

USDI, Bureau of Land Management
Three Rivers Resource Area, Burns District

FINDING OF NO SIGNIFICANT IMPACT
FOR
MOUNTAIN ALLOTMENT MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT

OR-05-025-061

INTRODUCTION

Environmental Assessment (EA) OR-05-025-061 analyzed the effects of implementing the Allotment Management Plan (AMP) for the Mountain Allotment #5532. The Mountain Allotment is located approximately 30 miles east of Burns, Oregon, in the Stinkingwater Mountains. It contains six pastures encompassing 36,914 acres of Bureau of Land Management (BLM) managed land and 6,420 acres of private land. There are five grazing permits within the allotment with an authorized season of use from May 1 through September 15. The current AMP, developed in 1998, stipulated that all permittees' cattle were to graze in a common herd that amounted to approximately 700 cow/calf pairs. During odd numbered years, the combined herd was to start on the east side of the allotment and move west, spending 3 to 4 weeks in each pasture. During even numbered years, the rotation was to be reversed and cattle were to start on the west side of the allotment and move east, again spending 3 to 4 weeks in each pasture. This grazing rotation was implemented for only 1-year and abandoned. Grazing management from the 1998 AMP failed because herding large numbers of cattle over steep terrain was untenable. Following this unsuccessful trial, cattle have grazed separately in two herds. A description of current livestock grazing management, derived from actual use reports, follows:

- West and Little Stinkingwater Pastures have been grazed during the growing season for 6 of the last 8 years.
- East Pasture has received an early grazing treatment¹ annually.
- Crow Camp Pasture has been on a graze/defer grazing rotation².
- Red Flat Pasture has been on a graze/rest grazing rotation³.
- Stinkingwater Pasture has received an early grazing treatment since 2001.

¹ Riparian livestock grazing treatment planned for the spring following high flow. Livestock grazing is removed with sufficient time remaining during the growing season for regrowth and recovery of riparian vegetation.

² Two-year livestock grazing rotation in which grazing occurs during the growing season of key forage species the first year followed by deferment of livestock grazing until after seed set by key forage species the second year.

³ Two-year livestock grazing rotation in which grazing occurs during the growing season of key forage species the first year followed by complete rest from livestock grazing the second year.

In 2003, monitoring data collected on the Mountain Allotment over the previous 11 years were analyzed using a formal interdisciplinary allotment evaluation process. Livestock grazing management was evaluated for progress toward achieving allotment-specific resource objectives and Oregon and Washington Standards for Rangeland Health and Guidelines for Livestock Grazing Management (August 12, 1997).

Two perennial, fish-bearing creeks, Stinkingwater and Warm Springs Creeks, flow through the Mountain Allotment. Neither of these creeks met the Standard for Rangeland Health for Water Quality. Current livestock grazing is a contributing factor to the headwaters of Stinkingwater Creek failing to meet this standard. This riparian area is located within a water gap that receives continuous late season livestock grazing. Continuous grazing during critical growth periods of riparian vegetation has fostered a downward trend in riparian condition. Current livestock grazing management is not a contributing factor to Stinkingwater Creek (downstream of water gap) and Warm Springs Creeks failing to meet the Standard for Rangeland Health for Water Quality. These reaches are located within pastures that are managed for an upward trend in riparian condition. Livestock grazing occurs early in these pastures, allowing riparian plant communities opportunity during the growing season for regrowth and completion of the reproductive cycle. This has resulted in greater bank stability, increased shading, and greater water storage/retention.

The Standard for Watershed Function in Riparian/Wetland Areas was achieved on East Warm Springs Creek. The headwaters of Stinkingwater Creek and a three-quarter mile reach of Stinkingwater Creek, however, did not achieve this standard. Current livestock grazing management is a contributing factor to these reaches failing to meet the Standard for Watershed Function in Riparian/Wetland Areas.

The Standards for Watershed Function in Upland Areas, for Ecological Processes, and for Native, Special Status, and Locally Important Species were achieved over the majority of the allotment; exceptions included areas of late phase western juniper (*Juniperus occidentalis*) encroachment and medusahead rye (*Taeniatherum caput-medusae*) infestation. Current livestock grazing management is not a contributing factor (for reasons described under water quality above) to areas within the allotment failing to meet these standards.

The Mountain Allotment evaluation revealed that resource objectives were achieved on the allotment, with the following two exceptions: (1) stable and upward trends in rangeland condition were not realized in the Little Stinkingwater, West, and East Pastures due to a combination of the following factors: current grazing management, drought, and the expansion of the noxious weed medusahead rye; and (2) an upward trend in riparian habitat condition was not realized for the portions of Stinkingwater Creek described above. It was also determined in the evaluation that current livestock grazing management was not in conformance with the Guidelines for Livestock Grazing Management because periodic rest from livestock grazing during critical growth periods for upland and riparian vegetation was not being provided to all pastures comprising the Mountain Allotment.

The purpose of the proposed AMP is to amend livestock grazing management on the Mountain Allotment to accomplish the following:

- periodic growing season rest⁴ from livestock grazing for upland and riparian plant communities in all pastures comprising the Mountain Allotment;
- increased uniformity of livestock utilization levels;
- progress toward attainment of allotment resources objectives and the Oregon and Washington Standards for Rangeland Health and Guidelines for Livestock Grazing Management; and
- stable and upward trends in range condition.

SUMMARY OF PROPOSED ACTION

The Little Stinkingwater and West Pastures are currently grazed for consecutive years during the growing season of key plant species. Monitoring data show continuous growing season use by cattle in these pastures has contributed to key areas failing to show stable and upward trends in range condition. The proposed action incorporates alterations to current livestock grazing management in the Mountain Allotment to provide periodic growing season rest to the West and Little Stinkingwater Pastures. To accommodate providing periodic growing season rest to the Little Stinkingwater Pasture, grazing management in the Red Flat Pasture would change from a graze/rest rotation to a graze/defer rotation.

Little Stinkingwater Creek is currently located within the Little Stinkingwater Pasture which is grazed for consecutive years during the growing season. Continuous growing season grazing of riparian areas, particularly during the late grazing season, is causing downward trends in riparian habitat condition and does not meet the Oregon and Washington Guidelines for Livestock Grazing Management. The proposed action includes the creation of an additional pasture that would encompass the Little Stinkingwater Creek riparian zone. This newly-created pasture would subsequently be managed for an upward trend in the condition of riparian habitat by removing livestock grazing during critical growth periods of riparian vegetation.

The headwaters of Stinkingwater Creek is currently located within Crow Camp Pasture, which is grazed by livestock in graze/defer rotation. As a consequence, livestock retain continuous access to the headwaters of Stinkingwater Creek during critical growth periods of riparian vegetation. Therefore, the 2003 allotment evaluation identified livestock grazing management as a contributing factor to the headwaters of Stinkingwater Creek failing to achieve the Standard for Rangeland Health for Watershed Function in Riparian/Wetland Areas. The proposed action would incorporate this portion of Stinkingwater Creek into the Stinkingwater Pasture, which is managed as an early-grazed riparian pasture. This action would allow for the removal of livestock grazing during critical growth periods of riparian vegetation.

⁴ Growing season rest requires periodic removal of livestock grazing during the time period when key plant species are actively growing. This can be accomplished by deferring livestock grazing until after seed set by key plant species, by grazing early during the growing season and allowing for regrowth and recovery opportunities, or by completely resting areas from livestock grazing during a given year.

FINDING OF NO SIGNIFICANT IMPACT

The proposed action is in conformance with objectives and land use plan allocations in the 1992 Three Rivers Resource Management Plan/Environmental Impact Statement (RMP/EIS).

It is also in conformance with the Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands Administered by the BLM in the States of Oregon and Washington (August 12, 1997.) Based on the analysis of potential environmental impacts contained in the EA and all other information, it was determined that the proposed action and alternatives do not constitute a major Federal action that would significantly impact the quality of the human environment. Therefore, an EIS is unnecessary and will not be prepared.

Rationale:

The following critical elements of the human environment were analyzed in the Three Rivers RMP/Final EIS, and are not known to be present in the project area and/or affected by implementing any of the alternatives: Air Quality, Prime or Unique Farmlands, Flood Plains, Wild and Scenic Rivers, Hazardous Materials, Areas of Critical Environmental Concern, and Wilderness and Wilderness Study Areas. The following critical element is not discussed in the Three Rivers RMP/EIS, but is either not known to be present or affected by enacting any of the alternatives: Environmental Justice. Effects to the following critical elements were analyzed in the EA: Special Status Species (SSS) – Fauna, Flora and Aquatic; Migratory Birds; Cultural Resources; American Indian Traditional Practices; Paleontology; Water Quality; Wetlands and Riparian Zones; and Noxious Weeds. Effects to the following noncritical elements were analyzed in the EA: Wildlife; Vegetation; Soils; Wild Horses; Livestock Grazing Management; Recreation; Visual Resources; and Social and Economic Values.

Effects to critical and noncritical elements present within the allotment are considered nonsignificant (based on the definition of significance in 40 CFR 1508.27) for reasons described under each relevant subheading below.

CRITICAL ELEMENTS

1. Special Status Species

Fauna

There are no known Federally listed Threatened, Endangered, or Proposed wildlife species found within the allotment.

Greater sage-grouse (*Centrocercus urophasianus*) and its habitat occur within Mountain Allotment. The Greater sage-grouse, a BLM SSS, has been closely monitored in recent years due to concerns over population numbers. About 50 percent of the Mountain Allotment is classified as probable habitat and about 10 percent of the allotment is classified as yearlong habitat for Greater sage-grouse. The remaining 40 percent of the allotment is classified as unsuitable habitat for Greater sage-grouse, mainly due to encroachment of western juniper and medusahead rye.

The proposed grazing management would provide periodic growing season rest from livestock grazing to all pastures comprising the Mountain Allotment. Perennial plant species require periodic opportunity to make and store carbohydrates (i.e., recover vigor), set seed, and recruit seedlings to sustain or increase their populations over time. Thus, species and structural diversity within plant communities, currently providing critical elements of Greater sage-grouse habitat, would be maintained under the proposed action. The proposed grazing management would also allow for the timing and duration of livestock grazing to be varied, reducing disturbance by livestock to the breeding, nesting, and early brood-rearing seasons for sage-grouse. However, changing grazing management in the Red Flat Pasture from a graze/rest rotation to a graze/defer rotation would increase livestock presence from every other year to every year. The annual presence of cattle during the grazing season may intensify effects of livestock disturbance on Greater sage-grouse nesting and brood-rearing seasons. In addition, although livestock grazing is deferred every other year in Red Flat Pasture under the proposed action, which meets the physiological demands for maintenance of plant populations, removal of herbaceous biomass is still occurring annually. In contrast, the Red Flat Pasture is rested every other year under the No Action Alternative, which allows herbaceous plant species to complete their life cycle and carryover residual herbage into the following spring. Residual herbage may be important for providing ground nesting cover to sage-grouse during the spring of the subsequent year.

Flora

Special Status plants have not been documented in the Mountain Allotment. However, there are Special Status plant sites in adjacent allotments. Because detailed inventories are lacking, it is possible that those plant species may also occur in the Mountain Allotment. A list of potential species includes Back's sedge (*Carex cordillerana*), Raven's lomatium (*Lomatium ravenii*), and Malheur prince's plume (*Stanleya confertiflora*). Because Special Status plants have not been documented in Mountain Allotment, estimating species specific effects would be speculative. In general, however, perennial plant species that lack periodic growing season rest lose vigor and decline in population over time. Thus, current grazing management would not be conducive to maintaining populations of desirable plant species in pastures that currently receive infrequent periodic growing season rest from livestock grazing. In contrast, grazing management under the proposed action would provide periodic growing season rest to desirable plant species within all pastures comprising the Mountain Allotment. This change in management would afford these species periodic opportunity to recover vigor, set seed, and recruit seedlings, thereby increasing the potential for maintenance of their populations over time.

Aquatic

Redband trout (*Oncorhynchus mykiss*), an SSS, is known to occur in the portions of Stinkingwater and Warm Springs Creeks that flow through this allotment. This species prefers cool, fast-flowing water but can tolerate warmer water with lower oxygen levels. The fish spawn in the spring during periods of rising water temperatures.

The greatest effects to fish habitat under the proposed action are related to vegetation response to changes in livestock grazing management. Current grazing management of Little Stinkingwater Creek and the headwaters of Stinkingwater Creek includes continuous growing season use of hydric herbaceous and woody plant species during critical periods of growth. In contrast, fencing in the proposed action would afford management a means to plan livestock grazing during less critical periods for riparian vegetation. The headwaters of Stinkingwater Creek would be incorporated into the Stinkingwater Pasture that is grazed early annually. Little Stinkingwater Creek would be fenced into a pasture separate from the Little Stinkingwater Pasture that would similarly be grazed early annually. Early season grazing of riparian areas, after high flow in the spring, affords regrowth and recovery opportunities to riparian vegetation. This change in grazing management would facilitate the recovery of herbaceous and woody riparian vegetation communities along Little Stinkingwater Creek and the headwater of Stinkingwater Creek. With the reestablishment and recovery of these plant communities, greater bank stability, a greater percentage of overhanging banks, increased shading and greater water storage/retention within the riparian zone is expected. These changes typically improve fish habitat by increasing the sediment storage capacity of riparian zones, reducing turbidity, reducing water temperature and increasing fish cover, foraging and spawning habitat.

Current management, not being proposed for change, would either maintain or continue to improve riparian areas along the remainder of Stinkingwater and Warm Springs Creeks. The timing of livestock grazing on these creeks is currently prescribed to ensure regrowth of riparian plants for life cycle completion. Management of these riparian zones has promoted an upward trend in riparian condition.

2. Migratory Birds

Although no formal monitoring has been conducted in the Mountain Allotment, migratory birds are known to use the allotment for nesting, foraging, and resting as they pass through on their yearly migrations. Migratory birds that use grassland and sagebrush habitats, as well as juniper habitats may occur on this allotment. Brewer's sparrow (*Spizella breweri*), sage sparrow (*Amphispiza belli*), and loggerhead shrike (*Lanius ludovicianus*), all Birds of Conservation Concern for the Great Basin Region, are expected to intermittently inhabit the allotment.

The West and Little Stinkingwater Pastures are currently grazed by livestock for consecutive years during the growing season of perennial grasses, forbs, and shrubs. In contrast, grazing management under the proposed action would provide periodic growing season rest from livestock grazing to plant species comprising important habitat elements for migratory birds in all pastures comprising the Mountain Allotment. This would afford key plant species periodic opportunity to recover vigor, seed set, and recruit seedlings, thereby increasing the potential for maintenance of their populations over time. In addition, periodically resting pastures from grazing would reduce the potential for livestock disturbance of nests, nestlings, and fledglings.

3. Cultural Resources

More than 1,200 acres of cultural resources inventory has been conducted within Mountain Allotment. Inventories have been completed for spring/waterhole developments, juniper treatments, and wildfire rehabilitation. This acreage, though more concentrated than most areas on Burns District, is only about 3 percent of the total number of acres in the allotment. A total of 23 archaeological sites have been recorded in Mountain Allotment, ranging from simple lithic scatters and historic can dumps to complex, buried, prehistoric spring root gathering/summer camps. The potential for discovery of additional prehistoric sites on the allotment is high.

The Proposed Action Alternative incorporates range improvements (i.e., fencing and repairs to watering locations) that would increase uniformity of livestock distribution. In addition, the proposed grazing management alternates the timing of grazing within the allotment. Both aspects of the Proposed Action Alternative should reduce trampling effects by livestock in congregation areas. Cultural resources would thus be affected at a lower intensity than under the No Action Alternative.

4. American Indian Traditional Practices

The allotment is well watered with a moderate number of perennial springs and contains plant communities rich in edible roots and traditional fruit plants, such as chokecherry and squaw-apple, still gathered by American Indians. The allotment is part of a modern American Indian traditional use area visited primarily by the Burns Paiute Tribe. It is likely that campsites used continually by particular tribal families for the last millennium or longer occur within the allotment.

Livestock grazing management under the proposed action would potentially reduce the effect of livestock intrusions on traditional practices within the allotment. However, this analysis is speculative because definitive information about American Indian use of this area is lacking. It is not known whether or not smaller numbers of livestock, grazing separate areas of the allotment, would affect the availability of target fruit species. Fruit species within rested and deferred pastures would have a higher likelihood of yielding a desirable harvest than those grazed continuously during the growing season, such as in the West and Little Stinkingwater Pastures.

5. Paleontology

The Mountain Allotment is likely to contain fossilized plants and may also contain remnants of vertebrate animals. No localities have been formally recorded but a few collecting locations for petrified wood are known to occur near Stinkingwater Creek.

The proposed action incorporates range improvement projects (i.e., fencing and repairs to watering locations) that would improve livestock distribution. In addition, the proposed grazing management alternates the timing of grazing within the allotment. Both aspects of the proposed action should reduce trampling effects by livestock in congregation areas. Paleontological localities would thus be affected at a lower intensity than under the No Action Alternative.

6. Water Quality

Water quality is monitored within the Mountain Allotment to assess whether or not it is beneficial for fish, recreation, drinking, agriculture, and other uses. The Oregon Department of Environmental Quality (ODEQ) has established water quality standards for the State of Oregon designed to protect the most sensitive of these multiple uses. In this case, redband trout represents the most sensitive use upon which water quality standards in this allotment are based. The standard is set at 68 °F for the 7-day average daily maximum in salmonid-bearing streams. Water quality has been monitored by collecting water temperature data in creeks known to bear redband trout. These water temperature data were collected using recording thermographs in Warm Springs Creek in 2002 and 2003 and in Stinkingwater Creek in 1998, 2002, and 2005. Each year the temperature has exceeded the 68 °F standard set by the ODEQ for salmonid-bearing streams.

The greatest effect to water quality of the proposed action would be related to changes in vegetation communities in response to amending grazing management along Stinkingwater and Little Stinkingwater Creeks. The proposed grazing management and fence construction would facilitate the recovery of deep-rooted riparian species along the quarter mile "water gap" section of the headwater tributary to Stinkingwater Creek and along an approximately 3.1-mile (0.6-mile is BLM managed) reach of Little Stinkingwater Creek. With reestablishment of these communities, greater bank stability, increased shading, and greater water storage/retention are anticipated. These changes are expected to improve water quality by increasing the sediment storage capacity of riparian zones, reducing turbidity, and water temperatures.

The proposed livestock grazing management is expected to maintain an upward trend in riparian habitat conditions on the remainder of Stinkingwater Creek and Warm Springs Creek. The proposed action maintains the season of use on these creeks (early season), which fostered upward trends in riparian habitat conditions on these two creeks during the last evaluation period (1998 to 2003).

7. Wetlands and Riparian Zones

In June of 1998, a Proper Functioning Condition (PFC) Assessment of Warm Springs Creek within the East Pasture was conducted. The reach was in PFC with the exception of a 0.4-mile segment considered to be functioning at-risk with an unapparent trend in riparian habitat condition. The 2003 allotment evaluation indicated the Standard for Rangeland Health for Watershed Function in Riparian/Wetland Areas was achieved along Warm Springs Creek. Stinkingwater Creek, in T. 23 S., R. 35 E., Section 6, however, was rated as nonfunctional in a 1998 PFC Assessment and was not achieving this standard. Due to topography, use by wild horses, cattle, and wildlife is concentrated along this portion of the creek. Insufficient width to depth ratios, plant composition and community structure and bank stability were indicators of the determination. The remainder of the creek within Stinkingwater Pasture did meet Standards for Rangeland Health demonstrating upward trends in riparian habitat conditions.

The headwaters of Stinkingwater Creek also did not meet the Standard for Watershed Function in Riparian/Wetland Areas. Pasture boundary fences between the Stinkingwater, Crow Camp, and Red Flat Pastures converge and function as a water gap in this area. This has concentrated livestock use along this headwater stream, resulting in barren areas, sloughing streambanks, and excessive erosion and sedimentation. Insufficient width to depth ratios, plant composition, and community structure and bank stability were indicators that the Standard for Rangeland Health for Watershed Function in Riparian and Wetlands was not being met.

Grazing management under the proposed action would foster upward trends in riparian habitat condition along Stinkingwater, Little Stinkingwater, and Warm Springs Creeks. Removal of the water gap at the headwaters of Stinkingwater Creek and its inclusion in the Stinkingwater Creek riparian pasture (early season use) is expected to cause regeneration and recovery of woody species. Early season use does have the greatest potential to increase soil compaction and bank trampling due to high soil moisture content in riparian areas at this time of year. However, cattle would likely be discouraged from grazing along creeks this time of year by the relative temperature differences between the canyon bottoms and uplands resulting from cold air drainage. In addition, cattle would be more inclined to graze the uplands due to the availability of palatable vegetation.

Under the No Action Alternative, Little Stinkingwater Pasture is grazed during critical growth periods of riparian vegetation along Little Stinkingwater Creek every year. Next to seasonlong grazing, repeated grazing during the hot summer season is generally considered the most injurious to riparian zones (Ehrhart and Hansen 1998). This grazing prescription would not be conducive to meeting riparian standards and would result in downward trends in riparian habitat condition. Fencing in the proposed action would afford management a means to mitigate continuous grazing during critical riparian growth periods and would lead to an upward trend in riparian plant communities along Little Stinkingwater Creek.

Wild horses currently have continuous access to riparian zones associated with Little Stinkingwater and Stinkingwater Creeks. Riparian monitoring indicates the lower reaches of Stinkingwater Creek remain in poor condition. Heavy use by wild horses along the lower reaches of Stinkingwater Creek was noted during a use supervision visit in July of 2003, suggesting riparian habitat recovery is being retarded by yearlong use by wild horses. Under the Proposed Action Alternative, perimeter gates of the Stinkingwater Pasture would remain closed yearlong. This action would limit livestock grazing to early growing season use and would preclude access by both livestock and wild horses during critical growth periods of riparian vegetation. As a consequence, this action would foster improvement of trend in riparian habitat condition. Creation of the Little Stinkingwater Riparian Pasture would similarly limit livestock grazing to early growing season use and would provide a means to preclude access by livestock and wild horses during critical growth periods of riparian vegetation. Perennial water sources are well distributed throughout the allotment, thus wild horse access to Stinkingwater and Little Stinkingwater Creeks is not critical.

8. Noxious Weeds

The Burns District Geographic Information System (GIS) database currently lists 20 noxious weed sites totaling 206 acres in the Mountain Allotment. The following noxious weed species have been documented: whitetop (*Cardaria draba*), Canada thistle (*Cirsium arvensis*), bull thistle (*Cirsium vulgare*), Scotch thistle (*Onopordum acanthium*), and medusahead rye. Systematic weed inventories are lacking on the Mountain Allotment, therefore, most locations and abundances of noxious weeds have been incidentally documented. Documented weed sites have predominantly occurred along roadsides and have been treated. The most contentious weed problem in the allotment is the encroachment and rapid expansion of medusahead rye. Medusahead rye has rapidly increased in the uplands and likely occurs in all pastures comprising the Mountain Allotment, although it has only been formally recorded in the East and Little Stinkingwater Pastures. The estimated area of 175 acres dominated by medusahead is likely underestimated by our GIS database.

Any soil-disturbing activity has potential to create an environment for the establishment of noxious weeds. Range improvements would be implemented under the proposed action to improve livestock distribution and mitigate soil-disturbing activities in congregation areas. In addition, grazing management under the proposed action incorporates growing season rest for all pastures comprising the Mountain Allotment. In contrast, no range improvements would be implemented that improve livestock distribution and mitigate soil-disturbing activities in congregation areas under the No Action Alternative. Continuous seasonal grazing in the West and Little Stinkingwater Pastures would continue and key forage plants would not receive periodic growing season rest for completion of their reproductive cycles under the No Action Alternative. Plant species that lack periodic opportunity to make and store carbohydrates, set seed, and establish seedlings lose vigor and decline in population overtime. Perennial plants that are not afforded periodic opportunity to recover vigor also experience reductions in competitive ability overtime. As key plant species decline in population, functional roles of those species within the plant community are diminished. Cumulatively, these changes reduce plant community resistance to noxious weed invasion and increase the potential for undesirable shifts in plant composition. Implementation of grazing management under the Proposed Action Alternative would maintain or increase the resistance of plant communities to invasion of noxious weeds within all pastures comprising the Mountain Allotment.

NONCRITICAL ELEMENTS

1. Wildlife

Riparian and upland areas within the Mountain Allotment provide habitat for a diversity of native and nonnative wildlife species. Wildlife known to use habitat within the Mountain Allotment include mule deer (*Odocoileus hemionus*), Rocky Mountain elk (*Cervus canadensis*), pronghorn antelope (*Antilocapra americana*), mountain quail (*Oreortyx pictus*), chukar (*Alectoris chukar*), mourning dove (*Zenaida macroura*), coyote (*Canis latrans*), and numerous bats (*Myotis* spp.), small mammals, and birds associated with sagebrush steppe ecosystems.

Approximately 14 and 71 percent of the allotment is classified as winter range for mule deer and elk, respectively. The allotment is not considered important winter range for deer; however, no formal monitoring of terrestrial wildlife habitat has occurred in this allotment. Forage for elk and limiting big game habitat were resource concerns identified in the 1992 Three Rivers RMP/EIS. These concerns were addressed in that document by allocating 166 AUMs for deer, 10 AUMs for antelope, and 352 AUMs for elk within Mountain Allotment.

Grazing management under the proposed action is expected to improve rangeland health, especially in the West and Little Stinkingwater Pastures which currently lack periodic growing season rest. As rangeland health improves over time, a corresponding improvement in the quality of habitat for wildlife is anticipated in the foreseeable future.

2. Vegetation

Vegetation types on this allotment are primarily mountain big sagebrush (*Artemisia tridentat* ssp. *vaseyana*)/Idaho fescue (*Festuca idahoensis*)-Thurber's needlegrass (*Achnatherum thurberianum*)-bluebunch wheatgrass (*Pseudoroegneria spicata*); stiff sagebrush (*Artemisia rigida*)/Sandberg's bluegrass (*Poa secunda*); western juniper-mountain mahogany ((*Cercocarpus ledifolius*)/Idaho fescue. There are also a number of plant communities dominated by antelope bitterbrush (*Purshia tridentate*), mountain mahogany, and quacking aspen (*Populus tremuloides*). Isolated pockets of ponderosa pine (*Pinus ponderosa* var. *scopulorum*) can be found along Stinkingwater Creek.

Native plant communities would benefit from grazing management in the proposed action. Periodic growing season rest from livestock grazing would allow for improved vigor and diversity of native plants. The proposed action would also improve plant community composition, age class distribution, and overall production within the allotment. The proposed grazing system, along with the range improvements, would foster an upward trend in rangeland condition in the foreseeable future. A caveat to the grazing management in the proposed action, however, is that the grazing rotation in the Red Flat Pasture would be changed from a graze/rest rotation to a graze/defer rotation.

Total rest from livestock grazing in this pasture every other year, has fostered an upward trend in range condition over the last allotment evaluation period (1998 to 2003). The 2003 Mountain Allotment Evaluation cited increases in the cover of native perennial grasses and forbs and decreases in the amount of bare soil exposure. Grazing management under the proposed action would defer grazing until after seed set by key species every other year. This grazing rotation would similarly afford key plant species periodic opportunity to complete their life cycle, and thus should foster stable to upward trends in range condition.

3. Soils

The majority of the soils in Mountain Allotment are shallow to moderately deep, well-drained gravelly loams. There are small inclusions of shallow, well-drained gravelly to cobbly clay soils.

Soils would continue to be compacted in localized areas immediately around watering and salting areas under the proposed action. The majority of the allotment would have improved livestock distribution due to alternating the timing and duration of livestock grazing which would provide for increased plant cover. This would facilitate protection of the soil surface from raindrop impact through interception by vegetation cover and by reducing the potential for accelerated soil erosion caused by surface runoff. The anticipated cumulative effects of the Proposed Action Alternative would be an increase in overall ground cover which would improve soil stability and lessen the potential for accelerated soil erosion on Mountain Allotment.

4. Wild Horses

The Mountain, Texaco Basin, and Stinkingwater Allotments occur within the Stinkingwater Herd Management Area (HMA). The Appropriate Management Level set in the Three Rivers RMP/EIS was a range of 40 to 80 head. Wild horses in Mountain Allotment were last gathered in the fall of 2005. There were 173 horses gathered from the Stinkingwater HMA and surrounding areas. Approximately 113, 10, and 10 horses were gathered from the Mountain, Texaco Basin, and Stinkingwater Allotments, respectively. Approximately 40 head were gathered from outside the HMA in the Upton Mountain and Riverside Allotments. Forty of the 173 head gathered in 2005 were returned to the HMA.

Some of the effects of the Proposed Action Alternative would be positive for wild horse habitat. Under the proposed action, livestock grazing would be managed to provide periodic growing season rest to key forage species across the allotment. The proposed fencing and subsequent creation of an additional pasture (i.e., Little Stinkingwater Riparian Pasture) would afford management more control in alternating the timing and duration of livestock grazing. Since the diets of livestock and wild horses largely overlap, periodic growing season rest for key forage species would benefit wild horses by sustaining/improving plant community composition and productivity over time.

The proposed action, coupled with vegetative responses associated with various large-scale vegetation manipulations within the HMA, would serve to enhance wild horse habitat by fostering improved quality and quantity of key forage species. Because of a net increase in fencing, the proposed action would further constrain movement of horses during the season of use by livestock. This effect would be partially mitigated by requiring most gates internal to the HMA be opened after livestock are gathered. Gates along the perimeters of the Stinkingwater and the proposed Little Stinkingwater Riparian Pastures would remain closed yearlong to preclude access by livestock and wild horses during critical growth periods of riparian vegetation. Perennial water sources are well distributed across the allotment. In addition, the proposed grazing management should foster improvements in rangeland health, resulting in increased quality and quantity of forage. Thus, wild horses would have sufficient forage and water without having access to the Stinkingwater and the proposed Little Stinkingwater Riparian Pastures.

5. Livestock Grazing Management

Grazing management designed in the 1998 AMP was followed for only 1-year and then abandoned. Moving cattle as a single large herd proved to be untenable because of topographic constraints. Actual use reports indicate the West and Little Stinkingwater Pastures have received growing season use 6 out of the last 8 years. The East and Stinkingwater Pastures have been used annually with an early use riparian treatment (April 11 to June 5). Crow Camp Pasture has been used on a graze/defer rotation (May 22 to June 28 and June 30 to August 19). Red Flat Pasture has been used on a graze/rest management (May 24 to July 6 every other year).

The proposed livestock grazing management would provide periodic growing season rest to all pastures comprising the Mountain Allotment. The proposed action would improve livestock distribution, causing more even utilization patterns, and decrease grazing pressure around congregation and riparian areas.

6. Recreation

Hunting is the most frequent form of recreation that occurs within Mountain Allotment. Some opportunities for primitive camping opportunities also exist in the allotment.

Under the proposed action, there would be no impacts to camping activities that occur within Mountain Allotment. Hunting opportunities are likely to improve as upward trends in rangeland and wildlife habitat condition are realized.

7. Visual Resources

The majority of the project area is remote and not visible from any highway. The project area falls entirely within Visual Resource Management (VRM) Class IV. The allowed level of change to the characteristic landscape within this VRM class is major. Management activities may dominate the view and be the major focus of viewer attention. However, attempts should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

The proposed action meets VRM Class IV requirements. Visual resources would be affected short term, during construction of range improvements, but would improve once vegetation is reestablished. Management activities would not dominate the view of the casual observer.

8. Social and Economic Values

One of the highest individual agricultural revenues in Harney County is derived from cattle ranching, which is inextricably linked to the commodity value of public rangelands. The ranching industry contributes greatly to the local economy and comprises a large portion of Harney County tax revenues.

There are currently three permittees who have active grazing permits within the Mountain Allotment. Under the Proposed Action Alternative, periodic growing season rest would be provided, leading to long-term positive impacts on the allotment, the ranchers, and the associated community. Implementation of the Mountain AMP and associated projects would improve the economies of the affected ranches and local communities.

Joan M. Suther
Three Rivers Resource Area Field Manager

Date