DECISION RECORD
FOR
True Oil LLC
Klurfeld Fed 12-15H; Klurfeld Fed 14-15H; Hotchkiss Fed 14-22H
Environmental Assessment -WY-070-EA10-193

DECISION: Is to approve Alternative C as described in the attached Environmental Assessment (EA) and to authorize the following Applications for Permit to Drill (APDs) for True Oil LLC:

	Well Name	Well #	Qtr/Qtr	Section	TWP	RNG	Lease #
1	Klurfeld Federal	12-15H	SWNW	15	48N	74W	135906
2	Klurfeld Federal	14-15H	NESE	15	48N	74W	135906
3	Hotchkiss Federal	14-22H	SWSW	22	48N	74W	105953

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.

Operator Committed Measures:
As a result of the onsite, several mitigation measures proposed by the BLM were incorporated by the operator into the Klurfeld Fed 12-14H; Klurfeld Fed 14-15H; and Hotchkiss Fed 14-22H plans. These changes were submitted on 5/26/10, 7/8/10, and 7/12/10. Individual Surface Use Plans include specific details on locating wells and infrastructure to reduce impacts to soils and wildlife.

Site-Specific Mitigation Measures:
Conditions of Approval have been applied to this project to mitigate resources impacts. For a complete description of all COA's associated with this approval, see section **2.4** in the attached EA. COA's for the Klurfeld Fed 12-15H; Klurfeld Fed 14-15H; Hotchkiss Fed 14-22H wells have been applied to reduce or mitigate impacts to the following resources:

- Wildlife, including raptors and sage-grouse.
- Erosion of soils.

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.

The proposed action is in conformance with the Powder River Oil and Gas Project EIS and Resource Management Plan Amendment (PRB FEIS) approved April 30, 2003 and the Approved Resource Management Plan for the Public Lands Administered by the Bureau of Land Management (BLM), Buffalo Field Office, April 2001.

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

7/16/10
Date

FINDING OF NO SIGNIFICANT IMPACT
FOR
True Oil LLC
Klurfeld Fed 12-15H; Klurfeld 14-15H; Hotchkiss Fed 14-22H
ENVIRONMENTAL ASSESSMENT –WY-070-EA10-193

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 Alternative C will not have significant environmental impacts beyond those already addressed in PRB EIS to which the EA is tiered; (2) Alternative C is in conformance with the Buffalo Field Office Resource Management Plan (1985, 2001); and (3) Alternative C 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.

CONTEXT:

Mineral development (coal, oil and gas, bentonite, and uranium) is a long-standing and common land use within the Powder River Basin. More than one fourth of the nation's coal production comes from the Powder River Basin. The PRB FEIS reasonably foreseeable development predicted and analyzed the development of 51,000 CBNG wells and 3,200 oil wells. The additional CBNG development described in Alternative B is insignificant within the national, regional, and local context.

INTENSITY:

The implementation of Alternative C will result in beneficial effects in the forms of energy and revenue production however; there will also be adverse effects to the environment. Design features and mitigation measures have been included within Alternative C to prevent significant adverse environmental effects.

The preferred alternative does not pose a significant risk to public health and safety. The geographic area of the POD does not contain unique characteristics identified within the 1985 RMP, 2003 PRB FEIS, or 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 oil and gas development. Research findings on the nature of the environmental effects are not highly controversial, highly uncertain, or involve unique or unknown risks.

CBNG development of the nature proposed with this POD and similar PODs was predicted and analyzed in the PRB FEIS; 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 selected alternative will not have any anticipated effects that would threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

Field Manager: _____ Date: 7/12/10

BUREAU OF LAND MANAGEMENT
BUFFALO FIELD OFFICE
TRUE OIL LLC
Klurfeld Fed 12-15H; Klurfeld Fed 14-15H; Hotchkiss Fed 14-22H
ENVIRONMENTAL ASSESSMENT WY-070-EA10-193

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. PURPOSE AND NEED

The purpose and need of this EA is to determine how and under what conditions to allow the operator to exercise lease rights granted by the United States to develop the oil and gas resources on federal leaseholds as described in their proposed action.

Information contained in the APD is considered an integral part of this environmental assessment and is, therefore, incorporated by reference (CFR 1502.21).

Development of the Klurfeld Fed 12-15H, Klurfeld Fed 14-15H, and Hotchkiss Fed 14-22H horizontal oil wells would return royalties to the federal Treasury as well as stimulate local economies.

The BLM recognizes the extraction of natural gas is essential to meeting the nation's future needs for energy. As a result, private exploration and development of federal gas reserves are integral to the agencies' oil and gas leasing programs under the authority of the Mineral Leasing Act of 1920, as amended, and the Federal Land Policy Management Act (FLPMA) of 1976. The oil and gas leasing program managed by BLM encourages the development of domestic oil and gas reserves and reduction of the U.S. dependence on foreign sources of energy.

This action responds to the goals and objectives outlined in the 1985 Buffalo Resource Management Plan (RMP), the 2001 Approved RMP for the Public Lands Administered by the BLM BFO and the 2003 PRB FEIS. This action helps move the Project Area toward desired conditions for mineral development with appropriate mitigation consistent with the goals, objectives and decisions outlined in these two documents.

1.1. 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.

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

PROJECT NAME: Klurfeld Fed 12-15H, Klurfeld Fed 14-15H, Hotchkiss Fed 14-22H horizontal oil wells.

WELL NAME/#/LEASE/LOCATION:

	Well Name	Well #	Qtr/Qtr	Section	TWP	RNG	Lease #
1	Klurfeld Federal	12-15H	SWNW	15	48N	74W	135906
2	Klurfeld Federal	14-15H	NESE	15	48N	74W	135906
3	Hotchkiss Federal	14-22H	SWSW	22	48N	74W	105953

OPERATOR/APPLICANT: True Oil LLC

AFFECTED SURFACE OWNERS: John William Mankin

COUNTY: Campbell

The proposed action is to drill and develop three horizontal oil wells. The action would be subject to the attached Conditions-of-Approval, for drilling of three horizontal oil wells on private surface within the Buffalo Field Office jurisdiction.

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

Implementation of committed mitigation measures contained in the SUP and Drilling Plan, in addition to the Standard Conditions of Approval (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 these wells 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(s).
4. The Operator has certified that a copy of the SUP has been provided to the relevant Landowner(s).

2.3. Alternative C – Environmentally Preferred

Alternative C represents a modification of Alternative B based on the operator and BLM working cooperatively to reduce environmental impacts. The description of Alternative C is the same as Alternative B with the addition of the project modifications identified by BLM and the operator at on-site visits, following the initial project proposal.

Alternative C represents BFO's efforts to maintain proposed spacing and infrastructure requirements consistent with the purpose and need, and includes mitigation to reduce environmental effects to multiple resources. The specific changes identified for the Klurfeld Fed 12-15H, Klurfeld Fed 14-15H, Hotchkiss Fed 14-22H horizontal wells are listed below under 2.3.1:

2.3.1. Changes as a result of the on-sites

1. The proposed access road to the Hotchkiss Fed 14-22H well from the east was eliminated to preserve intact sage brush stand, reducing fragmentation of sage grouse habitat. The access road will originate from the south at the existing Mankin Fed 12-27H well location and follow the fence line.

2. Operator agreed to limit disturbance on all access roads with utility corridors to 35' maximum disturbance width to minimize impacts to sage grouse habitat.

3. Power will be buried along access roads to the proposed well locations from existing power drop locations.

4. Access road to the Klurfeld Fed 12-15H will be moved northeast along ridgeline for 500 ft out of existing sage brush, reducing fragmentation of sage grouse habitat.

5. Well pad for Klurfeld Fed 14-15H was moved SE to a flat, sparsely vegetated location adjacent to the access road, reducing the amount of cut and fill on the pad and preserving a stand of three foot high sage brush with a 20-30% canopy cover, thereby reducing fragmentation of sage grouse habitat.

2.3.2. DESCRIPTION OF PROPOSED MITITGATION MEASURES:

Implementation of committed mitigation measures contained in the Surface Use Plan of Operations and Drilling Plan, in addition to the following Conditions-of-Approval, would ensure that no adverse environmental impacts would result from approval of the proposed action:

Conditions of Approval

2.4. Programmatic and Site specific mitigation measures, Alternative C

2.4.1. 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. These mitigation measures can be applied by BLM, as determined necessary at the site-specific NEPA APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA.

2.4.1.1. 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.

2. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.

2.4.1.2. Air Quality

1. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and

water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM authorized officer.

2.4.2. Site specific mitigation measures

All changes made at the onsite will be followed. They have all been incorporated into the operator's POD.

Surface Use

1. The cut and fill slopes of Klurfeld Fed 12-15H, Klurfeld Fed 14-15H, and Hotchkiss Fed 14-22H wells will require erosion control methods (e.g. silt fencing, waddles, water bars, diversion ditches, etc.) to prevent surface runoff and erosion. All erosion control methods will be installed prior to drilling activities taking place.

2. If any well does not become a producer, earthwork for final reclamation on well pad and improved road must be completed within 180 days.

3. All pit spoil must be placed back in the pit once dry. If necessary, the pit area should usually be mounded slightly or restored to the original contour to allow for settling and positive surface drainage.

4. The existing two-track ranch road east of the Hotchkiss Fed 14-22H will be signed "No Oil & Gas Traffic". Access to the Hotchkiss 14-22 will be constructed from the south originating at the existing Mankin Fed 12-27H well.

5. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for the Klurfeld Fed 12-15H, Klurfeld Fed 14-15H, and Hotchkiss Fed 14-22H horizontal oil wells is **Covert Green**.

6. The operator will seed on the contour to a depth of no more than 0.5 inch. To maintain quality and purity, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, use the following:

15-17"Precipitation Zone
Loamy Ecological Site Seed Mix

Species - *Cultivar*	**% in Mix**	**Lbs PLS***
Thickspike Wheatgrass – *Critana* **OR** Western Wheatgrass - *Rosana*	35	4.2
Bluebunch Wheatgrass – *Secar or P-7*	15	1.8
Green needlegrass - *Lodorm*	25	3.0
Rocky Mountain beeplant *(Cleome serrulata)*	10	1.2
White – *Antelope* or Purple Prairie Clover - *Bismarck*	5	0.6
Lewis - *Appar,* Blue, or Scarlet flax	5	0.6
Winterfat – *Open Range*	5	0.6
Totals	**100%**	**12 lbs/acre**

*PLS = pure live seed. Northern Plains adapted species

Wildlife

Raptors:

The following conditions will alleviate impacts to raptors:

1. 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.
2. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
3. Well metering, maintenance and other site visits within 0.5 miles of raptor nests should be minimized as much as possible during the breeding season (February 1 – July 31).

Sage Grouse:

1. No surface disturbing activities are permitted for the entire project area between March 1-June 15. This condition will be implemented on an annual basis for the duration of surface disturbing activities.
2. If a previously unknown lek is identified, additional areas may be included in the above referenced timing restriction (March 1-June 15). The required sage-grouse survey will be conducted by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities.

3. AFFECTED ENVIRONMENT

The APDs were received on 2/11/09, 4/06/09, and 4/16/09 for the Hotchkiss Fed 14-22H, Klurfeld Fed 14-15H, and Klurfeld Fed 12-15H respectively. Field inspections of the proposed wells were conducted on 6/25/09 and 3/24/10.

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

3.1. Topographic Characteristics

The project area is located approximately 21 miles southwest of Gillette, Wyoming. The topography consists of moderately flat terrain with shallow draws. The elevation within the project area ranges from approximately 4,928 to 5,100 feet above sea level. 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. The project area is in the existing 21 Mile Butte field which contains conventional oil wells and CBNG development. 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.

3.2. Vegetation & Soils

Species typical of short grass prairie comprise the project area flora. Specific species observed throughout the project area include: Green needlegrass, Western wheatgrass, Needleadthread, Big Sagebrush, Blue grama, cheatgrass. Differences in dominant species within the project area vary with soil type, aspect and topography.

The soils vary from Ucross-lwait loams, 0 to 6 percent slopes, to Ziggy-Ucross-Oldwolf loams, 3 to 15 percent slopes, primarily throughout the project area. Soils differ with topographic location, slope and elevation. Topsoil depths to be salvaged for reclamation range from four to eight inches. Erosion potential varies from moderate to severe depending on the soil type, vegetative cover and slope. Reclamation potential of soils also varies throughout the project area. Reclamation potential at the three well sites is rated as moderate.

3.3. Ecological Sites

Ecological Site Descriptions are used to provide site and vegetation information needed for resource identification, management and reclamation recommendations. To determine the appropriate Ecological Sites for the area contained within this proposed action, BLM specialists analyzed data from onsite field reconnaissance and Natural Resources Conservation Service published soil survey soils information.

Table 3.1 Map Units and Ecological Sites:

Map Unit	Ecological Site	Site Location
224	Ucross-lwait loams, 0 to 6 % slopes	Klurfleld 12-15H; 14-15H & access
250	Ziggy-Ucross-Oldwolf loams, 3 to 15 % slopes	Hotchkiss 14-22H & access

The dominate plant community identified in the project area is a Mixed Sagebrush/Grass Plant

community which is found under moderate, season-long grazing by livestock in the absence of fire or brush management. Wyoming big sagebrush is a significant component of this plant community. 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. Cheatgrass (downy brome) has invaded the site.

This plant community is resistant to change. A significant reduction of big sagebrush can only be accomplished through fire or brush management. The herbaceous species preset are well adapted to grazing; however, species composition can be altered through long-term overgrazing. If the herbaceous component is intact, it tends to be resilient if the disturbance is not long-term.

3.4. Invasive Species

The following 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: Black henbane and Buffalobur. The operator identified the following noxious or invasive weeds in the Integrated Pest Management Program: Canada thistle, Musk thistle, Leafy spurge. None of these were not observed during the onsites.

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 high densities and numerous locations throughout NE Wyoming.

3.5. Wildlife

Wildlife species that occur in the Powder River Basin were identified in the PRB FEIS (pp. 3-113 to 3-206). A habitat assessment was performed by BLM wildlife biologists on June 25, 2009 and March 24, 2010. During that time, the biologist evaluated impacts to wildlife resources and recommended project modifications where wildlife issues arose.

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 are known or likely to occur in the area of the proposed action.

3.5.1. Big Game

According to WGFD data, the big game species expected to occur within the project area are American pronghorn and mule deer. The affected environment for the pronghorn is discussed in the PRB FEIS on pp. 3-117 to 3-122. The affected environment for mule deer is discussed in the PRB FEIS on pp. 3-127 to 3-132.

WGFD data indicate that the project area contains yearlong range for pronghorn and mule deer. Yearlong use is when a population of animals makes general use of suitable documented habitat sites within the range on a year-round basis. Animals may leave the area under severe conditions.

3.5.2. 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.

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.

During the June 25, 2010 onsite, Brewer's sparrows were observed at the 14-22H well site exhibiting behavior that indicated a nest in the immediate vicinity.

3.5.3. Raptors

According to the BLM raptor database, one nest exists within 0.5 miles of the project area. BLM nest number 1558, which is a ferruginous hawk nest, was reported as inactive and in poor condition in 2009. This nest has not been active for at least seven years. The affected environment for raptors is discussed in the PRB FEIS on pp. 3-141 to 3-148.

3.5.4. 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. Habitats within the project area have limited potential to support sharp-tailed grouse. The mosaic of grasslands and sagebrush-grasslands that occurs in the area may provide nesting and brood-rearing habitat, but the lack of wooded draws, shrubby riparian areas, and wet meadows limit the likelihood of plains sharp-tailed grouse occurrence. The nearest known plains sharp-tailed grouse lek is approximately sixteen miles west of the project area. No plains sharp-tailed grouse were noted in the project area.

3.5.5. Threatened and Endangered and Sensitive Species

3.5.5.1. Threatened and Endangered

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

3.5.5.1.1. 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. WGFD has identified seven prairie dog complexes, located partially or wholly within the BFO administrative area, as potential black-footed ferret reintroduction sites (Grenier et al. 2004). The project area is located approximately 2.5 miles from the Pleasentdale complex, the nearest potential reintroduction area.

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 black-tailed prairie dog colonies have been identified in the project area. Black-footed ferret habitat is not present.

3.5.5.1.2. 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 project area deos not contain areas with these characteristics, and blowout penstemon is not expected to occur.

3.5.5.1.3. 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. Appropriate hydrology to support ULTs is not present in the project area and ULTs are not expected to occur.

3.5.5.2. Candidate Species

3.5.5.2.1. Greater Sage-Grouse

The affected environment for greater sage-grouse (herein referred to as sage-grouse) is discussed in the PRB FEIS (pg. 3-194 to 3-199). 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 clearly in need of conservation action. They are also listed by USFWS as a Bird of Conservation Concern for Region 17, which encompasses the project area. BCCs are those species that represent USFWS's highest conservation priorities, outside of those that are already listed under ESA. The goal of identifying BCCs is to prevent or remove the need for additional ESA bird listings by implementing proactive management and conservation actions.

In 2010, USFWS determined that the sage-grouse is warranted for federal listing across its range, but listing is precluded by other higher priority listing actions. In addition to being listed as a Wyoming BLM sensitive species, sage-grouse are listed as a WGFD species of greatest conservation need, 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 clearly in need of conservation action. They are also listed by USFWS as a BCC for Region 17.

Suitable (as defined in Soehn et al. 2001) sage-grouse habitat is present in the project area. The area consists of moderately dense sagebrush and grassland. The sagebrush understory is dominated by a mix of perennial and annual grass.

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 three sage-grouse leks occur within four miles of the project area. These three lek sites are identified in the following table. Sage-grouse sign was observed at in the project area indicating winter, nesting and brood rearing use of the habitat.

Sage-grouse leks within 4 miles of the project area.

Lek Name	Legal Location (Township, Range, Section ¼ ¼)	Distance from Project Area	Management Status
Caballo West	T48N, R74W S 36 SE	3.3 miles Southeast	unoccupied
Kingsbury South	T49N, R74W S 29 NESW	3.7 miles North	occupied
Mankin	T48N, R73W S 30 SENE	3.9 miles Southeast	unoccupied

3.5.5.3. 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 4.3 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. 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.

Two BLM sensitive species are known to occur in the project area and are discussed below.

3.5.5.3.1. Brewer's Sparrow

The affected environment for Brewer's sparrow is discussed in the PRB FEIS on pg. 3-200. In addition to being listed as a BLM Wyoming sensitive species, Brewer's sparrows are a WGFD SGCN, with a rating of NSS4 because populations are declining, habitat is vulnerable with no ongoing loss, and the species is not sensitive to human disturbance. The Wyoming Bird Conservation Plan rates them as a Level I species, indicating they are clearly in need of conservation action. They are also listed by USFWS as a BCC for Region 17.

The Brewer's sparrow is dependent on shrub-dominated plant communities that provide protective cover, song perches, and nest sites. The Brewer's sparrow nests in sagebrush throughout the species' range. Brewer's sparrows were observed at the 14-22H well site exhibiting behavior that indicated a nest in the immediate vicinity. Brewer's sparrows and their habitat are present in the project area.

3.6. Cultural Resources

Class III cultural resource inventory was performed for the True Oil Klurfeld 12-15H and 14-15H wells prior to on-the-ground project work (BFO project no. 70090081). 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.

Previously reviewed and accepted Class III cultural resource inventories (70090081, 70030107, 70010184, 99-70, 70080161) adequately covered the remainder of the proposed project area.

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 06/24/10 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).

3.7. 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.

4. ENVIRONMENTAL CONSEQUENCES

For a full discussion of the impacts of Alternative A, the No-Action Alternative, and B, the Proposed Action, see the PRB EIS. The changes to the proposed action (Alternative B) resulted in development of Alternative C as the preferred alternative. The changes have reduced impacts to the environment which will result from this action therefore only the environmental consequences of Alternative C are described below.

4.1. Alternative C

4.1.1. Vegetation & Soils Direct and Indirect Effects.

Table 4.1 summarizes the proposed surface disturbance.

Table 4.1 - SUMMARY OF DISTURBANCE

Facility	No. or Mileage	Factor	Disturbance (acres)	Duration
Well Pad(s)	3 @ 350 ft length * 230 ft width	W*L/43560 acre	5.55	Long Term
Improved Roads with PL corridor	2.02 mi	35 ft	8.57	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 Integrated Pest Management Plan (IPMP):

1. Control Methods: The operator will use an integrated approach employing chemical, physical, and/or biological control. Treatments will generally be in the spring but may continue into the fall.
2. Preventive practices: The operator will educate its employees and contractors concerning weed ID and control. They will minimize surface disturbance and promptly reseed disturbed areas with certified weed free seed and mulch.

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 use of existing facilities along with the surface disturbance associated with construction of proposed access roads, pipelines, and related facilities would 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. 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 pronghorn, mule deer, and elk 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.

Migratory bird species within the Powder River Basin nest in the spring and early summer and are vulnerable to the same effects as sage-grouse and raptor species. Though no timing restrictions are typically applied specifically to protect migratory bird breeding or nesting, where sage-grouse or raptor nesting timing limitations are applied, nesting migratory birds are also protected. Where these timing limitations are not applied and migratory bird species are nesting, migratory birds remain vulnerable.

Sage-grouse timing limitations will be applied to the project. This will decrease the impacts to nesting birds, however, birds that nest later than the June 15 sage-grouse stipulation date will not be protected. Brewer's sparrows, which were observed at the 14-22H well, nest through the end of July (Welstead et al. 2005) and may be driven out with nests being destroyed by construction activities prior to the end of July.

4.2.2.1. Raptors

Direct and indirect effects to raptors are discussed in the PRB FEIS (pp. 4-216 to 4-221).

4.2.2.2. Plains Sharp-tailed Grouse

Sharp-tailed grouse will not likely be impacted by the project.

4.2.3. Threatened and Endangered Species

Potential project effects on Threatened and Endangered Species were analyzed and a summary is provided in Table 1.

Table 4.2 Summary of Threatened and Endangered Species Habitat and Project Effects.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Endangered				
Black-footed ferret (*Mustela nigripes*)	Black-tailed prairie dog colonies or complexes > 1,000 acres.	NP	NE	No suitable habitat present.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Blowout penstemon (*Penstemon haydenii*)	Sparsely vegetated, shifting sand dunes	NS	NE	No suitable habitat present.
Threatened				
Ute ladies'-tresses orchid (*Spiranthes diluvialis*)	Riparian areas with permanent water	NP	NE	No suitable habitat present.
Proposed				
Mountain plover (*Charadrius montanus*)	Short-grass prairie with slopes < 5%	NP	NLJ	Habitat not present.
Candidate				
Greater sage-grouse (*Centrocercus urophasianus*)	Basin-prairie shrub, mountain-foothill shrub	K	MIIH	Sagebrush cover will be affected. Human presence and traffic will increase. Overhead power will be present.

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.

NLJ – Not likely to jeopardize species existence.

MIIH - 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.

4.2.3.1. Black-Footed Ferret Direct and Indirect Effects

Implementation of the proposed development will have **no effect** on the black-footed ferret because habitat is not present in the project area, and the species is not likely to occur.

4.2.3.2. Blowout Penstemon Direct and Indirect Effects

Suitable habitat is not present within the proposed project area. Implementation of the proposed project will have **no effect** on the blowout penstemon.

4.2.3.3. Ute Ladies'-Tresses Orchid Direct and Indirect Effects

Suitable habitat is not present within the proposed project area. Reservoir seepage may create suitable habitat if historically ephemeral drainages become perennial. Implementation of the proposed project will

have **no effect** on the Ute ladies'- tresses orchid.

4.2.4. Threatened and Endangered Species Cumulative Effects

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, refer to the PRB FEIS, pp. 4-250 to 4-257. No additional mitigation measures are required.

4.2.5. Candidate Species

4.2.5.1. Greater Sage-Grouse Direct and Indirect Effects

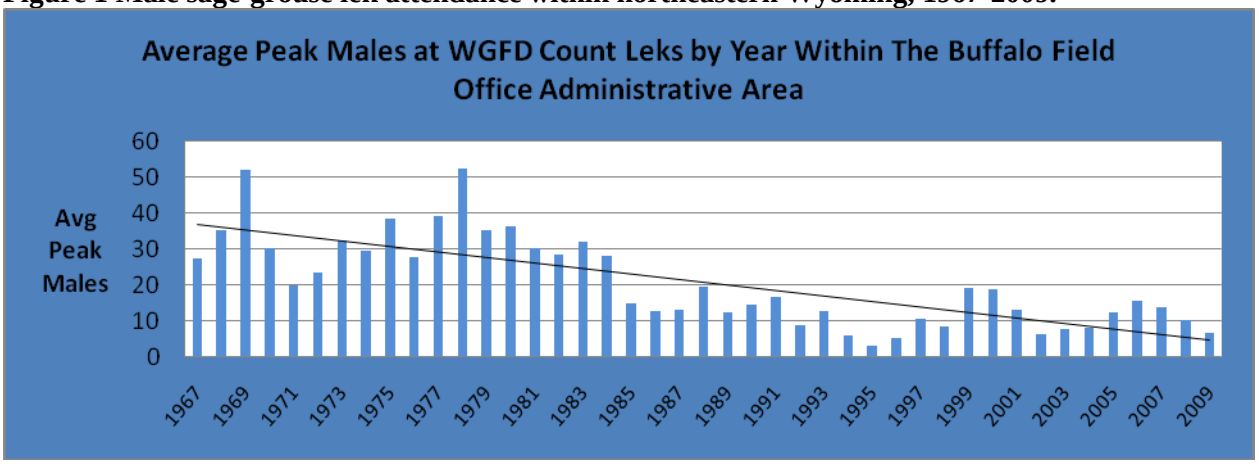
Implementation of the project will adversely impact nesting habitat, both through direct loss and avoidance of the area by sage-grouse. Project modifications agreed upon at the on-site will reduce the amount of sagebrush destroyed by road and well pad construction. The reduction in the amount of overhead power will decrease the threat of predation to grouse by raptors. To protect nesting and brood rearing sage-grouse, 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.

4.2.5.2. Cumulative Effects

The sage-grouse population within northeast Wyoming has been exhibiting a steady long term downward trend, as measured by lek attendance (WGFD 2008). Figure 1 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 Male sage-grouse lek attendance within northeastern Wyoming, 1967-2009.



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).

BLM Instruction Memorandum No. WY-2010-012 provides direction for sage-grouse impact analysis to extend out to 4 miles from small project areas. There are currently 238 wells (Wyoming Oil and Gas Conservation Commission [WOGCC] 06/2010) within the cumulative impact assessment area, an area of 61 square miles, which amounts to a density of approximately 3.9 wells per square mile. Currently, there are approximately 19 proposed wells (Automated Fluid Minerals Support System [AFMSS] 06/2010) (including the three from this project) within four miles of the project area, the well density within 4 miles of the project area will increase to 4.2 wells per square mile.

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

Only one occupied sage-grouse lek is within 4 miles of the project area. The Kingsbury South lek is 3.7

miles to the north of the proposed. This lek has a low impact categorization by WGFD. Implementation of the proposed project will not alter this categorization.

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's range has 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*). Based on these studies, the BLM has determined that a two-mile timing limitation is insufficient to reverse the population decline.

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)." Based on the impacts described in the Powder River Basin Oil and Gas Project FEIS and the findings of more recent research, the proposed action may contribute to a decline in male attendance at the five leks that occur within four miles of the project area, and, potentially, extirpation of the local grouse population.

4.2.5.3. Sensitive Species

Table 4.3 lists expected impacts for sensitive species that may occur in the project area.

Table 4.3 Summary of Sensitive Species Habitat and Project Effects.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Amphibians				
Northern leopard frog (*Rana pipiens*)	Beaver ponds and cattail marshes from plains to montane zones.	NP	NI	Habitat not present.
Columbia spotted frog (*R*anus pretiosa)	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.
Fish				
Yellowstone cutthroat trout (*Oncoryhynchus clarki bouvieri*)	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.
Birds				
Baird's sparrow (*Ammodramus bairdii*)	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 (*Haliaeetus leucocephalus*)	Mature forest cover often within one mile of large water body with reliable prey source nearby.	NP	NI	Habitat not present.
Brewer's sparrow (*Spizella breweri*)	Sagebrush shrubland	K	MIIH	Sagebrush cover will be affected.
Ferruginous hawk (*Buteo regalis*)	Basin-prairie shrub, grasslands, rock outcrops	S	MIIH	Nesting habitat may be impacted and human activities will increase
Loggerhead shrike (*Lanius ludovicianus*)	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.
Long-billed curlew (*Numenius americanus*)	Grasslands, plains, foothills, wet meadows	NP	NI	Suitable habitat not present.
Northern goshawk (*Accipiter gentilis*)	Conifer and deciduous forests	NP	NI	Dense forest habitat not present.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Peregrine falcon (*Falco peregrinus*)	Cliffs	NP	NI	No nesting habitat present.
Sage sparrow (*Amphispiza billneata*)	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.
Sage thrasher (*Oreoscoptes montanus*)	Basin-prairie shrub, mountain-foothill shrub	S	MIIH	Sagebrush cover will be affected.
Trumpeter swan (*Cygnus buccinator*)	Lakes, ponds, rivers	NP	NI	Habitat not present.
Western Burrowing owl (*Athene cunicularia*)	Grasslands, basin-prairie shrub	NP	NI	Habitat not present.
White-faced ibis (*Plegadis chihi*)	Marshes, wet meadows	NP	NI	Permanently wet meadows not present.
Yellow-billed cuckoo (*Coccyzus americanus*)	Open woodlands, streamside willow and alder groves	NP	NI	Streamside habitats not present.
Mammals				
Black-tailed prairie dog (*Cynomys ludovicianus*)	Prairie habitats with deep, firm soils and slopes less than 10 degrees.	NP	NI	No known colonies present.
Fringed myotis (*Myotis thysanodes*)	Conifer forests, woodland chaparral, caves and mines	NP	NI	Habitat not present.
Long-eared myotis (*Myotis evotis*)	Conifer and deciduous forest, caves and mines	NP	NI	Habitat not present.
Swift fox (*Vulpes velox*)	Grasslands	NP	NI	Habitat not present.
Townsend's big-eared bat (*Corynorhinus townsendii*)	Caves and mines.	NP	NI	Habitat not present.
Plants				
Porter's sagebrush (*Artemisia porteri*)	Sparsely vegetated badlands of ashy or tufaceous mudstone and clay slopes 5300-6500 ft.	NP	NI	Habitat not present.
William's wafer parsnip (*Cymopterus williamsii*)	Open ridgetops and upper slopes with exposed limestone outcrops or rockslides, 6000-8300 ft.	NP	NI	Project area outside of species' range.
Limber pine (*Pinus flexilis*)	Rocky slopes	NP	NI	Habitat not present.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
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** **NI** - No Impact. **MIIH -** 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. **WIPV** - 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. **BI -** Beneficial Impact				

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 06/24/10 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.

DESCRIPTION OF PROPOSED MITIGATION MEASURES:

Implementation of committed mitigation measures contained in the Surface Use Plan of Operations and Drilling Plans, in addition to the following Conditions-of-Approval, would ensure that no adverse environmental impacts would result from approval of the proposed action. Refer to the Klurfeld Fed 12-15H; Klurfeld 14-15H; Hotchkiss 14-22H Conditions of Approval for further detail.

5. Consultation/Coordination:

Contact	Title	Organization	Phone Number	Present at Onsite?
Bill Mankin	Surface owner	Rancher		yes
Warren Morton	Landman	True Oil LLC		yes
Jay Dee Hacklin	Dirt Contractor	Quality Construction		yes
Dave Doyle	Surveyor	Doyle Land Survey		Yes

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:

The National Environmental Policy Act of 1969 (NEPA), as amended (Pub. L. 91-90, 42 U.S.C. 4321 et seq.).

Code of Federal Regulations (CFR)

- 40 CFR All Parts and Sections inclusive Protection of Environment Revised as of July 1, 2001.
- 43 CFR All Parts and Sections inclusive - Public Lands: Interior. Revised as of October 1, 2000.

U.S. Department of the Interior, Bureau of Land Management and Office of the Solicitor (editors). 2001. The Federal Land Policy and Management Act, as amended. Public Law 94-579.

Approved Resource Management Plan for Public Lands Administered by the Bureau of Land Management Buffalo Field Office. Prepared by the United States Department of the Interior, Bureau of Land Management, Buffalo Field Office, April 2001.

Powder River Oil and Gas Project Environmental Impact Statement and Resource Management Plan Amendment. Prepared by the Department of the Interior, Bureau of Land Management, Wyoming State Office in Campbell, Converse, Johnson and Sheridan Counties, Wyoming. Approved April 30, 2003.

8. Reviewer

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