the long term is best judged through monitoring of the ecological condition of the herd's habitat. In the short term, progress toward this goal can be measured through evaluation of actual use (population census) and vegetative utilization studies. Because utilization levels may vary considerably from year to year due to a variety of factors, it may take several years to establish a trend in utilization levels. Regardless of annual fluctuations, utilization of the key forage species should never be allowed to exceed the level needed to maintain long-term health of the ecosystem. Over the long term, trend in herd demographics, and habitat should be monitored to ensure an ecological balance. Because of extraordinary circumstances, natural disasters, and the natural variation in habitat components, unplanned livestock and wild horse and burro population adjustments may be needed occasionally to maintain the ecological balance. Temporary population adjustments in response to these factors do not establish a new AML.

WILD HORSE HERD MANAGEMENT AREA (HMA): A designated area where a viable population of wild horses is to be maintained. An appropriate management level for wild horses is established to manage the wild horses on the public rangelands.

LITERATURE CITED

APPENDIXES

Appendixes are not included with this example.

Case Study Project A

Proposed Daniels Creek Plan of Development

Project Description

An applicant has proposed a Plan of Development (POD) for the Daniels Creek area, which includes:

- 20 coal-bed methane gas wells drilled to depths of approximately 1500 feet
- 2.5 miles of addition to the existing network of paved roads
- 15 miles of new unpaved (two track) access roads
- 7 new water reservoirs serving 12 separate discharge points
- a buried utility network of gas, water and power lines with 3 gathering/metering and compression facilities

Background

BLM prepared a Programmatic EIS for this type of development in 2001 (BLM-EIS-01-213). That EIS contains detailed descriptions of specific technologies to be applied for this type of project, along with generic Section 7 consultations for threatened or endangered species to be expected in the overall analysis area. This project is deemed necessary because coal-bed methane is a valuable resource which must be developed soon or the applicant will lose her right to develop and the government will lose any royalties associated with the development. Wells on adjacent lands are draining the gas quickly. This situation could even be considered a national emergency, so it is urgent to approve the Applications for Permit to Drill (APDs). This is the 4th such Plan of Development to come forward in 6 months; the area is a hotbed of activity, and BLM expects at least 3 more PODs to come forward in the near future.

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located and is being evaluated for the National Register of Historic Places
- The small community of Smithville is 5 miles away from the nearest proposed well
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members expect the project to provide much needed jobs
- Smithville is downstream from the proposed development, and depends on both ground and surface waters in the area for domestic and agricultural use (ranching)
- Most of the BLM and surrounding private lands are used for cattle grazing
- The area lies under one of the major bird migration flyways in North America
- Last summer's Andy Howard Fire affected several hundred acres between Smithville and the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project B

Interpretive Trail Reconstruction for Wheelchair Access

Project Description

BLM proposes to reconstruct the Czerny Interpretive Wetland Trail to enable wheelchair access.

This project includes:

- Relocate the existing trail head closer to the North end of the parking lot
- Construct a new trail, consisting of hardened surface on land and a wooden boardwalk over the wetland portion
- Add 6 spaces to the existing parking lot and change the location of the entrance road
- Install interpretive signs along the trail, describing the birds and other wildlife and wetland plant species

Background

The nearby town of Smithville (population 4500) was constructed in the 1970s as a retirement community and over 70 percent of its inhabitants are over 60 years of age. Most are from the big city, and retired here to “get away from it all.” Smithville has the largest chapter of the Audubon Society in the state; many of the locals put together special trips to watch the spring and fall waterfowl migrations through their area. Because so many people are wheelchair-bound, they have long petitioned BLM to provide more wheelchair-access to nearby bird-watching sites, such as the Czerny Wetland.

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek, which flows through the Czerny Wetland, is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located and is being evaluated for the National Register of Historic Places
- The small community of Smithville is 5 miles away from the project area
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members expect the project will stimulate much needed jobs as wildlife interpreters
- Most of the BLM and surrounding private lands are used for cattle grazing
- The area lies under one of the major bird migration flyways in North America
- Last summer’s Andy Howard Fire affected several hundred acres between Smithville and the project area
- Some of the exposed geological strata along the proposed access road are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels
- Smithville depends on both ground and surface waters in the area for domestic and agricultural use (ranching)

Case Study Project C

Road Construction/Reconstruction

Project Description

BLM proposes to reconstruct 5 miles of existing road providing access for residents of Smithville to the Czerny Wetland Interpretive Area, and construct 3 miles of new all-weather road intended to tie in with coal-bed methane wells proposed to be developed in the Daniels Creek drainage. Specifically, the project includes:

- Removal of existing surface, re-grading and laying of more durable substrate, and repaving 5 miles of existing road
- Installation of 5 new culverts where the road crosses flash flood channels (currently the road is simply laid on the surface)
- Construct 3 miles of new road to BLM high standards, including shoulders, pull-outs on hills for slow traffic, and at least one bridge over Bastien Creek

Background

Roads in the Hoffheins District have been a high priority for the past 3 fiscal years, and this project continues the push to upgrade and expand the road network for recreational and commodity access. Ranchers, bird-watchers, oil and gas developers – all will make use of the proposed roads. In addition, OHV users will use the proposed road to access the newly designated OHV area nearby. Although some residents of Smithville have already complained about the possible noise, the OHV club members have promised to upgrade their mufflers and not to ride between 9 PM and 6:30 AM.

A new gravel source will need to be developed for this project. The most convenient source is a rocky outcrop adjacent to the Indian Reservation, on private land. Some Tribal elders have stated that the knob constitutes a sacred site, representing the place where one of their most powerful spirits defended three children from ferocious attack by coyotes.

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located and is being evaluated for the National Register of Historic Places
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and some tribal members expect the project to provide much needed short-term construction jobs
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project D

Wildland-Urban Interface Fuels Treatment

Project Description

BLM proposes to treat vegetation occurring in the wildland-urban interface near Smithville, to reduce fire hazard, restore wildlife habitat, and improve rangeland health. The project includes the following specific actions:

- Prescribed burning of 4700 acres
- Mow grassland areas to create 4 miles of fuel breaks
- Mechanical cutting and/or hand felling of juniper on 450 acres where present, with cut juniper either removed or piled for burning at a later time
- Construction of up to 3 miles of temporary access roads surfaced with juniper chips where possible

Background

As the town of Smithville continues to expand (projections include a 3-fold increase as the baby-boomers reach retirement age), the risk of loss to property from wildland fires also continues to increase. By reducing fuel loads and creating fuel breaks, BLM can reduce these risks to a more acceptable level. In addition, fire was a natural part of the Daniels Creek drainage area until the 20th century, and its reintroduction will benefit fire-dependent plants and the animals that rely on them for food and habitat, such as the endangered steppe rabbit. By removing the invasive weed *Juniperus occidentalis* and allowing the rejuvenation of native shrub-steppe communities, rangeland health will be improved and maintained in accordance with BLM standards.

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located and is being evaluated for the National Register of Historic Places
- The small community of Smithville is 5 miles away from the project area
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members expect the project to provide much needed short-term jobs
- Smithville is downstream from the proposed activity, and depends on both ground and surface waters in the area for domestic and agricultural use (ranching)
- Most of the BLM and surrounding private lands are used for cattle grazing
- The area lies under one of the major bird migration flyways in North America
- Last summer's Andy Howard Fire affected several hundred acres around Smithville and in the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project E

Grazing Improvements on the Coleman Allotment

Project Description

J.C. “Jake” Coleman has requested authorization to construct or reconstruct the following improvements on his allotment:

- Construct a new corral
- Construct a new water well and 3 miles of associated pipeline to the corral
- Construct a new storage tank and water troughs associated with the corral and well
- Reconstruct existing fence along a riparian area to prevent intrusion by cattle

Background

This allotment has not been actively managed in many years; J.C. “Jake” Coleman, son of the legendary “Zeke” Coleman, proposes these improvements to begin managing the land and his cattle more effectively, improving distribution of cattle through providing water and fencing off riparian zones along Daniels Creek. Several miles of temporary (two-track) road may need to be created for access to the construction area, especially for the pipeline construction. The pipeline will be above-ground for ease of maintenance, and to enable crossing the several erosion channels in the area (particularly near Bastien Creek).

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located and is being evaluated for the National Register of Historic Places
- The small community of Smithville is 2 miles away from the allotment boundary; “Zeke” continues to live in town, while his son “Jake” manages the range
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members use the rangeland for subsistence hunting which is guaranteed by treaty
- Most of the BLM and surrounding private lands are used for cattle grazing
- The area lies under one of the major bird migration flyways in North America
- Last summer’s Andy Howard Fire affected several hundred acres between Smithville and the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project F

Land Exchange with The Nature Conservancy

Project Description

BLM proposes to exchange 235 acres of federal land with The Nature Conservancy (TNC) for 241 acres of wetland migratory waterfowl habitat in the Daniels Creek area. Adequate access roads already exist for both parcels; no other improvements or other specific management actions are authorized by this exchange.

Background

The Nature Conservancy owns 241 acres of outstanding waterfowl habitat in the Daniels Creek drainage, purchased in the 1980s from “Zeke” Coleman, pioneer rancher. Some of the original Coleman Ranch buildings still exist in usable condition on this parcel. The BLM now has the opportunity to obtain this important habitat, in exchange for a less biologically valuable dry land shrub-steppe habitat parcel. Appraisals have been completed and parcels are of equivalent monetary value.

Environmental Setting

- Wetlands and riparian areas occur throughout the BLM lands, but are not as plentiful as those in the TNC lands
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed no archaeological sites; one complex of ranch buildings dating from the 1920s was located on the BLM land and is being evaluated for the National Register of Historic Places
- The small community of Smithville is 3miles away from the proposed exchange area
- One endangered mammal, a rabbit, occurs on the federal lands
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members currently use the BLM shrub-steppe rangeland for subsistence hunting which is guaranteed by treaty
- Most of the BLM and surrounding private lands are used for cattle grazing
- The area lies under one of the major bird migration flyways in North America
- Last summer’s Andy Howard Fire affected several hundred acres between Smithville and the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project G

The Harley Davidson Timber Management Project

Project Description

BLM proposes a commercial thinning project for 267 acres of Ponderosa pine and associated timber species in the Daniels Creek drainage. Specific actions include:

- Construct 1.6 miles of new all-weather access road
- Reconstruct 2.8 miles of temporary access road including upgrading culverts and roadbed
- Remove trees to leave 75-80 stems per acre of healthy, windfirm trees
- Cable yarding systems would be used; limbs would be lopped and piled for burning at a later time or scattered to provide wildlife habitat

Background

The Daniels Creek drainage has a number of scattered stands of mature, stagnant timber. Some of this timber is already reaching mortality, while desirable diversity of understory species is being hampered through overcrowding of the overstory. Timber management goals as expressed in the Resource Management Plan for this area include using pre-commercial and commercial thinning to enhance forest health and encourage species diversity. In addition, riparian areas should contain a desirable mix of riparian species, and snags should be available for wildlife habitat.

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed three prehistoric archaeological sites which are being evaluated for the National Register of Historic Places
- The small community of Smithville is 4 miles away from the project area
- One endangered bird, a goshawk, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and the tribal logging company looks forward to bidding on this project to provide much needed jobs for tribal members
- Most of the BLM and surrounding private lands are used for cattle grazing or timber harvest
- The area lies under one of the major bird migration flyways in North America
- Last summer's Andy Howard Fire affected several hundred acres in the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels

Case Study Project H

Buried Cable Right-of-Way

Project Description

The applicant proposes to upgrade communication systems within an existing right-of-way across BLM lands associated with the Daniels Creek coal-bed methane well field. The project consists of the following connected actions:

- digging a shallow trench to install a buried 3/8" fiber-optic cable for improved communication between the Daniels Creek well field and its controlling computer
- filling in the trench to bury the cable
- maintaining the cable installation for the life of the project, which may include some additional trenching to replace sections of cable

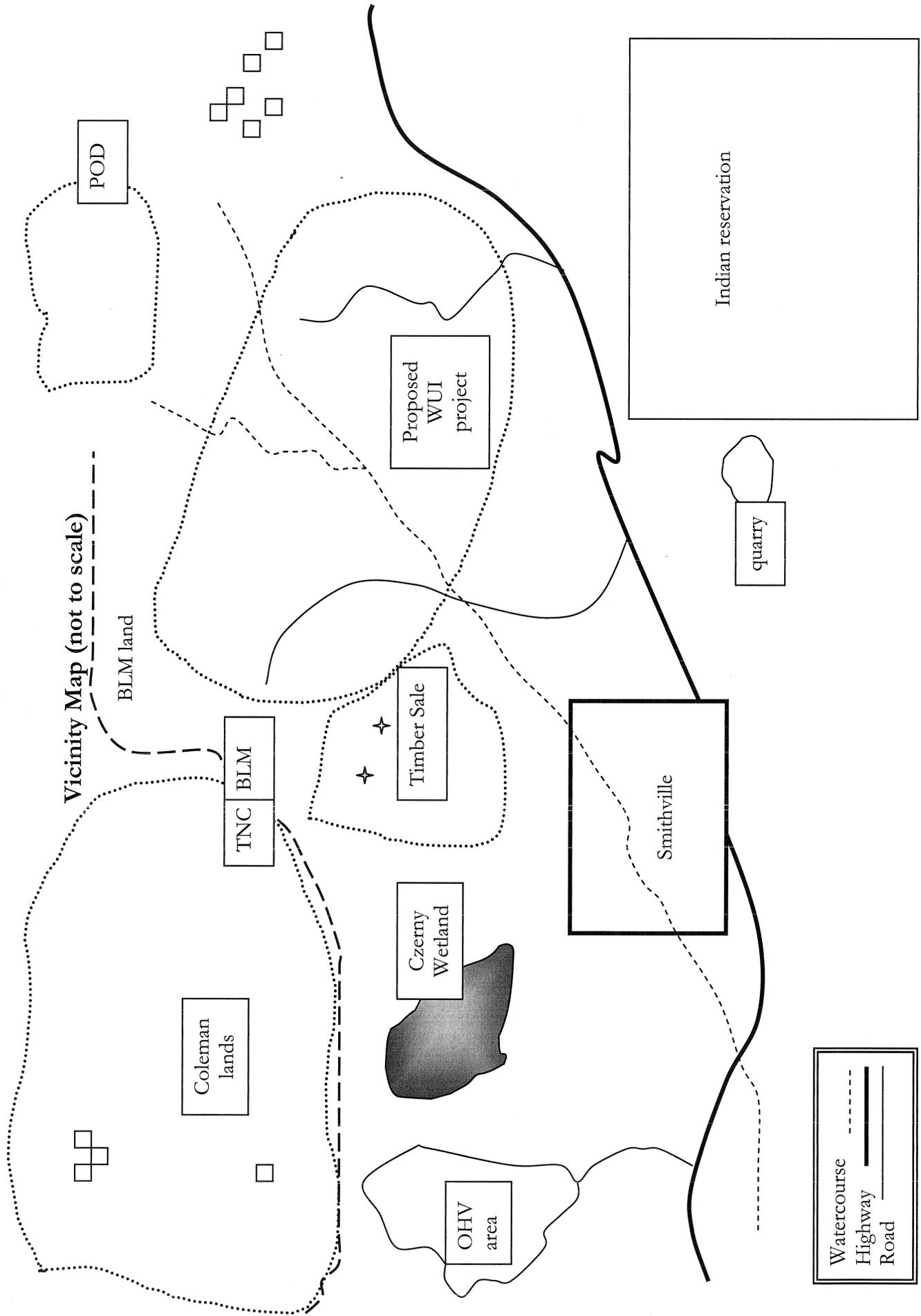
Background

Existing wells in the area use radio-wave communication between the well field and the controlling computer. This applicant wishes to upgrade this communication to fiber optic, which is faster and more accurate. The cable would be approximately 4500 feet in length, within the existing 30 foot right-of-way which includes room for access for equipment and machinery staging and operation (trenchers, etc.).

Environmental Setting

- Wetlands and riparian areas occur throughout the project area
- Daniels Creek is a year-round tributary to the main stem Humphrey Wild and Scenic River
- A site specific cultural resources survey revealed 1 archaeological site which is being evaluated for the National Register of Historic Places
- The small community of Smithville is 2 miles away from the project area
- One endangered mammal, a rabbit, occurs in the project area
- Three plants listed on the BLM sensitive species list occur in or near the project area
- An Indian reservation is adjacent to the project area, and tribal members expect several short-term jobs as the result of the coal-bed methane development associated with this project
- Most of the BLM and surrounding private lands are used for cattle grazing and/or timber harvest
- The area lies under one of the major bird migration flyways in North America
- Last summer's Andy Howard Fire affected several hundred acres between Smithville and the project area
- Some of the exposed geological strata in the project area are of the same age as those that produced museum-quality dinosaur specimens in the 1940s
- Soils are loose and sandy with many windblown dunes and flood erosion channels
- Air quality in the area exceeds the PM₁₀ standard in the State Implementation Plan

Vicinity Map (not to scale)



- Watercourse - - - - -
- Highway ————
- Road ————

