

**APPENDIX G**

**PROTECTION OF THREATENED  
AND ENDANGERED SPECIES**

## **Introduction**

The Endangered Species Act (16 U.S.C. 1531-1543) protects plant and animal species that are listed as T&E as well as their critical habitats. Endangered species are defined as those that are in danger of extinction throughout all or a significant portion of their range. Threatened species are those that are likely to become endangered in the foreseeable future throughout all or a significant portion of their range. Candidate species include species for which the USFWS has sufficient data to list as T&E but for which listing is precluded by a higher priority action.

In a letter dated October 25, 1999 and in comments dated October 3, 2000, the USFWS advised the BLM that the following threatened, endangered, proposed or candidate species may be present in the area of the North Jacobs Ranch federal coal lease application:

- Black-footed ferret (endangered)
- Bald eagle (threatened)
- Mountain plover (proposed)
- Ute Ladies' -tresses (threatened)
- Swift fox (candidate)
- Sturgeon chub (candidate)
- Black-tailed prairie dogs (candidate)

In response to a March 3, 2000 request from Intermountain Resources to provide a listing of T&E species likely to occur on or adjacent to the North Jacobs Ranch LBA Tract, the USFWS identified the black-footed ferret, bald eagle, mountain plover, swift fox, and black-tailed prairie dog as potentially being present in the area in a letter dated March 16, 2000.

## **Description of the Proposed Project**

The North Jacobs Ranch coal lease application is for federal coal reserves located north of and adjacent to the Jacobs Ranch Mine in Campbell County, Wyoming. The application area is located in southern Campbell County, Wyoming, approximately 7 miles east of Wright, Wyoming. The tract as applied for includes approximately 4,820 acres.

Under the Proposed Action, the federal coal in the North Jacobs Ranch LBA Tract, as applied for by JRCC, would be offered for lease at a competitive sale, subject to standard and special lease stipulations developed for the Wyoming PRB. These stipulations are listed in Appendix D of this EIS. The Proposed Action assumes that the tract would be developed as a maintenance lease to extend the life of an adjacent existing surface coal mine. As a result, there would not be major

changes in facilities, roads or employment. The project area is shown in Figures 1-1 and 1-2 of this EIS and additional information about the proposed project is provided in Section 2.1.

Under Alternative 1, the No Action Alternative, the application to lease the federal coal in the North Jacobs Ranch LBA Tract would be rejected and the tract would not be leased at this time. Selection of Alternative 1 would not affect already approved mining activities at the adjacent mines and other mines in this area. This alternative is discussed in Section 2.2 of this EIS, and the adjacent mines are shown in Figure 1-1.

Alternatives 2 and 3 are also analyzed in detail in this EIS. In evaluating this lease application, BLM identified alternative tract configurations designed to minimize the risk of bypassing federal coal that would then potentially become economically unrecoverable or reduce potential conflicts with existing and proposed oil and gas development on the tract. Alternative 2 considers adding additional coal east of the LBA Tract as applied for to avoid future bypassing of that coal. Alternative 3 considers decreasing the size of the tract to reduce potential conflicts with proposed and existing oil and gas development. The coal added under Alternative 2 would also be added to the tract in Alternative 3. Alternatives 2 and 3 are shown in Figure 2-1 and discussed in Sections 2.3 and 2.4, respectively, of this EIS.

### **Land Use Planning Screening Analysis**

The North Jacobs Ranch LBA Tract is included in the area that has been evaluated for acceptability for further lease consideration as part of the coal screening process. The coal screening process is a four part process which includes application of the coal unsuitability criteria for the BLM Buffalo Resource Management Plan. The coal unsuitability criteria, which are defined in 43 CFR 3461.5, are listed in Appendix B. Unsuitability criterion 9 pertains to federally designated or proposed critical habitat for listed, threatened or endangered plant and animal species, Criterion 11 pertains to active bald or golden eagle nests or sites, Criterion 12 pertains to bald and golden eagle roost and concentration areas, and criterion 14 pertains to high priority habitat for migratory birds of high federal interest (which includes the mountain plover).

The unsuitability criteria were applied to the area of high and moderate coal potential in the Wyoming PRB by the BLM and the USFS in 1984, as part of the RMP for the BLM Buffalo Resource Area, and the LRMP for the Medicine Bow National Forest and the Thunder Basin National Grassland. The unsuitability criteria were re-evaluated in 1992 and 1993 by the BLM and USFS, and a report of the findings of that screening was prepared in 1997.

In the case of the North Jacobs Ranch coal lease application area, there were no unsuitable findings under any of the criteria pertaining to T&E species in either the 1984 or 1992-1993 screening.

As part of the leasing process, all of the coal unsuitability criteria are reviewed site-specifically for each individual lease application based on the most current survey information. The unsuitability findings have been reviewed specifically for the North Jacobs Ranch LBA Tract, and the findings are summarized in Appendix B of this EIS. The findings pertaining to T&E species are based on currently available T&E surveys of the North Jacobs Ranch LBA Tract. These surveys are identified and summarized in the following discussions. Based on the site specific review of the currently available surveys, there are no unsuitable findings in the case of the North Jacobs Ranch coal lease application area under any criteria pertaining to T&E species.

### **Regulatory Requirements and Mitigation**

The issuance of a Federal coal lease grants the lessee the exclusive rights to mine the coal, subject to the terms and conditions of the lease. Lease ownership is necessary for mining federal coal, but lease ownership does not authorize mining operations. No operations can occur on the leased lands until the approval of both the MLA mining plan and the state mining and reclamation permit under the applicable Wyoming state regulations (see Section 1.2: Regulatory Authority and Responsibility).

If the North Jacobs Ranch LBA Tract is leased, the lessee may be required to conduct additional surveys and other evaluations as part of the permit application and approval processes to ensure compliance with the Endangered Species Act. It will be important to confirm the potential, or lack of potential, for impacts to any threatened, endangered, candidate or other special status plant/animal species prior to beginning proposed surface disturbing activities. Coordination with the USFWS during the permit application review process should resolve any potential impacts that are confirmed. If the impacts cannot be satisfactorily resolved, the State regulatory authority would condition any resulting permit to mine coal with species-specific protective measures. The permit application and approval process would be based on the most current survey information and an actual detailed site-specific mining and reclamation proposal.

To inform/remind the lessee of the potential for additional survey and evaluation activity prior to mining, BLM will attach the following stipulation to the lease:

***Threatened, Endangered, Candidate, or Other Special Status Plant and Animal Species.*** *The lease area may contain habitat for the following threatened, endangered, candidate, or other special status plant and animal species: black-footed ferret, bald eagle, mountain plover, Ute Ladies'-tresses, swift fox, sturgeon chub, and black-tailed prairie dog. If surveys performed during the permit application process or future permit revisions indicate that any threatened, endangered, candidate, or other special status plant/animal species could be impacted by proposed coal mining and reclamation operations located on this lease and the potential impacts to that species cannot be satisfactorily resolved through coordination with the USFWS, the proposed coal mining and reclamation operations could be restricted or constrained by the State regulatory authority.*

The following is a partial list of measures that the state of Wyoming could require as part of the mining and reclamation permit in accordance with the state regulatory requirements:

- ▶ Avoiding bald eagle disturbance;
- ▶ Restoring bald eagle foraging areas disturbed by mining;
- ▶ Restoring mountain plover habitat;
- ▶ Using raptor safe power lines;
- ▶ Surveying for Ute Ladies'-tresses if habitat is present;
- ▶ Surveying for mountain plover if habitat is present;
- ▶ Surveying for black-footed ferrets if prairie dogs move onto tract.

#### ***Ute Ladies'-tresses (Spiranthes diluvialis)***

#### Existing Environment

Ute Ladies'-tresses is a federally-listed threatened member of the orchid family identified by the USFWS as potentially occurring on the LBA Tract. Typical suitable habitat for Ute Ladies'-tresses is found along perennial or ephemeral streams with subirrigation into late July or August. The LBA Tract was investigated for suitable habitat for the Ute Ladies'-tresses orchid by Intermountain Resources in 1999. Ephemeral streams with subirrigation into late July and August do not exist on the North Jacobs Ranch LBA Tract. Other wetlands, which are not considered suitable Ute Ladies'-tresses habitat, do exist on site. These wetlands were surveyed in the field for the orchid in late July and August of 1999. Surveys consisted of inventorying each wetlands site twice, once in July and once in August, for the presence of Ute Ladies'-tresses. No orchids were found during those surveys.

### Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, Ute Ladies'-tresses would not be likely to be directly or indirectly impacted because typical suitable habitat for this species does not exist on the tract. If a lease is issued for the tract, mining operations could not be initiated until the MLA mining plan and the state mining and reclamation permit are approved. If future surveys of the tract do locate this species on the wetlands that are not considered typical suitable habitat for this species prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve any potential conflicts.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the Ute Ladies'-tresses orchid or its habitat.

### ***Bald Eagle (Haliaeetus leucocephalus)***

#### Existing Environment

The bald eagle is a federally-listed threatened species. It is a common winter resident and migrant in the area of the North Jacobs Ranch LBA Tract, and has been observed foraging on the area during past surveys. This species has winter roost sites in the Rochelle Hills, approximately four miles east of the LBA Tract. The North Jacobs Ranch LBA Tract was surveyed for bald eagle roost sites in January and February of 2000 by Intermountain Resources. The site does not contain any suitable roosting habitat. The LBA Tract and lands within one mile do not contain trees large enough to support an eagle nest. There are no concentrated food sources for the eagle on the tract.

#### Effects of the Proposed Project

If a lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, bald eagle foraging habitat would be lost on the tract during mining and before reclamation. The loss of any potential prey habitat would be short-term. Foraging habitat that is lost during mining would be replaced as reclamation continues on already mined out areas. Through February, 2000, more than sixty percent of the area that has been disturbed by coal mining activities at the existing Jacobs Ranch Mine had been reclaimed. Eagles may alter foraging patterns as they fly around areas of active mining activity. Potential for bald eagles to collide with or be electrocuted by electric power lines on the mine site is minimal due to use of raptor safe power lines.

The North Jacobs Ranch LBA Tract does not include any suitable roosting habitat or trees large enough to support an eagle nest. If a lease is issued for the tract, mining operations could not be initiated until the MLA mining plan and the state mining and reclamation permit are approved. If future surveys of the tract identify that the situation has changed and that bald eagle roosting or nesting habitat could be impacted by mining activities on the tract, coordination with the USFWS during the permit application review process should resolve potential conflicts.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the bald eagle or its habitat.

### ***Black-footed Ferret (Mustela nigripes)***

#### Existing Environment

The black-footed ferret is a federally-listed endangered species. Black-footed ferrets are found exclusively living in prairie dog towns, and prairie dogs are the main prey source for the black-footed ferret. The North Jacobs Ranch LBA Tract has been surveyed for prairie dog towns by systematically searching the entire tract and adjacent area during surveys conducted in 1999 and 2000. There are no prairie dog colonies on the LBA Tract, the nearest town is approximately ¼ mile away. No evidence of black-footed ferrets has been found during surveys of prairie dog towns located in the general area of the North Jacobs Ranch LBA Tract. As a result, ferrets would not be expected to occur in the area.

#### Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, black-footed ferrets would not be likely to be directly or indirectly impacted because prairie dog towns, the typical suitable habitat for this species, are not currently located on the tract. If a lease is issued for the tract, mining operations could not be initiated until the MLA mining plan and the state mining and reclamation permit are approved. If future surveys of the tract find that prairie dogs have moved onto the tract prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve potential conflicts.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the black-footed ferret or its habitat.

***Mountain Plover (Charadrius montanus)***

Existing Environment

The mountain plover is proposed for listing as threatened. It breeds in areas of dry short-grass vegetation and may be associated with prairie dog colonies.

The North Jacobs Ranch LBA Tract was surveyed from March through July of 1999 for habitat typically used by mountain plovers by Intermountain Resources. Surveys consisted of mapping all vegetation/ habitat types within the area. No areas with low growing vegetation or sparse vegetation, typical of mountain plover habitat, were found. Prairie dog towns were not found within the tract. Surveys to determine the presence of mountain plovers were conducted in March through July when the species are present in Wyoming. These surveys were completed by traversing the area in a vehicle or on an ATV during the early morning hours after sunrise and during the hours prior to sunset. At least two surveys were completed each month from March through July in 1999. One survey was completed in March, two surveys in April, one survey in May, and one survey in June of 2000. No mountain plovers have been recorded on or near the LBA Tract.

Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, mountain plovers would not be likely to be directly or indirectly impacted because the typical suitable habitat for this species, short grass prairies and/or prairie dog towns, are not currently located on the tract. If a lease is issued for the tract, mining operations could not be initiated until the MLA mining plan and the state mining and reclamation permit are approved. If future surveys of the tract find that mountain plover habitat exists on the tract prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve potential conflicts.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to jeopardize the mountain plover or its habitat.

***Swift Fox (Vulpes velox)***

Existing Environment

The swift fox is a candidate species. Specific surveys were not conducted for the swift fox and no foxes were observed during surveys conducted for other species.

The swift fox has never been recorded in the area and is not expected to be found there due to the lack of abundant grassland or short shrub habitats.

#### Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, swift foxes would not be likely to be directly or indirectly impacted because the typical suitable habitat for this species is not currently located on the tract and swift foxes have never been recorded in the area. If a lease is issued for the tract, mining operations could not be initiated until the MLA mining plan and the state mining and reclamation permit are approved. If future surveys of the tract find swift fox habitat on the tract prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve future potential conflicts prior to authorization of surface disturbing activities.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the swift fox or its habitat.

### ***Sturgeon Chub (*Macrhybopsis gelida*)***

#### Existing Environment

Habitat for the sturgeon chub does not exist within the area. This species requires large perennial streams with silty bottoms. This species is found within the Big Horn and Powder River drainages, but the LBA Tract is located within the Cheyenne River drainage.

#### Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, the sturgeon chub would not be likely to be directly or indirectly impacted because the typical suitable habitat for this species does not exist on the tract. If a lease is issued for the tract and future surveys identify potential sturgeon chub habitat prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve potential conflicts prior to authorization of surface disturbing activities.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the sturgeon chub or its habitat.

## ***Black-tailed Prairie Dog***

### Existing Environment

The black-tailed prairie dog is a candidate species. As discussed above, the North Jacobs Ranch LBA Tract has been surveyed for prairie dog towns by systematically searching the entire tract and adjacent area during surveys conducted in 1999 and 2000. There are no prairie dog colonies on the LBA Tract, the nearest town is approximately ¼ mile away.

### Effects of the Proposed Project

If a federal coal lease is issued for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3, prairie dogs would not be likely to be directly or indirectly impacted because prairie dog towns are not currently located on the tract. If a lease is issued for the tract and future surveys of the tract find that prairie dog towns have been established on the tract prior to surface disturbing activities, coordination with the USFWS during the permit application review process should resolve any potential conflicts. Habitat where prairie dogs could establish towns would be lost during mining but would be replaced as reclamation occurs on already mined out areas. Through February, 2000, more than sixty percent of the area disturbed by coal mining activities at the existing Jacobs Ranch Mine had been reclaimed.

As a result, issuing a federal coal lease for the North Jacobs Ranch LBA Tract under the Proposed Action or Alternatives 2 or 3 is not likely to adversely affect the black-tailed prairie dog or its habitat.

### **No Action Alternative (Alternative 1)**

Under the No Action Alternative, the North Jacobs Ranch lease application would be rejected and the tract would not be leased at this time. Mining activities at the adjacent mines would be limited to already approved disturbance to remove coal from existing leases. Coal would not be removed from the North Jacobs Ranch LBA Tract, but some mining-related surface disturbance would occur to allow removal of coal from the adjacent existing federal coal leases.

Under Alternative 1, impacts to Ute Ladies'-tresses, mountain plover, swift fox, and sturgeon chub would not be expected to be different than described above for the Proposed Action and Alternatives 2 and 3 because the North Jacobs Ranch LBA Tract does not include any typical suitable habitat for these species. For the bald eagle, selection of Alternative 1 would mean that eagle foraging habitat would not be lost on the LBA Tract during mining and eagle foraging patterns would not

be affected by mining activity on the LBA Tract. As indicated above, there is no bald eagle roosting or nesting habitat on the tract at this time. For the prairie dog and black-footed ferret, selection of Alternative 1 would mean that the area of the North Jacobs Ranch LBA Tract would remain an available site for future prairie dogs towns. There are no prairie dog towns currently located on the tract.

### **Cumulative Effects**

Existing activities in the PRB which could impact T&E species include oil and gas development (including coal bed methane), surface coal mining, uranium mining, sand and gravel mining, proposed power plant and railroad line construction, ranching, and recreational activities such as hunting. Mining and construction activities tend to have more intense impacts on fairly localized areas, while ranching, recreational activities, and oil and gas development tend to be less intensive but spread over larger areas. Oil and gas development and mining activities have requirements for reclamation of disturbed areas as resources are depleted. The net area of energy disturbance in the Wyoming PRB is increasing overall, however, as new areas of disturbance are added, mined-out areas are restored and reclaimed and oil and gas well sites are reclaimed when depleted oil and gas wells are abandoned.

Issuing a lease for the North Jacobs Ranch LBA Tract would not be expected to change potential cumulative impacts to T&E species in the PRB. The tract is proposed as a maintenance lease for an existing mine. If it is leased under the Proposed Action or Alternatives 2 or 3, mining activities would gradually move from the existing Jacobs Ranch leases onto the LBA Tract. As the mining activities move off the existing leases, restoration of the land surface and reclamation would occur in the mined-out areas of the existing leases. The habitat on the newly leased area would not be available for use by previously resident species during mining operations, but the newly reclaimed areas on the existing leases would become available for use by wildlife. The existing mining facilities, transportation facilities and workforce would be used to mine the new lease. The mining activities would be extended by 7 to 23.2 years, depending on which alternative is chosen. The applicant, JRCC, has indicated they plan to decrease production to an average of 21 million tons per year (about a 3.5 million tons per year decrease) and maintain employment levels at 333, if they acquire a lease for the North Jacobs Ranch LBA Tract.

### **Personal Contacts and Cited References**

Personal contacts consulted in preparation of this Appendix are Jim Orpet and Russel Tait of Intermountain Resources. References considered in this Appendix are included in Section 6 of this EIS and the following:

Fax transmittal February 28, 2000 from USFWS (Pat Deibert) to JRCC and Intermountain Resources pertaining to Mountain Plover surveying.

Letter from Intermountain Resources (Russel Tait) to USFWS, March 3, 2000. Information request concerning critical habitat, MBHFI, and T&E species occurring on or adjacent to the North Jacobs Ranch LBA Tract.

Letter from Intermountain Resources (Jim Orpet) to WGFD (Vern Stelter) March 6, 2000. Wildlife baseline data collection plan on the North Jacobs Ranch LBA Tract.

Letter from WGFD (Thomas Collins) to Intermountain Resources (Jim Orpet), March 7, 2000. Response to Intermountain Resources baseline wildlife data collection plan on the North Jacobs Ranch LBA Tract.

Letter from USFWS (Mr. Michael Long) to Intermountain Resources (Russel Tait), March 16, 2000. Response to Intermountain Resources March 3, 2000 request for information concerning critical habitat, MBHFI, and T&E species occurring on or adjacent to the North Jacobs Ranch LBA Tract.

Wildlife surveys completed on the North Jacobs Ranch LBA Tract and adjacent area:

**1999**

MBHFI / Raptor / Big Game

1/24, 2/16, 2/22, 2/24, 2/25 (aerial survey), 3/29, 3/30, 4/12, 4/22, 4/23, 6/8, 6/9, 7/21, 8/18, 8/19, 8/21, 8/22

Grouse

4/8, 4/13, 4/23

Grouse Brood

7/21, 7/29

Lagomorph

8/22, 8/23

**2000**

MBHFI / Raptor / Big Game

2/24, 3/29, 4/10, 4/25, 6/6, 6/7, 8/1

Grouse

3/30, 4/10, 4/25

Lagomorph

8/2, 8/9

**2001**

MBHFI / Raptor / Big Game

2/19, 2/22, 4/12, 4/23, 4/27, 5/16, 5/17, 5/30

Grouse

3/28, 4/12, 4/27