

U.S. Department of the Interior
Bureau of Land Management

Kemmerer Field Office

Date: March 26, 2005

Twin Creek Allotment
Cooperative Management Plan
Environmental Assessment

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for

EA NO. WY090-EA05-070

The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield; combinations of uses that take into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural, scenic, scientific, and cultural values.

**FINDING OF NO SIGNIFICANT IMPACT
FOR THE
TWIN CREEK ALLOTMENT
COOPERATIVE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT
EA NO. WY090-EA05-070**

Based on a review of the EA, including referenced and attached mitigation, I find that this action will not have a significant impact on the quality of the human environment and, therefore, conclude that an environmental impact statement is not required.

The EA shows that beneficial impacts to soils; watershed; water resources; vegetation; riparian areas; control of noxious weeds; wildlife; and sensitive species would result from the implementation of the Twin Creek Allotment Cooperative Management Plan. No substantial negative impacts were identified.

The Kemmerer Resource Management Plan clearly calls for grazing of the public lands as well as the management of resources to protect the vegetation, soils, watersheds, wildlife, fisheries, and Threatened, Endangered, and sensitive species. This Cooperative Management Plan would facilitate management of the livestock, which would result in improvement in the health and conditions of the listed resources. Also, this plan is needed in order to comply with 43 CFR 4180.1 which requires the BLM to make changes when it is found that livestock are contributing to unhealthy range conditions, which is the case with this allotment.

I have determined that the proposed project is in conformance with the approved land use plan. I have reviewed this environmental assessment including the analyses of potentially significant environmental impacts. I have determined that the proposed action with the mitigation measures described will not have any significant impacts on the human environment and that an EIS is not required. It is my decision to implement the project. My decision to implement the Twin Creek Allotment Cooperative Management Plan is in accordance with the approved land use plan and no amendment to it is necessary.



Mary Jo Rugwell, Field Manager

3/29/05
Date

**TWIN CREEK ALLOTMENT
COOPERATIVE MANAGEMENT PLAN
ENVIRONMENTAL ASSESSMENT
WY090-EA05-070**

INTRODUCTION

PROJECT LOCATION AND DESCRIPTION

The Twin Creek Allotment is located in Lincoln county and lies five miles west of Kemmerer, Wyoming. There are approximately 40,031 acres in this allotment of which 34,438 acres or 86% is administered by the Bureau of Land Management (BLM). Currently there are four livestock grazing operators within this allotment that have a federal grazing permit. The permitted Federal Range Animal Unit Months (AUMs) are 3,865 AUMs. The majority of the allotment lies in the Great Basin watershed (99%) the balance of the allotment is in the Upper Colorado watershed (1%).

PURPOSE AND NEED FOR THE PROPOSED ACTION

The Kemmerer Resource Management Plan (RMP), approved April 1986, identified the Cumberland Uinta Allotment area, of which the Twin Creek Allotment was a part of, as one of eighteen priority allotments requiring the development of a management plan to address livestock grazing impacts on riparian areas and to improve habitat conditions for wildlife. The Twin Creek Allotment was created by a range line agreement in 1995, which divided the original Cumberland/Uinta Allotment into eleven Allotments.

Grazing regulations (43 CFR, 4180) require an assessment of rangeland health to be conducted on grazing allotments. The six standards and nine guidelines developed for the State of Wyoming are designed to achieve the four fundamentals of rangeland health. Those four fundamentals are: (1) watersheds are functioning properly; (2) water, nutrients, and energy are cycling properly; (3) water quality meets State standards; and (4) habitat for special status species is protected. The range health assessment for the Twin Creek allotment indicated that current resource conditions were not meeting Standards # 2. (See the attached Standard Conformance Review Summary) This assessment identified livestock as a contributing factor in the failure of resource conditions to meet the Standard #2.

Link to

[Twin Creek Allotment Location Map](#)

CONFORMANCE WITH LAND USE PLANS

The Kemmerer RMP, approved April 1986, and the Rangeland Program Summary Update, completed September 1990, provided direction for the management of the Twin Creek Allotment. An allotment categorization process conducted during the preparation of the Kemmerer RMP placed the Twin Creek Allotment in the Improve (I) category and ranked it number 2 priority for improved management. The Kemmerer RMP identified the need to improve range conditions and to better distribute livestock grazing to reduce the impact on riparian areas. The management actions proposed in the Twin Creek Cooperative Management Plan, which include a deferred rotation grazing system, and associated range improvements, are in compliance with the Kemmerer RMP. The management plan will contain grazing prescriptions and resource goals for the allotment. When approved, compliance with the Cooperative Management Plan would be made a term and condition of the grazing lease associated with the Twin Creek allotment.

SCOPING, CONSULTATION, AND COORDINATION

The Cooperative Management Plan was developed in cooperation with the Wyoming Game and Fish Department, Bear River Divide Coordinated Resource Steering Committee, livestock permittee, and BLM.

AUTHORIZING ACTIONS AND RELATIONSHIP TO STATUTES AND REGULATIONS

This EA is prepared pursuant to the National Environmental Policy Act (NEPA) and subsequent regulations adopted by the Council on Environmental Quality (CEQ) (40 CFR 1500). The EA is intended to be a concise public document, which analyzes the probable and known environmental impacts of the Proposed Action and the alternative upon the components of the human environment and reaches a conclusion as to its significance. The ultimate decision of this EA must ensure that the actions approved are not only in the best interest of the public, but would not result in a significant adverse impact to the human environment (40 CFR 1508.13).

The proposed action would be in conformance with the grazing regulations (43 CFR 4100), the Taylor Grazing Act of June 28, 1934 as amended, and the Federal Land Policy and Management Act of 1976, as amended by the Public Rangelands Improvement Act of 1978.

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

The proposed action is to implement the Twin Creek Cooperative Management Plan by incorporating it into the terms and conditions of the grazing lease associated with the Twin Creek allotment in order to meet the standards for healthy rangelands as required by grazing regulations 43 CFR 4180. Included in this plan are management actions necessary to move toward meeting the resource objectives established for these allotments (see resource management objectives in

the attached Plan). The primary management action to be analyzed is the four-pasture deferred-rotation grazing system as described in the attached plan and the associated management fences and water developments. The interior management fences necessary to create the four management pastures would consist of five miles of fence located on public land. In the management plan there are 13 reservoirs identified for reconstruction and one new construction. The plan also calls for six spring developments. (See project in CMP) Future range improvements (i.e., water developments and prescribed burns) will be analyzed prior to construction under additional site specific Environmental Assessments.

The four-pasture rotation system is designed to provide spring growing season rest from cattle grazing on three of the four pastures each year. The spring growing season rest benefits upland forage plants by assuring the periodic opportunity to complete their phenology cycle uninterrupted by grazing. This allows the plants to store carbohydrate reserves and set a seed crop. Spring grazing by sheep during their lambing period will occur in the Collett, Bullpen and Twin Creek pastures.

The hot season rest from livestock grazing should benefit riparian plants. Riparian vegetation, because of the availability of ground water, does not produce seed, store carbohydrates, or elongate shrub leaders until mid-summer or the hot season. The rotation provides opportunity for riparian plants to complete these phenological stages free of the impact of livestock grazing, three out of four years.

NO ACTION ALTERNATIVE (Continue existing management)

The No Action alternative is to not change the management or the terms and conditions of the permits. This essentially is season-long grazing which has failed to address riparian resource issues. The Kemmerer RMP has identified this past level of management as being inadequate to achieve desired resource objectives and has previously identified the need for some form of rotational grazing. There would be no objectives and goals established for the riparian areas through out the allotment other than to achieve Wyoming Standards for Healthy Rangelands.

NO LIVESTOCK GRAZING ALTERNATIVE

The No Livestock Grazing alternative on the Twin Creek allotment is not considered a viable alternative. Livestock grazing is a customary and allowable use of renewable forage resources on public lands. The 1934 Taylor Grazing Act, the 1976 Federal Land Policy and Management Act as amended by the Public Rangelands Improvement Act of 1978, and the Code of Federal Regulations (43 CFR 4100) all provide for livestock grazing on public lands. To preclude livestock grazing, a legitimate use of public lands would unnecessarily and unreasonably result in extreme financial hardship on the ranching enterprise. Grazing use of the public lands in the Twin Creek Allotment is an integral part of this ranching operation. This alternative was considered in the Kemmerer Resource Management Plan, Environmental Impact Statement completed in March of 1985 and at that time it was eliminated from detailed study. (See page 11)

LIVESTOCK REDUCTION ALTERNATIVE

When resource problems are associated with livestock grazing it may be logical to consider livestock reductions as the appropriate corrective action. However, if heavy use occurs only on favored portions of the landscape and little or no use occurs elsewhere, stocking reductions, short of those approaching the no grazing alternative, do little to solve the resource problem. Selective overgrazing problems do not respond to stocking reductions.

End of season monitoring observations have consistently documented a grazing distribution problem on the allotment. Riparian areas have been heavily used while much of the upland forage receives little or no grazing, the exception to this is those areas near upland water developments do receive heavier use by livestock. Stocking rate reductions without a change in livestock management would simply assure that the uplands would receive even less grazing use while cattle continued to concentrate in the riparian areas. This alternative is an inappropriate and unreasonable response to the documented grazing problems on the Twin Creek allotment and therefore will not be analyzed further.

AFFECTED ENVIRONMENT

The following critical elements of the human environment have been considered. The proposed action and alternative will not impact these critical elements:

- Air Quality
- Wilderness
- Areas of Critical Environmental Concern
- Native American Religious Concerns
- Prime and Sole Source of Drinking Water
- Wild or Scenic Rivers
- Farm Lands, Prime/Unique
- Floodplains
- Hazardous or Solid Waste
- Environmental Justice
- Invasive, Non-native Species

Resources and uses that may potentially be affected, and therefore addressed in this EA, are listed as follows:

- Livestock Management
- Soils and Vegetation
- Water Resources
- Wetlands/Riparian Areas
- Wildlife
- Threatened and Endangered Species
- Cultural and Historical Resources
- Socioeconomic

Livestock Management

The period of use for cattle is May 1 to October 15 and the sheep is May 1 to July 15 and from September 1 to November 30. A more detailed description of the allotment, livestock numbers and grazing history are found in the attached Twin Creek Cooperative Management Plan.

Soils and Vegetation

The vegetation types found in the allotment consist of sagebrush/grass, wetland, aspen and conifer, with most of the allotment dominated by sagebrush/grass. There is approximately 138 acres of wetland type in the allotment.

The Kemmerer RMP (maps of DEIS) identified and categorized soil erosion that occurs within the Twin Creek Allotment. The RMP identified one area as having high landslide potential. This area is susceptible to accelerated erosion caused by any surface disturbing activities. Dominant parent materials consist of residuum formed over upthrust sediments, colluvium including landslides and earth flow deposits and alluvium on footslopes and drainages. The shallow to moderately deep well drained soils are found in rolling to steep (6-60% slope) topography. Geologic overthrusting and resulting mixed exposures (parent materials), have produced variable soil textures and very complex soil/landform relationships.

Water Resources

The watersheds in this allotment drain into the Bear River. The major streams that have year long water are Collett Creek and Twin Creek. The remaining streams in the allotment have intermittent flows except for some short reaches near the spring sources.

An investigation of the water quality of the Bear River and its tributaries was completed in 1995 by the Bear Lake Regional Commission on that portion of the allotment that drains into the Bear River. The water quality of the Bear River is of concern because water from the rivers is diverted into the Bear Lake, a lake of national importance. The lake contains four species of fish not found anywhere else in the world.

Wetlands/Riparian Areas

Approximately 138 acres of riparian habitat is within the Twin Creek allotment. The main riparian areas that are associated with year long water flows are located along Collett and Twin creeks. A Proper Functioning Condition (PFC) stream inventory conducted in this allotment found that 52% (4.25 miles) of these streams were in proper functioning condition, 36% (3.0 miles) were functioning at risk with an upward trend and 12% (1.0 miles) were functioning at risk with no apparent trend.

Several small areas of seeps, springs, and aspen groves that produce water and wet areas are found within the allotment. Livestock and wildlife frequent these areas for both water and forage. The Kemmerer RMP identified drainage bottoms (riparian/wetland areas) as being over-utilized

due to poor livestock distribution patterns. Monitoring data collected subsequent to publication of the RMP has confirmed this livestock distribution problem.

Wildlife

The Twin Creek Allotment provides habitats for many species of wildlife including a variety of big game species, small mammals, and resident and migratory birds. This allotment also provides important crucial winter habitat for a portion of the Wyoming Range deer herd. There are also some resident deer, which use this allotment year long. A portion of the Carter Lease Antelope herd is located in the area, with winter use found in the western portion. Occasional elk are also found in this area. The allotment also supports a portion of the Bear River Divide moose herd. Other wildlife found within the allotment include sage and ruffed grouse, numerous raptors, coyotes, fox, mountain lion, rabbits, other small mammals, and a variety of resident and migratory birds.

The Wyoming Game and Fish Department has set, through their Strategic Plan, post season objectives for herd unit populations of big game animals. The Twin Creek allotment is included in two herd units for mule deer, one for antelope, one for elk, and one for moose. The allotment represents only a portion of each of these herd units. The Wyoming Game and Fish Department has set population objectives for each herd unit and these cannot reasonably be subdivided into population objectives for the Medicine Butte allotment. For example, the Wyoming Range Herd Unit covers about 2.5 million acres of which only about 12,000 acres are located in the Twin Creek Allotment. The population objective for the Wyoming Range mule deer herd is 50,000 animals. The Twin Creek allotment is winter range for only a small portion of the herd. (5,723 acres)

Antelope population objective for the Carter Lease Herd Unit is 6,000 animals. In 1985 the Wyoming Game and Fish Department made a decision to limit the numbers of wintering antelope on the allotment to reduce the competition with the wintering mule deer. Antelope also use the allotment during the summer months.

The Twin Creek allotment is within the West Green River Elk Herd Unit with a population objective of 3,100 animals. The population objective is low to minimize competition with wintering mule deer. There is 1,156 acres of elk winter range in the Twin Creek allotment.

The Twin Creek allotment comprises a portion of the Bear River Divide Moose Herd Unit. The population objective for this unit is 120 animals. There is no moose winter range in the Twin Creek allotment.

The allotment also provides habitat for sage grouse, numerous species of neo-tropical migratory songbirds, waterfowl and other non-game wildlife. There are four active sage grouse leks on the allotment.

Threatened and Endangered Animals and Plant Species

The following is a list of species from the U.S. Fish and Wildlife Service that was addressed and the effect of the proposed management plan on each of these species.

SPECIES	EFFECT	ADVERSE EFFECT	RATIONALE
PEREGRINE FALCON	NO EFFECT		No habitat in this area
BALD EAGLE	MAY EFFECT	No adverse effect	Occasional use only. The Nugget canyon Bald Eagle roost is located in this allotment. (Sec. 6, T21N., R118W)
WOLF	NO EFFECT		Habitat found in allotment
GRIZZLY BEAR	NO EFFECT		None in this area
BLACK FOOTED FERRET	NO EFFECT		No prairie dog control planned. No water developments planned in prairie dog towns
LYNX	NO EFFECT		Not near forested habitat
UTE LADIES'-TRESS	MAY EFFECT	No adverse effect	No known occurrence. Grazing system in place that allows no grazing in late summer every other year. Parts of the allotment over 7000 feet
MOUNTAIN PLOVER	MAY EFFECT	No adverse effect	Suitable habitat on allotment. Grazing will not alter these habitats.
WHOOPIING CRANE	NO EFFECT		No nesting or staging areas
COLORADO FISH	NO EFFECT		No livestock water developments planned in Colorado watershed

Cultural and Historical Resources

A total of 41 inventories had been completed in the project area between 1981 and 2003, covering a total of 1,051 acres, representing approximately 2.7% of the total allotment area. Survey coverage includes various blocks and linear right-of-way surveys; resulting in the documentation of 48 historic properties and the Hams Fork Conglomerate Lithic Landscape, located within or immediately adjacent to the allotment boundaries.

The cultural resources located within the allotment consist of 32 Prehistoric Sites, 6 properties listed as Eligible for the National Register of Historic Places (NRHP), 23 properties listed as Not Eligible for the NRHP, and 3 properties listed as Unevaluated (Unknown) for the NRHP; 14 Historic Sites, 5 properties listed as Eligible for the NRHP, 6 properties listed as Not Eligible for the NRHP, and 3 properties listed as Unevaluated for the NRHP; and 2 Prehistoric Sites with overlying historic components, 1 property listed as Eligible for the NRHP and 1 property listed as Not Eligible for the NRHP.

The majority of previous inventories and previously recorded sites in the project area are located along or near the northern edge of the allotment boundary, associated with the current Hwy 30N & UPRR corridor. Based on the information from the area of consideration for this data review, there is a moderate to high potential for future inventories to identify significant sites that would be evaluated eligible for the National Register of Historic Places in the northern portion of the allotment, due primarily to their association with an older, historic railroad grade in this area, ranching/homesteads, and general Expansion Era use of this transportation corridor.

Although adequate survey coverage is limited within this allotment, certain areas are expected to have a higher potential to contain other significant property types, including prehistoric camps near perennial water sources, prehistoric cairns and stone alignments on ridge tops with panoramic views that may have traditional cultural values to modern Native Americans, and other historic era sites related to homesteading, ranching, and early settlement.

Socioeconomic

The Twin Creek allotment provides 1.5 percent of the livestock forage produced on the public lands within the Kemmerer Field Office (Kemmerer RMP DEIS, Appendix A-7) and contributes to the agricultural economy and tradition of southwestern Wyoming. There are five livestock operators whose livelihood is dependent upon their grazing livestock in this allotment. This allotment also provides important open landscapes used for a multitude of recreational activities.

ENVIRONMENTAL CONSEQUENCES/IMPACTS

PROPOSED ACTION

Livestock Management

Pasture Rotation

The proposed deferred rotation grazing system for cattle described in the Cooperative Management Plan is designed to improve both upland and riparian plant community health. The proposed grazing system would concentrate livestock on smaller areas for shorter time periods and vary the season of use in each pasture. Confining cattle to pasture units should improve breeding and conception in the brood cow herd, and reduce grazing pressure in riparian areas and also allow for re-growth after the cattle are removed. No significant adverse impact to livestock management is anticipated as a result of the proposed pasture rotation.

The proposed fences and water developments will aid in the implementation of the proposed grazing system.

Soils and Vegetation

The proposed action would shorten the grazing period and increase the stocking density within each pasture. This provides several advantages to soils and vegetation. Confining the grazing animals to smaller pasture units reduces the opportunity for selective grazing. Grazing pressure is more uniformly distributed across previously lightly or ungrazed upland areas and shifts grazing use to less palatable plants that have had limited use in the past. This reduces the grazing pressure and re-grazing on those preferred areas and plant species found in creek bottoms and meadow areas. The spring grazing treatment provides opportunity for plant re-growth, particularly in riparian areas, following grazing. The fall grazing treatment provides growing season rest for riparian and upland plants.

The proposed action, which includes the pasture rotation and residual greenline stubble height requirements and woody plant browsing limits, would have beneficial effects on soils especially along stream banks. Improved livestock distribution and the consequent reduction in animal concentration areas would reduce soil compaction, improve water infiltration and decrease stream bank trampling. Residual greenline stubble height would increase sediment trapping and accelerate bank building leading to increase ground water storage, improved water quality and enhanced riparian plant communities. These riparian improvements lead inevitably toward restoring proper stream function. Cattle grazing rotation would also provide for greater upland litter accumulation forage plant vigor, and soil protection. These riparian habitats are important for all wildlife; specifically upland riparian areas provide habitat for sage grouse. Better distribution and the reduction in the duration of livestock grazing would improve riparian conditions. In general riparian areas have great potential for improvement with changes in livestock management.

During the construction of the proposed fences, those areas with heavy sagebrush will be mowed to aid in the construction of the fence. On each reservoir site the present vegetation will be removed and some soil erosion will occur until the disturbed area is re-vegetated. Utilization of the upland vegetation around each water source will increase, but will be limited to 50% of current year's growth in areas outside of big game winter range and to 40% in big game winter range.

Water Resources

The proposed livestock grazing system is designed to improve the condition of both the riparian and upland plant communities. Improved livestock management would increase residual greenline stubble height, enhance sediment trapping, bank building, channel stability and increased stream channel shading. This would lead to improved stream function, all of which improves water quality. Periodic early growing season rest for uplands combined with vegetation treatments to rejuvenate decadent upland plant communities would increase surface litter and vegetation cover and decrease surface runoff and sedimentation. This also contributes to improving water quality.

The proposed water developments would provide fourteen new water sources for wildlife and livestock use. The five springs will be developed, fenced and water piped off site, thereby reducing the grazing impact by livestock at the spring source.

Wetlands/Riparian Areas

Under the proposed action, animal concentrations and duration of livestock grazing in the riparian areas would be reduced. Limiting the time that livestock are allowed to use each pasture would shorten grazing periods. Hot season rest would be provided for in two of the four pastures each year. Riparian mitigation for this hot season grazing use includes the following:

1. Hot seasons grazing cutoff dates would be based on livestock behavior patterns and riparian plant phenology. Past experience on this allotment, indicates that after August 1 livestock tend to concentrate in riparian areas. The August 1 date is also biologically important to ensure adequate re-growth on riparian plants in the second use pasture.
2. The proposed grazing management plan prescribes livestock move criteria for the hot season use pasture as safeguards against excessive riparian use.

These proposed management tools would contribute significantly to improved riparian/wetland plant communities and the proper function of these ecosystems. Healthy wetland/riparian plant communities will trap sediments and nutrients, build stream banks, increase channel stability, increase ground water recharge, and delay seasonal ground water release.

The fourteen reservoirs should provide offsite water for the livestock grazing the allotment. Because of these offsite waters, livestock use in the wetland/riparian areas should be reduced.

The five springs will be developed, fenced and water piped off site, thereby reducing the grazing impact by livestock on the wetland/riparian areas at the spring source. All stock tanks would have a float valve installed to control the water flow when the stock tank is full.

Wildlife

The proposed livestock management actions and water developments are designed to improve riparian environments and rejuvenate upland plant communities. Riparian areas and uplands provide habitat for a multitude of wildlife species ranging from neo-tropical migrant birds to big game species. Enhancement of these vegetation types on the allotment would provide direct benefit to the wildlife species dependent on these habitats. For example, livestock management that improves riparian vegetation on upland springs and seep would provide crucial summer brood habitat for sage grouse.

Utilization of the upland wildlife habitat around each water source will increase, but will be limited to 50% of current year's growth in that portion of the allotment not in big game winter range and to 40% of current year's growth in that portion of the allotment in big game winter range.

Threatened and Endangered Species

The proposed management actions are designed to enhance riparian and upland plant communities. Such habitat improvement would benefit a wide array of plant and animal species found on the Twin Creek allotment whether listed or not.

Cultural Resources

The proposed management actions are designed to improve or maintain natural environments, open spaces and plant communities associated with the Twin Creek allotment. The proposed change in livestock management should not result in disturbance of known cultural sites or other resources. Proposed fences and water developments within the allotment will be reviewed for cultural resource concerns, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended in 1992, and all proposed surface disturbing activities will be examined by intensive cultural inventories prior to authorization and implementation. All significant historical, archeological and cultural resources identified by future inventories will be avoided, protected or mitigated.

Socioeconomic

The proposed management actions would maintain economically and environmentally sustainable livestock ranching enterprises. Viable ranching operations contribute to the economy and employment stability in southwest Wyoming, protect the important open landscapes, and perpetuate the traditional ranching culture of the region. Improvements in rangeland health anticipated from these management actions would significantly enhance watershed and wildlife resources thereby contributing to the enhancement of consumptive and non-consumptive recreational pursuits.

The proposed fences will be constructed and maintained by the livestock operators.

Cumulative and Residual Impacts

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to both rangelands and the socioeconomic conditions of the region.

NO ACTION ALTERNATIVE

Soils

Under the No Action Alternative, the grazing systems designed for the entire allotment to improve both upland and riparian plant community health would not be implemented. This would provide several disadvantages to soils. The Proposed Action, which includes the pasture rotation and residual greenline stubble height requirements and upland utilization limits, which would have beneficial effects on soils especially along stream banks due to reduced erosion in a naturally highly erosive area, improve retention in run-off events, and lower sedimentation in the streams, would not occur. Improved overall health of the uplands and riparian areas would not occur and benefits to the soil resource would not be realized. The "no action" alternative would not provide for greater upland litter accumulation, which aids in soil protection.

There would be no cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments would not produce long term positive benefits to both rangelands and the socioeconomic condition of the region.

Vegetation

The existing situation would continue. Productivity of the vegetation communities could decline in areas that receive heavy use, thus decreasing the availability, diversity, and age class structure of the vegetation. This decline would lead to a more degraded condition in portions of the deer winter range, as well as reduce the available forage for livestock.

Invasive, Nonnative Species

The BLM weed management program would continue under the No Action Alternative.

Water Quality

The quality of surface water would not be changed by implementing the "No Action Alternative". Water quality would not improve over the long-term if this alternative was implemented. Water temperatures would not be reduced.

Wetland/Riparian

The health of the riparian area vegetation under this alternative would continue to decline. The continued hot season use would not allow riparian plants to set seed and the spread of the

desirable plant species would not occur. The streams that are in functioning at risk downward trend would continue a decline.

Restoration of the vegetative community necessary for stabilization of the watershed systems in the area would not occur. Regeneration of the vegetative communities needed for water retention would not be maintained in a fashion that would allow for water retention.

Wildlife

There would be no new impacts to big game winter range. If the current livestock management continues there could be a slow deterioration of parts of the winter range due to livestock distribution problems.

T&E Species/Sensitive Species

The impacts of this alternative on these species would be the same as the proposed action.

Livestock Grazing

Improved forage for livestock would not be realized. Distribution of livestock would continue to be a problem in the allotment. The beneficial impacts to livestock forage resulting from the proposed action would not be realized.

Recreation

Existing recreation activity in the project area would continue.

Visual

Implementation of the No Action Alternative would not change the visual quality of the area.

Cultural Resources

Cultural resources would not be affected under the No Action Alternative.

Human Health and Safety

No impacts to Human Health and Safety would occur under the No Action Alternative.

Social/Economics

Social and economic benefits derived from implementation of the proposed action would not occur under the no action alternative. The ranching operations on this allotment, which provide 1.5 percent of the forage production within the management boundaries of the Kemmerer Field Office along with the recreational activities that take place on the grazing allotment, could be lost.

Cumulative and Residual Impacts

Restoration of natural processes and enhancement of upland and riparian environments would not produce long term positive benefits to both rangelands and the social/economic condition of the region.

Mitigation/Monitoring Requirements

Mitigation measures or monitoring requirements would be those specified in the Twin Creek Cooperative Management Plan dated 2004.

MITIGATION/MONITORING REQUIREMENTS

The proposed livestock management actions described in the attached Cooperative Management Plan is mitigation measures needed to minimize potential adverse impacts to riparian and upland areas. Compliance with this plan would be made a term and condition of all grazing permits issued for the Twin Creek Allotment. Annual end of season utilization monitoring and periodic resource trend assessment would be conducted to track the success of the proposed action as required by the Cooperative Management Plan.

The following mitigation measures have been identified and would be implemented in conjunction with the proposed fences.

Fencing Impacts To Wildlife - Fences would be constructed in accordance with the BLM Manual H-1741-1 to reduce the impact of fences on wildlife.

The proposed fences will be constructed in accordance with the following specification:

- Four wire (4-wire) - 16", 22", 28", 40" with bottom wire smooth.
- Steel Post - 16.5 feet apart w/ one wire stay between each post.

No fence construction activities can occur during the period November 15 to April 30 in T.21N., R.118W., Sec. 8 because this segment of the fence is located in Crucial winter range for mule deer.

The fence will be monitored and if any adverse impacts are found, the fence will be modified.

Cultural Resource Protection - Surface disturbing projects planned would require a Class III cultural inventory be conducted on all public lands and on private lands affected by federal undertakings. Sites identified during these inventories would be avoided, where possible. The Kemmerer Resource Area Archaeologist would be notified immediately of discoveries uncovered during construction. All activity would cease within 100 feet of the site until cleared by the archaeologist.

The dams and all disturbed areas associated with reservoir construction will be reseeded with the following seed mix.

Species	Drill Seeding Rates <u>1/</u>	Broadcast Seeding Rates <u>2/</u>
Blue Bunch wheatgrass	4 lb.	8 lb.
Thickspike wheatgrass or Western wheatgrass	3 lb.	6 lb.
Alpine timothy	2 lb.	4 lb.
Canby bluegrass	2 lb.	4 lb.
Great Basin wildrye	2 lb.	4 lb.
Total	13 lb.	26 lb.

1/ Drill Seeding Rates = Lb./Acre Pure Live Seed

2/ Broadcast Seeding Rates = Lb./Acre Pure Live Seed

Spring sources should be fence to protect these sites from livestock grazing and the stocktanks will be place outside of the riparian associated with the spring.

CONSULTATION AND COORDINATION

This environmental assessment has been prepared and reviewed by the following individuals:

Jerry Pierce, Rangeland Management Specialist
 Gavin Lovell, BLM, Wildlife Biologist/Natural Resource Specialist
 John Henderson, BLM, Fisheries Biologist
 Ed Jess, BLM Archaeologist
 Michele Easley, Environmental Coordinator
 Arlan Hiner, Assistant Field Office Manager

In Consultation with: Wyoming Game and Fish Department, and the Grazing Permittees.

Link to

[Twin Creek Allotment Water Development Map](#)