

**Bureau of Land Management  
Buffalo Field Office  
Long Draw Allotment Grazing Lease Transfer & Issuance and  
Long Draw II Pipeline, WY-070-EA11-281**

**1.0 Introduction**

PROJECT TITLE: Long Draw Allotment Grazing Lease Transfer/Issuance & Long Draw II Pipeline

PLANNING UNIT & LOCATION:

*Long Draw Allotment (02343):*

T. 53N, R.79W: Sec.11: NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, Sec.20: Lot 1, Lot 5, Tract 55 A-H, Sec.21: Lots 2-6, SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, W<sup>1</sup>/<sub>2</sub>SE<sup>1</sup>/<sub>4</sub>, Sec.28: NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>.

*Proposed Pipeline:* T.53N, R.79W, Secs.20, 29. (see attached maps)

PREPARED BY: Charlotte Darling, Biological Science Technician, BLM, BFO

CASEFILE NUMBER: 4914744

RIPS NUMBER: 013163

APPLICANT: B&L Betz Cattle Co.

This site-specific environmental assessment (EA) tiers to and incorporates by reference the Buffalo Resource Management Plan (RMP) dated October 4, 1985, the 2001 and 2003 amendments. This EA follows the format in Chapter 8 of the BLM National Environmental Policy Act Handbook, H-1790-1.

**1.1 Background**

The current lessee, Michael Lovato, is leasing the base property for the Long Draw Allotment from the landowner, Lorraine Vannoy Revocable Trust. This base property lease has transferred to B&L Betz Cattle Company, Inc. B&L Betz Cattle Company, Inc. applied for transfer of the grazing privileges attached to this property and a new lease authorizing grazing on the Long Draw Allotment. Per 43 CFR 4110, B&L Betz Cattle Co. has preference in obtaining the grazing privileges attached to this property.

As noted above, the current grazing lessee leases the base property from the landowner. The 10-year term of the proposed lease coincides with the terms of the lease agreement between the landowner and this lessee.

B&L Betz Cattle Co. (B&L Betz) is also cooperating with the Natural Resources Conservation Service under that agency's Environmental Quality Incentives Program (EQIP) to develop a grazing management and pasture improvement plan to maintain healthy rangelands. More information on EQIP is available at <http://www.wy.nrcs.usda.gov/programs/eqip/eqip.html>. Part

of the plan proposes a new stock water pipeline and several troughs be constructed in the Long Draw Allotment. A portion of the proposed pipeline crosses BLM land, and one proposed tank is situated on BLM land. The new water dispersal system would allow greater operator flexibility in pasture rotation and deferment, and would improve stock distribution. The existing water sources in the affected pasture (two reservoirs) are salty and have contributed to several livestock deaths. The proposed pipeline and troughs would restore a clean water source to the pasture. The allotment and proposed pipeline are located in an area that was designated as core area and connectivity habitat in Wyoming Governor's Executive Order 2011-5, Greater Sage-grouse Core Area Protection. While the project analyzed in this document is not part of the NRCS's Sage-Grouse Initiative, NRCS is working to enroll the ranch in that program to accomplish future conservation projects.

### **1.2 Purpose and Need for the Proposed Action**

The BLM promotes healthy sustainable rangeland ecosystems and provides for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy public rangelands while complying with land use plans and multiple use objectives, including environmental and economic values, as provided in 43 CFR 4100, the Taylor Grazing Act of 1934 and the Federal Land Policy and Management Act (FLPMA) of 1976. The proposed action would allow livestock grazing on public land through the exercise of grazing preference attached to controlled base property while considering these multiple use objectives (43 CFR 4110). There is need for the action due to the requirement that an individual or group desiring to graze livestock on public land must hold a valid grazing authorization in the form of a permit or lease; the BLM is to balance the authorization with other uses of public land. The current grazing lessee has a preference to receive the authorization if grazing continues on this allotment.

The proposed action would also allow for a Rangeland Improvement Project to be installed in accordance with 43 CFR 4120.3, which stipulates that a lessee shall enter into a cooperative range improvement agreement with the BLM before installing, maintaining, using, or modifying a range improvement on the public lands. The proposed action would allow for more flexible grazing management on public land in the Long Draw Allotment. By creating additional water developments, the construction of the new pipeline and troughs will allow greater flexibility in rotational grazing, will distribute livestock more widely throughout pastures to improve rangeland health, and provide clean water sources for the livestock. The proposed action will also facilitate the completion of an NRCS EQIP project; this cooperation with other federal agencies is provided for and required by 43 CFR 4120.5-1.

### **1.3 Decision to be Made**

The BLM will decide whether or not to transfer the grazing preference on the Long Draw Allotment from Michael Lovato to B&L Betz Cattle Co., whether or not to issue a grazing lease with no change in terms and conditions to B&L Betz Cattle Co. for the Long Draw Allotment, and how to balance the proposed action with multiple public uses.

The BLM will also decide whether or not to allow the installation of one trough and approximately 0.99 miles of stock water pipeline across public land in the Long Draw Allotment, and how to balance the proposed action with multiple public uses.

#### **1.4 Wyoming Standards for Rangeland Health**

Particularly applicable to livestock grazing management by the BLM are the Wyoming Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management. The Secretary of the Interior developed and approved the Standards and Guidelines on August 12, 1997. They address watersheds, ecological condition, water quality and habitat for special status species. These policies and guidelines are critical to achieving ecologically sustainable range management.

The regulation at 43 CFR 4180.1 details four fundamentals of rangeland health. They are:

1. Watersheds are in or are making progress toward properly functioning physical condition, including their upland, riparian-wetland, and aquatic components; soil and plant conditions support water infiltration, soil moisture storage, and the release of water that are in balance with climate and landform and maintain or improve water quality, water quantity, and timing and duration of flow.
2. Ecological processes including the hydrologic cycle, nutrient cycle, and energy flow are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities.
3. Water quality complies with state water quality standards and achieves, or is making significant progress toward achieving established BLM management objectives such as meeting wildlife needs.
4. Habitats are, or are making significant progress toward, being restored or maintained for Federal threatened and endangered species, Federal Proposed, Category 1 and 2 Federal Proposed Candidate and other special status species.

The BLM developed the Wyoming Standards for Healthy Public Rangelands and Guidelines for Livestock Grazing Management (S&Gs) to achieve the four fundamentals of rangeland health detailed above. These Standards relate the minimal acceptable conditions for BLM administered public rangelands, including the health, productivity, and sustainability of the land. Observing, measuring, and monitoring field conditions of range sites, on a watershed scale, determine whether a Standard is being achieved. In accordance with the grazing regulations, if livestock grazing practices are found to be contributing to a failure to meet a Standard, corrective action is developed and implemented before the next grazing season. Guidelines provide reasonable, responsible, and cost-effective management practices at the grazing allotment and watershed levels to attain and maintain rangeland Standards. These management practices either maintain existing desirable conditions or move rangelands toward statewide Standards within reasonable timeframes.

The six Standards for Healthy Public Rangelands are:

Standard 1: Within the potential of the ecological site (soil type, landform, climate, and geology), soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.

Standard 2: Riparian and wetland vegetation have structural, age, and species diversity characteristic of the state of channel success and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for ground water recharge.

Standard 3: Upland vegetation on each ecological site consists of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance.

Standard 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

Standard 5: Water Quality meets state standards.

Standard 6: Air Quality meets state standards.

The Buffalo RMP has been amended to adopt the Wyoming Standards for Healthy Rangelands. An assessment of the S&Gs has not yet been conducted for the Long Draw Allotment, but an on-site visit by a BLM range technician on July 27, 2011 revealed fair to good range condition.

This allotment is a “C” category allotment, which is low priority for evaluation (see Section 3.3). In 1998 the BFO developed a schedule for evaluating S&Gs. The allotments on this list are all in the “I” and “M” categories, which are highest priority for management and evaluation as described in the WY S&Gs Implementation Plan. Active management of category “C” isolated public lands is at a public cost and management effort largely beyond the scope of generating public benefit; see generally, *Ted Lapis v. U.S.*, 178 IBLA 62 (2009).

### **1.5 Scoping and Issues**

The BLM conducts its decision-making in accordance with the requirements of the Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (NEPA), and the Department of Interior (DOI) and BLM policies and procedures implementing NEPA. NEPA and the associated regulatory and policy framework require federal agencies to involve the interested public in their decision-making.

This EA received internal scoping. The identified issues are:

- How would the proposed action affect current livestock grazing management?
- Would the proposed action impact riparian areas?
- Would the proposed action impact invasive species?
- Would and how would the proposed action affect any special status species, particularly sage-grouse (candidate species)?
- Would the proposed action impact big game habitat?
- Would the proposed action impact migratory bird habitats or populations?
- Would the proposed action impact cultural resources and/or lands with wilderness characteristics?

This EA is sent to interested parties of record and is posted on the Buffalo Field Office (BFO) website to solicit public and cooperating agency comments over a 30-day period. The BFO uses received comments to assess whether the EA covers the issues raised and adequately addresses their significance. The BFO’s response consists of either addressing public comments in the decision record or results in the preparation of a new EA.

**2.0 PROPOSED ACTION AND ALTERNATIVES**

**2.1 Alternative A – No Action – Deny Transfer of Grazing Preference & Lease Issuance and Deny Pipeline Construction**

Under this alternative the BLM will not permit livestock grazing on the Long Draw Allotment. The previous grazing lease will be cancelled in accordance with 43 CFR parts 4100 and 1600 to eliminate grazing on the allotment.

Additionally, under this alternative the BLM will not allow the construction of a trough and stock water pipeline across BLM land in the Long Draw Allotment. The pipeline would likely still be constructed, while avoiding the public land. BLM would be unable to stipulate construction methods and mitigation measures.

**2.2 Alternative B- Authorize Transfer of Grazing Preference and Issuance of Lease, Deny Pipeline Construction**

Under this alternative, the BLM will transfer grazing privileges from Michael Lovato to B&L Betz Cattle Co., and issue a new 10-year term grazing lease to B&L Betz Cattle Co. for the Long Draw Allotment. There are no modifications to the current terms and conditions outlined in the existing lease held by Michael Lovato. Table 1 lists the details of this BLM grazing lease.

**Table 1**

Allotment	Livestock		Season of Use	% PL	AUMs	Type Use
	Number	Kind				
Long Draw Allotment (02343)	8	Cattle	3/01 – 2/28	100	99	Active

\*BLM recognizes that this allotment consists primarily of non-federal lands. As such, BLM will not limit the season of use or number of livestock as long as grazing use is not to the detriment of the public lands. The lease schedule shown is primarily for billing purposes.

The proposed action will transfer grazing privileges to B&L Betz Cattle from Michael Lovato and issue a new 10-year term grazing lease to B&L Betz. Both applicants are currently in good standing with the Bureau of Land Management (BLM) and meet all mandatory qualifications for obtaining a grazing lease per 43 CFR 4110.1 and 4110.2. In accordance with Title 43 CFR 4130.2(a), “Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans.”

Under this alternative the BLM will not allow the construction of a stock water pipeline across BLM land in the Long Draw Allotment. The pipeline would likely still be constructed, but avoid the public land. BLM would be unable to stipulate construction methods and mitigation measures.

### 2.3 Alternative C- Proposed Action – Authorize Transfer of Grazing Preference and Issuance of Lease, Authorize Pipeline Construction

The BLM Buffalo Field Office proposes to maintain and improve land health and enhance habitat conditions on public lands within the Buffalo Field Office by maintaining and/or enhancing upland grassland health and sagebrush habitats (species composition and structure) and maintaining riparian, wetland, and aquatic habitats through livestock grazing management.

The BLM also proposes to transfer grazing privileges from Michael Lovato to B&L Betz Cattle Co., and to issue a new 10-year term grazing lease to B&L Betz Cattle Co. for the Long Draw Allotment. There are no modifications to the current terms and conditions outlined in the existing lease held by Michael Lovato. Table 2 lists the details of this BLM grazing lease.

**Table 2**

Allotment	Livestock		Season of Use	% PL	AUMs	Type Use
	Number	Kind				
Long Draw Allotment (02343)	8	Cattle	3/01 – 2/28	100	99	Active

\*BLM recognizes that this allotment consists primarily of non-federal lands. As such, BLM will not limit the season of use or number of livestock as long as grazing use is not to the detriment of the public lands. The lease schedule shown is primarily for billing purposes.

The proposed action will transfer grazing privileges to B&L Betz Cattle Co. from Michael Lovato and issue a new 10-year term grazing lease to B&L Betz Cattle. Both applicants are currently in good standing with the Bureau of Land Management (BLM) and meet all mandatory qualifications for obtaining a grazing lease per 43 CFR 4110.1 and 4110.2. In accordance with Title 43 CFR 4130.2(a), “Grazing permits or leases shall be issued to qualified applicants to authorize use on the public lands and other lands under the administration of the Bureau of Land Management that are designated as available for livestock grazing through land use plans.”

The BLM also proposes to allow construction of a stock water pipeline and watering trough on BLM land in the Long Draw Allotment. The proposed pipeline will connect six new troughs on state, deeded, and public land to an existing well and 20,000 gallon storage tank. The new troughs will be gravity-fed by the storage tank. The entire pipeline project, being implemented cooperatively by the NRCS and B&L Betz Cattle, would be about 3.4 miles long. The pipeline would cross approximately 0.99 miles of federal surface, resulting in a short-term disturbance corridor approximately 10 feet wide through BLM lands. Installation of the trough on BLM land will create a small area of disturbance immediately adjacent to the trough. The other five new troughs and storage tank will be placed on state and deeded land. The new pipeline and troughs will provide new clean water sources to the pastures. The existing water sources in the allotment, two reservoirs, are salty and have contributed to livestock deaths. The increased availability of water in the allotment will also allow for greater operator flexibility in grazing rotation, timing, and distribution. NRCS has worked with B&L Betz Cattle Co. to develop a grazing plan for the ranch and will enforce requirements for proper use and maintaining healthy rangelands in the allotment. Prior to implementation of this EQIP project B&L Betz has lacked the capability to maintain a quality grazing rotation system.

Water will be pumped from an existing well to a 20,000 gallon storage tank, and a 2 inch HDPE DR-11 pipe will gravity-feed the new troughs. The pipe will be buried below the frost line at

approximately 5 to 6 feet deep. The pipe will be ripped in as much as possible to minimize disturbance, but some digging with a backhoe may be necessary in rocky areas. For much of its length, the pipeline will follow existing primitive two-track roads to minimize new disturbance. Surface disturbance along the pipeline corridor will be seeded to encourage speedy reclamation.

In order to safely transport pipeline construction equipment and materials to the project site, the project proponent may need to perform a small amount of maintenance along an existing primitive two-track road on BLM land. The existing road is in very poor condition due to lack of use and recent weather events. In conjunction with pipeline construction, a small piece of machinery may be used to grade the washouts along the two-track road in T. 53N, R. 79W, Sec.20: Lot 1. Any grading is not to exceed the width of the existing two-track. The road will not be maintained in the future without analysis in a separate NEPA document, and may not be used for other than casual use. This primitive two-track road is not accessible to the public and this minor maintenance is not expected to change the use level of the road.

The proposed water troughs are repurposed equipment tire tanks, holding approximately 700-900 gallons. The NRCS and BLM will provide wildlife escape ramps to be installed in new and existing water troughs to minimize impacts to wildlife. The earth around the trough will be compacted to a distance of at least 4 feet from the tank. The trough will be equipped with a 2-inch diameter overflow pipe with a discharge point at least 50 feet from the trough.

The proposed action will result in a Cooperative Range Improvement Agreement between the BLM and B&L Betz Cattle Co. authorizing installation of the pipeline and trough and specifying use and maintenance provisions in accordance with 43 CFR 4120.3-2.

#### **2.4 Conformance with Land Use Plan and Other Laws, Regulations, and Policies**

The Proposed Action is in conformance with the Record of Decision for the Buffalo Resource Management Plan approved October 4, 1985, the 2001 amendment, and the Powder River Basin Oil & Gas Project Final Environmental Impact Statement and Resource Management Plan Amendment (PRB FEIS) approved April 30, 2003. The action is also consistent with the land use plan terms and conditions as required by 43 CFR 1610.5-3(a). The Buffalo RMP EIS analyzed the impacts of grazing.

This Environmental Analysis fulfills the 1969 National Environmental Policy Act (NEPA) requirement for site-specific analysis. The Proposed Action is in accordance with the following laws and/or regulations, other plans, and is consistent with federal, state, and local laws, regulations:

- Taylor Grazing Act of June 30, 1934
- Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.)
- Public Rangelands Improvement Act of 1978
- Endangered Species Act of 1973
- 43 CFR § 4100 Grazing Administration-Exclusive of Alaska
- Clean Water Act Section 303d
- National Historic Preservation Act of 1966 Section 106
- National Environmental Policy Act of 1969

- Sikes Act of 1969 (Habitat Improvement on Public Land)
- Fish and Wildlife Improvement Act of 1978
- Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds
- Grazing Regulations as codified in 43 CFR § 4100 as amended in 2005
- BLM Instruction Memorandum No. WY-2010-012, Greater Sage-Grouse Habitat Management Policy on Wyoming BLM Administered Public Lands including the Federal Mineral Estate (Maintained into the Buffalo RMP)
- DOI Secretarial Order No.3310—Protecting Wilderness Characteristics on Lands Managed by the BLM, Dec. 2010

### **3.0 AFFECTED ENVIRONMENT**

#### **3.1 Introduction**

##### **3.1.1 Location**

The Long Draw Grazing Allotment is about four miles south of Clearmont, Wyoming in Johnson and Sheridan Counties. The allotment is a mixture of public, private, and state lands (lands managed by the Office of State Lands and Investments). Private lands compose the majority of the allotment, with 640 acres of state land and four parcels of BLM land that total 732 acres. There is no legal public access to the public lands in the allotment.

The proposed pipeline will cross a parcel of BLM land in the western half of the allotment.

##### **3.1.2 General Description**

The Long Draw Allotment is typical of the land forms, soils, and vegetation in the area of influence for the Powder River drainage system. Differences in dominant species within the allotment vary with soil type, aspect, topography, and water availability. Annual precipitation is the principal factor limiting forage production. Floodplains and lowlands with intermittent streams are the most productive sites and the very steep escarpments, ridges, and slopes are the least productive.

No perennial streams are present in the allotment. All stream channels lying in this allotment are intermittent streams. This means that water flow generally occurs during the wet season (50% of the year or less) so water typically only flows in these channels during times such as spring runoff. Water ceases to flow in these channels during drier periods but may still continue to run underground. As such, there may or may not be riparian vegetation associated with intermittent stream channels. Also, they are not a reliable source of water for livestock or wildlife. There are several stock water reservoirs in the allotment, which do not have associated riparian vegetation.

The public land in this allotment is clearly lacking in wilderness characteristics due to its small size (less than 5,000 acres).

The soils within the Long Draw Allotment vary greatly depending on topographic location, slope, elevation, and precipitation. The climate of the area is characterized by relatively low amounts of precipitation, averaging between 10 and 14 inches annually. The majority of soils within the allotment are loams. Soils at the site of the proposed pipeline are primarily loamy.

Wyoming big sagebrush is a significant component of the plant community associated with loamy sites; densities range from 2-12% in the project area. Cool-season mid-grasses make up the majority of the understory with the balance made up of short warm-season grasses, introduced annual grasses, and miscellaneous forbs. The dominant cool season mid-grass species include green needlegrass (*Nassella viridula*), needleandthread (*Hesperostipa comata*), and rhizomatous wheatgrasses. Grasses can account for up to 75% of the vegetation in this type of ecological site. With an elevation of approximately 4200 feet, the growing season is short, consisting of the months of April through mid-August. The pipeline project site is located in an area of mixed grasses and moderate sagebrush cover.

Historically, native plants in northeastern Wyoming evolved under prehistoric conditions which included grazing and browsing by bison and other native ungulates, and an associated low frequency of fire. This community is well-suited to grazing by both domestic livestock and wildlife year round.

### 3.1.3 Energy Development

The BLM permits federal mineral development (coal bed natural gas, conventional oil, and coal) in the PRB. This includes federal minerals below federal and/or private (split estate) surface. The BLM prepares EAs, as required by the National Environmental Policy Act of 1969 (NEPA), for this federal mineral development. In general, companies submit proposals in the form of plans of development (PODs) that may consist of one to 200 wells. Currently, a small portion of the Long Draw Allotment lies within the approved Jewell Draw POD operated by Lance Oil & Gas Company. The allotment does not contain any producing oil and gas wells. An EA specific to the Jewell Draw POD analyzes the environmental impacts from federal mineral development, and this document incorporates it by reference.

### **This grazing lease issuance does not affect the following resources, which receive no further analysis:**

Air Quality	Recreation
Areas of Critical Environmental Concern (ACEC)	Soils
Environmental Justice	Traditional Cultural Properties
Prime or Unique Farmlands	Visual Resource Management
Flood Plains	Water Quality and Prime or Sole Source of
Hazardous or Solid Wastes	Drinking Water
Mineral Resources	Wetlands and Riparian Zones
Native American Religious Concerns	Wild and Scenic Rivers
Paleontology	

### 3.2 Cultural Resources

Class III inventory for cultural resources has not occurred on the majority of the allotment. Several inventories related to range improvement projects have been conducted but have not discovered cultural sites. The Long Draw Allotment contains no known cultural sites. There may be many more unrecorded cultural sites, some which may be eligible for listing on the National Register, within the allotment.

Class III cultural resource inventory was performed for the proposed pipeline prior to on-the-ground project work (BFO project no. 70110085). A 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* was performed by the BLM-BFO. 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.

### **3.3 Livestock Grazing**

In 1985, BLM established three categories for allotments to identify areas where management was potentially needed, as well as to prioritize workloads and the use of range improvement funds. The categories classify allotments as Improve Existing Resource Conditions (I), Maintain Existing Resource Conditions (M), or Custodial Management (C) (USDI 2008). The Long Draw Allotment is a category "C" allotment, meaning its management is minimal in nature, due to the small amount of public land within the allotment. The BLM's rationale for this classification is that there are no identified resource problems, and the size and continuity of the public land is not conducive to more intensive management by the BLM.

The Long Draw Allotment consists of 732 acres of public land, 640 acres of state land, and about 7,140 acres of deeded land. There are 99 AUMs associated with the federal lands in the allotment. Grazing of public land parcels is in conjunction with state and deeded lands.

Within the allotment, there are two pastures containing BLM lands. The proposed pipeline would be located in the west pasture of the allotment, which is approximately 2200 acres in size. There are no rangeland improvements currently located on this BLM land. The pasture does contain two stock water reservoirs on deeded land, one on the northern end and one on the southern end of the pasture. These two reservoirs, especially the northern reservoir, are salty and have contributed to livestock deaths. The poor quality and limited availability of water in the pasture prompted B&L Betz Cattle Co. to cooperate with NRCS on this project.

Livestock may be grazed in the allotment at any time of year. The BLM does not limit season of use in the allotment.

### **3.4 Invasive Species/Noxious Weeds**

Invasive species and noxious weeds exist in the affected environment. The primary species in the allotment are leafy spurge (*Euphorbia esula*), canada thistle (*Cirsium arvense*) and downy brome (*Bromus tectorum*). This *Bromus* species occurs in such high densities and numerous locations throughout northeast Wyoming that a control program is not considered feasible at this time. Leafy spurge is present throughout the allotment, on both deeded and BLM lands. No noxious weed infestations around water developments were observed in July 2011. Johnson and Sheridan County Weed & Pest programs have been notified and are working to control noxious weed infestations in the allotment and project area.

### **3.5 Wildlife, Threatened & Endangered, Candidate and Sensitive Species**

The BLM conducted wildlife evaluations to assess the occurrence of selected wildlife species and their habitats, as well as to evaluate the anticipated effects associated with issuance of the

proposed grazing lease and installation of the proposed pipeline on the Long Draw Allotment. The evaluations included selected individual species or species groupings that are ecologically, economically, or socially important.

Evaluation methods included comparison of aerial imagery (1994 to 2009) and review of wildlife geospatial datasets (available at the Buffalo BLM Field Office). Datasets included occurrence information for big game, raptors, bald eagles, sage-grouse, sharp-tailed grouse, mountain plover, black-tailed prairie dogs, and sagebrush in the project area. An on-site evaluation was conducted by a BLM biologist on July 27, 2011.

Wildlife habitats occurring on the Long Draw Allotment are results of a complex history of natural and man-caused influences. Important natural influences included short- and long-term climate variation, infrequent wildfire, and ungulate grazing; especially by bison (Baker 2006; Mack and Thompson 1982). From about 1880 to 1910, the removal of native bison, and their subsequent replacement with “vast numbers” of cattle and excessive numbers of sheep, greatly influenced the PRB, including the Long Draw Allotment (Cassity 2007; Patterson 1952). The combined impacts of cattle and sheep overstocking and climate may have initiated the ongoing epicycle of gully erosion that is evident throughout the Basin (Leopold and Miller 1954). Enactment of the Taylor Grazing Act of 1934 repaired early range degradation and aided the recoveries of reduced wildlife populations (Patterson 1952).

The following tables summarize the affected environment relative to selected wildlife.

**Table 3. Summary of Species Habitat and Project Effects.**

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<b>Amphibians</b>				
Northern leopard frog ( <i>Rana pipiens</i> )	Beaver ponds, permanent water in plains and foothills (SS Policy). Swampy, cattail marshes on the plains (WGFD CWCS).	NS	MIIH	Marginally suitable habitat may be present. Individuals or eggs may be trampled. Pipeline construction will not affect.
Columbia Spotted frog ( <i>Ranus pretiosa</i> )	Breeds in the shallows of lakes, ponds, marshes, and small streams (NatureServe).	NS	MIIH	Marginally suitable habitat may be present. Individuals or eggs may be trampled. Pipeline construction will not affect.
<b>Birds</b>				
Baird's sparrow ( <i>Ammodramus bairdii</i> )	Grasslands, weedy fields (SS Policy). Un- or lightly grazed mixed-grass prairie, wet meadows, tallgrass prairie. Prairie w/ scattered low bushes and matted vegetation (NatureServe). In dry years, grassy slough bottoms, alkali flats, and depressions in low lying grasslands.	S	MIIH	Trampling of nests may occur. Negligible impacts from livestock or humans disrupting breeding, dislodging nests, or causing adult to leave eggs or chicks unattended. Dust, noise, and human disturbance may cause species to avoid the area during pipeline construction.
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Mature forest cover often within one mile of large water body (SS Policy). Nests near large lakes and rivers in forested habitat where adequate prey and old, large-diameter cottonwood or conifer trees are available for nesting (WGFD CWCS). Migrating and wintering eagles congregate near open water areas where concentrations of prey are available, such as carcasses of ungulate species, and spawning areas for kokanee, trout, and other fish (WGFD CWCS).	K	NI	Roosting and nesting habitat is present within one mile. Bald eagles may use the area for foraging. At least two individuals have been observed within the allotment. Activities associated with ongoing livestock grazing operations are not likely to occur to such an extent that foraging behavior will be disrupted. Pipeline construction will occur outside of the nesting and winter roosting seasons.
Brewer's sparrow ( <i>Spizella breweri</i> )	Basin-prairie shrub (SS Policy). Closely associated with sagebrush shrublands that have abundant, scattered shrubs and short grass (WGFD CWCS).	S	MIIH	Trampling of nests may occur. Negligible impacts from livestock or humans disrupting breeding, dislodging nests, or causing adult to leave eggs or chicks unattended. Dust, noise, and human disturbance may cause species to avoid the area during project construction. Sagebrush removal will be minimal due to pipeline installation along existing primitive road.
Burrowing owl ( <i>Athene cunicularia</i> )	Grasslands, basin-prairie shrub (SS Policy). Prefers open prairie, grassland, desert, and shrub-steppe habitats, and may also inhabit agricultural areas. It depends on mammals that dig burrows, which it uses for nesting, roosting, and escape (WGFD CWCS).	S	MIIH	Burrowing owls prefer grazed areas and use cow manure to line their nests. Part of the proposed pipeline crosses a prairie-dog town on deeded land. Dust, noise, and human disturbance may cause species to avoid the area during pipeline construction. Construction will occur outside of the breeding season.
Ferruginous hawk ( <i>Buteo regalis</i> )	Basin-prairie shrub, grasslands, rock outcrops (SS Policy). Semi-arid open country, primarily grasslands, basin-prairie shrublands, and badlands (WGFD CWCS). Requires large tracts of relatively undisturbed rangeland and nests in rock outcrops, the ground, cutbanks, cliff ledges, or trees (WGFD CWCS).	NS	NI	Ferruginous hawks may forage in this area, but no nests or individuals have been documented within ten miles of the allotment. Livestock activity and pipeline construction should not affect foraging behavior.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	Basin-prairie shrub, mountain-foothill shrub (SS Policy). Grasslands interspersed with scattered trees and shrubs that provide nesting and perching sites.	S	MIIH	Ongoing livestock operations will not result in reduced shrub cover or habitat fragmentation. Nests may be toppled by livestock. Dust, noise, and human disturbance may cause species to avoid the area during pipeline construction.
Long-billed curlew ( <i>Numenius americanus</i> )	Grasslands, plains, foothills, wet meadows (SS Policy). Inhabits a variety of grassland types ranging from moist meadow grasslands to agricultural areas to dry prairie upland, usually near water. Prefers a complex of shortgrass prairies, agricultural fields, wet and dry meadows and prairies, and grazed mixed-grass and scrub communities. Nests on the ground in habitat that includes grass <12", bare ground, shade, abundant invertebrate prey, and a minimum on 40 acres of suitable habitat (WGFD CWCS).	NS	NI	Marginally suitable habitat may be present.
Migratory bird species (Various)	Multiple vegetation types are used for breeding, foraging and wintering, with habitat types ranging from grasslands and shrub-steppe to woodlands and riparian areas.	K	MIIH	Trampling of nests may occur. Negligible impacts from livestock or humans disrupting breeding, dislodging nests, or causing adult to leave eggs or chicks unattended. Ongoing livestock operations should not create significant additional impacts. Short-term disturbance during pipeline construction will have minimal impacts.
Mountain plover ( <i>Charadrius montanus</i> )	Short-grass prairie with slopes < 5% (SS Policy). Low, open habitats such as arid shortgrass and mixed-grass prairies dominated by blue grama and buffalo grass with scattered clumps of cacti and forbs, and saltbush habitats of the shrub-steppe. Prefers to nest in large, flat grassland expanses with sparse, short vegetation (<=4") and bare ground. Adapted to areas that have been disturbed by prairie dogs, heavy grazing, or fire (WGFD CWCS).	S	MIIH	Suitable plover habitat is present. Birds may prefer grazed areas. Pipeline construction may result in temporary disturbance of individuals. Pipeline construction will occur outside of the breeding season.
Northern goshawk ( <i>Accipiter gentilis</i> )	Conifer and deciduous forests (SS Policy). Mixed coniferous habitat of a wide variety of ages, structural conditions, and successional stages. Nests in mature stands with multilayered canopies with open understory, small openings, and water within 0.25 miles. Nest stands often on slopes with northerly exposures or in drainages or canyon bottoms protected by such slopes. Post-fledging area is a mosaic of forest types that provide hiding cover and abundant prey. Foraging area may include a variety of forest types and structures but most often consists of forests with a high density of large trees, high canopy closure, high basal area, and relatively open understories, interspersed w/ shrublands and openings with perching trees to observe prey. Winter habitat probably includes a variety of vegetation types, such as forests, woodlands, shrublands, and forested riparian strips (WGFD CWCS).	NP	NI	Forested habitat not present.
Peregrine falcon ( <i>Falco peregrinus</i> )	Cliffs (SS Policy). Forages in open woodlands and forests, shrub-steppe, grasslands, marshes, and riparian habitats. Nests in cliffs that are usually proximate to habitats with abundant prey (WGFD CWCS).	NP	NI	Nest substrate not present. No known breeding pairs in proximity.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
Plains Sharp-Tailed Grouse ( <i>Tympanuchus phasianellus jamesi</i> )	Short and mixed-grass prairie, sagebrush shrublands, woodland edges, and river canyons. Common where grasslands are intermixed with other shrublands, especially wooded draws, shrubby riparian area, and wet meadows. Diets include a variety of forbs, grasses and insects. In winter, sharp-tailed grouse also feed on buds and catkins of deciduous trees or shrubs and berries. Birds are also known to feed on the buds of aspen and willow.	S	MIIH	Properly managed grazing will maintain quality cover and habitat. Nests or chicks may occasionally be trampled. There is a lek within 4 miles of the allotment. Ongoing livestock operations and short-term disturbance during pipeline construction are not likely to change use of this area by Sharp-tailed grouse.
Sage sparrow ( <i>Amphispiza billineata</i> )	Basin-prairie shrub, mountain-foothill shrub (SS Policy). Considered a sagebrush obligate. Inhabits prairie and foothills shrubland habitat where sagebrush is present. Prefers shrublands with tall shrubs and low grass cover, where sagebrush is clumped in a patchy landscape. Requires a large block of unfragmented habitat to successfully breed and survive (WGFD CWCS).	S	MIIH	Nests may be trampled. Cover will be affected. Sagebrush removal will be minimal due to pipeline installation along existing primitive road. Dust, noise, and human disturbance may cause species to avoid the area during pipeline construction.
Sage thrasher ( <i>Oreoscoptes montanus</i> )	Basin-prairie shrub, mountain-foothill shrub (SS Policy). Considered a sagebrush obligate. Inhabits prairie and foothills shrubland habitat where sagebrush is present. Prefers shrublands with tall shrubs and low grass cover, where sagebrush is clumped in a patchy landscape (WGFD CWCS).	S	MIIH	Nests may be trampled. Uncommon cowbird host, which are associated with cattle. May be more susceptible to higher parasitism pressure. Sagebrush removal will be minimal due to pipeline installation along existing primitive road. Dust, noise, and human disturbance may cause species to avoid the area during pipeline construction.
Trumpeter swan ( <i>Cygnus buccinator</i> )	Lakes, ponds, rivers (SS Policy). Inhabits shallow marshes, ponds, lakes, and river oxbows. Prefers stable, quiet, and shallow waters where small islands, muskrat houses, or dense emergent vegetation provide nesting and loafing sites. Nutrient-rich water, with dense aquatic plant and invertebrate growth, provide the most suitable habitat. Winter habitat must provide extensive beds of aquatic plants that remain ice-free. In Wyoming, cold temps and ice restrict trumpeters to sites where geothermal waters, springs, or outflow from dams maintain ice-free areas (WGFD CWCS).	NP	NI	Habitat not present.
White-faced ibis ( <i>Plegadis chihh</i> )	Marshes, wet meadows (SS Policy). Inhabits marshes, wet-moist meadows, lakes, and irrigated meadows. Nests on the ground in bulrushes, cattails, or reeds; on a floating mat; or in a low tree.	NP	NI	Habitat not present.
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	Open woodlands, streamside willow and alder groves (SS Policy). Nests primarily in large stands of cottonwood-riparian habitat below 7000 feet, including such habitats that occur in urban areas. It is a riparian obligate species that prefers extensive areas of dense thickets and mature deciduous forests near water, and requires low, dense, shrubby vegetation for nest sites.	NP	NI	Habitat not present.
<b>Fish</b>				
Yellowstone cutthroat trout ( <i>Oncorhynchus clarki bouvier</i> )	Mountain streams and rivers in Tongue River drainage	NP	NI	Habitat not present.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
<b>Mammals</b>				
Black-tailed prairie dog ( <i>Cynomys ludovicianus</i> )	Prairie habitats with deep, firm soils and slopes less than 10 degrees (SS Policy). Inhabits dry, flat, open, shortgrass and mixed-grass grasslands with low, relatively sparse vegetation, including areas overgrazed by cattle. Constructs burrows in fine to medium soils (WGFD CWCS).	K	MIIH	Prairie dogs often prefer habitats grazed by livestock. A section of the proposed pipeline crosses part of a small prairie dog town along an existing two-track road. There will be minimal and temporary disturbance to the prairie dogs during construction. Direct mortality of individuals may occur during pipeline construction.
Fringed myotis ( <i>Myotis thysanodes</i> )	Conifer forests, woodland chaparral, caves and mines (SS Policy). Found in a wide range of habitats, including coniferous forests, woodlands, grasslands, and shrublands. Probably most common in xeric woodlands, such as juniper, ponderosa pine, and Douglas-fir. Typically forages over water, along forest edges, or within forests and woodlands. During summer, uses a variety of roosts, including rock crevices, tree cavities, caves, abandoned mines, and buildings. During winter, it hibernates in caves, abandoned mines, and buildings (WGFD CWCS). Must remain within commuting distance of drinking water. Roosts in rock crevices that typically face southeast or southwest and are in low elevation forests or woodlands (WGFD Bat Conservation Plan).	S	NI	Habitat may be present. Foraging activity will not be affected by daytime pipeline construction or ongoing livestock operations.
Long-eared myotis ( <i>Myotis evotis</i> )	Conifer and deciduous forest, caves and mines (SS Policy). Primarily inhabits coniferous forest and woodland, including juniper, ponderosa pine, and spruce-fir. Typically forages over rivers, streams, and ponds within the forest-woodland environment. During summer, it roosts in a wide variety of structures, including cavities in snags, under loose bark, stumps, buildings, rock crevices, caves, and abandoned mines. During winter, it probably hibernates primarily in caves and abandoned mines (WGFD CWCS). Occasionally found in cottonwood riparian areas, basins, and sagebrush grasslands where roost sites are available (WGFD Bat Cons. Plan). Most likely found in areas close to a water source. May also occur more frequently in suitable habitat near rock outcroppings or cliffs. Primarily forages over rivers, streams, and ponds within the forest-woodland environment. Also forages over open areas such as campgrounds, small forest openings, and edges, although foraging areas are most likely to be close to a water source. Large-diameter conifer snags provide primary roosting habitat (WGFD Bat Cons. Plan).	NP	NI	Forested habitat not in proximity.
Spotted bat ( <i>Euderma maculatum</i> )	Cliffs over perennial water (SS Policy). Occupies a wide variety of habitats, from desert scrub to coniferous forest. Most often observed in low deserts and basins and juniper woodlands. Roosts in cracks and crevices in high cliffs and canyons. May occasionally roost in buildings, caves, or abandoned mines, although cliffs are the only roosting habitat in which reproductive females have been located (WGFD CWCS). Often occurs in association with canyons,	S	NI	Roosting habitat may be present, but will not be impacted by continued livestock grazing or pipeline construction.

Common Name (scientific name)	Habitat	Presence	Project Effects	Rationale
	prominent rock features, and permanent water sources. In desert environments, it forages in canyons, in the open, or over riparian vegetation. All recorded occurrences of spotted bats in WY were close to a permanent water source (WGFD Bat Conservation Plan).			
Swift fox ( <i>Vulpes velox</i> )	Grasslands (SS Policy). Inhabits shortgrass and mixed-grass prairies. Often uses highway and railroad ROWs, agricultural areas, and sagebrush-grasslands. Closely associated w/ prairie dog colonies and uses underground dens year-round. Selects habitat with low-growing vegetation, relatively flat terrain, friable soils, and high den availability (WGFD CWCS).	S	MIIH	Inappropriate grazing could reduce hiding cover and increase susceptibility to predation. Pipeline construction may temporarily discourage fox activity in the immediate area.
Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )	Caves and mines (SS Policy). Occupies a variety of xeric to mesic habitats, including coniferous forests, juniper woodlands, deciduous forests, basins, and desert shrublands, and is absent only from the most extreme deserts and highest elevations. Requires caves or abandoned mines for roost sites during all seasons and stages of its life cycle, and its distribution is strongly correlated with the availability of these features (WGFD CWCS). May be limited to areas with reliable, accessible sources of drinking water. Forages primarily along forest and woodland edges, riparian corridors, and in open areas near wooded habitat. May avoid open, grazed pasture land.	S	NI	Availability of roost sites is unknown, but foraging habitat is present. Ongoing livestock grazing unlikely to affect prey abundance or availability of foraging habitat. Daytime pipeline construction will not affect this species.
<b>Plants</b>				
Limber Pine ( <i>Pinus flexilis</i> )	High-elevation pine, often marking the tree line either on its own, or with Whitebark Pine ( <i>Pinus albicaulis</i> ), either of the Bristlecone pines, or Lodgepole Pine ( <i>Pinus contorta</i> ). Found in steeply-sloping, rocky and windswept terrain in the Rocky Mountains.	NP	NI	Habitat not present
Porter's sagebrush ( <i>Artemisia porteri</i> )	Sparsely vegetated badlands of ashy or tuffaceous 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	Habitat not present
<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.		<b>Project Effects</b> <b>NI</b> - No Impact. <b>MIIH</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		

**Table 4. Summary of Threatened and Endangered Species Habitat and Project Effects**

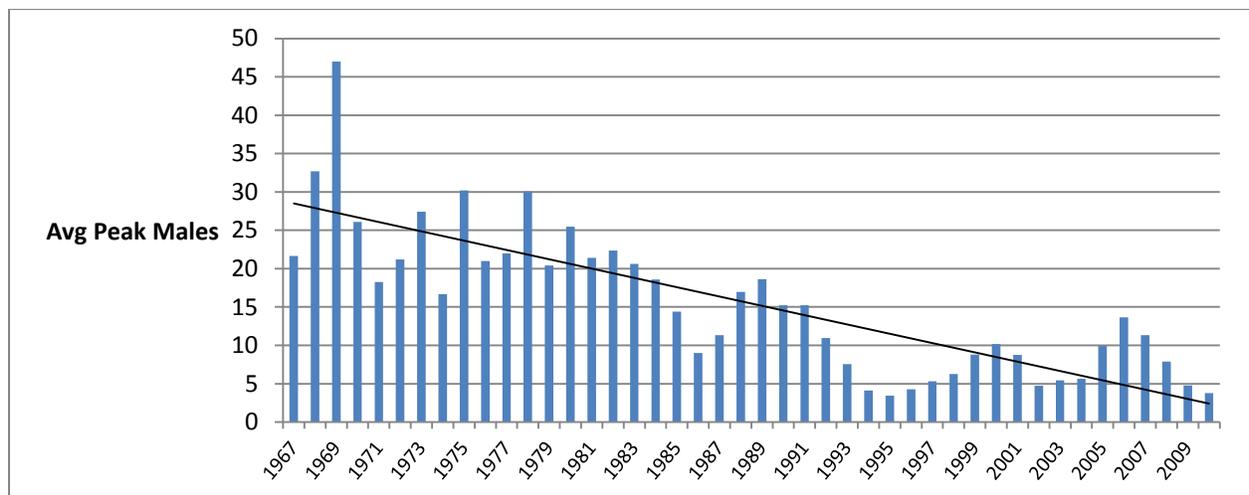
<b>Common Name (scientific name)</b>	<b>Habitat</b>	<b>Presence</b>	<b>Project Effects</b>	<b>Rationale</b>
<b>Endangered</b>				
Black-footed ferret ( <i>Mustela nigripes</i> )	Black-tailed prairie dog colonies or complexes > 1,000 acres.	NS	NE	Deeded land in the eastern half of the allotment overlaps the Arvada prairie dog complex, which is of sufficient size to provide ferret habitat. However, no ferrets have been observed in the area and the U.S. Fish & Wildlife Service has provided block clearance for black-footed ferret in this region of Wyoming.
<b>Threatened</b>				
Ute ladies'-tresses orchid ( <i>Spiranthes diluvialis</i> )	Riparian areas with permanent water	NP	NE	Habitat not present
<b>Candidates for listing</b>				
Greater sage-grouse ( <i>Centrocercus urophasianus</i> )	Basin-prairie shrub, mountain-foothill shrub (SS Policy). Also includes wet-moist meadows, and alfalfa and irrigated meadows when adjacent to sagebrush (WGFD CWCS).	S	MIIH	Seven leks are within four miles of BLM land. BLM land provides suitable wintering, nesting, and brood-rearing habitat. Incubating female, eggs, and/or chicks may occasionally be trampled. Ongoing livestock operations are not likely to change current use of this area by nesting sage-grouse. Pipeline construction may temporarily disturb individuals, but surface disturbance will be completed outside of the nesting season and sagebrush removal will be minimal. Wildlife escape ramps will be placed in all stock tanks to reduce the threat of mortality from drowning.
<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.			<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. <b>NLJ</b> - Not likely to jeopardize continued existence <b>MIIH</b> - May impact individuals and habitat <b>NP</b> - Habitat not present and species unlikely to occur within the project area.	

### Greater Sage-grouse

This environmental assessment discusses greater sage-grouse in detail because they are classified as a candidate species, warranted for listing under the Endangered Species Act (USFWS 2010) but currently precluded by higher priorities, and are thus of heightened management concern in the Buffalo Field Office. Sage-grouse are also a Wyoming BLM sensitive species and a Wyoming Game & Fish Department (WGFD) Species of Greatest Conservation Need.

Greater sage-grouse habitat is present at the site of the proposed pipeline and throughout the Long Draw allotment. Habitat models indicate that BLM lands within the allotment contain high quality winter and nesting/brood-rearing habitat (Doherty et al. 2007, Doherty 2008). Presence of high quality sage-grouse habitat was confirmed by the BLM biologist during the July 27, 2011 onsite visit. The allotment and proposed pipeline are located in an area that was designated as core area and connectivity habitat in Wyoming Governor's Executive Order 2011-5, Greater Sage-grouse Core Area Protection. Eight leks lie within four miles of the allotment: Arpan Draw, Clear Creek Cutoff, Clearmont, Cook Draw, Cottonwood Creek I, Fieldgrove, Grub Draw, and Thompson Creek Rd I. WGFD files indicate that the Clearmont lek was destroyed in 2007 and is classified as unoccupied. The Cook Draw, Cottonwood Creek I, and Fieldgrove leks were reported active in 2011.

The sage-grouse population within northeast Wyoming is exhibiting a steady long term downward trend (WGFD 2010, USFWS 2010). The figure below illustrates a ten-year cycle of periodic highs and lows. Each subsequent population peak is lower than the previous peak. Long-term harvest trends are similar to that of lek attendance (WGFD 2010). Habitat fragmentation is the primary attributor to these declines (USFWS 2010). However research also points to a synergy between habitat fragmentation and West Nile Virus (WNV) outbreaks that are detrimental to sage-grouse. (Naugle et al. 2011, Walker et al. 2011 and 2007, Holloran 2005, Clark et al. 2006, Zou et al. 2006)



**Figure 1**  
Average peak number of male sage-grouse per active lek and trend line within the BFO 1967-2010

### 3.5.1 Big Game

Big game species occurring within the Long Draw allotment include pronghorn and mule deer. WGFD data indicate that the allotment contains yearlong range for pronghorn and winter-yearlong range for mule deer. Yearlong use is when a population makes general use of suitable documented habitat sites within the range on a year-round basis, but animals may leave the area under severe conditions. Winter-yearlong use is when a population or a portion of a population of animals makes general use of the documented suitable habitat sites within this range on a year-round basis, but during the winter months there is a significant influx of additional animals into the area from other seasonal ranges.

### 3.5.2 Raptors

Raptors use the Long Draw allotment for breeding, foraging, wintering, and migration. Common raptor species frequenting the allotment include golden eagle, northern harrier, red-tailed hawk, Swainson's hawk, American kestrel, short-eared owl, and great-horned owl. Less common species that may use habitats in the area include bald eagle, rough-legged hawk, and merlin. Bald eagles occasionally roost in cottonwood galleries areas along Clear Creek in the winter and forage throughout the area. Raptors generally prey upon small mammals, reptiles, and fish. Their survival and reproductive success depends, in part, upon the availability and abundance of these food sources. Two raptor nests have been identified within the allotment, a golden eagle nest (BLM ID #457) and a nest belonging to an unknown raptor species (BLM ID #12390). Both nests were inactive in 2010. The nests are located more than one mile from BLM land and the pipeline project area.

### 3.5.3 West Nile Virus

West Nile virus (WNV) is a mosquito-borne disease that can cause encephalitis or brain infection. Mosquitoes spread this virus after they feed on infected birds and then bite people, other birds, and animals. WNV is not spread by person-to-person contact, and there is no evidence that people can get the virus by handling infected animals.

WNV firmly established and spread across the United States since its discovery in 1999 in New York. Birds are the natural vector host and serve not only to amplify the virus, but to spread it. Though less than 1% of mosquitoes carry WNV, they still are effective in transmitting the virus to humans, horses, and wildlife. *Culex tarsalis* appears to be the most common mosquito to vector WNV.

The human health issues related to WNV are well documented and appear to have leveled off. Historic data collected by the CDC, published by the USGS at: [www.westnilemaps.usgs.gov](http://www.westnilemaps.usgs.gov), and are summarized in Table 5. Reported data from the Powder River Basin (PRB) includes Campbell, Sheridan and Johnson counties.

**Table 5. Historical West Nile Virus Information**

Year	Total WY Human Cases	PRB		
		Human Cases	Equine Cases	Bird Cases
2001	0	0	0	0
2002	2	0	15	3
2003	392	85	46	25

2004	10	3	3	5
2005	12	4	6	3
2006	65	0	2	2
2007	155	22	Unk	1
2008	10	0	0	0
2009	10	1	1	No record
2010	6	0	0	0

Source: Wyoming Department of Health, [www.badskeeter.org/detections.html](http://www.badskeeter.org/detections.html).

Human cases of WNV in Wyoming occur primarily in the late summer or early fall. There is some evidence that the incidence of WNV tapers off over several years after a peak following initial outbreak. If this is the case, occurrences in Wyoming may exhibit a gradual decline in the number of reported cases.

Although most of the attention focuses on human health issues, WNV has an impact on vertebrate wildlife populations. At a recent conference at the Smithsonian Environmental Research Center, scientists disclosed WNV was detected in 157 bird species, horses, 16 other mammals, and alligators (Marra et al 2003). In the eastern US, avian populations incurred very high mortality, particularly crows, jays and related species. Raptor species also appear to be highly susceptible to WNV.

Researchers documented that 36 raptors died from WNV in Wyoming in 2003. These included golden eagle, red-tailed hawk, ferruginous hawk, American kestrel, Cooper's hawk, northern goshawk, great-horned owl, prairie falcon, and Swainson's hawk (Cornish et al. 2003). Actual mortality is likely to be greater. Population impacts of WNV on raptors are unknown at present. The Wyoming State Vet Lab determined 22 sage-grouse in one study project (90% of the study birds), succumbed to WNV in the PRB in 2003. While birds infected with WNV have many of the same symptoms as infected humans, they appear to be more sensitive to the virus (Rinkes 2003, Holloran 2005, Clark 2006, Walker 2011, 2007).

Mosquitoes can potentially breed in any standing water that lasts more than 4 days. In the PRB there is generally increased surface water availability associated with coal bed natural gas development. This increase in potential mosquito breeding habitat provides opportunities for mosquito populations to increase (Zou 2006). Preliminary research conducted in the PRB indicates WNV mosquito vectors were notably more abundant on a developed CBNG site than 2 similar undeveloped sites (Walker et al. 2003). Reducing the population of mosquitoes, especially species that are apparently involved with bird-to-bird transmission of WNV, such as *Culex tarsalis*, can help to reduce or eliminate the presence of virus in a given geographical area (APHIS 2002). The most important step any property owner can take to control such mosquito populations is to remove all potential man-made sources of standing water in which mosquitoes might breed (APHIS 2002).

The most common pesticide treatment is to place larvicidal briquettes in small standing water pools along drainages or every 100 feet along the shoreline of reservoirs and ponds. It is generally accepted that it is not necessary to place the briquettes in the main water body because wave action prevents this environment from being optimum mosquito breeding habitat. These treatment methods seem to be effective when focused on specific target areas, especially near communities, however they have not been applied over large areas nor have they been used to

treat a wide range of potential mosquito breeding habitat such as that associated with CBNG development or range improvement projects.

#### **4.0 ENVIRONMENTAL EFFECTS**

This section describes the environmental effects of the no action alternative (Alternative A), Alternative B, and those of the proposed action, Alternative C. The effects analysis addresses the direct and indirect effects of implementing the proposed action, the cumulative effects of the proposed action combined with reasonably foreseeable federal and non-federal actions, identifies mitigation measures, and discloses any residual effects.

#### **4.1 Direct and Indirect Effects**

##### **4.1.1 Cultural Resources**

##### **Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Deny Lease Issuance:*

The absence of grazing will not result in impacts to cultural resources.

###### *Deny Pipeline:*

The absence of the pipeline will not result in impacts to cultural resources.

##### **Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Authorize Lease Issuance:*

Any activity that removes vegetation or leads to soil erosion can cause impacts to cultural resources. Livestock concentration areas (such as those that form near water sources, supplemental feeding areas, fence corners, etc.) and livestock trail formation may result in impacts to cultural resources. According to the State Protocol Agreement between the Wyoming BLM and the Wyoming SHPO, grazing lease renewals that do not include seasonal grazing changes or changes in livestock types are exempt from case-by-case review. As per Appendix B item #27 and following section IV(A)(3) of the Wyoming State Protocol, on 08/10/11 the Bureau electronically notified the Wyoming State Historic Preservation Office (SHPO) of this grazing lease renewal.

###### *Deny Pipeline:*

The absence of the pipeline will not result in impacts to cultural resources.

##### **Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

###### *Authorize Lease Issuance:*

Any activity that removes vegetation or leads to soil erosion can cause impacts to cultural resources. Livestock concentration areas (such as those that form near water sources, supplemental feeding areas, fence corners, etc.) and livestock trail formation may result in impacts to cultural resources. According to the State Protocol Agreement between the Wyoming BLM and the Wyoming SHPO, grazing lease renewals that do not include seasonal grazing changes or changes in livestock types are exempt from case-by-case review. As per Appendix B item #27 and following section IV(A)(3) of the Wyoming State Protocol, on 08/10/11 the Bureau electronically notified the Wyoming State Historic Preservation Office (SHPO) of this grazing lease renewal.

*Authorize Pipeline:*

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 August 10, 2011 that no historic properties exist within the area of project effects (APE). If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS)] are observed during operation of this lease/cooperative agreement, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are explained in the Standard COA (General)(A)(1).

#### **4.1.2 Livestock Grazing**

##### **Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

*Deny Lease Issuance:*

FLPMA requires the BLM to manage public lands and resources according to the principals of multiple use and sustained yield and recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber. FLPMA also requires the BLM—except in cases of emergency—to give two years' notification when an authorization for domestic livestock grazing is cancelled, in whole or in part, to devote the associated lands to another public purpose, including disposal.

The Buffalo RMP states as a resource management decision that *livestock grazing is allowed on all public lands in the resource area except on about 6,000 acres where it has been determined to be incompatible with other resource uses or values.*

There are no fences or natural barriers separating BLM and non-BLM lands. At this time, fencing out the public lands is not practical or cost effective. If extraordinary circumstances arise, such as the identification of an endangered plant or damageable cultural resource on the site, fencing may be a greater priority, and the BLM will address the matter in a separate EA. If the public lands are not leased, and subsequently not fenced, any livestock use occurring thereon is unauthorized. Selecting this alternative will affect how the adjacent private and state lands are grazed because the operator must keep livestock off public lands through herding or fencing, or else be in violation of federal grazing regulations. The mixed ownership pattern in the BFO resource area makes herding difficult, in addition to the fact that herding does not ensure that public lands are not grazed. A rider needs to remain with livestock at all times. Because it is not economically feasible for the BLM to fence all federal land parcels, fences will likely be constructed on private land, fragmenting the area and making BLM unable to stipulate wire spacing to facilitate wildlife movement. Most four-strand fences on private land have a top wire of 46-48 inches with 10-12 inch wire spacing and all wires are barbed. In the absence of fences, the BLM must constantly supervise the public lands to assure they are not being grazed.

No adverse resource impacts resulting from livestock grazing have been identified which would warrant cancellation of all grazing on this allotment. Denying the issuance of this grazing lease is not in compliance with FLPMA or in conformance with the Buffalo RMP and will require an RMP amendment to remove the grazing preference from the RMP grazing base. The Buffalo RMP allows for adjustment of forage allocation based on an evaluation of monitoring, field

observations, or other data as needed. Additionally, changes in grazing practices can be effective in mitigating impacts without a corresponding reduction in forage allocation.

*Deny Pipeline:*

Denying construction of the proposed pipeline may not have an impact on current livestock grazing on the public lands in this allotment, as the pipeline may be constructed to avoid the public land. However, if no new pipeline is installed, livestock will continue to use the poor quality water source and more deaths could occur.

**Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

*Authorize Lease Issuance:*

Rangeland vegetation inventory (MRB, 1957) data indicates an adequate amount of forage is available to support the proposed number of livestock and for wildlife use and the effects of that use within this allotment. An on-site visit on July 27, 2011 confirmed that adequate forage is available to support current use levels. The new grazing lease authorizes the same numbers and kind of livestock and season of use as the existing lease. The BLM does not expect the issuance and transfer of the grazing lease to have any effects on range management.

*Deny Pipeline:*

Denying construction of the proposed pipeline may not have an impact on current livestock grazing on the public lands in this allotment, as the pipeline may be constructed to avoid the public land. However, if no new pipeline is installed, livestock will continue to use the poor quality water source and more deaths could occur.

**Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

*Authorize Lease Issuance:*

Rangeland vegetation inventory (MRB, 1957) data indicates an adequate amount of forage is available to support the proposed number of livestock and for wildlife use and the effects of that use within this allotment. An on-site visit on July 27, 2011 confirmed that adequate forage is available to support current use levels. The new grazing lease authorizes the same numbers and kind of livestock and season of use as the existing lease. The BLM does not expect the issuance and transfer of the grazing lease to have any effects on range management.

*Authorize Pipeline:*

Construction of the proposed pipeline would provide new, clean water sources within the Long Draw Allotment. These troughs would allow more ecologically-friendly grazing management by distributing livestock more evenly throughout the pasture. Use around existing water sources would decrease, reducing trampling and colonization by noxious weeds. Livestock would be able to utilize the clean well water rather than relying on the poor quality reservoir water. Overall herd health should improve, and further stock fatalities will be avoided. Constructing the pipeline and water sources will also allow the livestock operator to manage time, timing, and distribution more effectively. The troughs will also encourage livestock to move out of the more fragile draw bottoms and forage on higher ground. Because the allotment falls into the BLM's "Custodial" management category, and due to its small amount of public land, any new pasture rotation systems will be managed privately by the landowner and not regulated by BLM. The

BLM will allow operator flexibility by not restricting season of use. Any future changes to this practice will be addressed in a separate EA.

#### **4.1.3 Invasive Species/Noxious Weeds**

Regardless of which alternative is selected, BLM will continue to work with the Sheridan and Johnson County Weed & Pest organizations to treat the substantial leafy spurge infestation in the allotment.

##### **Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Deny Lease Issuance:*

Removing livestock grazing from the public land can promote growth—and potential overgrowth—of perennial grasses and forbs, thus crowding out or reducing the potential for invasion of noxious and/or invasive species. However, the overgrowth of vegetation increases the availability of fine fuels, which also increases the risk of wildfire. These fires would also be more intense, allowing opportunistic noxious and invasive species to colonize the public lands. Cooperative weed control efforts could discourage overgrowth of vegetation and decrease the fire return interval.

###### *Deny Pipeline:*

If the proposed pipeline and troughs are not constructed, livestock will continue to use water at troughs on deeded land and at the existing reservoirs. The area around these water sources will receive more concentrated use and trampling than they would if additional tanks were constructed, which may present an opportunity for weed invasion.

##### **Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Authorize Lease Issuance:*

Implementing appropriate grazing use, as described in the Proposed Action, along with ongoing cooperative weed control efforts, benefits the health of the native plant community. A healthy native plant community often provides competition against the establishment and/or spread of noxious weeds. Issuing the grazing lease will not result in any additional impacts in relation to the spread of noxious weeds.

###### *Deny Pipeline:*

If the proposed pipeline and troughs are not constructed, livestock will continue to use water at troughs on deeded land and at the existing reservoirs. The area around these water sources will receive more concentrated use and trampling than they would if additional tanks were constructed, which may present an opportunity for weed invasion.

##### **Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

###### *Authorize Lease Issuance:*

Implementing appropriate grazing use, as described in the Proposed Action, along with ongoing cooperative weed control efforts, benefits the health of the native plant community. A healthy native plant community often provides competition against the establishment and/or spread of noxious weeds. Issuing the grazing lease will not result in any additional impacts in relation to the spread of noxious weeds.

*Authorize Pipeline:*

A 10-foot corridor will be disturbed along the length of the proposed pipeline when it is buried. Minimizing the area of surface disturbance reduces the chance of colonization by invasive species. The pipeline will primarily follow existing primitive two-track roads, so the amount of new disturbance will be limited. The pipeline corridor will be seeded to encourage quick re-vegetation. Small areas near the proposed tanks will suffer livestock trampling due to the concentration of animals near the water source. This could allow for invasion by noxious weeds. In addition, the construction of the new tanks should decrease livestock concentration at existing troughs and reservoirs, dispersing the effects of trampling. By increasing distribution, a more uniform grazing pattern throughout the pastures will help native plants thrive and reduce the possibility of weed establishment.

**4.1.4 Wildlife, Threatened & Endangered, Proposed, Candidate and Sensitive Species**  
**Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

*Deny Lease Issuance:*

If grazing is removed from the allotment, there will be “no effect” on Ute ladies’-tresses orchid because there is no suitable habitat for these species. While suitable black-footed ferret habitat is present in the allotment, no ferrets have been observed in the area and the U.S. Fish & Wildlife Service has issued a block clearance for this region of Wyoming. Thus there will be “no effect” on black-footed ferret. Sensitive species that would benefit from denial of the lease include most of the sagebrush obligates such as brewer’s sparrow and greater sage-grouse. Reduced grazing would increase horizontal cover from grasses and forbs that provides an important for sage-grouse nests and broods. Species that would be adversely impacted are those associated with grazed or barren ground such as mountain plover, burrowing owl, and black-tailed prairie dog. The severity of impact would be minimal considering the limited BLM administered surface.

*Deny Pipeline:*

Denying the pipeline would have no additional effect on wildlife, including threatened, endangered, proposed, candidate, and sensitive species.

**Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

*Authorize Lease Issuance:*

The proposed lease issuance will have “no effect” on Ute ladies’-tresses orchid as suitable habitat for these species is not present in the allotment. While suitable black-footed ferret habitat is present in the allotment, no ferrets have been observed in the area and the U.S. Fish & Wildlife Service has issued a block clearance for this region of Wyoming. Thus there will be “no effect” on black-footed ferret.

As noted in BLM WY-IM-2010-012, domestic livestock grazing has occurred in and around this allotment and “within the range of sage-grouse for over 150 years and is the most common and widespread use of rangelands in the western United States. Livestock grazing practices may affect herbaceous composition, cover, and height and has a potential to impact sagebrush habitats. WY BLM has standards and guidelines to ensure proper livestock grazing management on public lands which can help maintain healthy rangeland conditions and provide functional habitat for sage-grouse. However, poor livestock grazing practices can have long-term negative

impacts on sage-grouse habitat by degrading sagebrush, meadow, and riparian communities (Bohne et al. 2007).”

Sensitive species that would benefit from authorization of the lease are those associated with grazed or barren ground such as mountain plover, burrowing owl, and black-tailed prairie dog. Species that would be adversely impacted include most of the sagebrush obligates such as brewers sparrow and greater sage-grouse. Grazing will reduce horizontal cover from grasses and forbs that provide important visual barriers for sage-grouse nests and broods. Managing to achieve the Standards for Rangeland Health will result in overall benefits to most species. The severity of impact would be minimal considering the limited BLM administered surface.

*Deny Pipeline:*

Denying the pipeline would have no additional effect on wildlife, including threatened, endangered, proposed, candidate, and sensitive species.

**Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

*(See tables in Section 3.5)*

*Authorize Lease Issuance:*

The proposed lease issuance will have “no effect” on Ute ladies’-tresses orchid, as suitable habitat for these species is not present in the allotment. While suitable black-footed ferret habitat is present in the allotment, no ferrets have been observed in the area and the U.S. Fish & Wildlife Service has issued a block clearance for this region of Wyoming. Thus there will be “no effect” on black-footed ferret.

As noted in BLM WY-IM-2010-012, domestic livestock grazing has occurred in and around this allotment and “within the range of sage-grouse for over 150 years and is the most common and widespread use of rangelands in the western United States. Livestock grazing practices may affect herbaceous composition, cover, and height and has a potential to impact sagebrush habitats. WY BLM has standards and guidelines to ensure proper livestock grazing management on public lands which can help maintain healthy rangeland conditions and provide functional habitat for sage-grouse. However, poor livestock grazing practices can have long-term negative impacts on sage-grouse habitat by degrading sagebrush, meadow, and riparian communities (Bohne et al. 2007).”

Sensitive species that would benefit from authorization of the lease are those associated with grazed or barren ground such as mountain plover, burrowing owl, and black-tailed prairie dog. Species that would be adversely impacted include most of the sagebrush obligates such as brewers sparrow and greater sage-grouse. Grazing will reduce horizontal cover from grasses and forbs that provide important visual barriers for sage-grouse nests and broods. Managing to achieve the Standards for Rangeland Health will result in overall benefits to most species. The severity of impact would be minimal considering the limited BLM administered surface.

*Authorize Pipeline:*

Authorization of the pipeline would have no effect on threatened or endangered species. Sensitive species present in the project area would experience a short-term impact while

equipment and workers are constructing the lines. Construction during the late summer and fall will minimize impacts to sensitive species. By August, most nesting birds will have fledged young. Late nests, or re-nesting birds, may have nests destroyed by pipeline construction. By more equally distributing grazing and by better controlling time, timing, and distribution to accomplish the overall goal of the project—improving rangeland health—the project should result in long-term net benefits to most species, including greater sage-grouse.

Currently, grazing pressure is concentrated in low-lying areas in the pasture. The pipeline and stock tanks are proposed in high quality greater sage-grouse nesting habitat. With the addition of new water sources, cattle are expected to re-distribute throughout the pasture, and use is expected to increase in upland areas. This will reduce horizontal cover essential to provide protection for sage-grouse nests and broods. There will be a small loss of sagebrush habitat associated with the trough locations. Livestock trampling of the area around the stock water tanks may result in the loss of some sagebrush habitat. The installation of the wells and associated facilities may cause some localized disturbance to wildlife that is in the area during these activities.

#### **4.1.4.1 Big Game**

##### **Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Deny Lease Issuance:*

Under the no grazing alternative, winter browse conditions for big game would not change. Encroaching herbaceous species may ultimately out-compete shrub species, resulting in a reduction in quality of big game winter range (Smith 1949). Additionally, livestock would not remove unpalatable standing dead material, resulting in unimproved forage.

###### *Deny Pipeline:*

There would be no effect to big game if the BLM denied the pipeline permit.

##### **Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

###### *Authorize Lease Issuance:*

By managing land to meet Rangeland Health Standards and improving overall rangeland condition, forage for deer and pronghorn will improve.

Forage resources on winter ranges typically limit mule deer populations (Clements and Young 1997). Livestock grazing tends to favor shrubs over grasses, and thus may provide more desirable winter browse conditions on the allotments (Austin and Urness 1996, Austin et al. 1986, Smith 1949).

Livestock grazing may enhance big game forage by reducing unpalatable standing dead material (Short and Knight 2003). Big game and cattle may compete for forage on a minor level. There is very little dietary overlap between cattle, pronghorn, and deer during spring and early summer, since cattle feed primarily on grasses while pronghorn and deer select mostly forbs and some grasses. Cattle begin to use more forbs in late summer and fall, potentially increasing competition. Pronghorn and deer increase the amount of shrubs in their diet in fall and winter, thus reducing competition during those seasons (Anderson and McCuiston 2008).

Livestock grazing has occurred historically on this allotment and the BLM expects no additional impacts, other than those that have already taken place as a result of long-term use, from implementation of the proposed action.

*Deny Pipeline:*

There would be no effect to big game if the BLM denied the pipeline permit.

**Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

*Authorize Lease Issuance:*

See effects described in Alternative B.

*Authorize Pipeline:*

Constructing the proposed pipeline will allow big game species to avoid the salty reservoirs and use the new clean water tanks. The health of individual animals may be improved. The lessee is likely to leave tanks running even while cattle are not in the pasture, so the clean water source will be available during frost-free seasons. Forage in some areas may be slightly reduced due to a redistribution of cattle use throughout the pasture, specifically into upland areas.

**4.1.4.2 Raptors**

**Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

*Deny Lease Issuance:*

Under the no-grazing alternative, occasional trampling of nests by livestock would not occur. Livestock grazing would not alter habitats, thus benefitting some raptor species while negatively affecting others (Bock et al. 1993).

*Deny Pipeline:*

There will be no effect to raptors if BLM denies the pipeline permit.

**Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

*Authorize Lease Issuance:*

Results from research and monitoring studies suggest that livestock grazing is likely to impact some species of raptors while favoring others (Bock et al. 1993). Livestock grazing may cause the direct impacts of nest and egg destruction of ground-nesting species due to trampling by livestock, or nest abandonment by birds intolerant of disturbance. Grazing management practices can change vegetation composition, leading to the indirect impacts of changing prey composition and availability. Continued livestock grazing will favor those species that benefit from the alterations in habitat that occur in response to grazing (Bock et al. 1993).

The following table (Table 6) lists grassland- and shrub-steppe-dependent raptor species not discussed elsewhere in this document that were reported in Bock et al. (1993) to be impacted either positively or negatively by livestock grazing.

**Table 6. Grazing Impacts on Grassland- and Shrub-steppe-dependent Raptors**

<b>Response</b>	<b>Species</b>	<b>Habitat</b>
Negative	Northern harrier	Grassland, Shrub-steppe
	Red-tailed hawk	Shrub-steppe
	Short-eared owl	Grassland, Shrub-steppe
	Swainson’s hawk	Shrub-steppe

<b>Response</b>	<b>Species</b>	<b>Habitat</b>
Positive	Golden eagle	Shrub-steppe

A recent study to assess the impacts of rotational cattle grazing on rodents and raptors suggests that raptor use and prey availability can be affected by livestock grazing. In comparisons between grazed and ungrazed areas, raptor use declined by 15% in the grazed area, but increased by 63% on the ungrazed area. Rodent abundance declined and remained lower in the grazed area for the duration of the study (Johnson and Horn 2008).

Livestock grazing has occurred historically on this allotment and the BLM expects no additional impacts, other than those that have already taken place as a result of long-term use, from implementation of the proposed action. Appropriate grazing management could maintain or improve nesting habitats for ground-nesting raptor species and improve prey abundance and availability by enhancing habitat conditions.

*Deny Pipeline:*

There will be no effect to raptors if BLM denies the pipeline permit.

**Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

*Authorize Lease Issuance:*

See impacts described in Alternative B.

*Authorize Pipeline:*

There will be no effect to raptors if the BLM authorizes the construction of the pipeline and troughs.

**4.1.4.3 West Nile Virus**

**Alternative A- Deny Transfer & Lease Issuance, Deny Pipeline Construction**

*Deny Lease Issuance:*

Cancelling livestock grazing on the allotment will have no impact on WNV.

*Deny Pipeline:*

Denying construction of the proposed pipeline will not impact WNV.

**Alternative B- Authorize Transfer & Lease Issuance, Deny Pipeline Construction**

*Authorize Lease Issuance:*

Transferring the grazing preference and issuing a new grazing authorization will have no impact on WNV.

*Deny Pipeline:*

Denying construction of the proposed pipeline will not impact WNV.

**Alternative C-Authorize Transfer & Lease Issuance, Authorize Pipeline Construction**

*Authorize Lease Issuance:*

Transferring the grazing preference and issuing a new grazing authorization will have no impact on WNV.

### *Authorize Pipeline:*

Construction of the proposed pipeline and troughs will result in new sources of standing surface water which may increase mosquito breeding habitat. However these small areas of standing water are not likely to greatly affect the overall amount of mosquito habitat in the area. Full stock tanks represent only marginally suitable mosquito breeding habitat. There are many sources of standing water throughout the PRB, including CBNG discharges, natural flows, and coal mining operations. There is no evidence that treatment through the use of larvicides or malathion will have any effect on the overall spread of WNV. The BLM will continue monitoring this issue and consulting with state agencies and researchers to stay abreast of the most current information and potential mitigation measures associated with WNV.

## **4.2 Cumulative Effects**

Cumulative effects are those resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions regardless of what agency or person undertakes such other actions. Identified actions include noxious weed control and sage-grouse protection. If future assessments reveal that rangeland health standards are not being met due to livestock grazing, the BLM will address these issues before the start of the next grazing season as required by 43 CFR 4180.

The BLM will continue managing the Long Draw Allotment to achieve the Wyoming Standards for Rangeland Health. All elements of the environment will benefit from rangelands in good health. With regards to the proposed lease transfer and issuance, the terms and conditions of the lease will remain the same. Thus any cumulative impacts resulting from this part of the proposed action should be minor.

The Long Draw Allotment currently has several water developments distributed throughout its pastures. The majority of these facilities were installed prior to 2000, and all disturbance associated with pipeline installation has been reclaimed. The proposed action would create an additional 3.4 miles of stock water pipeline and six new troughs within the allotment. Because the majority of the proposed pipeline follows existing two-track roads, additional surface disturbance will be minimal. The corridor disturbed by pipeline construction that does not follow two-track roads is expected to reclaim with native plants within five years, mitigating the disturbance. The disturbance associated with the proposed water troughs would last for the lifetime of the pipeline or as long as livestock are grazed on the allotment.

### **4.2.1 Noxious Weeds**

Noxious weeds/invasive non-native plants are present within the assessment area to varying degrees. Livestock grazing may benefit certain weeds by reducing competition with grasses but may also help control other species through defoliation. Construction of the proposed pipeline and troughs will allow for improved time, timing, and distribution management that may result in more dispersed grazing pressure. This may increase the ability of native grasses to outcompete weed species. Currently the BFO is addressing the noxious weed situation by mapping weed locations and treating them with herbicides or bio-controls in conjunction with the local Weed and Pest organizations. Pipeline construction should not create substantial cumulative effects with regard to noxious weeds. BLM will work with the county weed and pest organizations to combat the presence of leafy spurge in this allotment and others.

#### 4.2.2 Greater Sage-grouse

No substantial cumulative effects to sage-grouse are expected to result from the approval of the proposed pipeline and stock tank or grazing lease on BLM lands. Any negative effects are expected to be short-term in nature. The project's long-term effects to sage-grouse will be beneficial due to the improvement of rangeland health. By improving the operator's flexibility to control time, timing, and distribution of livestock grazing, adding new water sources will disperse and dissipate site-specific negative impacts, resulting in an overall benefit to greater sage-grouse. The NRCS is working towards enrolling this ranch in its Sage-grouse Initiative designed to conserve quality habitat, and this project provides the basis for a positive working relationship in the future.

Sage-grouse populations within the Long Draw allotment are being impacted by other land uses, the greatest of which is oil and gas development. Approximately 60 percent of the mineral estate underlying the allotment is owned and has been leased for oil and gas development by the federal government.

Recent research suggests that the cumulative and synergistic effects of current and foreseeable oil and gas 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 the project area and the area that is encompassed by a four mile radius around the 8 sage-grouse leks that occur within 4 miles of the allotment boundary. Analysis of impacts up to 4 miles was recommended by the State Wildlife Agencies' Ad Hoc Committee for Consideration of Oil and Gas Development Effects to Nesting Habitat (2008).

Currently, 249 fee, state, and federal wells exist or are approved within the cumulative effects analysis area, an area of 196 square miles (Automated Fluid Minerals Support System [AFMSS] and Wyoming Oil and Gas Conservation Commission [WOGCC], August 9, 2011). The well density is described per lek in Table 7 below, with an average of 1.3 wells per square mile in the entire analysis area, slightly above the one well per square mile recommendation by the State Wildlife Agencies' Ad Hoc Committee for Sage-Grouse and Oil and Gas Development.

**Table 7. Density of Wells Within 4 Miles of Known Leks**

Lek Name	Existing and Approved Wells Within 4 Miles	Wells/Mi <sup>2</sup>
Arpan Draw	69	1.4
Clear Creek Cutoff	61	1.2
Clearmont	17	0.3
Cook Draw	71	1.4
Cottonwood Creek 1	85	1.7
Fieldgrove	47	0.9
Grub Draw	29	0.6
Thompson Creek Rd 1	81	1.6

The cumulative effects to sage-grouse from oil and gas development have been analyzed in several NEPA documents for projects surrounding the Long Draw allotment. A discussion of cumulative effects can be found in the documents listed in Table 8 below.

**Table 8. Documents Containing Related Cumulative Effects Analyses**

Project Name	Operator	NEPA Document	Approval Date
Stewart Draw Beta POD	Lance Oil & Gas Company Inc.	WY-070-EA09-159	1/8/2010
Big Corral Jewel Draw Unit Gamma POD	Anadarko Petroleum Corporation	WY-070-08-168	9/30/2008
Rose Draw Unit Beta	Anadarko/Lance Oil & Gas Company Inc.	WY-070-EA08-186	9/26/2008
Quarter Circle 9 Beta POD	Lance Oil & Gas Company Inc.	WY-070- «EA_Number»	8/4/2008

The approval of the pipeline and stock water tank has the potential to set the conditions fostering synergistic detrimental effects to sage-grouse from WNV, habitat fragmentation, and disturbance (Walker et al. 2011). Additional water development is planned in adjoining pastures in future years in order to develop a grazing rotation in the allotment. Standing water from the developments may foster mosquito breeding habitat which support WNV outbreaks, if certain conditions occur (low water levels, seeps or leaks).

#### **4.3 Mitigation Measures Considered**

The terms and conditions included as part of the proposed action will mitigate anticipated impacts. No additional mitigation measures are proposed.

In order to reduce the likelihood that activities associated with noise, construction, and human disturbance will displace nesting sage-grouse, BLM will implement a timing limitation on all surface-disturbing activities within and adjacent to identified nesting habitat.

#### **4.4 Residual Effects**

A timing limitation does nothing to mitigate loss and fragmentation of habitat or changes in disease mechanisms. There are no other residual impacts associated with the proposed action.

#### **5.0 Tribes, Individuals, Organizations or Agencies Consulted**

B&L Betz Cattle Co., Inc.  
John Lawrence, NRCS

#### **6.0 List of Preparers**

Charlotte Darling, Biological Science Technician

#### **6.1 List of Reviewers, BLM Buffalo Field Office**

Name	Title	Responsibility
Kay Medders	Rangeland Management Specialist	Range, Vegetation, Soils
Darci Stafford	Wildlife Biologist	Wildlife, Migratory Birds
Seth Lambert	Archaeologist	Cultural Resources
Janelle Gonzales	Rangeland Management Specialist	Invasive Species
Chris Durham	Assistant Field Manager, Resources	Resources
John Kelley	Planning & Environmental Coordinator	NEPA Planning

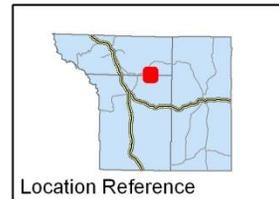
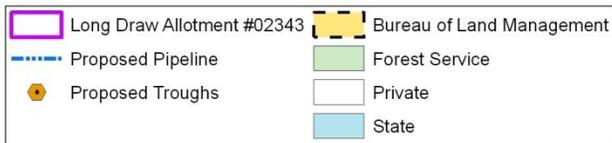
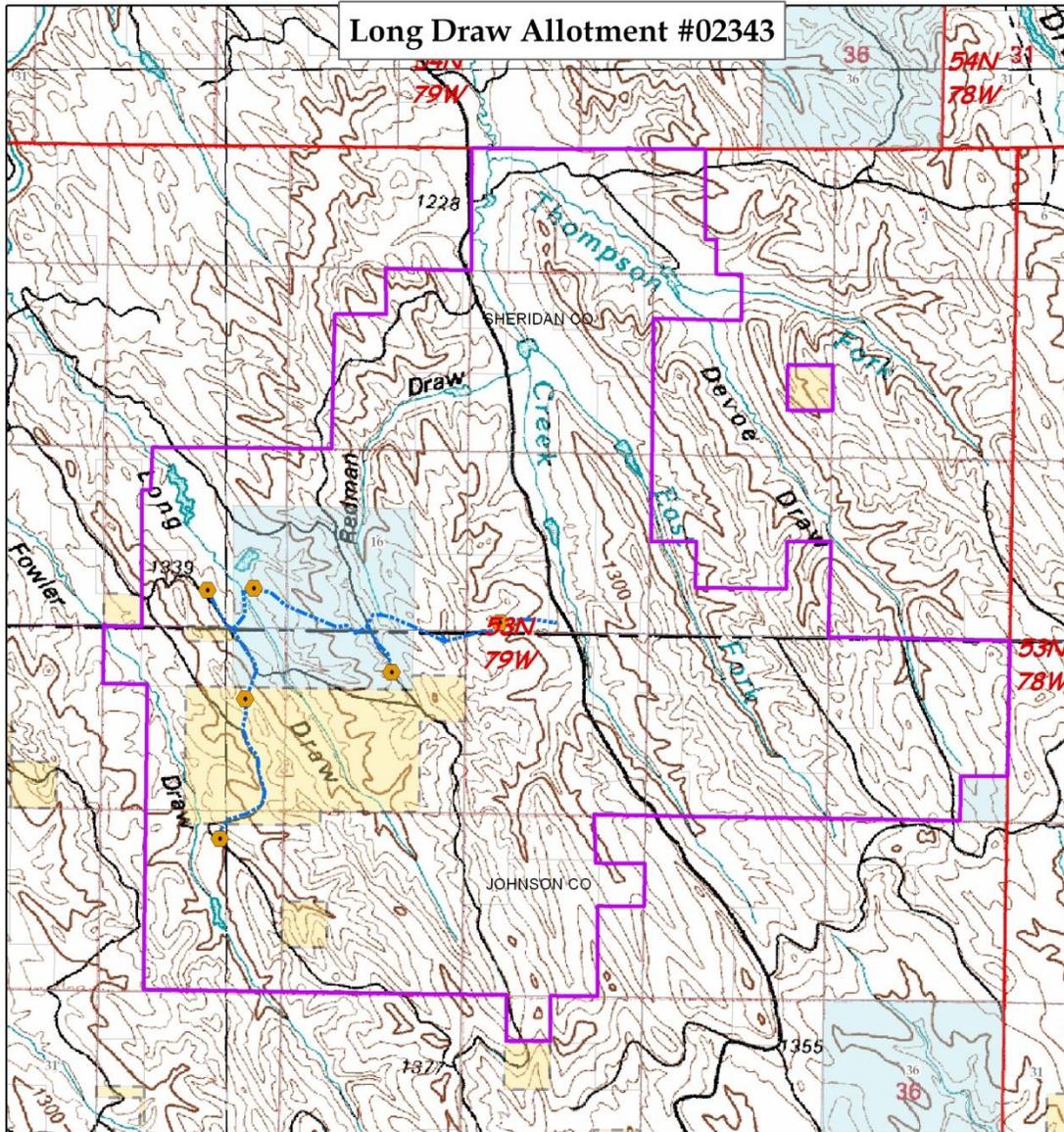
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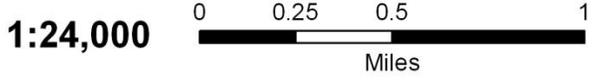
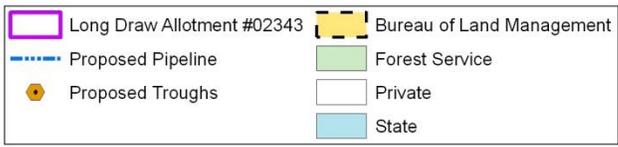
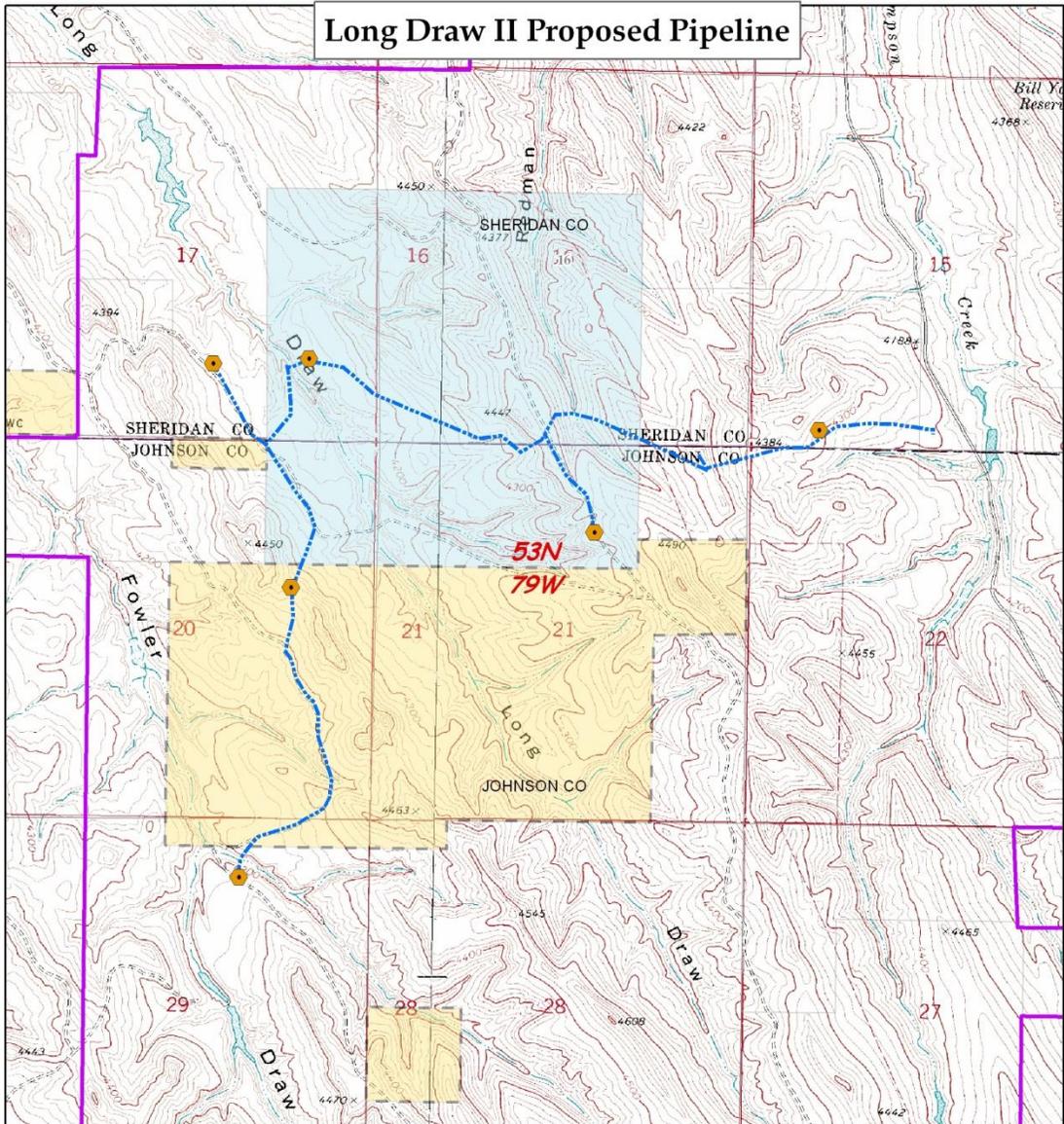
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