

**EA NO-WY-070-EA10-117  
DECISION RECORD  
FOR  
Trend Exploration I, LLC**

**DECISION:** Is to approve Trend Exploration Company's White Federal 46-3 conventional well Application for Permit to Drill (APD) under Alternative B:

	<b>Well Name</b>	<b>Well #</b>	<b>Qtr/Qtr</b>	<b>Sec</b>	<b>TWP</b>	<b>RNG</b>	<b>Lease #</b>
1	White Federal 46-3	46-3	SESE	3	56N	71W	WYW-149903

For a complete description of Alternative B, see the attached EA, p. 1-3.

**Site-Specific Mitigation Measures:**

Conditions of Approval (COA's) have been applied to this project to mitigate resources impacts. In addition to the Standard COAs contained in the PRB FEIS Record of Decision Appendix A, COA's for the White Federal 46-3 well have been applied to reduce or mitigate impacts to the following resources:

- Wildlife, including sage-grouse, and raptors

**Operator Committed Measures**

The operator has committed to mitigation measures to reduce impacts to the resources potentially affected by this project. For a description of these measures, see the SUP and Drilling Program submitted with this APD.

**This approval is in compliance** with all federal laws, regulations, and policies pertaining to the affected environment. This includes, but is not limited to, the National Environmental Policy Act, the Federal Land Policy and Management Act, the National Historic Preservation Act, the Threatened and Endangered Species Act, the Migratory Bird Treaty Act, and the Resource Conservation and Recovery Act.

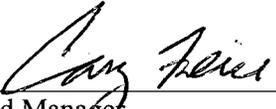
Approval of this alternative is in conformance with the *Powder River Basin Oil and Gas Project Environmental Impact Statement and Proposed Plan Amendment (PRB FEIS), Record of Decision and Resource Management Plan Amendments for the Powder River Basin Oil and Gas Project (PRB FEIS ROD)*, ((refer to Appendix E of that document relative to adaptive management), and the Approved Resource Management Plan (RMP) for the Public Lands Administered by the Bureau of Land Management, Buffalo Field Office (BFO), April 2001.

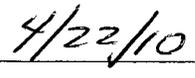
This approval is subject to adherence with operating plans and mitigation measures contained in the Surface Use Plan of Operations and Drilling Plans in the APD. This approval is also subject to operator compliance with all mitigation and monitoring requirements contained within the Powder River Oil and Gas Project Final Environmental Impact Statement and Resource Management Plan Amendment (PRB EIS) approved April 30, 2003 and adherence with the attached Conditions of Approval.

**RATIONALE:** The decision to authorize the proposed action will not result in any undue or unnecessary environmental degradation. The lessee has the right to develop their existing lease provided no significant adverse or irreversible impacts occur to critical resources. Mitigation measures from the range of alternatives were selected to best meet the purpose and need, and will be applied by the BLM to alleviate environmental impacts.

**ADMINISTRATIVE REVIEW AND APPEAL:** Under BLM regulations, this decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after this Decision Record is received or considered to have been received.

Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

  
\_\_\_\_\_  
Field Manager

  
\_\_\_\_\_  
Date

**EA NO-WY-070-EA10-117  
FINDING OF NO SIGNIFICANT IMPACT  
FOR  
Trend Exploration I, LLC**

**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 determination that: (1) the implementation of the Proposed Action will not have significant environmental impacts beyond those already addressed in PRB EIS to which the EA is tiered; (2) the Proposed Action is in conformance with the Buffalo Field Office Resource Management Plan; and (3) the Proposed Action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing 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.

  
\_\_\_\_\_  
Field Manager

  
\_\_\_\_\_  
Date

**BUREAU OF LAND MANAGEMENT  
BUFFALO FIELD OFFICE  
ENVIRONMENTAL ASSESSMENT  
Trend Exploration I, LLC  
EA # WY-070-EA10-117**

**1. INTRODUCTION**

This site-specific analysis tiers into and incorporates by reference the information and analysis contained in the *Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project* (PRB FEIS), #WY-070-02-065 (approved April 30, 2003), and the PRB FEIS Record of Decision (ROD) pursuant to 40 CFR 1508.28 and 1502.21. This document is available for review at the BLM Buffalo Field Office (BFO). This project environmental assessment (EA) addresses site-specific resources and impacts that were not covered within the PRB FEIS.

**1.1. Purpose and Need**

The purpose of the proposed action is to explore, develop and produce oil and gas reserves conducted under the rights granted by a Federal oil and gas lease, as required in 43 CFR 3160, all Onshore Orders, and The Mineral Leasing Act, as amended and supplemented, (30 U.S.C. 181 *et seq.*).

The need for the action is the requirement to obtain approval for the development of an Oil and Gas Lease through an Application for Permit to Drill (APD) on public lands managed by the Bureau of Land Management under Onshore Order No. 1, pursuant to the authority of the Mineral Leasing Act, as amended and supplemented, (30 U.S.C. 181 *et seq.*) and prescribed in 43 CFR Part 3160.

Decision to be Made: The BLM will decide whether or not to approve the proposed development of oil and gas resources on the federal leasehold referred to as Carr Draw Federal POD IV, and if so, under what terms and conditions.

**1.2. Conformance with Applicable Land Use Plan and Other Environmental Assessments:**

The proposed action conforms to the terms and the conditions of the 1985 Buffalo RMP, the 2001 Approved RMP, the 2003 PRB FEIS, and the PRB FEIS ROD as required by 43 CFR 1610.5. The BFO RMP is currently under revision.

**2. ALTERNATIVES INCLUDING THE PROPOSED ACTION**

**2.1. Alternative A - No Action**

This alternative would consist of no new federal wells. The Department of Interior's authority to implement a "no action" alternative that precludes development is limited. An oil and gas lease grants the lessee the "right and privilege to drill for, mine, extract, remove, and dispose of all oil and gas deposits" in the lease lands, "subject to the terms and conditions incorporated in the lease." The No Action Alternative is further described in the PRB FEIS, Volume 1, pages 2-54 through 2-62.

**2.2. Alternative B Proposed Action**

**OPERATOR/APPLICANT: Trend Exploration I, LLC**

**PROJECT NAME:** Trend Well: White Federal 46-3

The proposed action is to drill one conventional oil well. The action would be subject to the attached Conditions of Approval, for drilling of an oil well on private surface/federal mineral lands within the Buffalo Field Office jurisdiction. For more detail on project area access, design features and construction practices of the proposed action, refer to the Master Surface Use Plan (MSUP) in the Plan of

Development (POD). The plan has been written and reviewed to ensure that environmental impacts to both surface and subsurface resources are eliminated or minimized. Also see the individual APD for a map showing the proposed access road, existing roads and well location.

**Well Location:**

<b>Well Name &amp; Number</b>	<b>QTR</b>	<b>Sec.</b>	<b>T</b>	<b>R</b>	<b>Total Depth</b>
White Federal 46-3	SESE	3	56N	71W	9000 ft

The proposed action involves:

<b>Activity</b>	<b>Length (feet)</b>	<b>Width (feet)</b>	<b>Acres of Disturbance</b>
Federal 46-3 Constructed Pad/Tank Battery	325	190	1.4
Cut/fills & Topsoil/spoil stockpiles	Varies	Varies	.34
Trend Federal 46-3 Access Road	1320	35	1.1
<b>Total Disturbance for Trend Federal 46-3</b>			<b>2.8</b>

Note: if well is a producer, 0.7 miles of existing primitive road will be upgraded to a template design road and the location will be used for a tank battery facility. For specifics, refer to the Master Surface Use Plan (MSUP) in the Plan of Development (POD).

The proposed well location requires the construction of an engineered (cut & fill) well pad, one section of constructed road. The total surface disturbance associated with the construction of this location and road will be approximately 2.8 acres. These figures include disturbance associated with the well pad, the spoil and topsoils storage areas, and the construction equipment and vehicle disturbance. The access road will be constructed to meet the standards of the anticipated traffic flow and all-weather requirements. Road construction will include ditching, draining, graveling, and crowning of the roadbed.

Drilling and construction activities are anticipated to be completed within two years, the term of an APD. Drilling and construction occurs year-round in the PRB. Weather may cause delays lasting several days but rarely do delays last multiple weeks. Timing limitations in the form of COAs and/or agreements with surface owners may impose longer temporal restrictions on portions of this project.

**AFFECTED SURFACE OWNERS:**

Earl Boardman
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For contact information refer to the Master Surface Use Plan (MSUP) in the Plan of Development (POD).

**COUNTY:** Campbell

For a detailed description of design features, construction practices associated with the proposed action, refer to the Surface Use Plan (SUP) and Drilling Plan with the APD. Also see the subject APD for maps showing the proposed well locations and associated facilities described above.

Implementation of committed mitigation measures contained in the SUP and Drilling Program, in addition to the Standard COAs contained in the PRB FEIS Record of Decision Appendix A, are incorporated and analyzed in this alternative.

Additionally, the Operator, in their APD, has committed to:

1. Comply with all applicable Federal, State and Local laws and regulations.
2. Obtain the necessary permits from other agencies for the drilling, completion and production of this well including water rights appropriations, and relevant air quality permits.
3. The Operator has certified that a Surface Use Agreement has been reached with the Landowner.

4. The Operator has certified that a copy of the SUP has been provided to the relevant Landowner.

**Description of Mitigation Measures (applied as Conditions of Approval):**

The operator is responsible for the COAs attached to this EA and will be issued an Incident of Non-Compliance if found to be in violation of any COA.

**2.2.1. Wildlife**

Wildlife species are dynamic and new individuals may have moved into the White Federal 46-3 project area after the initial wildlife surveys were completed. The Record of Decision for the PRB FEIS includes a programmatic mitigation measure that states, “The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time”. The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by January 15, and surface disturbance is planned for that year, a Trend Exploration I, LLC company representative will coordinate with the BLM to discuss required surveys.

***Greater Sage-grouse***

1. Surface disturbing activities are prohibited between March 1 and June 15. This condition will be implemented on an annual basis for the duration of surface disturbing activities.

***Raptors***

2. The following condition of approval will alleviate impacts to raptors:  
Surveys to document nest occupancy shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. 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.

**I. Programmatic mitigation measures identified in the PRB FEIS ROD**

Programmatic mitigation measures are those, determined through analysis, which may be appropriate to apply at the time of APD approval if site specific conditions warrant. For a complete list of Programmatic COA’s, see the PRB FEIS Record of Decision.

**Wildlife**

1. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage grouse breeding activity during the sage grouse’s breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities.

**3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION & ALTERNATIVES:**

This section describes the environment that would be affected by implementation of the Alternatives described in Section 2. Aspects of the affected environment described in this section focus on the relevant major issues.

**The following are not present in the project area and will not be further analyzed:**

- Areas of Critical Environmental Concern (ACECs)
- Environmental Justice
- Prime or Unique Farmlands

Flood Plains  
Hazardous or Solid Wastes  
Native American Religious Concerns  
Paleontology  
Recreation  
Traditional Cultural Properties  
Water Quality and Prime or Sole Source of Drinking Water  
Wild and Scenic Rivers  
Wetlands and Riparian Areas  
Wilderness Values

A field inspection of the proposed well location and access road was conducted on 11/5/09. The APD were received on 01/13/10.

### **3.1. Topographic Characteristics**

The project area is located approximately 42 miles north of Gillette, Wyoming. Elevations within the project area range from 3400 to 4600 feet above sea level. The topography throughout the project area consists of ephemeral bottomlands rising to ponderosa and juniper breaks with moderate sloping ridges and draws. The climate in the area is semi-arid, averaging 15-17 inches of precipitation annually, more than 60% of which occurs between May and September. Conventional oil well development exists in the surrounding area. The majority of the surface ownership within the area is private, with livestock grazing and native hay production being other land uses within the general area.

If the proposed well is a producer, future oil and gas development could occur in the following areas: T.56N. , R.71W., Sec. 3, 4,9,10.

### **3.2. Vegetation & Soils**

Using the Natural Resource Conservation Service, (NRCS, USDA), Technical Guides for the Major Land Resource Area 58B Northern Rolling High Plains, in the 15-17" Northern Plains precipitation zone, the project area primarily consists of one ecological site, Loamy.

#### *Loamy Site description and Plant community*

This site occurs on land that is nearly level, or up to 50% slopes. Landform: Hill slopes with associated alluvial fans & stream terraces.

Two soil series were identified for this area; *oldwolf-Fairburn* loam which is found on 3-15% slopes and the *Jaywest* loam found on 0-6% slopes. These soil series for this site are deep to moderately deep (greater than 20" to bedrock), well-drained & moderately permeable. Layers of the soil most influential to the plant community vary from 3 to 6 inches thick. These layers consist of the A horizon with very fine sandy loam, loam, or silt loam texture and may also include the upper few inches of the B horizon with sandy clay loam, silty clay loam or clay loam texture.

The plant community is defined as Mixed Sagebrush/Grass with a species composition of; Green needlegrass, Western wheatgrass, Needleandthread, Big bluestem, Big sagebrush and Blue grama.

Species observed throughout the project area included: Big Sagebrush, Prairie junegrass, threadleaf sedge, bluebunch wheatgrass, blue grama, little bluestem, green needlegrass, needleandthread, cheatgrass, western wheatgrass, prairie sandreed, buckwheat, crested wheat, curly cup gumweed, prickly pear cactus, yucca, skeletonweed, wild rose, and intermediate wheatgrass. Ponderosa pine and junipers

were observed to the west of the well location (~1/2 miles). Differences in dominant species within the

project area vary with soil type, aspect and topography.

### **3.2.1. Invasive Species**

Two state-listed noxious weeds were discovered by a search of inventory maps and/or databases or during subsequent field investigation by the proposed project proponent. They are Russian knapweed and Saltcedar. They were not observed during the onsite.

Cheatgrass or downy brome (*Bromus tectorum*) and to a lesser extent, Japanese brome (*B. japonicus*) are known to exist in the affected environment. These two species are found in such high densities and numerous locations throughout NE Wyoming that a control program is not considered feasible at this time.

### **3.3. Wildlife**

The project location is off an existing two-track road 1,100 ft west from highway 59 and 1,400ft west from an active home/ranch. Wildlife species that occur in the Powder River Basin are identified in the PRB FEIS (pp. 3-113 to 3-206). A habitat assessment was performed during the NOS by a BLM wildlife biologist on November 5, 2009. During that time, the biologist evaluated impacts to wildlife resources and recommended project modifications where wildlife issues arose. The following recommended project modifications are:

- Utilize existing two-track for access to well location.
- Once well is in production, bury power source from nearby overhead power.

In addition to the onsite evaluation, BLM wildlife biologists also consulted databases compiled and managed by BLM BFO wildlife staff, the PRB FEIS, Wyoming Game and Fish Department 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 and impacts to wildlife that is known or likely to occur in the area of the proposed action.

#### **3.3.1. Big Game**

Big game species expected to be within the project area include pronghorn and mule deer. The WGFD has determined that the project area contains Yearlong range for pronghorn antelope, and Winter-Yearlong range for mule deer. The affected environment for pronghorn is discussed in pp. 3-117 to 3-122 in the PRB FEIS and for mule deer in pp. 3-127 to 3-132.

#### **3.3.2. Aquatics**

The project area is in an upland location. Produced water will be contained at a tank battery and will not reach the Powder River. Fish that have been identified in the Powder River watershed are listed in the PRB FEIS (3-156-159).

#### **3.3.3. Migratory Birds**

Migratory birds are those that migrate for the purpose of breeding and foraging at some point in the year. According to WO Instruction Memorandum No. 2008-050, BLM must include migratory birds in every NEPA analysis of actions that have the potential to affect migratory bird species of concern in order to fulfill its obligations under the Migratory Bird Treaty Act. The WGFD Wyoming Bird Conservation Plan (Nicholoff 2003) identified three groups of high-priority bird species in Wyoming: 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 otherwise of high priority but are of local interest.

Shrub-steppe vegetation dominates the project area. Many species that are of high management concern use shrub-steppe areas for their primary breeding habitats (Saab and Rich 1997). Nationally, grassland and shrubland birds have declined more consistently in the last 30 years than any other ecological

association of birds (WGFD 2009). Species that may occur in these vegetation types in northeast Wyoming, according to the Wyoming Bird Conservation Plan, are listed in the following table and are grouped by Level as identified in the Plan.

**Priority migratory bird species that occur in shrub-steppe habitats in northeast Wyoming  
(Nicholoff 2003)**

Level	Species	Wyoming BLM Sensitive
Level I	Brewer's sparrow	Yes
	Ferruginous hawk	Yes
	Greater sage-grouse	Yes
	McCown's longspur	
	Sage sparrow	Yes
Level II	Lark bunting	
	Lark sparrow	
	Loggerhead shrike	Yes
	Sage thrasher	Yes
	Vesper sparrow	
Level III	Common poorwill	
	Say's phoebe	

The affected environment for migratory birds is discussed in the PRB FEIS (pp. 3-150 to 3-153). The discussion includes a list of habitat requirements and foraging patterns for the species listed above, with the exception of common poorwills and Say's phoebes, which are discussed here.

Common poorwills inhabit sparse, rocky sagebrush; open prairies; mountain-foothills shrublands; juniper woodlands; brushy, rocky canyons; and ponderosa pine woodlands. They prefer clearings, such as grassy meadows, riparian zones, and forest edges for foraging. They lay eggs directly on gravelly ground, flat rock, or litter of woodland floor. Nests are often placed near logs, rocks, shrubs, or grass for some shade. They feed exclusively on insects, catching them by leaping from the ground or a perch, or picking them up from the ground. Say's phoebes inhabit arid, open country with sparse vegetation, including shrub-steppe, grasslands, shrublands, and juniper woodlands. They nest on a variety of substrates such as cliff ledges, banks, bridges, eaves, and road culverts and often reuse nests in successive years. They eat mostly insects and berries.

**3.3.4. Raptors**

Within a mile of the proposed project, trees, rocky outcrops, domestic livestock operations, carrion potential near the highway, and open water from the Powder River, provides nesting habitat and foraging opportunities for raptors. According to BLM records and a wildlife survey from ARCADIS outside the survey window (2009), no known raptor nest occurs within one mile of the proposed project. The affected environment for raptors is discussed in the PRB FEIS on pp. 3-141 to 3-148.

**3.3.5. Plains Sharp-tailed Grouse**

Plains sharp-tailed grouse are discussed in this document because specific concerns for this species were identified during the scoping process for the PRB FEIS. The affected environment for plains sharp-tailed grouse is discussed in the PRB FEIS on pp. 3-148 to 3-150.

WGFD records indicate 41-Shinn sharp-tailed grouse lek occurs 2.8 miles northwest of the project area.

**3.3.6. Threatened and Endangered and Sensitive Species**

**3.3.6.1. Threatened and Endangered Species**

Within the BLM Buffalo Field Office there are three species that are Threatened or Endangered under the

Endangered Species Act.

**3.3.6.1.1. Black-footed ferret**

The black-footed ferret is listed as Endangered under the ESA. The affected environment for black-footed ferrets is discussed in the PRB FEIS on pg. 3-175. A black-footed ferret population requires at least 1,000 acres of prairie dog colonies, separated by no more than 1.5 km, for survival (USFWS 1989). No known prairie dog colonies occur near the proposed project area. Black-footed ferret habitat is not present within the project area.

**3.3.6.1.2. Blowout Penstemon**

Blowout penstemon is listed as Endangered under the ESA. It is a regional endemic species with documented populations in the Sand Hills of west-central Nebraska and the northeastern Great Divide Basin of Carbon County, Wyoming. Suitable blowout penstemon habitat consists of sparsely vegetated, early successional, shifting sand dunes and blowout depressions created by wind. In Wyoming, the habitat is typically found on sandy aprons or the lower half of steep sandy slopes deposited at the base of granitic or sedimentary mountains or ridges.

The proposed project does not contain areas with these characteristics, and blowout penstemon is not expected to occur.

**3.3.6.1.3. Ute Ladies'-Tresses Orchid**

The Ute ladies'-tresses orchid (ULT) is listed as Threatened under the ESA. The affected environment for ULT is discussed in the PRB FEIS on pg. 3-175.

The PRB FEIS reported that only four orchid populations had been documented within Wyoming, but since the writing of that document, five additional sites were located in 2005 and one in 2006 (Heidel pers. comm.). The new locations were in the same drainages as the original populations, with two on the same tributary and within a few miles of an original location. Drainages with documented orchid populations include Wind Creek and Antelope Creek in northern Converse County, Bear Creek in northern Laramie and southern Goshen Counties, Horse Creek in Laramie County, and Niobrara River in Niobrara County. A WYNDD model predicts undocumented populations may be present particularly within southern Campbell and northern Converse Counties.

The proposed project area has the presence of upland vegetation and absence of perennial streams, therefore ULT habitat is not present.

**3.3.6.2. Sensitive Species**

Wyoming BLM has prepared a list of sensitive species on which management efforts should be focused towards maintaining habitats under a multiple use mandate. The goals of the policy are to:

- Maintain vulnerable species and habitat components in functional BLM ecosystems
- Ensure sensitive species are considered in land management decisions
- Prevent a need for species listing under the ESA
- Prioritize needed conservation work with an emphasis on habitat

Table 1. in chapter 4 .2.1 lists those species on the Wyoming BLM sensitive species list that, according to the PRB FEIS, may occur in the Powder River Basin Oil and Gas Project Area, which includes the project area for the White Federal #46-3 well. The table also includes a brief description of the habitat

requirements for each species and whether the species is expected to occur in the project area. The authority for the sensitive species policy and guidance comes from the Endangered Species Act of 1973, as amended; Title II of the Sikes Act, as amended; the Federal Land Policy and Management Act (FLPMA) of 1976; and the Department Manual 235.1.1A.

### 3.3.6.2.1. Greater Sage-Grouse

The affected environment for greater sage-grouse (sage-grouse) is discussed in the PRB FEIS (pg. 3-194 to 3-199). On March 23, 2010, the United States Fish & Wildlife Service (USFWS) issued a proposed rule, finding that listing the greater sage-grouse as Threatened was warranted, but precluded by other listing priorities (USFWS 2010). In addition to being listed as a Wyoming BLM sensitive species, sage-grouse are listed as a WGFD SGCN, with a rating of NSS2, because populations are declining, and they are experiencing ongoing significant loss of habitat. The Wyoming Bird Conservation Plan rates them as a Level I species, indicating they are in need of conservation action.

The BFO has taken several steps to consider the evolving information on impacts to sage-grouse which could result from oil and gas development on federal lands. These steps are detailed in the Carr Draw III E Remand EA, #WY070-09-078.

Suitable (as defined in Soehn et al. 2001) sage-grouse habitat is present in the project area. The area consists of a continuous stand of moderately dense sagebrush, characterized by approximately 20-25% canopy cover, based on an ocular estimate at the onsite. The understory is dominated by a mix of perennial and annual grass. Due to the timing of the onsite, forb cover could not be assessed.

The State Wildlife Agencies' Ad Hoc Committee for Consideration of Oil and Gas Development Effects to Nesting Habitat (2008) recommends that impacts be considered for leks within four miles of oil and gas developments. WGFD records indicate that one sage-grouse lek occurs within four miles of the project area, as well as, one sharp-tailed lek (both leks have the same name, yet different locations). The lek location is identified in the following table.

#### Sage-grouse lek within 4 miles of the project area

Name	Loction	Status
41-Shinn Lek	SENE Section 5, T56N, R71W	Active

### 3.4. Cultural Resources

Class III cultural resource inventory was performed for the 46-3 well prior to on-the-ground project work (BFO project no. 70090124). Arcadis conducted a block class III cultural resource inventory following the Archeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines (48CFR190) and the *Wyoming State Historic Preservation Office Format, Guidelines, and Standards for Class II and III Reports*. Seth Lambert, BLM Archaeologist, reviewed the report for technical adequacy and compliance with Bureau of Land Management (BLM) standards, and determined it to be adequate. The following resources are located in or near the project area.

**Table 3.1 Cultural Resources Inventory Results**

Site Number	Site Type	National Register Eligibility
48CA1473	Historic	E
48CA2064	Prehistoric	NE

### 3.5. Air Quality

Existing air quality throughout most of the Powder River Basin is in attainment with all ambient air quality standards. Although specific air quality monitoring is not conducted throughout most of the

Powder River Basin, air quality conditions in rural areas are likely to be very good, as characterized by limited air pollution emission sources (few industrial facilities and residential emissions in the relatively small communities and isolated ranches) and good atmospheric dispersion conditions, resulting in relatively low air pollutant concentrations.

Existing air pollutant emission sources within the region include following:

- Exhaust emissions (primarily CO and nitrogen oxides [NOx]) from existing natural gas fired compressor engines used in production of natural gas and CBNG; and, gasoline and diesel vehicle tailpipe emissions of combustion pollutants;
- Dust (particulate matter) generated by vehicle travel on unpaved roads, windblown dust from neighboring areas and road sanding during the winter months;
- Transport of air pollutants from emission sources located outside the region;
- Dust (particulate matter) from coal mines;
- NOx, particulate matter, and other emissions from diesel trains and,
- SO2 and NOx from power plants.

For a complete description of the existing air quality conditions in the Powder River Basin, please refer to the PRB Final EIS Volume 1, Chapter 3, pages 3-291 through 3-299.

### 3.6. Visual Resources

The entire project area is classified as Visual Resource Management Class IV under the 2001 Update of the Resource Management Plan. The objective of this class is to provide for management activities which require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention.

## 4. ENVIRONMENTAL CONSEQUENCES

### 4.1. Alternative B

#### 4.1.1. Vegetation & Soils Direct and Indirect Effects

Table 4.1 summarizes the proposed surface disturbance.

**Table 4.1 - SUMMARY OF DISTURBANCE**

Facility		Factor	Disturbance (acres)	Duration
Well Pad(s)	325'L x 190'W	W*L/43560 Acre	1.4	Long Term
Improved Roads	1320 '	35' Corridor	1.0	Long Term

The designation of the duration of disturbance is defined in the PRB FEIS (pg 4-1 and 4-151). “For this EIS, short-term effects are defined as occurring during the construction and drilling/completion phases. Long-term effects are caused by construction and operations that would remain longer”.

#### 4.1.2. Invasive Species

The operator has committed to the control of noxious weeds and species of concern using the following measures identified in their MSUP;

1. spraying

Cheatgrass or downy brome (*Bromus tectorum*) and to a lesser extent, Japanese brome (*B. japonicus*) are known to exist in the affected environment. These two species are found in such high densities and

numerous locations throughout NE Wyoming that a control program is not considered feasible at this time.

The surface disturbance associated with construction of proposed access road and well location and vehicular traffic will present opportunities for weed invasion and spread. The activities related to the performance of the proposed project would create a favorable environment for the establishment and spread of noxious weeds/invasive plants such as salt cedar, Canada thistle and perennial pepperweed. However, mitigation as required by BLM applied COAs will reduce potential impacts from noxious weeds and invasive plants.

## **4.2. Wildlife (Alternative C – Environmentally Preferred) EFFECTS ANALYSIS**

### **4.2.1. Big Game**

Impacts to big game are discussed in the PRB FEIS on pp. 4-181 to 4-215. As discussed in that document, impacts to mule deer and pronghorn may occur through alterations in hunting and/or poaching, increased vehicle collisions, harassment and displacement, increased noise, increased dust, alterations in nutritional status and reproductive success, increased fragmentation, loss or degradation of habitats, reduction in habitat effectiveness, and declines in populations.

### **4.2.2. Migratory Birds**

Direct and indirect effects to migratory birds are discussed in the PRB FEIS (pp. 4-231 to 4-235). More recent research suggests that impacts will occur. Ingelfinger (2004) identified that the density of some breeding bird species declined within 100 m of dirt roads within a natural gas field. In the study, the density of Brewer's sparrows declined by 36%, and the density of breeding sage sparrows declined by 57%. Effects occurred along roads with light traffic volume (<12 vehicles per day). The increasing density of roads constructed in developing natural gas fields exacerbated the problem creating substantial areas of impact where indirect habitat losses through displacement were much greater than the direct physical habitat losses. Though no timing restrictions are typically applied specifically to protect migratory bird breeding or nesting, sage-grouse timing limitations will also protect nesting migratory birds.

### **4.2.3. Raptors**

Direct and indirect effects to raptors are discussed in the PRB FEIS (pp. 4-216 to 4-221). An ARCADIS biologist conducted a general habitat assessment on September 9, 2009 and no known raptor nests were present within the project area during that time (ARCADIS 2009). Habitat within the area has potential to support raptor nesting activity. To reduce potential impacts to breeding raptors, a timing stipulation for no surface disturbing activity during breeding season will be applied to the project as a condition of approval until raptor nest surveys are complete. If an active nest is identified within a biological buffer of the proposed project, then surface disturbing activities will not be permitted from February to July 15. No impacts are expected.

### **4.2.4. Plains Sharp-tailed Grouse**

Direct and indirect effects to sharp-tailed grouse are discussed in the PRB FEIS (pp. 4-221 to 4-226).

### **4.2.5. Threatened and Endangered**

Within the BLM Buffalo Field Office there are three species that are listed as Threatened or Endangered under the Endangered Species Act (ESA).

Potential project effects on Threatened and Endangered Species were analyzed and a summary is provided below in the following table:

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<i>Endangered</i>				
Black-footed ferret ( <i>Mustela nigripes</i> )	Black-tailed prairie dog colonies or complexes > 1,000 acres.	NP	NE	No suitable habitat present.
Blowout penstemon ( <i>Penstemon haydenii</i> )	Sparsely vegetated, shifting sand dunes	NP	NE	No suitable habitat present.
<i>Threatened</i>				
Ute ladies'-tresses orchid ( <i>Spiranthes diluvialis</i> )	Riparian areas with permanent water	NP	NE	No suitable habitat present.
<p><b>Presence</b>  <b>K</b> - Known, documented observation within project area.  <b>S</b> - Habitat suitable and species suspected, to occur within the project area.  <b>NS</b> - Habitat suitable but species is not suspected to occur within the project area.  <b>NP</b> - Habitat not present and species unlikely to occur within the project area.</p> <p><b>Project Effects</b>  <b>LAA</b> - Likely to adversely affect  <b>NE</b> - No Effect  <b>NLAA</b> - May Affect, not likely to adversely affect individuals or habitat.</p>				

#### Presence

**K** Known, documented observation within project area.

**S** Habitat suitable and species suspected, to occur within the project area.

**NS** Habitat suitable but species is not suspected to occur within the project area.

**NP** Habitat not present and species unlikely to occur within the project area

#### *Project Effects*

**LAA** Likely to adversely affect

**NE** No Effect.

**NLAA** May Affect, not likely to adversely affect individuals or habitat.

The cumulative effects associated with Alternative C are within the analysis parameters and impacts described in the PRB FEIS. For details on expected cumulative impacts, please refer to the referenced PRB FEIS, Volume 2, Chapter 4, page 4-271.

#### 4.2.5.1. Ute-Ladies Tresses Orchid

BLM Wildlife biologist did not observe any potential habitat within the project area, therefore a survey was not required and the proposed undertaking should have "no effect" on the Ute Ladies'-Tresses Orchid.

#### 4.2.5.2. Blowout Penstemon

The primary vegetation around the well location is sweet clover and sage brush, no sand dunes, blowouts, or large sand deposits were identified within the well site. Therefore, blowout penstemon habitat does not exist within the project. The proposed undertaking should have "no effect" on blowout penstemon.

#### **4.2.5.3. Sensitive Species**

Table 1 lists expected impacts for sensitive species that may occur in the project area. Impacts on the greater sage-grouse, a species that is currently being considered for listing as threatened or endangered under the Endangered Species Act, are discussed in more detail in this section.

**Table 1. Summary of Sensitive Species Habitat and Project Effects.**

<b>Common Name (scientific name)</b>	<b>Habitat</b>	<b>Presence</b>	<b>Project Effects</b>	<b>Rationale</b>
<i>Amphibians</i>				
Northern leopard frog ( <i>Rana pipiens</i> )	Beaver ponds and cattail marshes from plains to montane zones.	NP	NI	Habitat not present.
Columbia spotted frog ( <i>Rana pretiosa</i> )	Ponds, sloughs, small streams, and cattails in foothills and montane zones. Confined to headwaters of the S Tongue R drainage and tributaries.	NP	NI	The project area is outside the species' range, and the species is not expected to occur .
<i>Fish</i>				
Sturgeon chub ( <i>Macrhybopsis gelida</i> )	Swift, rocky riffles throughout the Powder River.	NP	NI	Habitat not present.
Yellowstone cutthroat trout ( <i>Oncorhynchus clarki bouvieri</i> )	Cold-water rivers, creeks, beaver ponds, and large lakes in the Upper Tongue sub-watershed	NP	NI	The project area is outside the species' range, and the species is not expected to occur .
<i>Birds</i>				
Baird's sparrow ( <i>Ammodramus bairdii</i> )	Shortgrass prairie and basin-prairie shrubland habitats; plowed and stubble fields; grazed pastures; dry lakebeds; and other sparse, bare, dry ground.	S	MIIH	Sagebrush cover will be affected.
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Mature forest cover often within one mile of large water body with reliable prey source nearby.	S	MIIH	Habitat is present.
Brewer's sparrow ( <i>Spizella breweri</i> )	Sagebrush shrubland	S	MIIH	Sagebrush cover will be affected.
Ferruginous hawk ( <i>Buteo regalis</i> )	Basin-prairie shrub, grasslands, rock outcrops	S	MIIH	Habitat may be impacted as human activities will increase
Greater sage-grouse ( <i>Centrocercus urophasianus</i> )	Basin-prairie shrub, mountain-foothill shrub	K	WIPV	Sagebrush cover will be affected.
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.

<b>Common Name (scientific name)</b>	<b>Habitat</b>	<b>Presence</b>	<b>Project Effects</b>	<b>Rationale</b>
Long-billed curlew ( <i>Numenius americanus</i> )	Grasslands, plains, foothills, wet meadows	NP	NI	Suitable habitat not present.
Mountain plover ( <i>Charadrius montanus</i> )	Short-grass prairie with slopes < 5%	NP	NI	Habitat not present.
Northern goshawk ( <i>Accipiter gentilis</i> )	Conifer and deciduous forests	NP	NI	Dense forest habitat not present.
Peregrine falcon ( <i>Falco peregrinus</i> )	Cliffs	NP	NI	No nesting habitat present.
Sage sparrow ( <i>Amphispiza billneata</i> )	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.
Sage thrasher ( <i>Oreoscoptes montanus</i> )	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.
Trumpeter swan ( <i>Cygnus buccinator</i> )	Lakes, ponds, rivers	NP	NI	Habitat not present.
Western Burrowing owl ( <i>Athene cunicularia</i> )	Grasslands, basin-prairie shrub	NP	NI	Habitat not present.
White-faced ibis ( <i>Plegadis chihi</i> )	Marshes, wet meadows	NP	NI	Permanently wet meadows not present.
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	Open woodlands, streamside willow and alder groves	NP	NI	Streamside habitats not present.
<i>Mammals</i>				
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	Prairie habitats with deep, firm soils and slopes less than 10 degrees.	NP	NI	No known colonies present.
Fringed myotis ( <i>Myotis thysanodes</i> )	Conifer forests, woodland chaparral, caves and mines	NP	NI	Habitat not present.
Long-eared myotis ( <i>Myotis evotis</i> )	Conifer and deciduous forest, caves and mines	NP	NI	Habitat not present.
Swift fox ( <i>Vulpes velox</i> )	Grasslands	NP	NI	Habitat not present.
Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )	Caves and mines.	NP	NI	Habitat not present.
<i>Plants</i>				

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Limber Pine ( <i>Pinus flexilis</i> )	Timberline and at lower elevations with sagebrush. Associated species are Rocky Mountain lodgepole pine, Engelmann spruce, whitebark pine, Rocky Mountain juniper, Mountain Mahogany, and common juniper	NP	NI	Habitat not present
Porter's sagebrush ( <i>Artemisia porteri</i> )	Sparsely vegetated badlands of ashy or tufaceous mudstone and clay slopes 5300-6500 ft.	NP	NI	Habitat not present.
William's wafer parsnip ( <i>Cymopterus williamsii</i> )	Open ridgetops and upper slopes with exposed limestone outcrops or rockslides, 6000-8300 ft.	NP	NI	Project area outside of species' range.
<p><b>Presence</b>  <b>K</b> - Known, documented observation within project area.  <b>S</b> - Habitat suitable and species suspected, to occur within the project area.  <b>NS</b> - Habitat suitable but species is not suspected to occur within the project area.  <b>NP</b> - Habitat not present and species unlikely to occur within the project area.</p> <p><b>Project Effects</b>  <b>NI</b> - No Impact.  <b>MIH</b> - May Impact Individuals or Habitat, but will not likely contribute to a trend towards Federal listing or a loss of viability to the population or species.  <b>WIPV</b> - Will Impact Individuals or Habitat with a consequence that the action may contribute to a trend towards Federal listing or cause a loss of viability to the population or species.  <b>BI</b> - Beneficial Impact</p>				

#### 4.2.6. Greater Sage-Grouse Direct and Indirect Effects

Implementation of the project will adversely impact nesting habitat, both through direct loss and avoidance of the area by sage-grouse.

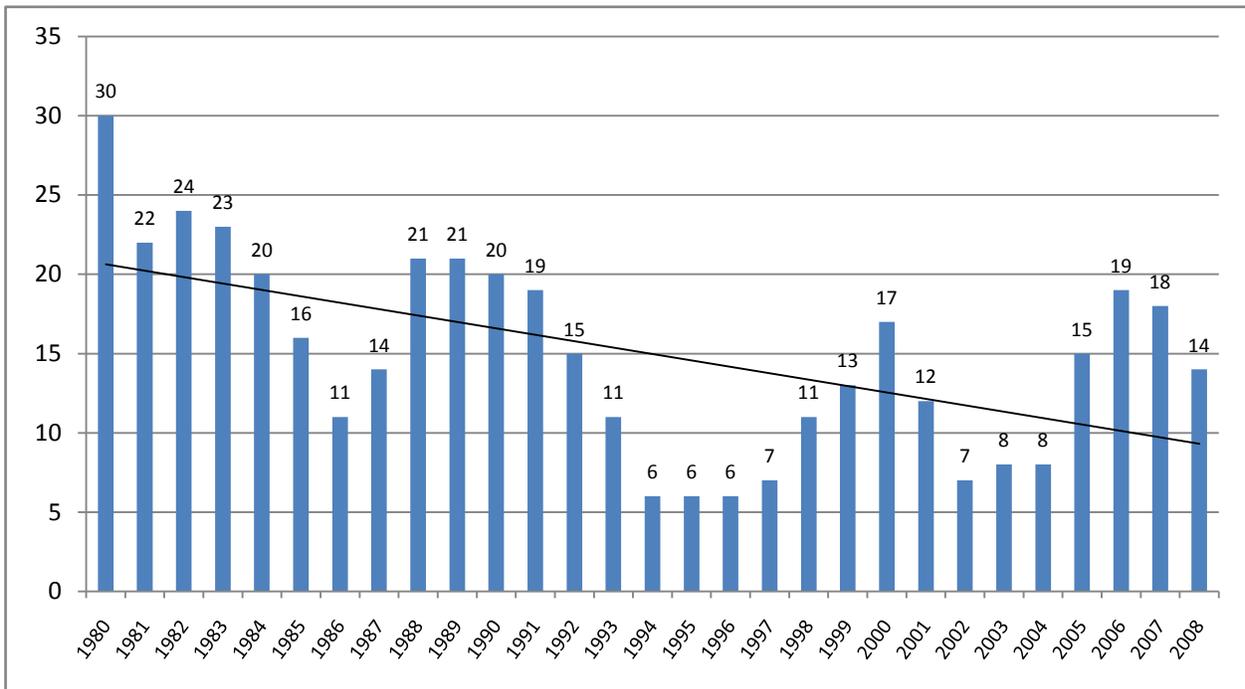
To protect nesting and brood rearing sage-grouse habitat, BLM will implement a timing limitation (1 March to 15 June) on all surface-disturbing activities associated with the proposed project.

Direct and indirect impacts to sage-grouse are discussed in more detail in the PRB FEIS on pg. 4-257 to 4-273.

#### 4.2.7. Cumulative Effects

The sage-grouse population within northeast Wyoming has been exhibiting a steady long term downward trend, as measured by lek attendance (WGFD 2008b). Figure 3 illustrates a ten-year cycle of periodic highs and lows. Each subsequent population peak is lower than the previous peak. The research described below suggests that these declines may be a result, in part, of CBNG development in this region of Wyoming and that the leks within the cumulative impact assessment area are experiencing similar declines.

**Figure 1 Average number of male sage-grouse per active lek within the WGFD Sheridan region, 1980-2007**



Research has shown that declines in lek attendance are correlated with oil and gas development. In a typical landscape in the Powder River Basin, energy development within two miles of leks is projected to reduce the average probability of lek persistence from 87% to 5% percent (Walker et al. 2007). Several studies have shown that well density can be used as a metric for evaluating impacts to sage-grouse, as measured by declines in lek attendance (Braun et al. 2002, Holloran et al. 2005, and Walker et al. 2007). These studies indicated that oil or gas development exceeding approximately one well pad per square mile, resulted in calculable impacts on breeding populations, as measured by the number of male sage-

grouse attending leks (State Wildlife Agencies' Ad Hoc Committee for Sage-Grouse and Oil and Gas Development 2008).

Recent research suggests that the cumulative and synergistic effects of current and foreseeable CBNG development within the vicinity of the project area are likely to impact the local sage-grouse population, cause declines in lek attendance, and may result in local extirpation. The cumulative impact assessment area for this project encompasses a four mile radius. 41-Shinn sage-grouse lek is 1.9 miles west from the project boundary. Analysis of impacts up to four miles was recommended by the State Wildlife Agencies' Ad Hoc Committee for Consideration of Oil and Gas Development Effects to Nesting Habitat (2008).

There are currently 2 wells (Wyoming Oil and Gas Conservation Commission [WOGCC] 04/2010 within the cumulative impact assessment area, an area of 50 square miles, which amounts to a density of approximately 0.04 wells per square mile. Currently, there is one proposed well (Automated Fluid Minerals Support System [AFMSS] 04/2010 (including the one from this project) within four miles of the lek. With the addition of the proposed wells, the well density within four miles of the lek increases to 0.06 wells per square mile which is less than one well per square mile recommendation by the State Wildlife Agencies' Ad Hoc Committee for Sage-Grouse and Oil and Gas Development.

In its *Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats* (2009), WGFD categorized levels of oil and gas development into thresholds that correspond to moderate, high, and extreme impacts to habitat effectiveness for various species of wildlife, based on well pad densities and acreages of disturbance. All three levels of impact result in a loss of habitat function by directly eliminating habitat; disrupting wildlife access to, or use of habitat; or causing avoidance and stress to wildlife. Impacts to sage-grouse are categorized by number of well pad locations per square mile within two miles of a lek and within identified nesting/brood-rearing habitats greater than two miles from a lek. Moderate impacts occur when well density is between one and two well pad locations per square mile or where there is less than 20 acres of disturbance per square mile. High impacts occur when well density is between two and three well pad locations per square mile or when there are between 20 and 60 acres of disturbance per square mile. Extreme impacts occur when well density exceeds three well pad locations per square mile or when there are greater than 60 acres of disturbance per square mile. Extreme impacts mean those where the function of an important wildlife habitat is substantially impaired or lost.

The proposed project is within two miles of one sage-grouse lek. The lek has less than one well per square mile within two miles and is therefore not impacted according to the WGFD recommendations. Implementation of the proposed project will not alter those categorizations.

Declines in lek attendance associated with oil and gas development may be a result of a suite of factors including avoidance (Holloran et al. 2005, Holloran et al. 2007, Aldridge and Boyce 2007, Walker et al. 2007, Doherty et al. 2008, WGFD 2009), loss and fragmentation of habitat (Connelly et al. 2000, Braun et al. 2002, Connelly et al. 2004, WGFD 2004a, Rowland et al. 2005, WGFD 2005, Naugle et al. in press), reductions in habitat quality (Braun et al. 2002, WGFD 2003, Connelly et al. 2004, Holloran et al. 2005) and changes in disease mechanisms (Naugle et al. 2004, WGFD 2004b, Walker et al. 2007, Cornish pers. comm.).

The BFO Resource Management Plan (BLM 2001) and the PRB FEIS Record of Decision (BLM 2003) included a two-mile timing limitation on surface-disturbing activities around sage-grouse leks. The two-mile measure originated with the Western Association of Fish and Wildlife Agencies (WAFWA) (BLM 2004). Wyoming BLM adopted the two-mile recommendation in 1990 (BLM 1990).

The two-mile recommendation was based on early research which indicated between 59% and 87% of sage-grouse nests were located within two miles of a lek (BLM 2004). These studies were conducted within vast contiguous stands of sagebrush, such as those that occur in Idaho's Snake River plain.

Additional research across more of the sage-grouse range have since indicated that nesting may occur much farther than two miles from the breeding lek (BLM 2004). Holloran and Anderson (2005), in their Upper Green River Basin study area, reported that only 45% of their sage-grouse hens nested within 1.9 miles of the capture lek. Moynahan and Lindberg (2004) found that only 36% of their sage-grouse hens nested within 1.9 miles of the capture lek. Habitat conditions, and, thus, sage-grouse biology, within the BFO are more similar to Moynahan's north-central Montana study area than the Upper Green River area. Moynahan's study area occurred in mixed-grass prairie and sagebrush steppe, dominated by Wyoming big sagebrush (Moynahan et al. 2007). Recent research in the Powder River Basin suggests that impacts to leks from energy development are discernable out to a minimum of four miles, and that some leks within this radius have been extirpated as a direct result of energy development (Walker et al. 2007, Walker 2008, Naugle et al. *In press*).

A timing limitation does nothing to mitigate loss and fragmentation of habitat and changes in disease mechanisms. Rather than limiting mitigation to only timing restrictions, more effective mitigation strategies may include, at a minimum, burying power lines (Connelly et al. 2000b); minimizing road and well pad construction, vehicle traffic, and industrial noise (Lyon and Anderson 2003, Holloran 2005); and managing produced water to prevent the spread of mosquitoes with the potential to vector West Nile Virus in sage grouse habitat (Walker et al 2007). Walker et al. (2007) recommend maintaining extensive stands of sagebrush habitat over large areas (at least one mile in size) around leks to ensure sage-grouse persistence. The size of such a no-development buffer would depend on the amount of suitable habitat around the lek and the population impact deemed acceptable. Connelly et al. (2000) recommended locating all energy-related facilities at least two miles from active leks.

Several guidance documents are available that recommend practices that would reduce impacts of development on greater sage-grouse. These include *Northeast Wyoming Sage-Grouse Conservation Plan* (Northeast Wyoming Sage-grouse Working Group 2006), *Sage-Grouse Habitat Management Guidelines for Wyoming* (Bohne et al. 2007), *Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats* (WGFD 2009), *Bureau of Land Management National Sage-Grouse Habitat Conservation Strategy* (USDI 2004), and *Greater Sage-Grouse Comprehensive Conservation Strategy* (Stiver et al. 2006).

The PRB FEIS (BLM 2003) states that "the synergistic effect of several impacts would likely result in a downward trend for the sage-grouse population, and may contribute to the array of cumulative effects that may lead to its federal listing. Local populations may be extirpated in areas of concentrated development, but viability across the Project Area (Powder River Basin) or the entire range of the species is not likely to be compromised (pg. 4-270)."

Implementation of committed mitigation measures contained in the seven Surface Use Plans of Operations and Drilling Plans, in addition to the following Conditions-of-Approval, as well as BLM Wildlife Biologist's recommendations will more than likely ensure that no adverse environmental impacts would result from approval of the proposed action:

#### **4.3. Cultural Resources**

No historic properties will be impacted by the proposed project. Following the Wyoming State Protocol Section VI(A)(1) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 03/17/10 that no historic properties exist within the APE. If any cultural

values [sites, artifacts, human remains (Appendix L PRB FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are explained in the Standard COA (General)(A)(1).

#### **4.4. Air Quality**

In the project area, air quality impacts would occur during construction (due to surface disturbance by earth-moving equipment, vehicle traffic fugitive dust, well testing, as well as drilling rig and vehicle engine exhaust) and production (including non-CBM well production equipment, booster and pipeline compression engine exhaust). The amount of air pollutant emissions during construction would be controlled by watering disturbed soils, and by air pollutant emission limitations imposed by applicable air quality regulatory agencies. Air quality impacts modeled in the PRB FEIS concluded that projected oil & gas development would not violate any local, state, tribal or federal air quality standards.

#### **4.5. Visual Resources**

The well location is slightly visible from the county road 59. Disturbance associated with the construction of the well location and associated infrastructure will result in minor visual impacts. There are no significant VRM concerns with the project. The project, as proposed, meets the Class IV objective. Additional mitigation measures include using color to camouflage the installations and blend the structures into the landscape background. The standard environmental color "Carlsbad Canyon" has been chosen for all above-ground facilities.

#### **5. Consultation/Coordination:**

No additional persons or organizations were consulted for this project.

#### **6. OTHER PERMITS REQUIRED**

A number of other permits are required from Wyoming State and other Federal agencies. These permits are identified in Table A-1 in the PRB FEIS Record of Decision.

#### **7. References and Authorities:**

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## **8. Reviewer**

Eric Holborn, Natural Resource Specialist  
 Melanie Hunter, NEPA Coordinator  
 Casey Freise, Supervisory Natural Resource Specialist  
 Seth Lambert, Archaeologist  
 Scott Jawors, Wildlife Biologist

Lead Preparer: Eric Holborn