



**U.S. Department of the Interior**

**Bureau of Land Management**



**Kemmerer Field Office April 2007**

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**ENVIRONMENTAL ASSESSMENT  
BELL BUTTE WATER PIPELINE PROJECT  
EA NUMBER WY-090-EA07-88**

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## **WY-090-EA07-88INTRODUCTION**

### **Need for the Proposed Action**

This project is located in the Cumberland/Uinta Grazing Allotment. This allotment consists of 369,992 acres, with 215,335 of those acres administered by the Bureau of Land Management (BLM). A large area of land located in the Bell Butte Pasture between Sheep Creek and Hill Creek has a very limited amount of surface water. The Proposed Action would improve livestock distribution by providing additional water sources in the uplands, thereby decreasing livestock use in the riparian areas associated with Sheep Creek and Hill Creek. The cattle tend to stay and graze in these two creek areas longer than is desired. This pipeline would provide offsite water in the upland area between Sheep Creek and Hill Creek. Two other creeks that would also benefit as a result of this project are Bell Creek and Ryckman Creek.

### **Conformance with Land Use Plans**

The Kemmerer Resource Management Plan (RMP), approved in April 1986, and the Rangeland Program Summary Update (completed in September 1990) provided direction for the management of the Cumberland/Uinta Allotment. As a result of an allotment categorization process conducted during the preparation of the Kemmerer RMP, the Cumberland/Uinta Allotment was placed in the Improve (I) Category and was ranked second in priority on the "I" categorization list. The overall objective for "I" category allotments is to improve range conditions. One of the resource management objectives identified in the Kemmerer RMP was to improve livestock distribution. The construction of the pipeline would be in compliance with the Kemmerer RMP.

### **Relationship to Statutes, Regulations, or Other Plans**

The Cumberland/Uinta Allotment Cooperative Management Plan was completed in January 2000. This plan established management objectives and management action for this allotment. The need for offsite water was identified in this plan.

## **DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **Proposed Action**

The proposed action is to construct 12 miles of pipeline to provide offsite water for livestock and wildlife; seven miles would be located on public land with the balance on private land.. The construction of this project would occur between July 16 and September 30, 2007. The pipeline would supply water to 12 stock tanks and up to seven wildlife guzzlers (which would be primarily for sage grouse). Each stock tank would be equipped with a bird ladder, to allow small animals or birds to escape. This pipeline would be ripped into the ground. Some backhoe work would be done at each of the stock tank sites. Approximately 12 acres of land would be disturbed during construction of this project. Ten acres of the disturbed land would be reclaimed. This project would be located in T.18N., R.118W., Sections 3, 4, 5, 8, 9, 10, 11, 12, 16, 17 and in T.19N., R.119W., Sections 34, 35. (See the attached map.)

### **Alternatives**

The No Action Alternative would be to not construct this pipeline.

## AFFECTED ENVIRONMENT

### Critical Elements:

Critical Element	Yes	No	Critical Element	Yes	No	Critical Element	Yes	No
ACEC		X	Wastes, Hazardous, Solid		X	Native American Religious Concerns		X
Air Quality		X	T/E Species		X	Floodplains		X
Cultural/Historic	X		Water Quality	X		Environmental Justice		X
Farmland, Prime/Unique		X	Wetlands/Riparian Areas	X		Wild & Scenic Rivers		X
Wilderness		X	Invasive Species	X				

### Other Resource Elements:

Resource Element	Yes	No	Resource Element	Yes	No	Resource Element	Yes	No
Forested Area/Product		X	Fluid or Solid Minerals		X	Special Status Species – Vegetation		X
Geology		X	Land Resources		X	Wildlife	X	
Livestock Grazing	X		Vegetation	X		Special Status Species – Animal	X	
Paleontology		X	Soils	X		Socio/Economics		X
Wild Horses		X	Off-road Vehicles		X	Recreation		X
Visual Resource Management		X						

### General Setting

The Cumberland/Uinta Grazing Allotment is located within the state boundaries of both Wyoming and Utah. The Wyoming portion of the Cumberland/Uinta Allotment is located in Lincoln and Uinta Counties and lies between the cities of Kemmerer and Evanston. The Utah portion of the allotment (Uinta Allotment) is located in Rich County, Utah, east of the Bear River, and is managed by the Kemmerer Field Office through a Memorandum of Understanding with the BLM Salt Lake Field Office. There are approximately 369,992 acres in the allotment; 215,335 acres (59.1%) are administered by the Bureau of Land Management (BLM). The remaining lands are private and State lands that are mostly unfenced and are intermingled with the public lands.

The climate is characterized by short, cool summers, cold winters, and generally long cool periods in the spring and fall. The growing season ranges from less than 90 days in the higher elevations to 110 days at lower elevations. Frost may occur in any month of the year.

The precipitation varies from approximately 12-inches at the higher elevations to 8-or-9-inches at the lower elevations. The average annual precipitation for the three weather stations close to the allotment is: Evanston – 10.50 inches, Kemmerer – 9.25 inches, and Sage – 9.12 inches.

The elevation of the pipeline varies from 7400 feet to 7600 feet.

The pipeline lies within the Green River sub-basin of the Colorado River.

## **Affected Resources**

### **Cultural/Historic**

On January 19, 2007, Edward Jess completed a file search and data review of the 14 sections affected by the project proposal. These sections included Sections 34 & 35 (T19N –R118W) and Sections 3, 4, 5, 7, 8, 9, 10, 11, 12, 15, 16, & 17 (T18N –R118W). A total of six previous inventories had been completed in the project area between 1978 and 2002 in the sections proposed, including various block and linear rights-of-way surveys, resulting in the documentation of six historic properties and the Hams Fork Conglomerate Lithic Landscape. Block survey coverage within the applicable sections totals 730 acres, plus a lesser amount of additional linear survey acreage, representing about 8% of the total 8,960 acres covered by this Class I Inventory.

Class III inventories are on-the-ground searches for cultural or historic materials or sites that may meet eligibility requirements for listing on the National Register of Historic Places (NRHP). A Class III cultural resource inventory is an intensive field inspection of the ground surface in an entire target area for the purpose of locating and recording all archeological resources. A Class III inventory is accomplished by a qualified archeologist walking over the target area in parallel transects spaced no greater than 100 feet apart, and is completed when the results of the inspection are documented in a report. All cultural resources that are found during the inventory are documented by location, description and significance.

The quality of significance of cultural resources is evaluated with consideration of four National Register criteria: a) association with events that have contributed significantly to American history; b) association with the lives of persons significant in our past; c) representation of distinctive characteristics of a type, period, or method of construction, or work of a master, or that possess high artistic values, or a significant and distinguishable entity whose components may lack individual distinction; and d) ability to yield information important in prehistory or history.

Previous inventories documented a total of six properties located in the applicable sections. The cultural resources located within these sections consist of two miscellaneous trash scatters (evaluated Not Eligible to the NRHP), one stockherding camp (evaluated Not Eligible to the NRHP), one prehistoric lithic scatter (evaluated as Unknown Eligibility for the NRHP), and one prehistoric lithic scatter with an overlying historic component (evaluated as Unknown Eligibility for the NRHP). In addition, the Hams Fork Conglomerate Archeological Landscape, which is evaluated Not Eligible to the NRHP, is documented as potentially within the study area.

### **Water Quality**

There are four streams that are located adjacent to the project area and they are Sheep, Ryckman, Bell, and Hill Creeks. Most of Sheep Creek and Ryckman Creek flow perennially and the lower one-third portion of Hill Creek runs perennially. During the spring runoff period of April and May these two creeks have some sediment loading; the rest of the year they run clear. Bell Creek is an intermittent stream but will run in the spring and does carry sediment during this period of time. The State of Wyoming has not identified any water quality issues for these three streams.

### **Wetland/Riparian Areas**

The three streams listed above have some wetland and riparian areas associated with them. Sheep Creek was inventoried for proper functioning condition in 2000 and it was rated as functioning-at-risk with an upward trend. There was an insufficient amount of public land on Bell Creek and on Hill Creek to rate them.

There is a greenline trend monitoring study located on Sheep Creek. The objective for this site is 90% of the stream bank to be covered by Nebraska sedge and Baltic rush. This study was monitored in 2006 and it was found to have

65% of the stream bank covered by Nebraska sedge and Baltic rush. This stream bank cover has remained at 63% to 65% since 1999. This greenline study was established in 1994 and stream bank cover at that time was 38% of Nebraska sedge and Baltic rush.

### **Invasive Species**

The northern-most portion of the pipeline follows a reclaimed road. There is some Canadian thistle along this road.

### **Livestock Grazing**

The Cumberland/Uinta Allotment is divided into four pastures; they are Bridger Pasture, Little Muddy Pasture, Bell Butte Pasture, and Salt Pasture. Most of this project is located in the Bell Butte Pasture; however one stock tank will be placed in the Little Muddy Pasture. In accordance with the Cumberland/Uinta Cooperative Management Plan, the Bell Butte Pasture is grazed by 8500 cattle during the months of June/July or August/September, depending upon the grazing rotation schedule. Approximately 500 to 1000 cattle could be watering at the stock tanks associated with this pipeline. That portion of the Bell Butte Pasture which this pipeline would service has limited water in the uplands. Most of the cattle are currently watering in Sheep, Bell, Hill and Ryckman Creeks.

### **Vegetation**

The vegetation types that are found in the project area are sagebrush/grass, aspen, mountain shrub and juniper.

### **Soils**

The soils in the project area contain soils of fine sandy and clay loam; this surface layer is one-to-two inches thick. This layer is underlain to a depth of six-to-seven inches by sandy loam. The soil layers vary greatly from ten-to-twenty inches.

### **Wildlife**

The allotment provides year-round habitat for deer, elk, moose, and antelope. The wildlife issues and sensitive species considered in relation to the proposed action were greater sage grouse and raptor nests. The project is located within sage grouse nesting habitat. There are two sage grouse leks located in the project area, one in Section 4 and one in Section 9, T.18N., R.118W.

## **ENVIRONMENTAL CONSEQUENCES/IMPACTS**

### **PROPOSED ACTION ALTERNATIVE**

#### **Cultural/Historic**

##### **Direct Impacts**

Surface disturbance could disrupt and/or destroy cultural properties. A Class III Inventory will be completed in all areas to be disturbed by the proposed pipeline, well, and water tanks associated with this project prior to any surface disturbance. All eligible properties will be avoided or mitigated.

**Indirect Impacts** - None

**Cumulative Impacts** - None anticipated.

## Water Quality

**Direct Impacts** - None

**Indirect Impacts** – Livestock use in the adjacent streams would be reduced, which would improve the health of the associated riparian areas by increasing desired riparian vegetation and reducing stream bank trampling. This improvement could improve water quality in these streams by trapping sediment that would in turn form new stream banks (Sheep, Bell, Hill and Ryckman Creeks).

**Cumulative Impacts** - None

## Wetland/Riparian Areas

**Direct Impacts** - None

**Indirect Impacts** - Livestock use in the adjacent streams would be reduced, which would improve the health of the associated riparian areas by increasing desired riparian vegetation and by reducing stream bank trampling (Sheep, Bell, Hill and Ryckman Creeks).

**Cumulative Impacts** - None

## Invasive Species

**Direct Impacts** - None

**Indirect Impacts** – As a result of the soil and vegetation being disturbed during construction of the pipeline, some invasive plants may establish along the pipeline route.

**Cumulative Impacts** - None

## Livestock Grazing

**Direct Impacts** – The water pipeline system would improve livestock distribution. Grazing use concentration would be decreased in the riparian areas. Livestock herded away from riparian areas into the uplands (in water service areas) would be more likely to stay within these uplands. Fewer cattle would attempt to congregate within the riparian areas. Forage use would be monitored and would remain within prescribed levels described in the Cumberland/Uinta Allotment CMP. Water could be shut-off at the trough(s) when use levels are reached. Water development on these upland sites would lessen the need for livestock to be moved on a nearly continuous basis from riparian areas to upland areas.

The general health of the livestock could also be enhanced with fewer forced moves and less stress on the cattle.

The grazing permittees would be responsible for approximately 40% of the cost for this project. They would be responsible for the operation and maintenance of the pipeline and water well.

**Indirect Impacts** – None

**Cumulative Impacts** – None

## Vegetation

**Direct Impacts** – During the construction phase, approximately 12 acres of upland vegetation would be disturbed. Livestock grazing utilization levels on the adjacent upland could increase from the current 0-to-10% levels to 30%-to-50% of the current year's growth; at the same time, there should be a reduction in utilization levels on the riparian areas in Sheep, Bell, Hill and Ryckman Creeks. The proposed action would allow for

better overall utilization of forage in the allotment, while not exceeding utilization requirements on the riparian areas.

**Indirect Impacts - None**

**Cumulative Impacts - None**

## **Soils**

**Direct Impacts** – During the construction phase, approximately 12 acres of soil would be disturbed.

**Indirect Impacts - None**

**Cumulative Impacts - None**

## **Wildlife**

**Direct Impacts** – The placement of protected wildlife watering tanks at strategic locations along the water pipeline will provide wildlife species with an exclusive source of fresh running water throughout the dry season when many ephemeral streams tend to dry up. Besides providing water to a multitude of wildlife species at a critical time, it will also allow sage grouse, big game, etc. to utilize areas of the allotment that have typically been unavailable due to dry conditions.

This will apply to all of the wildlife species in the allotment, including greater sage grouse, big game species, pygmy rabbits, and sagebrush obligate passerines.

During the construction phase, approximately 12 acres of sage grouse nesting habitat would be disturbed. Livestock grazing utilization levels in sage grouse habitat could increase from the current 0-to-10% levels to 30%-to-50% of the current year's growth.

**Indirect Impacts** – Riparian area wildlife habitats associated with Sheep, Hill, Bell and Ryckman Creeks would benefit because of less livestock use. These areas are important to sage grouse for brood rearing. There would be more forbs and insects available for the sage grouse chicks to eat.

The construction of this water pipeline, livestock troughs, and associated wildlife water tanks will encourage cattle to move from the riparian zones to the troughs and pasture in the uplands. This is expected to result in a greater overall rate of improvement in the vegetation community and in the hydrology of riparian habitat on the allotment.

Improved riparian conditions will encourage the long-term recovery of Bonneville cutthroat trout in upland watersheds.

Improved riparian conditions will provide optimal brood-rearing habitat for greater sage grouse broods.

Improved riparian conditions will provide a higher quality of winter browse for big game animals during the crucial winter range stipulation period.

Better riparian conditions will improve the quantity and quality of nesting habitat for neotropical avian migrants and sage-brush obligate passerines such as the loggerhead shrike, Brewer's sparrow, sage sparrow, and the sage thrasher.

Over the long-term, these improved riparian zones will also provide greater opportunities for raptors to nest in the area.

**Cumulative Impacts - None**

## **Mitigation/Monitoring Requirements**

If livestock use levels approach the 50% use levels prescribed in the Cumberland/Uinta Allotment CMP, the pipeline would be turned-off and livestock would be removed from the area.

### **Wildlife Stipulations**

Since the project is proposed to occur between July 16<sup>th</sup>, and September 30<sup>th</sup>, no wildlife stipulations will be required for the project as planned.

### **Residual Impacts - None**

## **NO ACTION ALTERNATIVE**

### **Cultural/Historic**

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

### **Water Quality**

**Direct Impacts - None**

**Indirect Impacts** – Livestock use in the adjacent streams would remain at current levels of approximately 50%-to-60% of the current year's growth. Water quality could continue to improve, but at a slower rate.

**Cumulative Impacts - None**

### **Wetland/Riparian Areas**

**Direct Impacts - None**

**Indirect Impacts** - Livestock use in the adjacent streams would remain at current levels of approximately 50%-to-60% of the current year's growth. Improvement in the health of Sheep, Bell, Hill and Ryckman Creeks and in their associated riparian areas would be at a slower rate.

**Cumulative Impacts - None**

### **Invasive Species**

**Direct Impacts - None**

**Indirect Impacts - None**

**Cumulative Impacts - None**

### **Livestock Grazing**

**Direct Impacts** – Livestock would continue to concentrate in the riparian areas and this would result in a need for increased herding of livestock.

**Indirect Impacts - None**

**Cumulative Impacts - None**

### **Vegetation**

**Direct Impacts - None**

**Indirect Impacts -** Livestock grazing utilization levels on the riparian areas in Sheep, Bell, Hill and Ryckman Creeks would remain at current levels of 0-to-10% in the uplands and 50%-to-60% on the riparian areas.

**Cumulative Impacts - None**

### **Soils**

**Direct Impacts - None**

**Indirect Impacts - None**

**Cumulative Impacts - None**

### **Wildlife**

**Direct Impacts - None**

**Indirect Impacts -** The water that would be provided by wildlife guzzlers to the sage grouse would not be available to them and to other wildlife species.

**Cumulative Impacts - None**

### **Mitigation/Monitoring Requirements**

An increased level of riding and of herding livestock out of the riparian areas would be required.

**Residual Impacts - None**

## **CONSULTATION AND COORDINATION**

### **List of Preparers/Reviewers:**

Jerry Pierce, Range Management Specialist  
Gavin Lovell, Wildlife Biologist  
Marion Burgin, Natural Resource Specialist  
Ed Jess, Archaeologist  
Chris Crews, Wildlife Biologist

### **List of persons/groups consulted with:**

Bear River Divide Coordinated Resource Management Steering Committee and Interested Parties  
Ron Lockwood, Wyoming Game & Fish Department  
Cumberland/Uinta Allotment permittees and land owners