

Chapter 1. PURPOSE AND NEED FOR ACTION

1.1 Introduction

The USDA Forest Service proposes to continue to authorize livestock grazing on the Salida and Leadville Districts in a manner that moves resource conditions toward meeting Forest Plan objectives and desired on-the-ground conditions.

The planning area ranges from north of Leadville to south of Salida on the Salida and Leadville Ranger Districts in the Upper Arkansas River drainage. The Salida and Leadville Districts are located on the San Isabel National Forest in Chaffee, Lake, Fremont, Park and Saguache counties of Colorado. The Land and Resource Management Plan (LRMP, "Forest Plan") for the Pike and San Isabel National Forests, Comanche and Cimarron National Grasslands (PSICC), provides direction for management on the Pike and San Isabel National Forest.

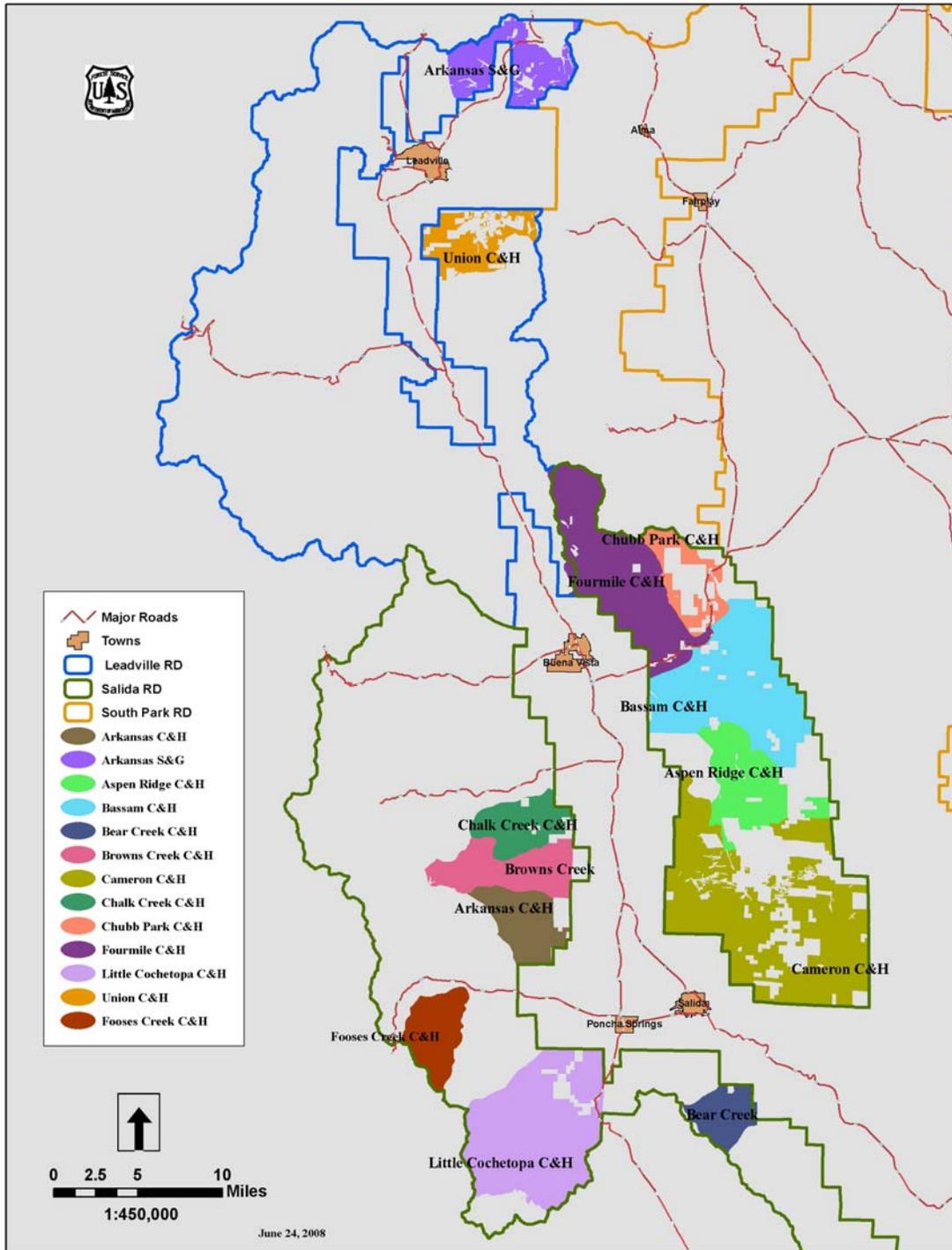
Livestock grazing is just one of many activities that occur on the Salida and Leadville Ranger Districts. Livestock grazing has been determined by the LRMP to be an appropriate use of the project area based in part on the Forest Plan suitability determination. Livestock grazing permits are issued for a ten-year period on specific portions of the project area. An analysis conducted according to the National Environmental Policy Act (NEPA) is required in order to continue to authorize livestock grazing on the project area, to prescribe adaptive management of the rangeland resources, and to ensure management is capable of meeting or moving toward desired conditions.

The project area consists of 13 allotments (11 active cattle and horse (C&H) grazing allotments, 1 vacant cattle and horse allotment and 1 vacant sheep and goat (S&G) allotment) in the Salida-Leadville Project Area (SLPA). There is a need for NEPA decisions to define authorized management of livestock grazing and to support the continued authorization of livestock grazing through permit issuance as determined in the Forest Plan (LRMP Chapter II p 50).

Currently, there are 6,760 Head Months (HM) of livestock grazing provided within the project area. Allotments in the project area cover approximately 284,400 acres. About 145,500 acres (51 percent) is classified as capable rangeland. Capable rangeland is accessible to livestock, produces forage or has inherent forage-producing capabilities, and can be grazed on a sustained basis under reasonable management practices (Rangeland Analysis & Management Training Guide) (RAMTG).

Within the capable rangeland, there are suitable rangelands. Suitable rangelands are those capable rangelands where there is no Forest Plan or other binding decisions to preclude the permitting of livestock grazing. Within the overall suitable/capable rangelands (hereafter referred to as Suitable rangelands), primary rangelands are those areas that livestock prefer to use when management is limited. Approximately 36,360 acres (11 percent) of the project area is considered primary rangeland. Non-Suitable rangelands are included in allotment boundaries for the geographic convenience of defining a large area as an allotment that includes many smaller areas of Suitable rangelands. Non-Suitable rangelands may get incidental use by livestock.

Map 1-1 Salida-Leadville Project Area and Affected Allotments



Forested vegetation communities include aspen, bristlecone pine, limber pine, blue spruce, lodgepole pine, ponderosa pine, Engelmann spruce and Douglas-fir. Non-forested areas consist primarily of perennial bunchgrass habitat and riparian plant communities. Elevations range from approximately 8,000 to 12,500 feet. The study area is described in more detail in Chapter 3.

1.2 Proposed Action

The proposed action is to continue to permit livestock grazing by incorporating adaptive management strategies on all 11 active allotments within the SLPA (see Table 1-1), while meeting LRMP direction which provides for a wide range of values and uses. The Fooses Creek allotment would be closed. The closure is an administrative action that does not require further analysis. The Arkansas S&G allotment would remain open and vacant. Because Arkansas S&G will remain open, it is included in this analysis although all alternatives will treat it the same. The proposed action is designed to continue to improve trends in rangeland health, vegetation, watershed conditions, and in ecological sustainability relative to livestock grazing within the SLPA. Collectively, these 13 allotments cover approximately 284,400 acres of National Forest System (NFS) lands within the allotments. Chapter 2 presents a more detailed description of the proposed action and the need for action by allotment.

Table 1-1 Allotments in the Salida and Leadville Project Area

Allotment (Management Units) in the SLPA	
Arkansas C&H- <i>Salida</i>	Chalk Creek C&H- <i>Salida</i>
Arkansas S&G- <i>Leadville</i>	Chubb C&H- <i>Salida</i>
Aspen Ridge C&H- <i>Salida</i>	Fooses Creek C&H- <i>Salida</i>
Bassam C&H- <i>Salida</i>	Fourmile C&H- <i>Salida</i>
Bear Creek C&H- <i>Salida</i>	Little Cochetopa C&H- <i>Salida</i>
Browns Creek C&H- <i>Salida</i>	Union C&H- <i>Leadville</i>
Cameron C&H- <i>Salida</i>	

Allotment management plans (AMPs) are implementation documents for the NEPA decision. As such, they simply put the decision into language compatible with the term grazing permits and clearly understandable by all parties. In accordance with FSM 2210, AMPs, and therefore the selected alternative from this NEPA analysis, will consist of four elements designed to move the allotment towards the desired conditions. These are: (1) Desired Conditions; (2) Design Criteria; (3) Need for Action; and (4) Monitoring and Evaluation Standards.

The proposed action addresses each of these elements in Tables 1-3, 1-4, 2-1, 2-2 and 2-3. A complete AMP will be developed incorporating the decision based on the analysis contained in the Decision Notices for this EA document. The revised AMPs will be prepared for individual allotments with implementation to begin in fiscal year 2009.

The selected alternative will include a monitoring plan to determine if actions are implemented as prescribed. Monitoring will evaluate progress towards desired conditions in a timely manner. Based upon the monitoring results, livestock grazing may be adjusted within specified adaptive management limits to ensure that specified management actions are being implemented as planned and that actions are moving resource conditions towards that desired conditions within the desired timeframes.

1.3 Existing Condition

Rangeland condition is evaluated by measuring how well ecosystem processes are functioning on the land. Evidence of properly functioning processes is expressed largely through the vegetative components of each community. Table 1-2 shows the generalized qualitative differences between rangelands in excellent and poor condition.

Table 1-2 Comparison of Rangeland Conditions

Excellent Rangeland Condition	↔	Poor Rangeland Condition
Desirable plant species abundant.		Desirable plants absent or few.
Desirable plants vigorous.		Desirable plants stressed.
Diverse age structure in plant community.		Structure confined to single age.
Increased diversity of plant species.		Little diversity in plant species.
Litter present and contacting soil.		Litter absent or not contacting soil.
Sufficient vegetation.		Insufficient vegetation.
Little bare ground.		Excessive bare ground.
Water soaks into ground.		Water runs off ground.
Sufficient litter cover.		Insufficient or excessive litter cover.
Soil surface protected by plants or litter.		Soil surface exposed.

Trend is determined where possible by comparing historical records (transects plots, inspection records, etc.) and photographs with current conditions and determining if conditions have improved, declined, or stayed the same. These trends are described as upward, downward, and static. Areas for which no historic data was available were described based on best currently available knowledge of the areas. This information generally indicates that they are at least in static trend with some places in an apparent upward trend and others trending downward.

Streams/riparian areas of concern were evaluated using “Proper Functioning Condition” (PFC) surveys and the “Riparian Characteristics Evaluations” R2-2200-RCS USFS from the Rangeland Analysis and Management Training Guide (RAMTG) (USDA 1996) by interdisciplinary team members, including botany, wildlife, fisheries, hydrology, soils, and range management field personnel from the Forest Service.

Existing conditions for all allotments in the SLPA are shown in Appendix 3. Benchmark areas and key areas for each pasture of the allotments are shown on maps in Appendix 1. Table 1.4 shows how the existing conditions for each benchmark area compare to what is actually desired for that site or that pasture in terms of meeting the desired conditions, not meeting the desired conditions or moving toward meeting the desired conditions within a reasonable timeframe.

To summarize Appendix 3: of 29 benchmark areas in the SLPA, 10 are currently meeting the desired conditions, 9 are adequately moving toward meeting the desired conditions and 10 are not meeting or adequately moving toward the desired conditions. Therefore, 19 of the benchmarks in the project area are meeting or adequately moving toward the desired conditions for the ecosystem types represented in those benchmark areas. Benchmarks were not uniformly distributed among the allotments but were selected based on past history and current information needs.

1.4 Desired Condition

Desired conditions are the on-the-ground resource conditions that management is working towards within a defined timeframe. These are the results that are expected if management goals and objectives are fully achieved. They are based in significant part on bringing the broad scale desired conditions from the Forest Plan down to the project level. Table 1-3 describes the desired conditions for each general ecosystem community found within the SLPA.

Table 1-3 Desired Condition for Resource Ecosystems

Resource Ecosystem Community Type	Desired Condition
Alpine	Provide a diverse mix of desirable native grass, forb and shrub communities. Where developed soils exist, ground cover is 80% or greater.
Ponderosa/Lodgepole/Mixed Conifer Forest	Forests with diverse age structure, late successional communities, openings, snags and down woody debris across forested areas; vigorous understory of native grasses (grama, needle and thread, junegrass, Arizona fescue, mountain muhly, mutton grass) and forbs where light allows. Achieve or maintain satisfactory range condition on all forested rangeland in this community type.
Aspen	Perpetuate aspen communities with diverse age structures including late successional communities, regeneration, openings, snags and down woody debris across aspen areas; vigorous and diverse native grass and forb understory present. Use of aspen regeneration as browse is limited to light use (up to 40%) as defined by the Range Analysis and Management Training Guide (RAMTG).
Upland Shrub	Vigorous growth and regeneration of a mosaic of shrub age classes and species (mountain mahogany, rabbitbrush, sagebrush, oakbrush) interspersed with a variety of native grasses and forbs. Range condition is satisfactory or better on all rangeland in this community type.
Pinyon/Juniper	Provide a mosaic of age classes, open and dense stands. An understory of native mixed bunchgrass, shrub and forb communities in open areas (grama, needle and thread, junegrass, Arizona fescue, Indian ricegrass).
Grassland	Mixed native grass and forb communities provide a mosaic of plants with species diversity, a variety of vegetative structures and sufficient amounts of litter. Principle grass species may include Arizona fescue, thurber's fescue, muhly species, Parry's oatgrass, native brome, grama species, needle and thread. Grass communities show vigor and range condition is satisfactory or better on all rangeland in this community type.
Mesic Meadow	Diverse mix of native upland and riparian graminoids and forbs present with significant proportions of riparian species relative to moisture availability. Riparian species to include at least two of the following: bluejoint reedgrass, tufted hairgrass, riparian sedges. Range condition is excellent based on site potential. Graminoid communities show vigor.

Resource Ecosystem Community Type	Desired Condition
Bench/Transition areas (qualities of both riparian and upland communities)	Stabilized slopes adjacent to riparian areas, vegetated with a diverse mix of native upland and riparian grasses and forbs. Maintain desirable native vegetation species. Minimize undesirable specie encroachment (Kentucky bluegrass, fringed sage, introduced clovers). Reduce bare ground to less than 10 percent.
Streams & Riparian areas	<p>Provide healthy, self-perpetuating plant communities, meet water quality standards, provide habitats for viable populations of wildlife and fish, and provide stable stream channels and still water-body shorelines (LRMP, III-203).</p> <p>Achieve desired condition of riparian areas by following the standards set forth in the Watershed Conservation Practices (WCP) Handbook, FSH 2509.25. Section 12 deals specifically with Riparian Areas. Management measure (3) of this section states, “In the water influence zone (WIZ) next to perennial and intermittent streams, lakes, and wetlands, allow only those actions that maintain or improve long-term stream health and riparian ecosystem condition.” Adherence to the design criteria within this standard will help to sustain riparian areas at or move them toward their desired conditions.</p> <p>Where a defined channel exists (perennial and intermittent), streams and riparian ecosystems will be managed to be at a “proper functioning condition” state as defined by the Bureau of Land Management (Technical Reference 1737-9). Conduct actions so that stream pattern, geometry (profile and dimension), and habitats are maintained or improved. Where a defined channel does not exist, the area will be managed to maintain the hydrologic function and provide for self-perpetuating plant communities in riparian corridors/pockets.</p>

A listing of the desired conditions in each allotment by resource area is included in Appendix 3. This listing provides the specificity needed to fully understand where this project area needs to go with sound resource management, and what it should look like when the desired condition is met. Good range management alone will not succeed in meeting all of these desires. Other projects, over time, will also contribute to this effort.

1.5 Purpose and Need

1.51 Purpose.

The site-specific purpose for the proposed action is twofold. First is to continue to permit livestock grazing on all or portions of the project area. Second and inter-related is to design and implement an adaptive management system that will move resource conditions from the existing conditions toward the desired conditions for the resource ecosystems in a manner that is timely and consistent with LRMP objectives, standards, and guidelines.

Authorization of livestock grazing and management in an adaptive manner is appropriate on the project area because:

- Where consistent with other multiple use goals and objectives there is Congressional intent to allow grazing on suitable lands. (Multiple Use Sustained Yield Act of 1960, Wilderness Act of 1964, Forest and Rangeland Renewable Resources Planning Act of 1974, Federal Land Policy and Management Act of 1976, National Forest Management Act of 1976)
- The allotments contain lands identified as suitable for domestic livestock grazing and continued domestic livestock grazing is consistent with the goals, objectives, standards, and guidelines of the Forest Plan (LRMP p. III-161-168, III-35-40, II-74, and II-81).
- It is Forest Service policy to make forage available to qualified livestock operators from lands suitable for grazing consistent with land management plans (Forest Service Manual (FSM) 2203.1; 36 CFR 222.2 (c)).
- Updated management strategies will outline how livestock will be grazed and at what levels will be developed to assure implementation of Forest Plan management direction, and meet Section 504 of Public Law 104-19 (Rescission Bill, signed 7/27/95), which requires revision of existing allotment management plans.
- It is Forest Service policy to continue contributions to the economic and social well being of people by providing opportunities for economic diversity and by promoting stability for communities that depend on range resources for their livelihood (FSM 2202.1).
- The Forest Plan, which directs the management of lands contained within this project area, has as one of its goals to “Provide forage to sustain local dependent livestock industry” (LRMP p. II-35).

1.52 Need.

The site-specific need for the proposed action is based on the knowledge that a change in management needs to occur. This need for change in management is identified by comparing what currently exists on the landscape in the SLPA and to specific descriptions of what should exist in those different community types across the project area.

- There is a need for change from current management, as some areas on allotments within the project area may not be meeting or moving toward desired conditions in an acceptable timeframe.

- The need for action is created by the disparity between what is present (existing condition) and what is wanted (desired condition). The specific action needs for each allotment which are not meeting or moving toward desired conditions in an acceptable timeframe are summarized in Table 1-4. The detailed existing and desired condition tables are in Appendix 3.

Table 1-4 Allotment Specific Needs for Action

1-4.a

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Arkansas C&H Allotment: <i>Allotment wide</i></p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB, Canada lynx, and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, bighorn sheep, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, black swift, bald eagle, northern harrier, purple martin, peregrine falcon, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, Gunnison prairie dog, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, American marten, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>Upland sampling within the pasture indicated a shift in species composition. Least desirable species have increased in frequency</p> <p>Heavy beetle-kill in ponderosa, salvage operations on-going. Significant historic placer mines are present adjacent to creeks.</p>	<p>Manage for defined desired condition of ecosystem communities within the allotment.</p> <p>Protect and maintain suitable habitat conditions for TES/species of concern</p> <p>Improve bunchgrass cover species composition on upland areas. Reduce noxious weed composition.</p> <p>Improve cover frequency for Parry’s oatgrass.</p> <p>Reduce recreation conflict.</p> <p>Maintain and improve riparian vigor, increase willow, increase litter cover in upland and maintain and improve cover of Thurber fescue.</p> <p>Improve species composition on upland areas. Decrease percentage cover of least desirables.</p> <p>Move toward PFC in Placer Creek</p> <p>Decrease ungulate grazing pressure on riparian areas.</p> <p>Maintain PFC with a stable or upward trend.</p> <p>Reduce grazing impacts to historic sites.</p>	<p>Upland water sources are limited for improving distribution of cattle to the uplands.</p> <p>Too many water developments are in riparian areas. Develop water out of the riparian bottoms to lessen impacts to riparian vegetation and soils.</p> <p>Improve riparian conditions like increase willow regeneration and reduce bare ground.</p> <p>Continue to identify and address potential conflicts between TES/species of concern and livestock grazing</p> <p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Species composition less than desired in parts of the pastures.</p> <p>Cattle trailing and trampling is present within the riparian area.</p> <p>Protect historic sites from grazing damage.</p>

1-4.b

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Aspen Ridge Allotment: <i>Allotment wide</i></p>	<p>Riparian areas located in the pasture have pedestaling and concentrated use by ungulates.</p> <p>Poor design of existing water developments contributing to riparian area degradation</p> <p>Occurrence of a sensitive <i>Machaeranthera Coloradoensis</i> (Colorado Tansy aster)</p> <p>Upland and bench transition grasses are lacking vigor</p> <p>Woody component lacking (<10%). Evidence of ungulate browsing on young willow limiting regeneration</p> <p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – MSO and Gunnison prairie dog FSS Species – Brewer’s sparrow, loggerhead shrike, northern leopard frog, bald eagle, northern harrier, peregrine falcon, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, spotted bat, bighorn sheep, and Gunnison prairie dog Terrestrial MIS – Abert’s squirrel and elk</p> <p>Significant prehistoric sites are located near springs.</p> <p>Bassam Guard Station is an important heritage resource.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Increase upland and bench transition plant vigor.</p> <p>Reduce the amount of bare ground in areas of the bench transition to below 30%.</p> <p>Increase bunchgrass vigor. Decrease litter and bare ground.</p> <p>Decrease ungulate grazing pressure on riparian areas.</p> <p>Improve species composition on upland areas. Increase the woody component and manage for willow regeneration.</p> <p>Decrease bare ground in the isolated areas to less than 30% and establish desirable bunchgrass species and native forb mix</p> <p>Move to PFC. Increase native grass, forb and salix vigor and cover in the riparian, bench/transition and upland grasses. Reduce bare ground, hummocking, pedestaling and bank trampling</p> <p>Grazing impacts to prehistoric sites are eliminated.</p> <p>Bassam Guard Station is securely fenced.</p>	<p>Willow regeneration and cover is less than desired.</p> <p>Bare ground on the bench transition area is over 75% in one pasture.</p> <p>Upland water sources are limited to improve distribution of cattle to the uplands.</p> <p>Vigor of upland and bench transition grasses is low.</p> <p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Cattle trailing and trampling is present within the riparian area.</p> <p>Species composition less than desired in isolated areas of both riparian and uplands.</p> <p>Pedestaling occurring in some riparian areas.</p> <p>Active head cutting occurring in a few ephemeral drainages.</p> <p>Bunchgrasses lack vigor and are largely decadent away from riparian.</p> <p>Riparian water developments are poorly located for encouraging upland grazing.</p> <p>Leaf litter is less than desired for wildlife.</p> <p>Protect prehistoric sites.</p> <p>Maintain BGS fence.</p>

1.4.c

Allotment	Existing Condition	Desired Conditions	Need for Action
<p><u>Bassam Allotment:</u> <i>Allotment wide</i></p>	<p>See Table 1.</p> <p>High recreation use causing conflict.</p> <p>Areas of concentrated ungulate use.</p> <p>Limited utilization on uplands grasses.</p> <p>Heavy mortality in Ponderosa pine. Increase of fescue grasses occurring.</p> <p>Water availability is lacking</p> <p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – Canada lynx, MSO, and Gunnison prairie dog FSS Species – Brewer’s sparrow, loggerhead shrike, northern leopard frog, bald eagle, northern harrier, peregrine falcon, purple martin, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, Gunnison prairie dog, bighorn sheep, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>Significant prehistoric sites exist. The Denver, South Park and Pacific Railroad, and the Midland Railroad grades are significant historic resources.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Manage for grassland DC Manage for riparian DC.</p> <p>Increase vigor and density of upland grasses.</p> <p>Maintain vegetative cover and increase native species composition of grasses and forbs. Reduce hedging of willows.</p> <p>Reduce or eliminate grazing impacts to both historic and prehistoric resources.</p>	<p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Upland water sources are limited to improve distribution of cattle to the uplands.</p> <p>Cattle distribution is less than desired.</p> <p>Improve riparian condition by increasing willows.</p> <p>Protect historic and prehistoric resources from trailing or trampling.</p>

1-4.d

Allotment	Existing Condition	Desired Conditions	Need for Action
<p><u>Bear Creek Allotment:</u> <i>Allotment wide</i></p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB, Canada lynx and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, Hudsonian emerald dragonfly, northern leopard frog, pygmy shrew, black swift, bald eagle, northern harrier, peregrine falcon, purple martin, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, Gunnison prairie dog, American marten, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>There are significant prehistoric sites.</p> <p>Permitted livestock are breaching the southeast boundary of the allotment.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Increase native bunchgrass species component.</p> <p>Decrease the presence of Kentucky bluegrass and annual forbs. Reduce litter and bare ground. Minimize trampling.</p> <p>Manage riparian areas to achieve and maintain PFC</p> <p>Reduce or eliminate grazing impacts to prehistoric sites.</p>	<p>Recreational conflicts exist with dispersed camping in Bear Creek, and motorized/bike access to Rainbow Trail on FSR 101.</p> <p>Maintain or improve riparian condition by increasing willows.</p> <p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Limited stock water available in the uplands to encourage livestock distribution and discourage livestock concentrations in low lying areas.</p> <p>Maintain existing Bill’s Neoparrya population.</p> <p>Maintain adequate forage for resident elk herd.</p> <p>Decrease livestock concentrations in areas of special concern for cultural resources.</p> <p>Improve the fencing along the southeast boundary.</p> <p>Maintain snowshoe hare habitat for lynx.</p> <p>Protect prehistoric sites from trailing and trampling.</p>

1-4.e

Allotment	Existing Condition	Desired Conditions	Need for Action
<p><u>Browns Creek Allotment:</u> <i>Allotment wide</i></p>	<p>Bunchgrasses are lacking vigor and decadent in areas. Understory forage increasing</p> <p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB, Canada lynx, and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, Gunnison prairie dog, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, black swift, bald eagle, northern harrier, peregrine falcon, purple martin, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, American marten, bighorn sheep, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>There are significant prehistoric sites.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Increase vigor of bunchgrasses where needed.</p> <p>Maintain beaver dams and activities to perpetuate or enhance the existing PFC’s.</p> <p>Reduce or eliminate grazing impacts to the prehistoric sites.</p>	<p>Reduce the recreational conflicts with recreational users on the Browns Creek and Wagon Loop trails.</p> <p>Reduce the conflict with recreational livestock utilizing available forage.</p> <p>Maintain riparian condition.</p> <p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Protect boreal toad breeding habitat areas</p> <p>Protect the prehistoric sites.</p>

1-4.f

Allotment	Existing Condition	Desired Conditions	Need for Action
<p><u>Cameron Allotment:</u> Allotment wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – MSO and Gunnison prairie dog FSS Species – Brewer’s sparrow, loggerhead shrike, Gunnison prairie dog, bighorn sheep, northern leopard frog, bald eagle, northern harrier, peregrine falcon, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>Significant prehistoric sites exist. The Salida to Whitehorn Wagon Road is a significant historic resource.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Manage for grassland DC</p> <p>Manage for riparian DC.</p> <p>Increase plant vigor and bunchgrass frequency</p> <p>Maintain native grass species</p> <p>Decrease the amount of bare ground. Increase species diversity and cover with desirable species.</p> <p>Reduce or eliminate grazing impacts on prehistoric sites and the wagon road.</p>	<p>Improve distribution to the uplands.</p> <p>Upland water sources are lacking.</p> <p>Maintain or improve riparian condition.</p> <p>Infrastructure within the pasture is not adequate to control timing, intensity, duration and location of livestock grazing</p> <p>Cattle distribution is less than desired</p> <p>Protect the prehistoric sites and the wagon road.</p>

1-4.g

Allotment	Existing Condition	Desired Conditions	Need for Action
<p><u>Chalk Creek Allotment:</u> Allotment Wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB, Canada lynx, and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, Gunnison prairie dog, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, black swift, bald eagle, northern harrier, peregrine falcon, purple martin, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, American marten, bighorn sheep, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p>	<p>Livestock concentrations near existing cattleguard on the BLM/FS boundary are causing resource damage.</p> <p>Livestock distribution is less than desired for the allotment.</p> <p>Maintain riparian condition.</p>

1-4.h

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Chubb Allotment Allotment Wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – Canada lynx and Gunnison prairie dog FSS Species – Northern leopard frog, black swift, Brewer’s sparrow, loggerhead shrike, Gunnison prairie dog, northern harrier, peregrine falcon, olive-sided flycatcher, three-toed woodpecker, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, American marten, common hog-nosed skunk, wolverine, and bighorn sheep Terrestrial MIS – Abert’s squirrel and elk</p> <p>The former Bath and Summit Railroad Stations are significant historic sites.</p> <p>The grades of the Denver, South Park and Pacific, and the Midland Railroads are also significant historic resources.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Increase vigor and density of upland grasses.</p> <p>Achieve less than 30% bare ground.</p> <p>Increase woody riparian shrubs</p> <p>Reduce or eliminate grazing impacts to significant historic resources.</p>	<p>Ungulate distribution is concentrated in low lying areas.</p> <p>Infrastructure within the allotment is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>There is no stock water available in the uplands to encourage livestock out of low lying areas.</p> <p>Hoof action is causing bank trampling, plant pedestaling in the riparian area.</p> <p>Maintain or improve riparian area.</p> <p>Protect historic resources from grazing effects or cattle damage.</p>

1-4.i

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Fourmile Allotment: Allotment Wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB, MSO, Canada lynx, and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, bighorn sheep, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, black swift, bald eagle, peregrine falcon, northern harrier, olive-sided flycatcher, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, hog-nosed skunk, American marten, and Gunnison prairie dog, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>Grades of the Denver, South Park and Pacific Railroad, and the Midland Railroad are significant historic resources.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Perpetuate or enhance the existing PFC.</p> <p>Reduce or eliminate grazing impacts to the historic railroad grades.</p>	<p>Infrastructure within the allotment is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Limited stock water available in the uplands to encourage livestock distribution and discourage livestock concentrations in the low lands and high recreation areas.</p> <p>Recreational users contribute to the difficulty of getting an efficient rotation with existing fencing.</p> <p>Recreational livestock are using forage sources in Davis Meadow and the Fourmile Area.</p> <p>There is conflict with recreational users in the Old Homestead and Fourmile area.</p> <p>Conflicts exist between recreation users and livestock on Fourmile Creek where livestock tend to drift and hang.</p> <p>Conflicts exist with private land owners and recreational users along Seven Mile Creek.</p> <p>Coordinate management with the adjacent BLM allotment to run as a single management unit.</p> <p>Maintain or improve riparian conditions.</p> <p>Protect the historic railroad grades.</p>

1-4.j

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Little Cochetopa Allotment: Allotment Wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern:</p> <p>T&E Species – UFB, Canada lynx, and Gunnison prairie dog FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, Gunnison’s sage-grouse (GuSG), loggerhead shrike, bighorn sheep, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, bald eagle, peregrine falcon, northern harrier, olive-sided flycatcher, purple marten, Lewis’ woodpecker, three-toed woodpecker, boreal owl, flammulated owl, northern goshawk, fringed myotis, Townsend’s big-eared bat, Gunnison prairie dog, hog-nosed skunk, American marten, and spotted bat Terrestrial MIS – Abert’s squirrel and elk</p> <p>Significant prehistoric sites exist here. The Denver and Rio Grande’s Poncha Pass and Marshall Pass grades are important historic resources. The Hutchinson-Barnett and Woods Cabins are historically important and potential recreation sites.</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Reduce or eliminate grazing impacts to the railroad grades, and protect the cabins from cattle damage.</p>	<p>Infrastructure within the allotment is not adequate to control timing, intensity, duration and location of livestock grazing.</p> <p>Limited stock water available in the uplands to encourage livestock distribution and discourage livestock concentrations in the low lands.</p> <p>Current rotational system is not effective.</p> <p>Conflicts exist with recreation and fence construction and maintenance.</p> <p>Big game and cattle forage resource conflicts exist.</p> <p>Maintain or improve riparian conditions.</p> <p>Protect both historic and prehistoric sites from grazing impacts and livestock damage.</p>

1-4.k

Allotment	Existing Condition	Desired Conditions	Need for Action
<p>Union Allotment: Allotment Wide</p>	<p>Habitat is present and/or species present for the following threatened, endangered, and sensitive (TES) wildlife species and species of concern: T&E Species – UFB and Canada lynx FSS Species – White-tailed ptarmigan, wolverine, Brewer’s sparrow, loggerhead shrike, Hudsonian emerald dragonfly, boreal toad, northern leopard frog, pygmy shrew, bald eagle, northern harrier, peregrine falcon, olive-sided flycatcher, three-toed woodpecker, boreal owl, northern goshawk, and American marten Terrestrial MIS – Elk</p>	<p>Manage for defined DC of ecosystem communities within the allotment.</p> <p>Manage for stream/riparian, bench/transition and grassland DC. Maintain PFC.</p> <p>Decrease sagebrush density to create a mosaic of shrub age classes, interspersed with a variety of native grasses and forbs. Increase native species diversity and vigor of native grasses, forbs and shrubs.</p> <p>Increase density and diversity of naturally occurring native alpine species.</p>	<p>USFS and private land use conflicts exist.</p> <p>Big game and cattle forage resource conflicts exist.</p> <p>Cattle distribution is poor for the allotment.</p> <p>Current rotational system is not effective.</p> <p>Maintain riparian conditions.</p> <p>Native species diversity and vigor less than desired and age class structure of shrub diversity less than desired</p> <p>Conflicts exist between recreation users and cattle.</p>

1.6 Scope of the Analysis

The Salida and Leadville Ranger Districts have prepared this Environmental Assessment (EA) to document the analysis and disclose the environmental effects of alternative management actions in the SLPA geographic area, referred to as the “project area”, (Map Figure 1-1, page 2). The project area generally extends from the Continental Divide on the west, to the Fremont Pass area on the north, to South Park on the east and then to the Sangre De Cristo mountains on the south. The project area includes about 277,463 acres of land managed by the Pike - San Isabel National Forest.

Implementation of the selected alternative would begin with the 2009 grazing season. Upland and riparian utilization standards would be incorporated into the new Allotment Management Plans (AMPs) and become requirements of the grazing permits. The new AMPs would guide livestock management within the project area until a periodic review of the NEPA Decision indicates that changed conditions have occurred and there is a need for an updated analysis and decision. The approval of the new or subsequent AMPs and issuance of grazing permits to reflect the selected alternative would not be subject to further NEPA documentation as long as the current NEPA analysis and decision remain current and valid. A review will be conducted and documented as a minimum each time that a term grazing permit affected by this decision comes up for issuance.

The grouping of actions in this analysis was based on their relationship in attaining the desired conditions. However, these actions could be implemented individually and are therefore, not “connected” (40 CFR 1508.25).

Three alternatives were developed in conjunction with this project. These alternatives provide a range of reasonable actions.

- The “No Action” (No Livestock Grazing) alternative was developed and analyzed in detail. This alternative provides a circumstance that provides for a comparison with the action alternatives for displaying potential environmental effects.
- The “No Change” or Grazing under current Allotment Management Plans or Annual Operating Instructions alternative was developed to reflect current management. Current management is defined as that management actually applied on the allotment(s) over the past three to five years as documented in Annual Operating Instructions (AOI). This management may or may not be the same as documented in existing AMPs (where they exist) for the 13 allotments in the project area.
- The “Proposed Action” or Grazing using Adaptive Management alternative is focused on the continued authorization of livestock grazing to include the development of adaptive management actions. This includes upland allowable use standards, riparian area allowable use and other standards, rangeland improvement practices (structural and non-structural), management systems, monitoring and feedback mechanisms to manage adaptive processes, and special management and emphasis areas.

This EA was written under the implementing regulations of the National Environmental Policy Act, Council on Environmental Quality, Title 40, Code of Federal Regulation, Parts 1500-1508; and the National Forest Management Act, Title 36, Code of Federal Regulations, Part 219. The proposal is not a general management plan for the area; general management direction is found in the LRMP (1986).

1.7 Decision Framework

Range Allotment Management Planning (RAMP) is needed to define appropriate decisions and provide guidance to ensure that rangeland health is maintained or moving towards the desired condition. Based on this analysis, the Salida and Leadville District Rangers will determine the appropriateness of livestock grazing, and management needed to ensure the meeting or moving toward desired condition objectives in desired timeframes.

The District Rangers are the responsible officials who will decide whether or not to continue to authorize livestock grazing on all or portions of the 13 allotments and if so, under what terms and conditions so as to meet or move toward meeting Forest Plan objectives in a timely manner.

Management on each allotment is implemented through an allotment-specific AMP based on the alternative selected in the NEPA Decision. The AMP is the implementation document by which the Forest Service communicates to the permittee and others the management objectives and planned actions to accomplish those objectives.

The allotments currently under permit in the SLPA are being operated under AMPs developed 10 to 15 years ago and are being proposed for revision.

This environmental assessment is not a decision document. This EA discloses the environmental consequences of implementing the three different alternatives. The Forest Service decisions will be stated and explained in two or more separate Decision Notice (DN) documents.

This EA focuses on National Forest System lands administered by the Salida and Leadville Ranger Districts. It does not evaluate livestock grazing activities on other allotments, other Ranger Districts, or other National Forests. This EA does evaluate cumulative actions associated with livestock grazing effects on both the National Forest System lands and to the degree feasible on the adjacent or associated private lands.

The individual specialists contributing to this EA each used the best available science in their field to arrive at the effects that they describe for each alternative. Best available science means that any computer models used during the analysis are the latest version available. It means that Geographic Information System (GIS) spatial analysis used the most current information on each available layer. It also means that the specialists reviewed currently published scientific literature for subjects or discussions that could inform the decision makers about issues that are appropriate for this analysis. This is evidenced by the many reference documents cited by the specialists in their reports.

1.8 Public Involvement _____

A preliminary scoping letter was sent to over 50 interested parties in December 2005. This letter asked for public comments on the proposal until January 6, 2005. Six comment letters were received. The project was also identified in the quarterly Schedule of Proposed Actions (SOPA) for the PSICC National Forests and Grasslands starting in July 2006. The SOPA is mailed to hundreds of individuals and groups and is also posted on the Forest website. Using comments from the public, other agencies and entities, the interdisciplinary team (IDT) developed a list of issues to address.

In February 2007 the first draft EA was published and sent to the public. Seven comment letters were received on that draft. The responses to those comments are posted in Appendix 2 for this EA. Comments received on this draft, and the responses to them, will be posted to an appendix in the final version of the EA.

1.9 Key and Non-Key Issues _____

Issues were separated into key and non-key issues. Key issues were defined as an effect (or perceived effect, risk or hazard) on a physical, biological, social or economic resource caused by implementing the proposed action. Non-key issues were identified as those which were: 1) outside the scope of the proposed action; 2) already decided by law, regulation, LRMP or other higher level decision; 3) not relevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence.

For each key issue, one or more indicator criteria are identified. These indicators will be used to evaluate the effectiveness of each alternative in responding to the issue.

The interdisciplinary team (ID Team) identified preliminary issues prior to the formal public scoping. The list identified expected concerns regarding the effects of the proposed action. Comments received after the initial scoping effort revealed several areas of social and environmental issues related to the proposed action. Key issues and their indicators are described below and can be tracked in Chapter 3.

Key Issues:

- ★ Livestock grazing in the project area has had a localized negative impact on certain natural ecosystems, especially riparian areas across the project area, through trampling, vegetation loss, reductions in water quality, and increases in erosion potential.
 - Indicators:
 - Allowable use standards met on a consistent basis.
 - Increase or decrease riparian woody species cover.
 - Increase or decrease in upland native perennial grass cover
 - Streambank alteration associated with livestock impacts.
 - Increase or decrease in riparian ground cover
 - Increase or decrease in noxious weeds
 - Upland and riparian species composition (desirable, undesirable)

- ★ Conflicts exist between livestock grazing use and recreation use on National Forests. Livestock grazing may have negative impacts on recreational activities such as hiking, biking, camping, fishing and Off-Highway-Vehicle (OHV) use. These impacts are found throughout the project area, but are especially prevalent in wilderness and around developed recreation sites. Livestock leave manure; attract flies, interrupt the quiet, disturb the view, block roads and trails, disturb fish, and eat flowers. Conflicts with livestock during the summer increase as recreation and number of recreationists in the forest increases. Recreationists and recreational activities may negatively impact livestock grazing and related operations, especially in popular and high-concentration recreation areas. Permittees report cows being chased by dogs, people on bikes, horses, ATVs and other OHVs; OHVs tearing up riparian areas and uplands; gates being left open; salt, supplement and mineral being stolen; fences being cut; and water developments being tampered with.
 - Indicators:
 - Reduced number of complaints from forest visitors or permittees
 - Livestock excluded from developed recreation sites
 - Numbers of gates replaced by cattleguards on roads and trails
 - Number of complaints about gates being left open
 - Limiting season of use for livestock grazing in certain areas
 - Amount of fence cut
 - Number of water sources damaged
 - Amount of salt/supplement/mineral stolen or tampered with
 - Acres of habitat lost to OHV misuse

- ★ Changes in livestock management may impact the financial well-being of permittees and the local economy.
 - Indicators:

- HMs under Term Grazing Permit
- Number of allotments under Term Grazing Permit
- Economic costs to permittees to implement alternatives

Non-Key Issues:

- ★ Gap in historical Range data from 1970's to early 2000's.
 - Indicators:
 - Lack of transect readings through the 1980's and 1990's.
 - Few photos taken at photo points.
 - Changes in Range survey methodologies.

- ★ Changes in water developments to improve cattle distribution.
 - Indicators:
 - Location of development relative to water source.
 - Quality of water provided.
 - Economic costs to permittees to implement developments.
 - Ability to regulate water flow through the development.

1.10 Other Related Efforts within the Project Area _____

- **Hazardous fuels reduction** – As part of the National Fire Plan, the Pike-San Isabel National Forest is planning to complete several analyses to implement hazardous fuels reduction treatments within the project area. These treatments will be taking place on the Fourmile, Chubb Park, Bassam, Chalk Creek, and Browns Creek allotments. The treatments are expected to use a combination of thinning, slash piling, pile burning, and/or broadcast burning. These activities should be completed within 10-15 years, funding dependent. Structural range improvements such as water sources and fences will need to be protected during these treatments. Livestock rotations may need to be adjusted to accommodate these treatments. Transitory forage areas will be opened as a result of these activities.

- **Prescribed burning** – Since the ponderosa pine ecosystem and surrounding grassland ecosystems evolved with fire, this disturbance regime is an important part of the system. The Forest Plan directs implementation of prescribed fire to reduce fuel loading. These types of projects will be ongoing, done both independently and in conjunction with hazardous fuels reduction projects. These treatments will be taking place on the allotments mentioned in the hazardous fuels reduction areas above. Structural range improvements such as water sources and fences will need to be protected during these treatments. Livestock rotations may need to be adjusted to accommodate these treatments. Transitory forage areas will be opened as a result of these activities.

- **Travel management and recreational use** – The Forest Service manages for multiple uses including recreational activities. Some recreation, including OHV use, has detrimental impacts on rangeland resources through gates being left open, soil erosion, vegetation disturbance or loss, cattle being chased or shot, and improvements being tampered with. An

EA will be written following completion of Forest Plan revision to analyze travel management that will address such issues as off-road vehicle use resulting in damage to upland and riparian resources. These types of issues and impacts are not discussed in this document but management decided upon through this analysis and subsequent decisions will be incorporated into and coordinated with the travel management analysis and decision(s).

- **Noxious weed treatment** – The PSICC has already analyzed the effects of noxious weed treatment across the Pike–San Isabel National Forest. That EA was published in 1998 and the resulting decision provides for implementation of an integrated weed management approach. The focus is on prevention, early control of small infestations and containment of larger populations. Integrated weed management means that weeds will be treated using a variety of techniques including chemical, physical and biological control. Weeds are treated aggressively on an annual basis on the Salida and Leadville Districts. Mapping of new infestations is on-going. Design criteria specified later in this document will focus on prevention of weed spread from livestock management activities.
- **Permittee vehicles off-road** – Permittees use pickup trucks, ATVs and other vehicles to maintain and install their range improvements. Access periods and locations will be administered as part of the AOI.

1.11 Key Laws Influencing Management Decisions

It is Forest Service policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with all applicable Federal and State laws, regulations, orders, and other requirements. The EA considered whether actions described under its alternatives would result in a violation of any Federal, State, or local laws or requirements (40 Code of Federal Regulations [CFR] §1508.27), or would require a permit, license, or other entitlement (40 CFR §1502.25). By tiering this project to the FEIS and Record of Decision (ROD) for the Forest Plan, it is expected that all applicable requirements would be met.

1. Organic Administration Act of 1897 (16 U.S.C. 475). This law defines original National Forest purposes to improve and protect the forest, secure favorable conditions of water flows, and furnish a continuous supply of timber.

2. Bankhead-Jones Farm Tenant Act of 1937 (7 U.S.C. 1010). This law mandates conservation of land to correct land abuse, control erosion, mitigate floods, conserve soil moisture, and protect watersheds.

3. Sustained Yield Forest Management Act of 1944 (16 U.S.C. 583). This law ties the goal of sustained yield to maintaining water supply, regulating stream flow, preventing soil erosion, and preserving wildlife.

4. Granger-Thye Act of 1950 (16 U.S.C. 5801). This law authorizes issuance of grazing permits having terms that preserve land and resources from erosion and flood damage. The Forest Service may reduce livestock numbers and cancel grazing permits if land is overgrazed.

5. Watershed Protection and Flood Prevention Act of 1954 (16 U.S.C. 1001). This law authorizes watershed improvement works to prevent floods, conserve ground water recharge and water quality, and protect aquatic life.

6. Multiple Use-Sustained Yield Act of 1960 (16 U.S.C. 528). This law amplifies National Forest purposes to include watershed, wildlife and fish, outdoor recreation, range, and timber. Renewable surface resources are to be managed for multiple use and sustained yield of the several products and services that they provide.

7. Wilderness Acts of September 3, 1964 (Section 4, Paragraph 4 subpart 2), December 22, 1980 (P.L.96-560, Section 108), and August 13, 1993 (P.L. 103-77, Section 3 Paragraph (2), (b)). These laws establish that livestock grazing is an approved and appropriate use of wilderness if it occurred prior to formal designation.

8. National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190, 42 USC 4321-4347, 01/01/1970). One of the purposes of this act is to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man.

9. Clean Air Act of 1970 (CAA), as amended in 1990 and 1999 (42 USC 7401 *et seq.*). The CAA was designed to protect and enhance the quality of the nation's air resources.

10. Endangered Species Act of 1973 (16 U.S.C. 1531-1536, 1538-1540). This law was written to conserve endangered and threatened species of wildlife, fish, and plants and the ecosystems on which they depend. The Forest Service is required to consult with the Fish and Wildlife Service and to prepare biological assessments.

11. National Forest Management Act of 1976 (16 U.S.C. 1600-1602, 1604, 1606, 1608-1614). The Forest Service must be a leader in conserving natural resources. The overall goal of managing the National Forest System is to sustain the multiple uses of its renewable resources in perpetuity while maintaining the long-term productivity of the land. Maintaining or restoring the health of the land enables the National Forest System to provide a sustainable flow of uses, benefits, products, services and visitor opportunities (36 CFR 219.1 (2005)).

12. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1752). Rights-of-way for water diversion, storage, and/or distribution systems, and other uses must include terms and conditions to protect the environment and otherwise comply with the requirements of Section 505.

13. Clean Water Act of 1977 (33 U.S.C. 1251, 1254, 1323, 1324, 1329, 1342, 1344). This series of laws was written to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. States have authority over water rights. The Forest Service must comply with federal, state and local water quality laws and rules, coordinate actions that affect water quality with States, and control nonpoint source pollution.

14. Public Rangelands Improvement Act of 1978 (43 U.S.C. 1903). This law directs that range condition and productivity be improved to protect watershed function, soil, water, and fish habitat.

15. Executive Order 12898 (February 11, 1994) mandates Federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations (known as Environmental Justice) (Council on Environmental Quality 1997).

16. Roadless Area Conservation Rule (36 CFR §294, May 13, 2005). This rule sets restrictions on timber harvest, road construction, or reconstruction within inventoried roadless areas on the Pike-San Isabel National Forest.

17. National Historic Preservation Act Heritage and tribal interests are regulated by this Federal law that directs and guides the Forest Service in identifying, evaluating, and protecting heritage resources. The heritage resource analysis and assessment was done according to terms of the Memorandum of Understanding between the Colorado State Historic Preservation Officer and the Pike-San Isabel National Forest regarding range management activities.