

**DECISION RECORD**  
**For the Outlaw Cave Road Re-Route**  
**For Road System Modification and Public Safety and Resource Protection**  
**ENVIRONMENTAL ASSESSMENT EA-WY-070-15-69**

**DECISION:**

BLM's decision is to 1) re-route a portion of the existing access road to Outlaw Cave Campground (BLM 6217), in order to address environmental and safety issues, and 2) maintain the road between Middle Fork Powder River Fishing Access #1 and Outlaw Cave Campground.

**COMPLIANCE:**

This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701).
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- Endangered Species Act of 1973 (ESA) (16 USC 1531).
- Bald and Golden Eagle Protection Act (16 USC 668).
- Migratory Bird Treaty Act (16 USC 703).
- Buffalo Resource Management Plan, 1985, Amendments 2001, 2003.
- Greater Sage-Grouse Habitat Management Policy on Wyoming BLM Administered Public Lands (WY-IM-2012-019) and Greater Sage-Grouse Interim Management Policies and Procedures (WO-IM-2012-043).

**THE SELECTED ALTERNATIVE:**

Features. BLM's decision approved the proposed alternative as described in the EA. BFO approves the construction of a 3,100 foot re-routed portion of access road to Outlaw Cave Campground and subsequent reclamation of an existing road across BLM administered lands in T42N, R84W, SESE Section 21 and SWSW, SWSE Section 22 based on the analysis documented in the EA. This approval also allows maintenance of the access road from Fishing Access 1 to Outlaw Cave Campground.

This approval is subject to adherence with all of the mitigation measures contained in the EA. Construction should be completed within five years of the signing of the Decision Record.

**THE FINDING OF NO SIGNIFICANT IMPACT:**

The FONSI for WY-070-EA15-69, found no significant impacts, thus an Environmental Impact Statement was not required.

**DECISION RATIONALE:**

1. BLM included design features to reduce environmental impacts while meeting the BLM's need.
2. The impact of this development cumulatively contributes to the potential for local extirpation of the Greater Sage Grouse (GSG) yet its effect is acceptable because it is within the parameters of the PRB FEIS/ROD and current BLM (WO-IM-2012-043) and Wyoming (WY-IM-2012-019) GSG conservation strategies.
3. The project is in priority habitat (Natrona Core Area), in an area exceeding disturbance objectives, however the Wyoming Game and Fish Department (WGFD) determined that the project will not negatively affect GSG due to the following circumstances:
  - a. The construction of the new road will only slightly increase the disturbance due to the reclamation of the existing road.

- b. There is no suitable GSG habitat present in a contiguous block of land that include at least a 0.6 mile buffer between the project and suitable habitat.
  - c. The nearest GSG lek (2.7 miles away), Old Man Spring Lek, has had a total of 1 bird observed at the lek the last three years.
  - d. With application of Standard Operating Procedures (SOPs), applied mitigation, Required Design Features, and COAs identified for Greater Sage-Grouse under the proposed action, impacts caused by surface-disturbing and disruptive activities would be minimized.
4. There are no conflicts anticipated or demonstrated with current uses in the area.
  5. The Resource Management Plan (RMP) for the Buffalo Field Office is currently undergoing revision. The Proposed RMP and Final Environmental Impact Statement was released in May 2015. The proposed action was screened against the Final EIS to ensure that the proposed action would not preclude BLM's ability to select any alternative in a ROD. The proposed action was also determined to not be inconsistent with the direction outlined in the RMP's Proposed Alternative.
  6. To reduce the likelihood of a "take" under the Migratory Bird Treaty Act, BLM sensitive species nesting habitat removal will occur outside of the breeding season or be cleared by survey.
  7. The proposed road re-route supports the management objective for the BLM Buffalo Field Office (BFO) recreation program. The BLM's objective is to provide outdoor recreational opportunities on public lands while providing for resource protection, visitor services, and the general health and safety of public land visitors in a manner supporting local communities (BLM 2001, p. 23). Approving the proposed road reroute would assist the BFO in meeting these objectives.

**APPEALS:** This decision may be appealed to the Interior Board of Land Appeals, Office of the Secretary, in accordance with the regulations contained in 43 CFR Part 4. If an appeal is taken (see 43 CFR 4.410), your notice of appeal must be filed within 30 days (see 43 CFR 4.411) from receipt of this decision to:

Attention: Field Manager  
 Bureau of Land Management  
 Buffalo Field Office  
 1425 Fort Street  
 Buffalo, Wyoming 82834

The appeal shall state the reasons, clearly and concisely, why you think the final decision is in error (see 43 CFR 4.412).

If you wish to file a petition pursuant to regulations at 43 CFR 4.21 for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

**Standards for Obtaining a Stay:**

Except as otherwise provided by law or other pertinent regulation, a petition for stay of a decision pending appeal shall show sufficient justification based on the following standards:

- 1) The relative harm to the parties if the stay is granted or denied
- 2) The likelihood of the appellant's success on the merits
- 3) The likelihood of immediate and irreparable harm if the stay is not granted
- 4) Whether the public interest favors granting the stay.

If you decide to submit a petition for stay of the decision, a copy of the notice of appeal, statement of reasons, and petition for stay should be simultaneously filed with the Office of Regional Solicitor, Rocky Mountain Region, and U.S. Department of the Interior, 755 Parfet Street, Suite 151, Lakewood, CO 80215.

          /s/ Duane W. Spencer            
Duane W. Spencer  
Field Office Manager

  6/30/15    
Date

**FINDING OF NO SIGNIFICANT IMPACT**  
**Outlaw Cave Road Re-Route**  
**Environmental Assessment (EA), WY-070-EA15-69**  
**Bureau of Land Management, Buffalo Field Office, Wyoming**

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 below 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 with the mitigation measures identified below.

**FINDING OF NO SIGNIFICANT IMPACT:**

On the basis of the information contained in the EA and all other information available to me, it is my finding that:

- 1) The authorization for the construction of the approximately 3,100 feet of new access road and reclamation of 2,400 feet of existing access road to the Outlaw Cave Campground will not have significant environmental impacts beyond those already addressed in 1985 Buffalo RMP and amendments to which the EA is tiered;
- 2) The decision authorizing the road construction and subsequent reclamation, by itself or cumulatively with any earlier approved actions and infrastructure does not constitute a major federal action having a significant effect on the human or natural environment. Therefore, an environmental impact statement is not necessary and will not be prepared.

This finding is based on my consideration of the Council on Environmental Quality's (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the context and to the intensity of the impacts described in the EA, WY-070-EA15-69, which is incorporated here by reference.

**CONTEXT:**

Recreation is a long-standing and common land use within the Buffalo Field Office particularly within the project area. This additional recreational development is insignificant within the national, regional, and local context.

**INTENSITY:**

The implementation of the proposed alternative will result in beneficial effects for recreation however; there will also be adverse effects to the environment. Design features, best management practices and mitigation measures were included within the proposed alternative to prevent significant adverse environmental effects.

The proposed alternative does not pose a significant risk to public health and safety. The geographic area of the proposed action does not contain unique characteristics as identified within the 1985 RMP or 2003 PRB FEIS. The project area lacks wilderness characteristics. A wilderness characteristics inventory was completed in 2013; the geographical area of the proposed action does not meet the size or the naturalness criterion for lands with wilderness characteristics. The inventory is available at:

<http://www.blm.gov/wy/st/en/programs/Planning/rmps/buffalo/docs.html>. The geographic area of the proposed action contains no unique characteristics related to other legislative or regulatory processes.

Relevant scientific literature and professional expertise were used in preparing the EA. The scientific community is reasonably consistent with their conclusions on environmental effects relative to

recreational development. Research findings on the nature of the environmental effects are not highly controversial, highly uncertain, or involve unique or unknown risks.

Recreation site development of the nature contemplated within the proposed alternative was predicted and analyzed in the 1985 Buffalo RMP and amendments; the selected alternative does not establish a precedent for future actions with significant effects.

There are no cultural or historical resources present that will be adversely affected by the selected alternative. No species listed under the Endangered Species Act or their designated critical habitat will be adversely affected.

The implementation of the selected alternative best meets the stated purpose and need for the proposed action. The proposed alternative will not contribute to a violation of federal, State or local law that is for the purpose of protecting the environment.

**Authorized Official:** /s/ Duane W. Spencer  
Duane W. Spencer  
Buffalo Field Office Manager

**Date:** 6/30/15

# Outlaw Cave Road (BLM Road 6217) Re-Route

## Road System Modification for Public Safety and Resource Protection

**ENVIRONMENTAL ASSESSMENT-WY-070-15-69**

Prepared by Jim Verplancke, Natural Resource Specialist  
June 2015

The BLM's multiple-use mission is to sustain the health and productivity of the public lands for the use and enjoyment of present and future generations. The Bureau accomplishes this by managing such activities as outdoor recreation, livestock grazing, mineral development, and energy production, and by conserving natural, historical, cultural, and other resources on public lands.

**BLM**

High Plains District Buffalo Field Office



## **1. Introduction**

This environmental assessment (EA) analyzes a proposed re-route of a 3,100-foot portion of access road to the Outlaw Cave Campground. The proposed action would include construction of approximately 3,100 feet of new road, maintenance on 2 miles of existing road and decommissioning and rehabilitation of 2,400 feet of existing road.

EA Number: WY-070-EA15-69

Proposed Action Title/Type: Road Re-Route (New Construction and Decommissioning) of the Outlaw Cave road (BLM Road 6217).

Location: 6th PM, Johnson County, Wyoming, T 42N R 84W, Section 21, 22 and 23 (BLM-administered surface)

Proponent: BLM initiated project

### **1.1 Purpose of Proposed Action**

The proposed project's purpose is to improve safe public access and recreational opportunities and to reduce impacts to natural and cultural resources by re-routing failing portions BLM Road 6217, the access road to Outlaw Cave Campground.

### **1.2 Need for Proposed Action**

The Middle Fork Powder River Management Area is a prominent feature amongst BLM Wyoming recreation areas, and a draw for hunters, hikers and visitors interested in learning more about the history of Outlaw Cave and Hole-in-the-Wall. Photos of the area have been featured in BLM publications and social media efforts. Visitor facilities are provided at Outlaw Cave Campground, but deferred maintenance and recent storm events have rendered the access route to the campground nearly impassable for passenger or low-clearance vehicles. During wet conditions the road is difficult to traverse for even high-clearance 4WD vehicles.

BLM Road 6217 was instrumental to wildfire suppression efforts during the Outlaw 2 (12,300 acres) fire in 2006. The road not only served as access to the fire but later served as the defendable fire line to prevent further loss of crucial wildlife habitat.

Additionally, the current access route intersects sensitive resources including archeological sites and fragile soils. The BFO is proposing to re-route approximately 2,400 feet of the access road by constructing a 3,100 foot alternative engineered route and to maintain an additional 2 miles of existing roads to provide safe public access to Outlaw Cave Campground and protect sensitive cultural and natural resources. The BLM's objective is to provide outdoor recreational opportunities on public lands while providing for resource protection, visitor services, and the general health and safety of public land visitors in a manner supporting local communities (RMP 2001, p. 23). Implementation of this project will lead to protection of sensitive resources, achievement of recreation management goals and improve public health and safety.

Land health concerns, combined with population growth and a proliferation of user-created routes have driven the need to address resource management, access, and transportation at the Middle Fork Powder River Management Area.

### **1.3 Background**

In 1999, BLM constructed a crowned and ditched road from the gate entrance to the Middle Fork Powder River Management Area to the first fishing access including the installation of culverts and gravel

surfacing. BLM also spot graveled and installed one culvert between the first fishing access and the campground. In 2002, BLM installed geotextile fabric and gravel surfacing to another 3,200 foot section in the “chokecherry draw” area just before the Outlaw Cave Campground. The cost of the work completed between 1999 and 2002 was nearly \$130,000. The 2004 Middle Fork Travel Management Plan Environmental Assessment, WY-070-04EA-296, pp 5 analyzed BLM Road 6217 and determined that “This road is the public access to the Outlaw Cave Campground, the Ed O Taylor and the Hazelton Road. It will remain open.”

Deep rutting and gullies more than 3 feet deep exist along the current route. Conditions are so poor in certain stretches of the road that some visitors have selected alternate parallel paths, creating braided routes. During storm events or wet conditions, the road becomes nearly impassable due to the slope and grade of the road alignment and a lack of an adequate road bed. The route itself is pitched steeply and water is not properly shed from the route, resulting in large puddles in some areas and deep channels in others.

Due to the land tenure patterns of the Buffalo Field Office, there is high demand for safe public access to public lands in the region. The Middle Fork Powder River Management Area is a draw for local and out-of-state visitors. Wyoming Game and Fish Department highly supports collaborative planning efforts to achieve hunt unit objectives in this area, and improving safe access will assist in meeting this goal. This route is one of three access routes into the WGFD’s Ed O. Taylor Wildlife Habitat Management Area (WHMA).

**Figures 1-3: Route degradation on BLM Road 6217/Outlaw Cave Road**





Figure 1. Deep gulying in 2013 with trail braiding on upslope side.

Figure 2. Route braiding of the existing BLM Road 6217.



**Figure 3. Exposed geotechnical fabric along the existing BLM Road 6217.**



#### **1.4 Decision to be Made**

The BLM will decide whether or not to re-route the existing road (BLM 6217) and to maintain the road past Fishing Access #1, and if so, under what terms and conditions in concert with the Bureau's multiple use mandate, environmental protection, and Resource Management Plan (RMP).

#### **1.5 Scoping and Issues**

External public scoping was not conducted for this EA. Collaboration with the Wyoming Game & Fish Department (WGFD) indicated a desire to manage seamless recreation opportunities across ownership boundaries, and to support fishing and hunting opportunities. While BLM Road 6217 has been annually maintained as far west as Fishing Access #1, the rest of the access road has been in a state of deferred maintenance and severe route deterioration has occurred in several locations.

The BFO interdisciplinary team (ID team) conducted internal scoping by reviewing the current management plans and data collected at Middle Fork Powder River Management Area to identify potentially affected resources and land uses (See the administrative record. This EA will not discuss resources and land uses that are either not present or not affected. Project issues include:

- Soils, Vegetation and Surface Water Resources: Site stability, reclamation potential, invasive species, accelerated erosion and potential impacts to water quality
- Wildlife: Crucial winter habitat for mule deer and elk and disturbance to these big game species before and during hunting season; Surface Disturbance within Greater Sage-Grouse (GSG) priority habitat (Natrona Core Area).
- Recreation & Travel Management: Public health and safety, public access, increased visitation; increased off-road travel by motorized recreationists seeking alternate routes
- Visual Resources: Visual Resources Management Class II
- Cultural Resources.



## **2.0 PROPOSED ACTION AND ALTERNATIVES**

### **2.1 Alternative A - No Action**

Description of the No Action Alternative:

This alternative would deny the proposal to re-route the existing roadway. No alterations would be made; the access road alignment will remain as it is.

The BLM administered surface in the project area currently contains the following assets in Federal Assets Management System (FAMS): Bar C/Outlaw Cave Road (L34437). This alternative prescribes maintenance for the BLM Road 6217 (Bar C/Outlaw Cave) only, stating that it would be maintained annually to fishing access #1. No further route creation, construction or maintenance outside of annual maintenance prescribed by the FAMS would occur.

### **2.2 Alternative B – Proposed Action**

BLM will re-route current access road with all-weather road and decommission and rehabilitate the abandoned portion and complete needed road maintenance up to Outlaw Cave Campground. Maintenance for the BLM Road 6217 (Bar C/Outlaw Cave) only, will occur from fishing access #1 to Outlaw Cave Campground.

### **2.3 Description of the Proposed Action:**

The new route was proposed by the BLM-HPD Civil Engineer Technician and staked every 300 feet. In total, the BLM would construct approximately 3,100 feet of new surfaced road and complete needed road maintenance up to Outlaw Cave Campground to accommodate safe motorized access and prevent accelerated erosion. The BLM would decommission and rehabilitate 2,400 ft of existing route. The total implemented project would result in about 3.6 acres of surface disturbance for related to constructing the new re-route and 3.1 acres of disturbance associated with the rehabilitation of the abandoned road section.

#### **2.3.1 Road Engineering Specifications**

Design and construction of the new access road will follow the BLM 9113 Manual for road standards to accommodate slope, grade, road surfacing and drainage/runoff off control.

The route for the proposed road was selected because the new route is (1) perpendicular to the contours of the hillside, (2) the average grade of the hill along the proposed route is less than 16 percent or less, and (3) the maximum grade of any 50-foot or longer segment of the proposed route is less than 16 percent.

The design of the road will vary from in-slope with ditch, out-slope, or crown with ditch and have a running surface of 12 to 18 feet with turnouts where traffic may meet; See diagrams in Appendix A. In-sloped roads are normally used where there is a steep uphill bank on one side and a steep downhill bank on the other. The in-sloped road helps to prevent rilling and gullying on the steep downhill bank and reduces the potential for a vehicle to slide off the downhill side of the road. Out-sloped roads are normally used when the road crosses gentle sloping terrain. The out-sloped road blends into the gentle terrain with no or little ditching or laterals and allows natural sheet flow conditions to prevail. The use of out-sloped roads in these situations prevents the creation of “dams” that concentrate the sheet flow, as can occur with crowned roads. Crowned and ditched roads have a distinctive crown to shed water off the roadway and to the outside edges into the ditches where it can be drained into established vegetation. The entire length of the access road will be surfaced with locally-sourced aggregate material.

Construction will take place over approximately six weeks during the summer of 2015.

Maintenance levels for the new route would be entered into FAMS and maintained on an as needed basis according to engineering surveys and standards. The road would be re-crowned and surfaced with gravel,

rather than crushed clinker (scoria). Additional drainage features would be installed. Ditches would be cleaned out where appropriate to a minimum depth of 12 inches.

### 2.3.2 Reclamation

BLM will complete reclamation of all surface disturbance not used as the roadway consistent with the Wyoming BLM Reclamation Policy to provide for stable surface free of accelerated erosion, proper hydrologic function and revegetated. BLM has prepared a seed mix to compliment the native plant community. See the seed mix in Table 1 below.

**Table 1. Native Seed Mix to be Utilized for Reclamation**

<b>Plant Species</b>	<b>Lbs PLS*</b>
<b>Bluebunch wheatgrass</b> ( <i>Agropyron spicatum</i> )	2.4
<b>Sandberg bluegrass</b> ( <i>Poa sandbergii</i> )	2.4
<b>Needleandthread</b> ( <i>Hesperostipa comata</i> )	1.0
<b>Prairie coneflower</b> ( <i>Ratibida columnifera</i> )	1.0
<b>American vetch</b> ( <i>Vicia Americana</i> )	1.0
<b>Blue flax</b> ( <i>Linum lewisii</i> )	0.2
<b>Fourwing saltbush</b> ( <i>Atriplex canescens</i> ) Or Or	0.5
<b>Wyoming big sagebrush</b> ( <i>Artemisia tridentata</i> )	0.5
<b>Winterfat</b> ( <i>Krascheninnikovia lanata</i> )	0.5
<b>Green rabbitbrush</b> ( <i>Chrysothamnus viscidiflorous</i> )	0.5
<b>Totals</b>	<b>10.0 lbs/acre</b>

\*Pounds of Pure Live Seed

Note: Only Weed Free Certified Seed will be used on Federal Surface.

### 2.3.3 Monitoring

The re-route will be monitored each month outside the seasonal closure in the first year to determine areas that may need touch-up. Once route stability has been assured, then monitoring levels of use, weeds, and erosion will continue indefinitely.

### 2.4 Conformance with the Land Use Plan

This proposed action conforms and tiers to: the Record of Decision for the Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS) for the Buffalo Resource Area, (ROD 1985); Approved RMP, (RMP 2001); The FEIS and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project, (FEIS 2003a); and the Record of Decision and RMP Amendment for the Powder River Basin Oil and Gas Project, (ROD 2003b).

The proposal conforms to the Approved Resource Management Plan for Public Lands Administered by the Bureau of Land Management Buffalo Field Office (2001) because it is specifically provided for in the following RMP decision(s):

- 1985/2001 Buffalo Field Office Resource Management Plan; pp 31 – “BLM will continue to maintain 16 ½ miles of road every year (Bar C, Billy Creek, Muir, Petrified Tree, and Weston West) and will continue to maintain existing recreation facilities and roads at the same level.”
- Middle Fork Travel Management Plan, WY-070-04EA-296; pp 5 – “Outlaw Cave Road (#4). This road is the public access to the Outlaw Cave campground, the Ed O Taylor and the Hazelton Road. It will remain open.”

This EA fulfills the 1969 National Environmental Policy Act (NEPA) requirement for site-specific analysis. The proposed Right of Way (ROW) is in accordance with 43 CFR 1610.5-3(a), the Federal Land Policy and Management Act (FLPMA) of 1976. The proposal falls within the analysis parameters and impacts described in the 2003 PRB FEIS.

### **3.0 AFFECTED ENVIRONMENT**

The proposed action will provide a safe route that properly sheds water, thereby reducing impacts to relevant natural resource values and minimizing road maintenance needs. Periodic monitoring and seasonal maintenance will ensure areas prone to erosion are stabilized before road and/or resource damage occurs.

#### **3.1 Soils, Ecological Sites and Vegetation**

The soil and ecological site descriptions prepared by the Natural Resources Conservation Service (NRCS) for the South Johnson County soil survey area includes the project area. Shallow Clayey is reported as the dominant Ecological Site Description (ESD). The onsite investigations identified the proposed actions to impact Loamy soils, Map Unit Symbol *SW*, (60% Sunup and 25% Carnero) in the 10-14 inch Northern Precipitation Zone. The other less prevalent soil in the project area is Rock land, Map Unit Symbol *RO*. The onsite investigation revealed that the new access road falls entirely over Loamy soils where the existing road falls over loamy soils but intermittently crosses areas of exposed rock highly susceptible to increased runoff potential and soil erosion.

Sunup - Canero association soil is rated as fair reclamation source material. Salvageable soil depth across the disturbance area ranges from 5-14 inches maintaining an organic component (plant roots) with the soil. This was confirmed by onsite field evaluation. The NRCS SSURGO data shows the soil properties of greatest concern being the lack of organic matter, soil containing too much clay and high water erosion potential. Restrictive layers of the soils range between 10 and 40 inches in depth. The soil is non-saline. The soil is poorly rated as suitable construction material due to low soil strength and high shrink/swell ratio.

An important component of soils in Wyoming's semiarid rangelands, especially in the Wyoming grassland/sagebrush cover type, are biological soil crusts, or cryptogamic soils that occupy ground not covered with vascular plants. Biological soil crusts are important in maintaining soil stability, controlling erosion, fixing nitrogen, providing nutrients to vascular plants, increasing precipitation infiltration rates, and providing suitable seed beds (Belnap et al. 2001). They are adapted to growing in severe climates; however, they take many years to develop (20 to 100) and can be easily damaged or destroyed by surface disturbances associated with construction activities.

##### **3.1.1 Soils Susceptible to Erosion**

Loss in productivity is likely to occur on most soils if erosion continues unchecked. Because soil formation is a very slow process, most soils cannot renew their eroded surface while erosion continues. The development of a favorable rooting zone by the weathering of parent rock is much slower than development of the surface horizon. One estimate of this renewal rate is 0.5 ton per acre per year for unconsolidated parent materials and much less for consolidated materials. These very slow renewal rates support the philosophy that any soil erosion is too much. Loss of organic matter, resulting from erosion and tillage, is one of the primary causes for reduction in production yields. When organic matter decreases, soil aggregate stability, the soil's ability to hold moisture, and the cation exchange capacity decline. (Soil Quality-Agronomy Technical Note #7, USDA, Aug 1998.)

##### **3.1.2 Vegetation**

Onsite investigations identified the proposed road location supports a mixed sagebrush plant community within the Loamy 10-14 precipitation zone. Historically, this plant community evolved under grazing by

bison and a low fire frequency. Currently, it is found under moderate, seasonal grazing by livestock. Black sagebrush is a dominant component of this plant community where it was not removed by wildfire in 2006. Cool-season grasses make up the majority of the understory with the balance made up of short warm-season grasses, annual cool-season grasses, and miscellaneous forbs.

Dominant grasses include needleandthread, western wheatgrass, and green needlegrass. Grasses of secondary importance include blue grama, prairie junegrass, and Sandberg bluegrass. Forbs commonly found in this plant community include plains wallflower, hairy goldaster, slimflower scurfpea, and scarlet globemallow. Sagebrush canopy ranges from 20% to 30%. Fringed sagewort is commonly found. Plains pricklypear can also occur.

When compared to the Historic Climax Plant Community, sagebrush and blue grama have increased. Production of cool-season grasses, particularly green needlegrass, has been reduced. The sagebrush canopy protects the cool-season mid-grasses, but this protection makes them unavailable for grazing. Cheatgrass (downy brome) has invaded the site. The overstory of sagebrush and understory of grass and forbs provide a diverse plant community that will support domestic livestock and wildlife such as mule deer, elk and Greater Sage-Grouse.

### **3.1.3 Reclamation Suitability**

Currently soil conditions in the project area are impacted by accelerated erosion as a result of runoff, 4-wheel drive traffic and traditional activities, including livestock grazing. Much of the area is covered with soils that are easily damaged by use or disturbance and can be difficult to re-vegetate or otherwise reclaim. Soil impacts (e.g., roads and trail) can be readily observed in the area. In the absence of recoverable topsoil as is common throughout the project area, the surface organic matter in the form of vegetation, litter and biological crust are critical to maintaining the integrity and viability of the soil.

Reclamation potential of soils varies throughout the project area. The main soil limitations in the project area include: depth to bedrock, low organic matter content, and high erosion potential especially in areas of steep slopes.

These impacts, singly or in combination, increase the potential for valuable soil loss due to increased water and wind erosion, invasive/noxious plant spread, invasion and establishment, and increased sedimentation loads to the watershed system, absent applicable mitigation measures.

The appropriate mitigation measures using BLM applied mitigation to reduce impacts to vegetation and soils from surface disturbance are well described in the BLM Wyoming Reclamation Policy, incorporated here by reference. These practices and BLM mitigation measures, will result in less surface disturbance and environmental impacts.

## **3.2 Surface Water Resources**

The project area lies within 0.5 miles of the Middle Fork Powder River, a fresh water stream. Sediment washed from the existing road is currently carried into a side drainage leading directly to the river.

## **3.3 Fire, Fuels and Forestry**

There have been five large fires in the vicinity since 1995 that have burned a total of 13,730 acres. The most recent large fire, the Outlaw Cave 2 fire, occurred in 2006 and burned approximately 12,300 acres. Vegetation in the burned area has recovered well from the 2006 fire, especially in the years following the 2012 drought. Sequential years of normal to high precipitation 2013-2014 have generated fuels in the Middle Fork Powder River Management Area. An abnormally early and dry spring in 2015 has fostered red-flag fire conditions with potential for another large wildfire, should ideal fire weather conditions persist.

### 3.4 Cultural

In accordance with section 106 of the National Historic Preservation Act, BLM must consider impacts to historic properties (sites that are eligible for or listed on the National Register of Historic Places (NRHP)). For an overview of cultural resources that are generally found within BFO the reader is referred to the *Draft Cultural Class I Regional Overview, Buffalo Field Office* (BLM, 2010). A Class III (intensive) cultural resource inventory (BFO project no. 70140127) was performed in order to locate specific historic properties which may be impacted by the proposed project. The following resources are located in or near the proposed project area.

#### Cultural Resources Located In or Near the Project Area

Site Number	Site Type	NRHP Eligibility
48JO382	Historic and Prehistoric	NE
48JO832	Prehistoric	NE
48JO1239	Prehistoric	NE
48JO1505	Prehistoric	NE
48JO4391	Historic and Prehistoric	NE
48JO4392	Prehistoric	NE

### 3.5 Wildlife, Sensitive, and Threatened/Endangered Species

BLM performed a habitat assessment in the project area June 2014 and April 2015. The biologist evaluated impacts to wildlife resources and recommended project modifications where wildlife issues arose. BLM wildlife biologists also consulted databases compiled and managed by BLM BFO wildlife staff, WGFD datasets, and the Wyoming Natural Diversity Database (WYNDD) to evaluate the affected environment for wildlife species that may occur in the project area. This section describes the affected environment for wildlife species known or likely to occur in the project area that are likely to be impacted by the action.

A BLM wildlife biologist conducted surveys within 0.6 miles of the proposed route during the Spring/Summer 2014 and 2015 for nesting raptors and other migratory birds, Greater Sage-Grouse (GSG) leks and nests as well as other BLM sensitive species. There are no known raptor nests within 0.5 mile of the project and no raptor or migratory bird nests were observed within or adjacent to the project area during surveys. No new GSG or sharp-tailed grouse leks were observed within or adjacent to the project area. The nearest GSG leks to the project are Poker Creek (2.5 miles) and Old Man Spring leks (3.2 miles) to the south.

#### 3.5.1 Threatened, Endangered, Candidate, Special Status (Sensitive) Species

The Buffalo BLM receives a species list periodically from the FWS concerning threatened, endangered, proposed, and candidate species. The 2012 list included Ute Ladies'-tresses orchid (threatened) and Greater Sage-Grouse (candidate). In addition to the listed species, the FWS letter also included migratory birds and wetland/riparian habitats. Nesting GSG habitat does not exist within the proposal area. The majority of the sagebrush stands in proximity to the proposed road have been fragmented by the 2006 Outlaw 2 wildfire. No leks are within two miles of the proposal. The BLM IM WY-2012-019 establishes interim management policies for proposed activities that could impact GSG habitat on BLM-administered lands until RMP updates are complete.

### **3.5.1.1 Ute Ladies'-Tresses Orchid (ULT)**

The FWS lists the Ute ladies'-tresses orchid (ULT) as threatened. The Wyoming Natural Diversity Database model predicts undocumented populations may be present in southern Campbell and northern Converse Counties. Scientists only documented 4 orchid populations in Wyoming prior to 2005. Scientists found 5 additional sites in 2005 and 1 in 2006. The new locations were in the same drainages as the original populations, with 2 on the same tributary and within a few miles of an original discovery. Limited potential habitat is present in the project area, and no surface disturbance is planned in any areas with potential habitat.

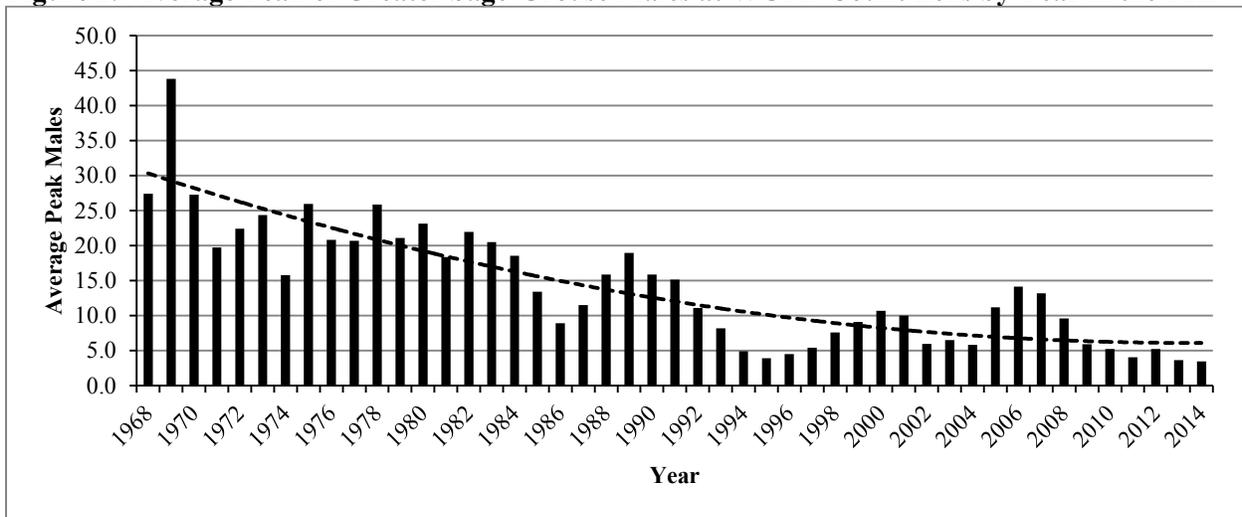
### **3.5.1.2 Candidate Species - Greater Sage-Grouse (GSG)**

The USFWS determined the Greater Sage-Grouse (GSG) warrants federal listing as threatened across its range, but precluded listing due to other higher priority listing actions, 75 Fed. Reg. 13910 to 14014, Mar. 23, 2010; 75 Fed. Reg. 69222 to 69294, Nov. 10, 2010. GSG are a WY BLM special status (sensitive) species (SSS) and a WGFD species of greatest conservation need because of population decline and ongoing habitat loss. The 2012 population viability analysis for the Northeast Wyoming GSG found there remains a viable population of GSG in the PRB (Taylor et al. 2012). However, threats from energy development and West Nile virus (WNV) are impacting future viability (Taylor et al. 2012). The BLM IM WY-2012-019 establishes interim management policies for proposed activities on BLM-administered lands, including federal mineral estate, until RMP updates are complete.

The project area is mostly within the Natrona GSG Core Area (identified in EO 2011-5), and is considered priority habitat. There are 2 GSG leks within 4 miles of the proposal; both are within the Core Area. GSG are of primary concern when evaluating new roads as studies show that GSG avoid roads by 0.6 miles. GSG are common inhabitants within the BFO. There is no suitable GSG habitat present in a contiguous block of land that include at least a 0.6 mile buffer between the project and suitable habitat.

The GSG population in northeast Wyoming is exhibiting a steady long term downward trend, as measured by lek attendance (WGFD 2011b). Figure 2 illustrates a 10-year cycle of periodic highs and lows. Each subsequent population peak is lower than the previous peak. Research suggests that the declines since 2001 are a result, in part, of energy development (FWS 2010, Taylor et al. 2012). BLM Instruction Memorandum No. WY-2010-12 (BLM 2009) states that "it is the policy of WY BLM to manage sage-grouse seasonal habitats and maintain habitat connectivity to support population objectives set by the Wyoming Game and Fish Department (WGFD)." Meeting population objectives in Core areas was further detailed in the State of Wyoming Executive Order 2011-5 (State of Wyoming 2011) which outlines guidance for Greater Sage-Grouse Core Area Protection. This guidance states that "Management by state agencies should focus on the maintenance and enhancement of Greater Sage-Grouse habitats, populations and connectivity..." It also states that "Existing land uses within Core Population Areas should be recognized and respected by state agencies."

**Figure 2. Average Peak of Greater Sage-Grouse Males at WGFD Count Leks by Year in the PRB**



Source: WGFD 2014b

According to guidance provided by Wyoming Game and Fish Department (WGFD 2009), projects such as the proposed action will be evaluated on a case by case basis and forwarded, as necessary, to the Wyoming Game and Fish Department Habitat Protection Program Supervisor for consideration of stipulations needed to prevent declines in sage grouse populations in core sage grouse population areas. All surface activities should be designed to reduce habitat fragmentation and mortality to sage grouse. Design criteria for all activities should include minimizing the footprint of the activity in sage-grouse habitat.

### 3.5.1.3 Special Status (Sensitive) Species (SSS)

The authority for the SSS comes from the ESA, as amended; Title II of the Sikes Act, as amended; the FLPMA; Department Manual 235.1.1A and BLM Manual 6840. Table 4.2, administrative record lists those SSS that may occur in the project area. The Table also includes a brief description of the habitat requirements for each species. Wyoming BLM annually updates its list of SSS to focus management to maintain habitats to preclude listing as a threatened or endangered species. The policy goals are:

- Maintaining vulnerable species and habitat components in functional BLM ecosystems;
- Ensuring sensitive species are considered in land management decisions;
- Preventing a need for species listing under the Endangered Species Act (ESA); and
- Prioritizing needed conservation work with an emphasis on habitat.

The affected environment for William’s wafer-parsnip (WWP) is discussed in the PRB FEIS on pp. 3-191 to 3-192. Most of the project area is considered as potential habitat for the William’s wafer-parsnip. No WWP were found along the proposed road alignment during 2014-2015 field work. A wildlife biologist or range specialist will survey the project area prior to surface disturbance and mark any WWP populations for protection.

Limber pine is found throughout the Middle Fork Management Area. No limber pine will be removed by the proposed action. A BLM wildlife biologist and forester surveyed the project area and found the route is clear of limber pine.

Wyoming BLM updates SSS on its website: <http://www.blm.gov/wy/st/en/programs/Wildlife.html>. No SSS are likely to be impacted beyond the level analyzed in the RMP therefore these SSS will not be discussed further in this analysis.

Other SSS that have the potential to occur in the project area are: Brewer’s sparrow, and loggerhead shrike. These species will be discussed further under migratory birds.

### 3.5.2 Big Game

The big game species occurring in the project area are mule deer, elk and pronghorn. Table 2 below indicates the delineated seasonal ranges for each species that occur in the project area, the herd units affected by the project, the WGFD population objective, and the WGFD current population estimate for each species (WGFD 2011a).

**Table 2. Big Game Species, Seasonal Ranges, Herd Units, Population Objectives, and Population Estimates for Big Game Species Likely to Occur in the Project Area**

Species	Seasonal Range in Project Area	Herd Unit	WGFD Population Objective	% Above (+) or Below (-) Objective	WGFD Report Year
Mule Deer	Yearlong, Crucial Winter	322 – Upper Powder River	18,000	-45.4	2013
Elk	Yearlong, Crucial Winter	322 – South Big Horns	2,900	+96.0	2013
Pronghorn	Yearlong, Winter Yearlong	352 – Middle Fork	11,000	+7	2013

### 3.5.3 Raptors

According to the BLM raptor database, there are no known raptor nest sites within 0.5 miles of the project boundary. No nests were observed by the BLM biologist during surveys in 2014-2015.

Most raptor species nest in a variety of habitats including (but not limited to): native and non-native grasslands, agricultural lands, live and dead trees, cliff faces, rock outcrops, and tree cavities. Suitable nesting habitat is present throughout the Middle Fork Management Area.

### 3.5.4 Migratory Birds

Habitats occurring near the proposed road include sagebrush steppe grasslands, mixed grass prairie, and mature conifer trees. Many species that are of high management concern use these areas for their primary breeding habitats (Saab and Rich 1997).

A wide variety of migratory birds may occur in the proposed project area at some point during the year. Migratory birds are birds that migrate for breeding and foraging at some point in the year. The BLM-Fish and Wildlife Service (FWS) Memorandum of Understanding (MOU) (2010) promotes the conservation of migratory birds, complying with Executive Order 13186 (Federal Register V. 66, No. 11). BLM must include migratory birds in every NEPA analysis that has potential to affect migratory bird species of concern to fulfill obligations under the Migratory Bird Treaty Act (MBTA).

Habitats occurring near the proposed road include sagebrush steppe grasslands, mixed grass prairie, and mature conifer trees. Many species that are of high management concern use these areas for their primary breeding habitats (Saab and Rich 1997). Nationally, grassland and shrubland birds declined more consistently than any other ecological association of birds over the last 30 years (WGFD 2009). The FWS’s Birds of Conservation Concern (BCC 2008) report identifies species of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act. Species in this list that have the potential to occur in the project area are: Brewer’s sparrow, sage thrasher and loggerhead shrike.

The WGFD Wyoming Bird Conservation Plan (Nicholoff 2003) identified 3 groups of Wyoming’s high-priority bird species: Level I – those that clearly need conservation action, Level II – species where the focus should be on monitoring, rather than active conservation, and Level III – species that are not of high priority but are of local interest. Species likely occurring in the project area are in Table 3.

**Table 3. Migratory Birds Occurring in Shrub-Steppe Habitat, NE Wyoming (Nicholoff 2003)**

Level	Species	Wyoming BLM Sensitive
Level I	Brewer’s sparrow	Yes
	Ferruginous hawk	Yes
	McCown’s longspur	No
	Mountain Plover	Yes
	Sage sparrow	Yes
Level II	Grasshopper Sparrow	No
	Lark bunting	No
	Lark sparrow	No
	Loggerhead shrike	Yes
	Sage thrasher	Yes
	Vesper sparrow	No
Level III	Common poorwill	No
	Say’s phoebe	No

Several migratory species are also BLM special status (sensitive) species (SSS). Those known or suspected of occurring in the project area include Baird’s sparrow, Brewer’s sparrow, ferruginous hawk, loggerhead shrike, sage sparrow, sage thrasher, and western burrowing owl.

### 3.6 Recreation Resources and Travel Management

The project area is accessed via the Bar C Road, which is maintained by the BLM under an easement from the adjacent landowner. Middle Fork Powder River Management Area is a regional destination primarily used for fishing, hunting, camping, and hiking. Visitor use on BLM administered lands in the area is currently estimated at approximately 5,867 visits per year (BLM 2014a). The predominant use in the area varies by season. The entrance gate to the Middle Fork Powder River Management Area is closed from the end of big game hunting season (currently December 15<sup>th</sup> through April 15<sup>th</sup>); very little visitation occurs to BLM-administered surface during winter months.

During the spring, visitation is predominately from anglers including many from the region (Sheridan, Johnson, Natrona or Washakie counties), however, in recent years media publications have resulted in an increased draw from farther locales including northern Colorado, Montana and western Wyoming. The Middle Fork Powder River is suitable and eligible for protection as a Wild and Scenic River and has been recommended to Congress for designation. The river is also classified as a blue ribbon trout stream, containing brown and rainbow trout, by WGFD.

Angling use continues during the summer months, but the area is also frequently visited by backcountry horseback riders, backpackers, and campers. Facilities at the Outlaw Cave Campground include a half dozen camping spaces with picnic tables and fire rings and a single vault outhouse. The campground is often occupied by large groups, including family reunions and scout groups, on weekends during the summer. The Middle Fork Powder River Management Area is one of the few large tracts of public land with public access in the region. Thus, the area is a major draw for hunters in Deer Region Y and Elk Area 33. The Ed O. Taylor Wildlife Management Area (WMA), managed by WGFD, also boasts excellent hunting opportunities. The Ed O. Taylor is currently closed to human presence from Dec 15-May 1 annually to protect wintering elk.

Traffic counter data suggests that more than 90% of visitors to the eastern side of the Middle Fork Management Area currently drive to the Outlaw Cave Campground. Due to the route degradation, campers and trailers must generally park or stage at Fishing Access #1. Fishing Access #1 generally has human waste and small amounts of litter present from parties that camp at the location.

Trail register information indicates that visitors have diametrically opposing mindsets regarding the experience. Anonymous visitor comments range from a general desire to leave the area in a primitive condition and enjoyment of the challenging drive to threatening statements regarding the BLM's failure to maintain the access road to standards. While BLM is not aware of any car accidents along the road, Johnson County Search and Rescue has responded to two emergencies in Middle Fork Canyon in the past four years and emergency response time is directly related to road conditions. Clearly, BLM intends to continue to manage the Middle Fork Management Area as a primitive area while providing for human safety to the public facilities.

The Buffalo Resource Management Plan revision in 2001 carried over previous planning efforts for off road vehicle (ORV) management in the Buffalo Field Office (BFO), which mandated that:

- 3,038 acres within the Middle Fork Canyon are closed to “travel by vehicles, including snowmobiles.”
- On 30,640 acres in the Middle Fork Management Area, motor vehicle “use is limited to designated roads and vehicle routes.”
- On 6,800 acres in “a portion of the Middle Fork Management Area”...“vehicle travel is closed to all motor vehicles including snowmobiles from December 1 to April 15.” (Note: these acres constitute BLM-administered surface within the Ed O. Taylor WMA and dates maybe extended in the Fall/Winter to accommodate changes in the hunting season dates set by WGF.)

The Buffalo Field Office designated routes in the area through the Middle Fork Powder River Travel Management Plan (BLM 2004a). Most routes are currently signed under the white arrow system; additional travel management planning and updated signage will take place during the implementation stage of the Buffalo RMP Revision currently in progress. The decision for BLM Road 6217 states, “[t]his road is the public access road to Outlaw Cave campground, the [Ed O. Taylor] and the Hazelton Road. It would remain open.” The proposed action does not include any new travel management planning decisions. Therefore, travel management will not be discussed further within this document.

The project area is upslope of the segment of the Middle Fork Powder River that is suitable and eligible for Wild and Scenic River designation. The entire project is outside of the river corridor. The nature of the project does not affect the free-flowing condition or outstandingly remarkable values. There is no impact from the proposal on Wild and Scenic river resources, thus, this resource will not be discussed further.

### **3.7 Visual Resources**

The trail construction project area is currently classified as Visual Resource Management (VRM) Class II (BLM, 2001). The objective of VRM Class II is to retain the existing character of the landscape, thus projects should not be noticeable to the casual viewer. The project area is located approximately 2 miles west of multiple residences. Human modification is apparent to the landscape in adjacent areas to the east, which are predominately private lands. Fencelines and driveways are also present within the viewshed. Portions of the existing BLM Road 6217 are intermittently visible to vehicles traveling on the Bar C Road or nearby residents.

The BFO Visual Resources Inventory describes the South Big Horns area as “A large-scale panoramic landscape [with]...massive, rolling mountain forms with deep drainages, patches of timber, sage, and lush grassland.” (BLM 2010a). The landforms were classified as light brown to buff-colored and the conifers as Yuma Green, grass as light green or sage gray to blue-gray depending on the season.

### **3.8 Range Management**

The proposed and existing road segments both fall entirely in the 7,752 acre Slope BLM grazing allotment (No. 02371) managed for cattle grazing.

## **4. ENVIRONMENTAL EFFECTS**

The no action alternative received analysis in the 1985 Buffalo Final Environmental Impact Statement (FEIS), see summary, Record of Decision for the FEIS and Resource Management Plan (RMP) for the Buffalo Resource Area, (BLM, 1985), pp. 3 to 4. This description is incorporated here by reference. As shown in Figure 1, 2 and 3 above, this section of BLM Road 6217 currently contributes to environmental degradation of a fragile landscape. Over the years, maintenance needs have exceeded use through this section resulting in trail “creep” or braiding with as many as 6 abandoned alignments visible from the road way. This has also compromised BLM’s ability to properly mitigate and control erosion. The location of this road segment presents the shortest route between fishing access #2 and Outlaw Cave campground, however the grade and cross slope combined with a large water shed above this section make for a poor road site. Runoff concentrates on this road section and accelerates as it travels down slope resulting in the accelerated erosion observed. Repairing the damaged areas would be short lived as the site remains vulnerable to the circumstances that have resulted in the rilling and gulying observed today.

### **4.1 Effects of the Proposed Action on Soils, Ecological Sites and Vegetation**

The most notable impacts would occur in association with the road construction. Construction requires grading and leveling, with the greatest level of effort required on more steeply sloping areas. Construction activities mix the soil profiles with a corresponding loss of soil structure. Mixing may result in removal, dilution, or relocation of organic matter and nutrients to depths where it would be unavailable for vegetative use. Less desirable inorganic compounds such as carbonates, salts, or weathered materials could be relocated and have a negative impact on revegetation.

Soils compaction results from the road construction, continued vehicle and foot/hoof traffic. Factors affecting compaction include soil texture, moisture, organic matter, clay content and type, pressure exerted, and the number of passes by vehicle traffic or machinery. Compaction leads to a loss of soil structure; decreased infiltration, permeability, and soil aeration; as well as increased runoff and erosion. Increased erosion can lead to a decrease in soil fertility and an increase in sedimentation. The duration and intensity of these impacts would vary according to the type of construction activity to be completed and the inherent characteristics of the soils to be impacted.

The potential for erosion would increase through the loss of vegetation cover and soil structure as compared to an undisturbed state. Soil productivity would decrease, primarily as a result of profile mixing and compaction along with the loss in vegetative cover. These impacts would begin immediately as the soils would be subjected to grading and construction activities and impacts would continue for the term of operations. The impacts on soils would move to a steady state as construction activities were completed and the road begins to receive traffic use.

Impacts to biological crusts, singly or in combination, could increase the potential for valuable soil loss, reduction in soil quality, invasive/noxious/poisonous plant spread, invasion and establishment, and increased sedimentation and salt loads to the watershed system, if applicable mitigation measures are not used.

The main impact to biological soil crusts would be during the construction of the road, the benefit of the proper functioning road would be less impact to the biological soil crusts from the increased surface disturbance through vehicle traffic off the intended road surface, and increased impacts from the excessive soil erosion from the existing conditions.

#### **4.1.1 Soils Susceptible to Erosion**

The proposed all weather access road has minimal cuts/fills across relatively flat terrain. The construction of the road will meet Bureau standards. The road will be completed, including any culverts and required surfacing, before use in order to protect erodible soils. By rerouting the road to the new alignment with the slope and aspect complimentary of a road that sheds runoff combined with sound construction practice the implementation of appropriate best management practices, impacts will be reduced substantially.

Areas that are difficult to reclaim include drastically disturbed sites, where the parent material is very shallow (typically less than 10 inches deep). This is the case found with the existing road damage and its impact to the soils. The new road location will be minimally disturbed, have water control structures constructed, and the appropriate surface roughing to prevent erosion and control runoff. Constructed access roads are to be shaped and surfaced with aggregate to accommodate runoff and minimize soil erosion. Slope length and steepness are components in defining water erosion potential thus creating a highly erosive site to wind and water erosion. Sound construction technique implementing lateral drains and appropriately spaced slope breakers in addition to expedient stabilization will be used to maintain soil stability.

#### **4.1.2 Vegetation**

The proposed action could impact the plant communities that occur on the site and the transition between the communities. Other impacts anticipated to occur include those in the direct and indirect effects listed above under soils section. Direct effects to ecological sites would occur from ground disturbance caused by road construction. Short term effects would occur where vegetated areas are disturbed but the initial disturbance is reclaimed (within 2 years). Long-term effects would occur where the road results in vegetation loss and prevents reclamation for the life of the road.

Authorizations for surface disturbing actions are based upon the assumptions that a disturbance can ultimately be successfully reclaimed. All disturbed soil is expected to be reclaimed immediately following construction. The existing route will be reclaimed at the time the new route is complete and open to traffic.

#### **4.1.3 Reclamation Potential**

The soil depth identified in the SSURGO data ranges from 20 to 40 inches deep (A and B Horizons) along the proposed road; an adequate depth to isolate or buffer the rooting zone from the C and Cr soil horizons that inhibit plant growth. The predicted cut depth does not exceed the identified soil depth, thus avoiding C and Cr horizons which are described as “little affected by pedogenic processes”, or unaltered parent material. During the construction process, the topsoil A Horizon will be stripped and the underlying soil horizons will be inverted and mixed. During the construction process, this material is mixed and exposed to the surface creating an opportunity to contaminate surface soil. Topsoil depth distributed over this parent material will be greater than 10 inches; a well buffered rooting zone. Suitable topsoil and subsoil material to an adequate depth is required to support desired vegetation. The proposed and existing access roads lie over the soils rated as poor topsoil or reclamation source material due to their shallow depth to parent material. Minimizing the overall foot print as well as depth of excavation to the suitable soil will mitigate adverse effects to soils due to mixing.

Reclamation and restoration of the existing route will mitigate the adverse impacts ongoing along the existing route. BLM has developed a seed mix to be used on the federal surface that complements the native plants species composition and richness associated with the site specific soil type. The BLM will evaluate reclamation success using the requirements in the BLM State Wide Reclamation Policy found at: <http://www.blm.gov/wy/st/en/programs/reclamation>. These actions would notably reduce intensity of the

impacts to soils as well as the estimated time it would take to return the disturbed soils to a stable and productive state.

Most soil disturbances would be short term impacts (less than 2 years) with expedient interim reclamation and site stabilization to be implemented immediately following road construction activities. Full reclamation of the existing road segment would be concurrent with interim reclamation. It needs to be stressed that the site selection and road design of the proposed route are the result of BLM considering the best location to accommodate a newly constructed route that minimizes the impacts to soils and vegetation while providing a safe route requiring minimal maintenance.

#### **4.2 Surface Water**

This project should not affect any springs as none are known in the area. Re-routing the access road with a road designed to shed runoff rather than collect it, combined with reclamation of the existing road segment, will prevent further sediment from reaching the river.

Implementation of sound road construction practices and the appropriate application of storm water control measures will minimize impacts to surface water. Residual effects include those associated with reduced surface water quality due to loss of vegetation and increased erosion and sediment flow from construction sites.

#### **4.3 Fire, Fuels and Forestry**

Development of an all-weather access road, Alternative B, will be a positive affect for fire, fuels and forestry. It supports access into the Middle Fork Management Area for ongoing fire/fuels management and future fire suppression efforts as well as to improve wildlife habitat and promote forest health.

#### **4.4 Effects of the Proposed Action on Cultural Resources**

BLM policy states that a decision maker's first choice should be avoidance of historic properties (BLM Manual 8140.06(C)). If historic properties cannot be avoided, mitigation measures must be applied to resolve the adverse effect. No historic properties will be impacted by the proposed project. Following the *State Protocol Between the Wyoming Bureau of Land Management State Director and The Wyoming State Historic Preservation Officer*, Section V(E)(iv) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 11/12/2014 that no historic properties exist within the area of potential effect (APE). If any cultural values (sites, features or artifacts) are observed during operation, they will be left intact and the Buffalo Field Manager notified. If human remains are noted, the procedures described in Appendix L of the PRB FEIS must be followed. Further discovery procedures are explained in Standard COA (General)(A)(1) and in Appendix K of the Wyoming Protocol.

#### **4.5 Effects of Proposed Action on Wildlife, Sensitive, and Threatened/Endangered Species**

##### **4.5.1 Wildlife Threatened, Endangered, Proposed and Candidate Species**

##### **4.5.1.1 Threatened and Endangered Species**

Based on the last USFWS species list for the Buffalo Field Office, dated July 22, 2011, the Ute Ladies'-tresses Orchid is the only listed species requiring an effects determination (ESA Section 7 (2)). Limited potential habitat is present in the project area; however, no surface disturbance is planned in any areas with potential habitat. Implementation of the proposed project will have "no effect" on ULT.

##### **4.5.1.2 Candidate Species (Greater sage-grouse)**

The proposal area is not within 0.6 miles of suitable nesting habitat. The new road alignment lies in sparse dry herbaceous grassland with a shrub component; that shrub being black sagebrush. Black sagebrush is primarily found in low desert scrub communities in valley bottoms or on sparsely vegetated mountain slopes. Black sagebrush dominated communities typically have an abundance of bare ground

between plants with few forbs. Big sage brush is absent from the project area and total sagebrush canopy cover is less than 10%.

Reclamation of the existing road will not cause fragmentation of sagebrush stands or direct loss of GSG habitat as suitable habitat was lost in the 2006 Outlaw 2 fire. Noise and human disturbance associated with road construction and reclamation may be disruptive to GSG however implementation of the project will not adversely impact nesting habitat. It is likely that GSG will avoid the immediate area due to disruptive activity but breeding and nesting will not be affected as construction and reclamation activities will occur after the breeding and nesting seasons.

Alternative B and the mitigation measures applied are consistent with current BLM and Wyoming GSG conservation strategies, Executive Order (EO) 2011-5 and the anticipated effects are within the parameters of the 2003 PRB FEIS/ROD. Appendix C, p. 31-32, includes a copy of the Disturbance Density Calculation Tool (DDCT) showing that the project will exceed the 5% disturbance cap set by EO 2011-5. The attached e-mail message provided by WGFD (Appendix D, p. 33) states concurrence with BLM's finding that the proposed project will not negatively affect GSG populations warranting an exception from EO 2011-5.

Note that nesting sage-grouse hens may be disturbed from the noise during construction and reclamation activities. A timing stipulation has been included to mitigate this potential occurrence.

Reclamation: Reclamation should re-establish native grasses, forbs and shrubs during interim and final reclamation to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to benefit sage-grouse and replace or enhance sage-grouse habitat to the degree that environmental conditions allow. Seed mixes should include two native forbs and two native grasses with at least one bunchgrass species.

#### **4.5.2 Big Game**

The 1985 and 2001 RMPs discuss impacts, including direct and indirect effects, cumulative effects, and residual effects to big game. Long term disturbance would be direct habitat loss. Short-term disturbances also result in direct habitat loss; however, they should provide some habitat value as these areas are reclaimed and native vegetation becomes established.

In addition to the direct habitat loss, big game would likely be displaced from the project area during drilling and construction. Big game animals are expected to return to the project area following construction and reclamation activities. The cumulative effects associated with Alternative B are within the analysis parameters and impacts described in the PRB FEIS. For details on expected cumulative impacts, refer to the PRB FEIS, p. 4-181 to 4-215.

#### **4.5.3 Raptors**

This project not will result in disturbance to any known nesting raptors. Direct impacts will be avoided with clearance surveys; if nesting behavior is observed within 0.5 miles of the project, disruptive activities will cease until the nest is no longer active. Indirect habitat losses will reduce habitat effectiveness. The cumulative effects associated with Alternative B are within the analysis parameters and impacts described in the RMP.

#### **4.5.4 Migratory Birds**

The PRB FEIS discussed direct and indirect effects to migratory birds on pp. 4-231 to 4-235. The PRB FEIS states on p. 4-231, "Surface disturbance associated with construction, operation, and abandonment of facilities, including roads, has the potential to result in direct mortality of migratory birds. Most birds would be able to avoid construction equipment; however, nests in locations subject to disturbance would

be lost, as would any eggs or nestlings.” Direct mortality of a bird or destruction of an active nest due to construction activities could result in a “take” as defined (and prohibited) by the MBTA, a nondiscretionary statute, and in turn a violation of the law.

Migratory bird species nest in the spring and summer and are vulnerable to the same effects as GSG and raptor species. The cumulative effects associated with Alternative B are within the analysis parameters and impacts described in the PRB FEIS. For details on expected cumulative impacts, refer to the PRB FEIS, p. 4-235.

Nesting in Brewer’s sparrows (a BLM SSS) typically occurs mid-May to mid-July. Some young fledge in late July. Sage thrashers (BLM sensitive species) may lay a second clutch of eggs as late as mid-July. Lark sparrows in northern latitudes lay eggs from early May to mid-July (information on breeding habits available on the Birds of North America Online website: <http://bna.birds.cornell.edu/bna>).

To reduce the likelihood of a “take” under the MBTA, construction and reclamation (vegetation removal) will occur outside of the breeding season for the greatest quantity of BLM sensitive passerines (May 1-July 31) where suitable nesting habitat for sagebrush obligates is present. This restriction would apply to habitat removal May 1-July 31.. If surveys are conducted, the BLM biologists will follow 2013 BFO Sage-brush Obligate BLM Sensitive Migratory Bird Nest Search Protocol; See the BLM -BFO website: [http://www.blm.gov/wy/st/en/field\\_offices/Bufalo/wildlife.htm](http://www.blm.gov/wy/st/en/field_offices/Bufalo/wildlife.htm)

#### **4.6 Effects of the Proposed Action on Recreation Resources**

The proposed action would afford additional public access and facilitate improved recreational opportunities in the Middle Fork region. Road improvement is likely to increase the amount of use at Outlaw Cave as the current state of the route detracts potential visitors without high-clearance 4WD vehicles. The main access road would be upgraded to accommodate all weather use however high clearance vehicle would still be advised for access to campsites and other recreational opportunities on BLM administered surface and allow visitors easier access to the Ed O. Taylor WMA. Drainage features would improve the safety of visitors along the main access road. Reclamation of the existing channeled and braided route would protect other resource values.

Improving the road will allow visitors to access the existing vault toilet at the Outlaw Cave Campground and should reduce the amount of human waste that periodically collects at Fishing Access #1. The route improvement will also facilitate maintenance activities at the campground, including sanitation and pumping of the vault toilet.

The primary activities at the Middle Fork Management Area would likely continue to be fishing, hunting, camping, and hiking. Opportunities for solitude and public perception of visitor services at the Middle Fork Management Area are expected to improve overall.

#### **4.7 Effects of the Proposed Action on Visual Resources**

BLM Road 6217 is visible viewed from distances between 2-5 miles from public access routes, but generally does not attract the attention of the casual observer from such distances. Short-term disturbance associated with reclamation of the re-routed road will affect color, but should be unnoticeable after 2-3 growing seasons.

The visual resources will be impacted in the long-term by construction of the new road and in the short-term by reclamation activities on the re-routed portion of the existing road. Grading and gravel associated with parking lot construction could affect natural color, line and form over the long-term. However, the overall impact of re-routing the road will not produce a net effect greater than the current visual impacts; in fact the re-routed portion of the road will be less visible from the Bar C Road and nearby residences as

the natural topography will shield the route. A Visual Contrast Rating (VCR) determined that the proposal will conform with VRM Class II Objectives (BLM, 2015c ).

Adherence with BLM applied design features addressing these visual contrasts should minimize visual resource impacts from re-routing BLM Road 6217 and keep the project within the visual resource management Class II requirements. The reclamation plan will include landscaping components to blend with the natural environment and prevent weed infestation.

#### **4.8 Effects of the Proposed Action on Rangeland Management**

Alternative B is unlikely to have any noticeable effect on livestock grazing management. There are no proposed changes to the number of livestock or seasons of use under this EA.

#### **5.0 Mitigation**

1. Maintenance needs will be determined following seasonal monitoring and scheduled annually.
2. Road construction will adhere to BLM 9113 Manual for Road Standard.
3. The BLM will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project. Use of pesticides shall comply with the applicable Federal and State laws.
4. The BLM authorized officer has approved a pesticide use permit (PUP). The PUP includes a written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and other information deemed necessary by the authorized officer.
5. To protect crucial winter elk and mule deer range, no construction or maintenance will be permitted between November 15th and April 30th each year
6. Three raptor nest surveys shall be conducted by a BLM biologist following BLM protocol, between April 15 and June 30. If a survey identifies active raptor nests, a 0.5 mile timing buffer will be implemented. The timing buffer restricts surface-disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.
7. Prior to removal of habitat supporting BLM sensitive migratory bird species during the migratory bird nesting season (May 1 – July 31), an avian nesting survey will be performed by a BLM biologist to confirm an absence of nesting birds in the disturbance area.
8. In order to reduce the likelihood that noise, construction, and human disturbance impact nesting GSG, BLM will implement will implement the following restrictions consistent with EO 2011-5
  - a. Activity will be allowed from July 1 to March 14 outside of the 0.6 mile perimeter of a lek in core areas where breeding, nesting and early brood-rearing habitat is present.
  - b. Locate main roads greater than 1.9 miles from the perimeter of occupied sage-grouse leks.
  - c. Vegetation removal should be limited to the minimum disturbance required by the project. All topsoil stripping and vegetation removal in suitable habitat EO 2011-5 will occur between July 1 and March 14 in areas that are within 4 miles of an occupied lek.
  - d. Reclamation should re-establish native grasses, forbs and shrubs during interim and final reclamation to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to benefit sage-grouse and replace or enhance sage-grouse habitat to the degree that environmental conditions allow. Seed mixes should include two native forbs and two native grasses with at least one bunchgrass species.
9. If any cultural values [sites, artifacts, human remains (BLM 2003a; PRB FEIS Appendix L)] are observed during implementation of the proposed action, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might

further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places;
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
- a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.

10. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.
11. Avoid construction during big game hunting season to reduce impacts to the recreating public.
12. Locally sourced gravel must be used for this project. Rock or cement that creates a strong contrast with the existing environment must not be used. All permanent above-ground structures (e.g., kiosks, fences, etc.) will be painted or stained to blend with the natural color of the landscape. If paint is used, the color must simulate a "Standard Environmental Color." The Standard Environmental Color appropriate for the project is Covert Green.

## **6.0 Coordination**

Preparers:

Jim Verplancke, Natural Resource Specialist and Wildlife Biologist

Allison Ginn, Outdoor Recreation Planner

Seth Lambert, Archeologist

Reviewers:

Tom Bills, Planning and Environmental Coordinator

Buck Damone, Lead Archeologist

Arnie Irwin, Soil Scientist

Bill Ostheimer, Supervisory Natural Resource Specialist

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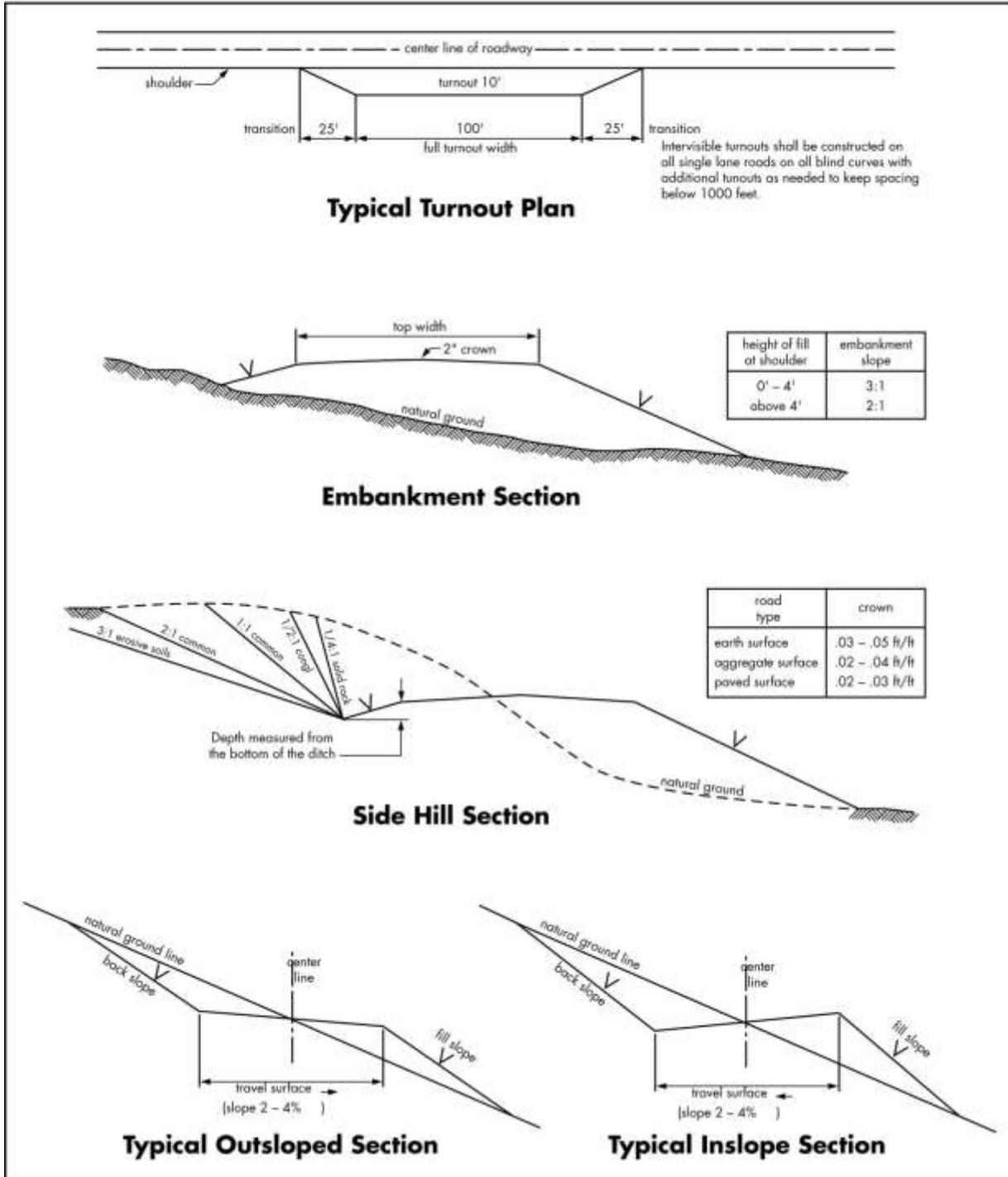
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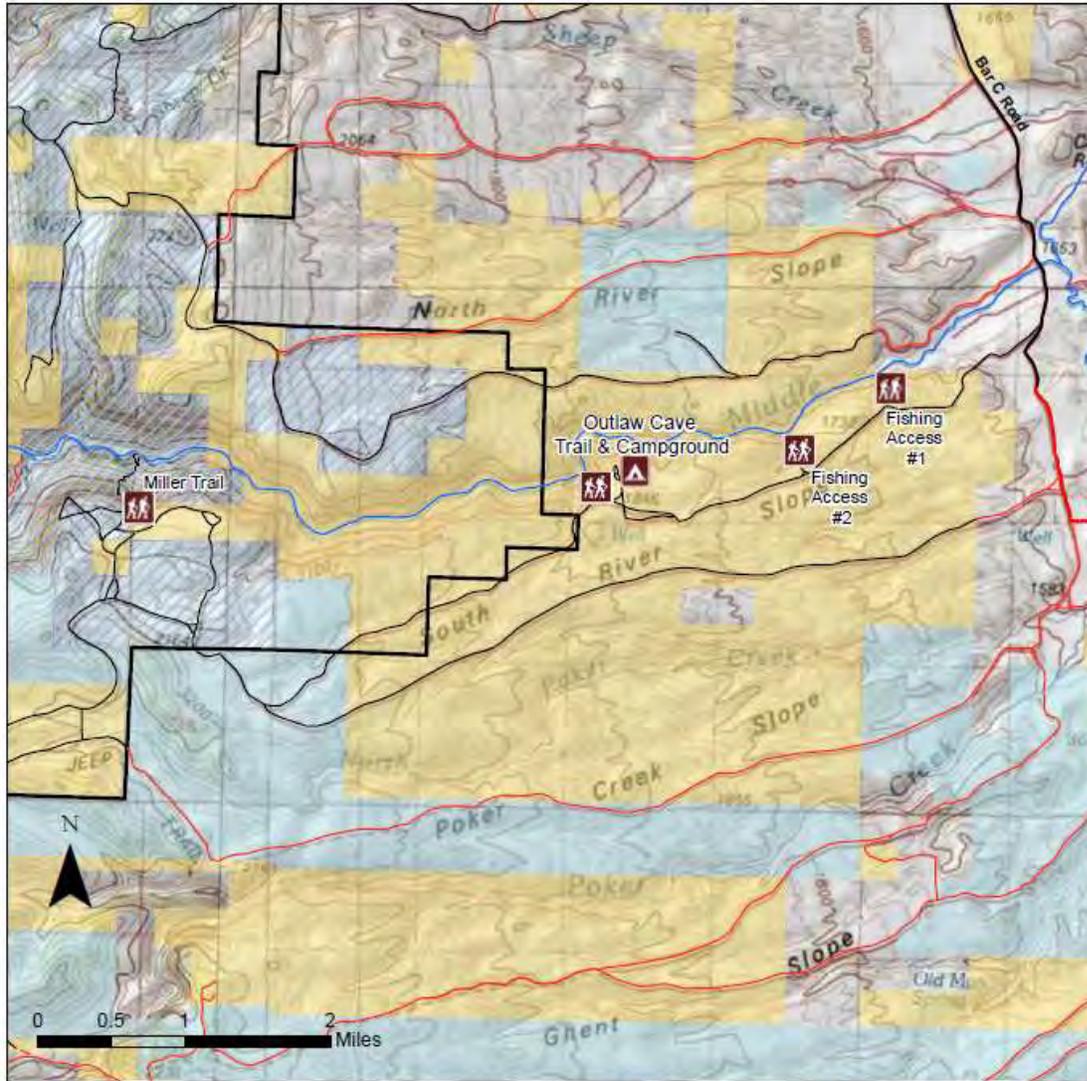
Appendix A: Road Design

**Construction Steps**

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes



## River Access in the Middle Fork Management Area



**Legend**

**Routes**

- Open to Public
- Closed to Public Motorized Use
- ▭ Ed O. Taylor Wildlife Management Area
- ▭ Bureau of Land Management
- ▭ Private
- ▭ State
- ▨ Wyoming Game & Fish Department

### Know Before You Go

The Ed. O Taylor WMA is closed December 1 - May 1 for wildlife protection.  
 Most roads are not maintained for passenger vehicles.  
 4WD vehicles are recommended.  
 Motorized travel is limited to designated routes.  
 Please respect landowners by staying off private property.  
 Non-motorized travel (foot, horse, etc.) is possible on all public lands.  
 Camping is allowed on BLM administered lands up to 14 consecutive days.  
 Camping is prohibited on State of Wyoming lands.  
 Wyoming Game and Fish permits are required for hunting and fishing activities.  
 Miller Trail Coordinates:  
 Latitude: 43.584840721731  
 Longitude: -107.014557603992

Leave plants, rocks, and artifacts in place  
 Respect wildlife by watching from afar and avoiding disturbing activities  
 Please pack out what you bring in!



Appendix C: DDCT Results  
 20150519\_1 Outlaws Cave Road Reroute

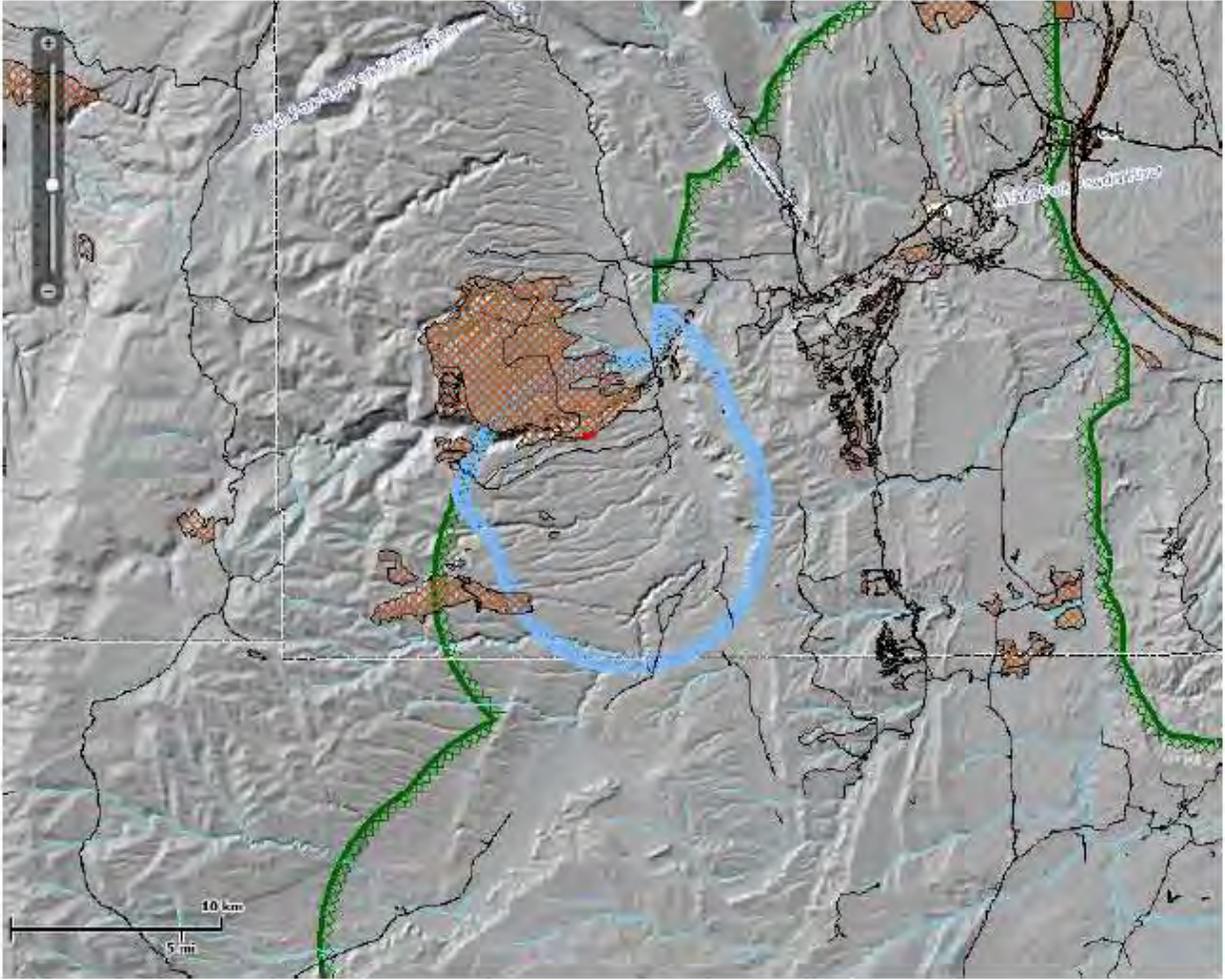
05/28/2015 jverp

Core Area: **Natrona**

Category	Acres	Percent
Overall DDCT Boundary	42,872.01	100
Total Disturbed	4,494.85	10.48
Total Undisturbed	38,377.17	89.52
Disturbed - Project Only	24.43	0.06
Disturbed - Prior to Project	4,470.41	10.43
Disruptions	0.01 Dis/640 Ac	

Owner	Total Acres	Pre-Acres	Pre-Percent	Post-Acres	Post-Percent
Bureau of Land Management	21,722.27	3,050.55	14.04	3,074.98	14.16
Private	10,668.85	793.82	7.44	793.82	7.44
State	10,480.89	626.05	5.97	626.05	5.97

LekID	Total Acres	Pre-Acres	Pre-Percent	Post-Acres	Post-Percent
C-Old Man Spring	32,162.47	1,472.76	4.58	1,497.19	4.66
C-Poker Creek	32,163.77	2,524.41	7.85	2,548.84	7.92



Appendix D: Letter from Wyoming Game & Fish Dept.

**James (Jim) Verplancke**

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**From:** Todd Caltrider  
**Sent:** Wednesday, June 03, 2015 10:51 AM  
**To:** James (Jim) Verplancke  
**Cc:** Dan Thiele  
**Subject:** Outlaw Cave road

Jim:

This road construction and reclamation of an existing road is inside a State of Wyoming sage-grouse core area,

however considering:

1. the construction of the new road will only slightly increase the the disturbance in the area due to the reclamation of the existing road. (3.6 acres of surface disturbance with road construction and 3.1 acres of reclaimed surface with road reclamation).

2. there is no suitable sage-grouse habitat present in a contiguous block of land that include at least a 0.4 mile buffer between the project and suitable habitat, and

3. the nearest sage-grouse lek (2.7 miles away), Old Man Spring Lek, has had a total of 1 birds observed at the lek the last three years.

the Wyoming Game and Fish Department does not believe this project will negatively affect sage-grouse.

—  
Todd Caltrider  
Wyoming Game and Fish Department  
Terrestrial Habitat Biologist  
P.O. Box 1099  
110 W Alden St., Apt. # 2E  
Sundance, WY 82729  
307-283-3410-O  
307-689-3327-C

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