

APPENDIX K

BUREAU OF LAND MANAGEMENT SENSITIVE SPECIES
EVALUATION

APPENDIX K: BUREAU OF LAND MANAGEMENT SENSITIVE SPECIES EVALUATION

INTRODUCTION

Each Wyoming Field Office of the Bureau of Land Management (BLM) has a prepared list of sensitive species to focus management efforts towards maintaining habitats important to those species under a multiple use mandate. The authority for this policy and guidance comes from the Endangered Species Act of 1973, as amended; Title II of the Sikes Act, as amended; the Federal Land Policy Management Act of 1976 (43 U.S.C. 1716); Department Manual 235.1.1A; and BLM Manual 6840.06 E. Sensitive Species.

The goals of the sensitive species policy are to:

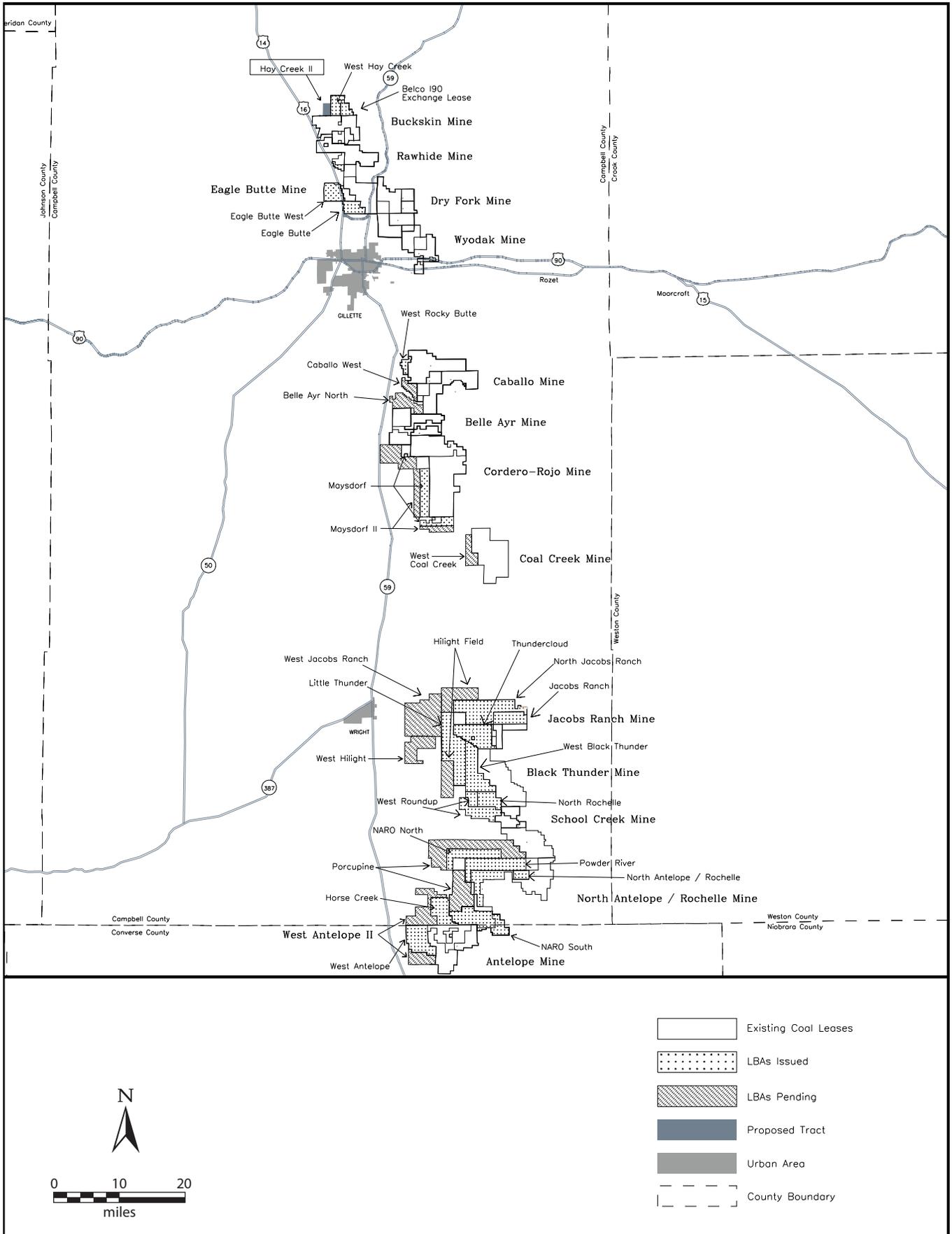
- Maintain vulnerable species and habitat components in functional BLM ecosystems.
- Ensure sensitive species are considered in land management decisions.
- Prevent a need for species listing under the Endangered Species Act.
- Prioritize needed conservation work with an emphasis on habitat.

No federal surface is included in the Hay Creek II Lease by Application (LBA) tract (proposed tract) or other lands considered the associated Environmental Impact Statement (EIS).

Therefore, this appendix is limited to discussions of BLM sensitive species.

PROJECT DESCRIPTION

The proposed tract is located northwest of and immediately adjacent to existing coal leases at the Buckskin Mine, in northern Campbell County, Wyoming (map K-1). The Proposed Action is to hold a competitive, sealed-bid sale and issue a lease for the federal coal reserves included in the proposed tract to Kiewit Mining Properties, Inc. (Kiewit). Under the Proposed Action, the tract boundary would be consistent with the configuration submitted by the applicant. Under Alternative 2, the BLM would reconfigure the tract to include some or all of the unleased federal coal reserves included in the proposed tract and some or all of the adjacent coal reserves in the support area to the north and west.



No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by BLM.

Map K-1
 General Location Map with Federal Coal Leases and LBA Tracts

The physical areas discussed in this appendix are defined as follows:

- proposed tract—the Hay Creek II LBA tract as applied for (419 acres);
- BLM study area—proposed tract plus lands added by the BLM under Alternative 2 for the analysis process (1,883 acres); and
- general analysis area—the maximum area of potential surface disturbance (2,847 acres) that would result from leasing the largest possible tract (i.e., the entire BLM study area and the 0.25-mile mine support area to the north and west).

Map K-2 illustrates these three areas.

Under the Proposed Action, coal extraction would occur in the entire proposed tract (approximately 419 acres). Activities related to mining the proposed tract would occur within the support area, a 0.25-mile-wide area north and west of the proposed tract (approximately 241 acres); disturbance from existing mine-related activities would continue in the remainder of the overlap area² (approximately 474 acres).

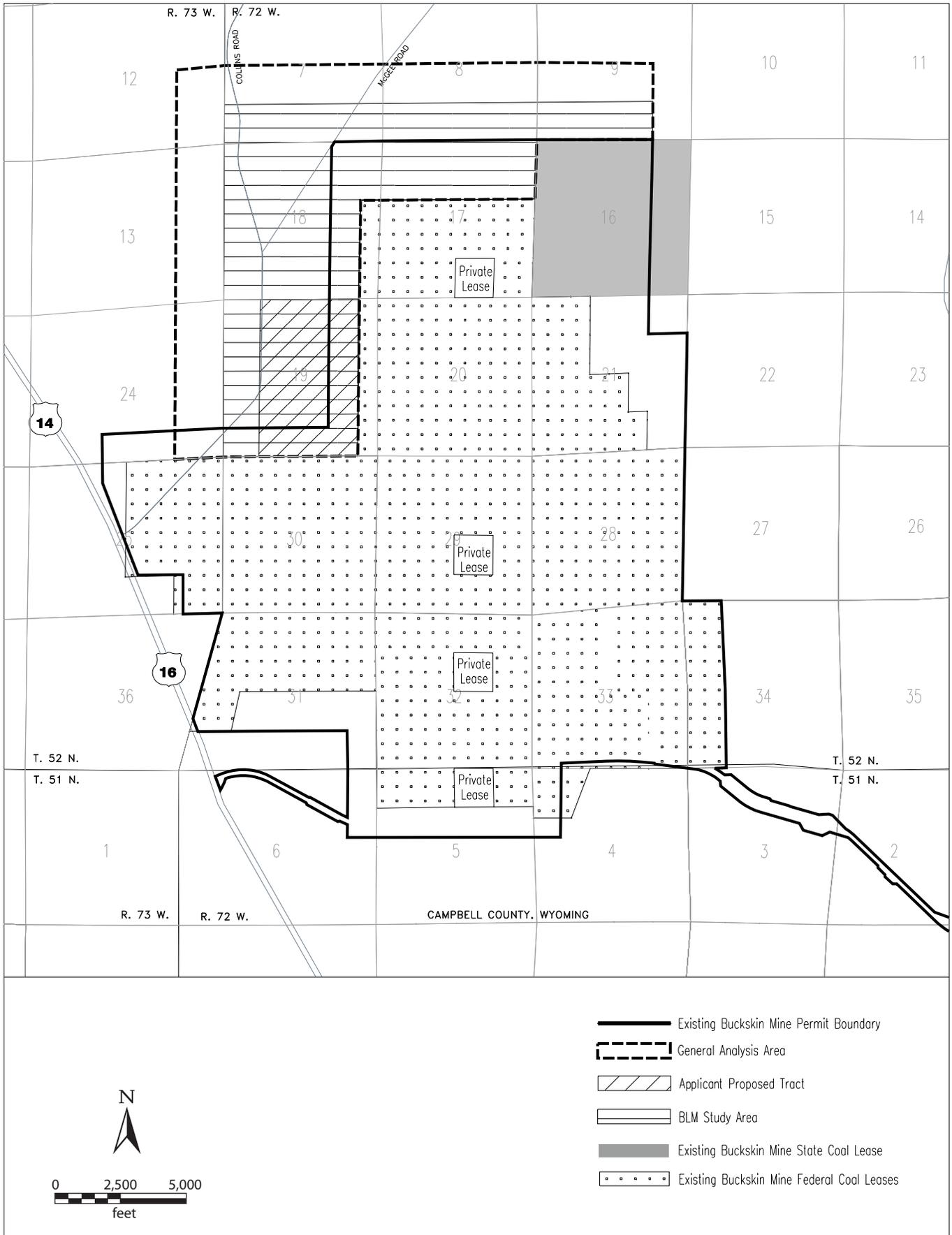
Under Alternative 1, disturbance from mine-related activities associated with existing coal leases would continue in the overlap area (approximately 656 acres).

Under Alternative 2, coal extraction would occur in an alternative tract configuration within the BLM study area (up to approximately 1,883 acres). Disturbance from mine-related activities would occur within the support area, a 0.25-mile-wide area north and west of the alternative tract configuration (up to approximately 926 acres); disturbance from existing mine-related activities would continue in the remainder of the overlap area (approximately 38 acres).

The Proposed Action and Alternative 2 are the only two alternatives considered in the Hay Creek II EIS that are likely to result in the sale and mining of additional coal reserves in the near future. Both of those action alternatives assume that the applicant would be the successful bidder and that the federal coal reserves would be mined as a maintenance lease for the existing, adjacent Buckskin Mine. The entire surface of the existing Buckskin Mine permit area and general analysis area is privately owned by individuals or companies, while most of the subsurface minerals (all of the coal and the majority of oil and gas reserves) are federally owned. All oil and gas production facilities located in the general analysis area are privately owned.

¹ Additional disturbance beyond the final lease boundary is necessary to recover all of the coal resources within the final tract configuration. Such disturbance includes, but is not limited to, mine support activities such as topsoil stripping, stockpile storage highwall back-sloping (including catch benches), highwall reduction after mining to match undisturbed topography, and construction of flood- and sediment-control structures.

² The area of overlap between the general analysis area and the existing Buckskin Mine permit area. Disturbance in this area is from mine-related activities associated with existing coal leases.



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Map K-2 General Analysis Area

SPECIES OCCURRENCE AND HABITAT DESCRIPTIONS

Due to the location of the general analysis area in northeastern Wyoming, the vertebrate and plant sensitive species list for the BLM Buffalo Field Office was used as a reference for the following discussion. The list includes all species within the range of authority for that field office. The current wildlife list (BLM 2002) can be found on the official Wyoming BLM website. The plant list was updated in November 2008, and can be found on the BLM botany website for the Buffalo Field Office (BLM 2008).

Species that have been delisted or removed from the federal listing process under the Endangered Species Act automatically revert to Sensitive Species status for the BLM. Therefore, the black-tailed prairie dog (*Cynomys ludovicianus*), bald eagle (*Haliaeetus leucocephalus*), and mountain plover (*Charadrius montanus*) were added to the 2002 list. No prairie dog colonies are present within the general analysis area, and no mountain plovers have ever been documented in that area or at the adjacent Buckskin Mine during the last 26 years (1984 through 2009) of annual monitoring.

Therefore, neither species is discussed further in this document. Bald eagles are occasional winter residents in the area, and are discussed below.

The greater sage-grouse (*Centrocercus urophasianus*) has never been observed in the general analysis area; that area is dominated (71%) by upland grassland and agricultural lands, with little sagebrush. Due to its classification in March 2010 as a candidate species for listing under the Endangered Species Act, the sage-grouse is discussed in appendix I (Biological Assessment for Federally Listed Species under the Endangered Species Act).

No plant sensitive species have been recorded in the general analysis area during previous annual monitoring (Table K-1).

Table K-1 lists the sensitive species, summarizes their habitat requirements, and indicates if they have been observed in the general analysis area. This list was reviewed prior to beginning field surveys. Vertebrate observations were based on annual wildlife monitoring conducted in the overlapping survey area for the Buckskin Mine since 1984, as well as field surveys and file searches completed from 2007 through 2009 specifically for this analysis. Vegetation sampling is also conducted annually in portions of the existing Buckskin Mine permit area, particularly in reclaimed habitats. Baseline surveys have also been completed as the permit area has expanded over the years, with additional targeted surveys conducted for federally listed plants prior to disturbance in some years. Plant surveys related to this analysis were conducted primarily in 2008, with some follow-up surveys conducted in 2009.

Only two vertebrate sensitive species have been documented in the general analysis area in the last 26 years; the bald eagle and loggerhead shrike (*Lanius ludovicianus*). Although the bald eagle is a common winter resident in portions of northeast Wyoming, sightings within the annual wildlife monitoring area for the Buckskin Mine have averaged less than one bird per year since 1984. That survey area encompassed the entire proposed tract and much of the general analysis

area each year. Potential bald eagle roosting and nesting habitat in the general analysis area is limited to three tree shelterbelts, with few additional trees in the surrounding area. One of the shelterbelts is in the portion of the general analysis area that overlaps with the existing permit area and is, therefore, subject to future disturbance regardless of the leasing action. The other two shelterbelts are adjacent to currently or recently occupied residences. A few isolated bald eagle nesting attempts have been recorded in northeast Wyoming over the years, but none have occurred within several miles of the Hay Creek II general analysis area or adjacent mines. No unique or concentrated prey sources (e.g., fisheries, sheep operations, large prairie dog colonies, concentrations of waterfowl) that would attract bald eagles are present in the area.

Loggerhead shrikes have occasionally been recorded in the general analysis area, including in the proposed tract. However, most shrike sightings occurred in grasslands and tree windbreaks in the west-central portion of the existing Buckskin Mine permit area, beyond the general analysis area. Adults and juveniles were periodically observed perched on fences and power lines in that area. Although no active nests have ever been found, the presence of young indicates that shrikes nest in the vicinity in some years.

The absence or extremely limited presence of specialized habitat types, such as forests and woodlands, caves, cliffs, large expanses of wetlands and lakes, and calcareous rock outcrops, among others, make it unlikely that species restricted to those habitats would occur in the general analysis area. Additional information on the occurrences of various species of interest in and near the general analysis area can be found in the data reports prepared in support of the Hay Creek II EIS and the annual reports prepared for the Buckskin Mine. These documents can be viewed at the BLM Wyoming High Plains District Office in Casper, Wyoming, and the Wyoming Department of Environmental Quality/Land Quality Division in Sheridan, Wyoming, respectively.

Table K-1. BLM Sensitive Species (Buffalo Field Office), Habitat Requirements, and Observations for the Hay Creek II LBA

Common Name (Scientific name)	Habitat ¹	Observed in the General Analysis Area
AMPHIBIANS		
Northern leopard frog (<i>Rana pipiens</i>)	Swampy cattail marshes, beaver ponds, and other permanent water in the plains, foothills, and montane zones up to 9,000 feet	No; no suitable habitat
Spotted frog (<i>Rana pretiosa</i>)	Ponds, sloughs, small streams in foothills and montane zones	No; general analysis area is beyond species range; no suitable habitat
BIRDS		
Baird's sparrow (<i>Ammodramus bairdii</i>)	Shortgrass eastern Great Plains grasslands, weedy fields	No; general analysis area is beyond typical range for this species; no suitable habitat
Bald eagle ² (<i>Haliaeetus leucocephalus</i>)	Mixed coniferous forests, cottonwood-riparian near large lakes and rivers; forages in open habitats during the winter	Occasionally present in winter; limited winter roosting and nesting habitat; no reliable or concentrated sources of prey
Brewer's sparrow (<i>Spizella breweri</i>)	Basin-prairie and mountain-foothills shrublands, especially sagebrush, woodland-chaparral	Extremely infrequently; limited suitable sagebrush habitats
Burrowing owl (<i>Athene cunicularia</i>)	Grasslands, basin-prairie shrublands, agricultural areas, prairie dog colonies	No; limited potential nesting habitat
Ferruginous hawk (<i>Buteo regalis</i>)	Basin-prairie shrublands; eastern Great Plains, Great Basin foothills, and mountain-foothills grasslands; rock outcrops, isolated trees	No; limited potential nesting habitat
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	Basin-prairie shrub, mountain-foothill shrub meadows	No; limited suitable sagebrush and other year-round habitats
Loggerhead shrike (<i>Lanius ludovicianus</i>)	Basin-prairie shrub, mountain-foothill shrub	Infrequent non-breeder; limited habitat
Long-billed curlew (<i>Numenius americanus</i>)	Sagebrush-grasslands; eastern Great Plains, Great Basin foothills, mountain foothills, and wet-moist meadow grasslands; irrigated native meadows; with aquatic areas nearby, other agricultural areas and shorelines	No; limited wet or moist habitats for foraging; no suitable nesting habitat
Mountain plover ² (<i>Charadrius montanus</i>)	Shortgrass and mixed grass prairies, Great Basin foothills grasslands, short sagebrush-grasslands, prairie dog colonies	No; no prairie dog colonies; grasslands typically too tall and/or dense
Northern goshawk (<i>Accipiter gentilis</i>)	Coniferous forests, especially Douglas fir and lodgepole pine, aspen; forages in a variety of habitats	No; no suitable habitat
Peregrine falcon (<i>Falco peregrinus</i>)	Cliffs, primarily along waterways	No; no suitable habitat
Sage sparrow (<i>Amphispiza billineata</i>)	Basin-prairie and mountain-foothills shrublands.	No; general analysis area is beyond typical species range in Wyoming; limited suitable sagebrush habitats
Sage thrasher (<i>Oreoscoptes montanus</i>)	Basin-prairie and mountain-foothills shrublands	No; limited suitable sagebrush habitats

Table K-1, continued

Common Name (Scientific name)	Habitat ¹	Observed in the General Analysis Area
Trumpeter swan (<i>Cygnus buccinator</i>)	Marshes, lakes, ponds, rivers	No; no suitable habitat
White-faced ibis (<i>Plegadis chihi</i>)	Marshes, wet-moist meadows, lakes, irrigated meadows	No; no suitable habitat
Yellow-billed cuckoo (<i>Coccyzus americanus</i>)	Open woodlands, streamside willow and alder groves; cottonwood-riparian below 7,000 feet, urban areas	No; no suitable habitat
FISH		
Yellowstone cutthroat trout (<i>Oncorhynchus clarki</i>)	Yellowstone drainage, small mountain streams, large rivers	No; no suitable habitat
MAMMALS		
Black-tailed prairie dog ² (<i>Cynomys ludovicianus</i>)	Short-grass and mid-grass grasslands	No; no prairie dog colonies
Fringed myotis (<i>Myotis thysanodes</i>)	Conifer forests, woodland chaparral, basin-prairie shrublands, caves and underground mine shafts	No; limited suitable sagebrush habitats
Long-eared myotis (<i>Myotis evotis</i>)	Conifer and deciduous forests, basin-prairie and mountain foothills shrublands, riparian areas	No; no suitable habitat
Spotted bat (<i>Euderma maculatum</i>)	Known only from juniper shrublands and desert sagebrush-grasslands in Wyoming; cliffs over perennial water are important habitat component	No; no suitable habitat
Swift fox (<i>Vulpes velox</i>)	Eastern great plains grasslands, occasionally agricultural areas, irrigated native meadows, roadside/railroad banks	No, suitable habitat present
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	Deciduous forests, dry coniferous forests; basin-prairie; mountain foothills and shrublands; desert grasslands; juniper	No; limited suitable habitat
PLANTS		
Northern Arnica (<i>Arnica lonchophylla</i>)	Open woods and slopes on sandy-gravel or limestone and shady, moist north-facing birch-hazelnut forests; elevation 6,500–8,000 feet	No; no limestone parent material or birch-hazelnut forest habitats; known populations in Wyoming are in Sheridan and Johnson counties
Porter's sagebrush (<i>Artemisia porteri</i>)	Sparsely vegetated badlands of ashy or tufaceous mudstone and clay slopes; 5,300–6,500 feet	No; no habitat due to soil type; known populations in Wyoming are in Fremont County
Soft aster (<i>Aster mollis</i>)	Sagebrush grasslands and mountain meadows on deep, calcareous soils at the edge of aspen or pine woodlands; elevation 6,400–8,500 feet	No; no habitat; known populations in Wyoming are in Niobrara, Natrona, Sublette, Washakie, Big Horn, and Sheridan counties
William's wafer parsnip (<i>Cymopterus williamsii</i>)	Open ridgetops and upper slopes with exposed limestone outcrops or rockslides; 6,000–8,300 feet	No; habitat limitations include lower elevations and lack of limestone parent material; known populations in Wyoming are in Johnson, Washakie, and Natrona counties
Mountain lady's slipper (<i>Cypripedium montanum</i>)	Shady moist forests and riparian shrublands; elevation 5,400–5,500 feet	No; no habitat due to lack of shady forests and elevations; known populations in Wyoming are in Sheridan and Johnson counties

Table K-1, continued

Common Name (Scientific name)	Habitat ¹	Observed in the General Analysis Area
Rabbit buckwheat (<i>Eriogonum brevicaulis</i> var. <i>canum</i> [E. <i>Lagopus</i>])	Barren sandy or clay soils and rock outcrops in juniper woodlands and sagebrush steppe communities; elevation 3,800–5,500 feet	No; limited areas of habitat are present due to lack of juniper woodlands and rock outcrops; known populations in Wyoming are in Sheridan and Big Horn counties
Hall's fescue (<i>Festuca hallii</i>)	Meadows, slopes, and open woods; elevation 7,400–10,500 feet	No; no habitat present due to low elevations and lack of montane meadows and open woods; known populations in Wyoming are in Park and Johnson counties
Contracted Indian ricegrass (<i>Oryzopsis contracta</i> [O. <i>hymenoides</i> var. <i>c.</i>])	Basin and foothill areas on dry, sandy soils; elevation 4,800–7,500 feet	No; habitat generally lacking or very limited; known populations in Wyoming are in Campbell, Washakie, Hot Springs, Natrona, Sweetwater, Carbon, and Albany counties
Cary's beardtongue (<i>Penstemon caryi</i>)	Calcareous rock outcrops and rocky soil within sagebrush, juniper, Douglas-fir, and limber pine communities; elevation 5,200–8,500 feet	No; no habitat present due to low elevations and lack of soils and vegetation communities where this species is found; known populations in Wyoming are found in Big Horn, Washakie, and Sheridan counties
Northern blackberry (<i>Rubus arcticus</i> ssp. <i>acaulis</i> [<i>R. acaulis</i>])	Boggy woods and marshes; elevation 7,000–9,000 feet	No; no habitat present due to low elevation and lack of vegetation communities where this species is found; known populations in Wyoming are found in Johnson County
Hapeman's sullivan (<i>Sullivantia hapemanii</i> var. <i>hapemanii</i>)	Moist calcareous outcrops and boulders in shady canyons and streams; elevation 4,600–8,200 feet	No; limited habitat due to lack of topography and moisture conditions where this species is found; known populations in Wyoming are found in Sheridan, Johnson, Natrona, Big Horn, and Washakie counties

¹ Habitats for vertebrate terrestrial species primarily from Cerovski et al. 2004.

² Former listed or candidate species under the Endangered Species Act automatically revert to BLM Sensitive Species upon delisting or removal from the federal listing process.

REFERENCES

- U.S. Bureau of Land Management (BLM). 2002. Sensitive Species Policy and List. September 22. Available: <<http://www.blm.gov/pgdata/etc/medialib/blm/wy/wildlife.Par.9226.File.dat/02species.pdf>>. Accessed: March 2010.
- U.S. Bureau of Land Management (BLM). 2008. Buffalo Field Office Sensitive Species. November. Available: <<http://www.wy.blm.gov/botany/fieldoffices/bfo.htm>>. Accessed: May 2010.