

**Department of Environmental Quality  
Land Quality Division  
Chapter 0: Appendix B**

**~~Wildlife Monitoring Requirements for Surface Coal Mining Operations~~**

**~~1. Introduction~~**

- ~~a. Procedure requirements
  - ~~i. Procedures in this Appendix are required for surface coal mining operators per Wyoming Department of Environmental Quality (WDEQ) Land Quality Division (LQD) Rules and Regulations.~~
  - ~~ii. Wildlife monitoring procedures shall be completed in accordance with the requirements of the Wyoming Game and Fish Department (WGFD) and the United States Fish and Wildlife Service (USFWS).~~~~
- ~~b. Permission for significant departures from this Appendix
  - ~~i. A formal proposal shall be submitted to WDEQ LQD and reviewed by USFWS and WGFD for any proposed wildlife monitoring alternatives.~~
  - ~~ii. Specific procedures within this Appendix may be waived by the Administrator where the operator affirmatively demonstrates that the impact cannot occur or is not a reasonable concern during the life of the mine.~~
  - ~~iii. The type and amount of monitoring may be modified depending upon the wildlife species and habitats on and adjacent to the permit area, the size of the area to be affected over the mine life, and site-specific problems.~~~~
- ~~c. Collection and analysis of data
  - ~~i. Operators with overlapping monitoring areas shall coordinate their monitoring programs to eliminate duplication.~~
  - ~~ii. Qualified wildlife professionals shall be utilized for the collection and analysis of data in order to assure accuracy and consistency.~~~~
- ~~d. Annual report requirements
  - ~~i. Annual reports submitted to the LQD shall include the monitoring data and analysis specified by this Appendix.~~
  - ~~ii. Data analysis procedures and standardized reporting shall be in a form acceptable to the Administrator.~~~~

**~~2. Wildlife Monitoring Requirements and Methodologies~~**

- ~~a. Endangered Species Act (ESA) Threatened and Endangered Species
  - ~~i. Consultation with USFWS shall be required for detailed survey techniques for any endangered or threatened species that may occur in the permit area or immediate vicinity.~~
  - ~~ii. All observations of threatened and endangered species must be reported promptly to the regulatory authority, unless otherwise specified by USFWS.~~~~

~~b. Big Game~~

~~i. Range conversion~~

~~A. The number of acres of WFGD designated big game seasonal ranges within the permit area boundary shall be recorded prior to disturbance and updated annually throughout the life of the mine.~~

~~B. Range delineations for big game species present in the permit area shall be superimposed on a mine plan map.~~

~~ii. Presence of migration corridors~~

~~A. All applicants for state permitted projects and state permitted uses within designated migration corridors are required to consult with WFGD as part of the permitting process.~~

~~iii. Mortalities and concentration buildups~~

~~A. Mine operators shall maintain a record of big game mortalities including fence entanglements, vehicular collisions, and other non-hunting mortalities related to mining activities.~~

~~B. Winter mortalities shall be estimated each spring from observations incidental to surveys and other mining activities.~~

~~C. Species, date, and probable cause of mortality are required to be recorded. A cumulative record shall be submitted in each annual report.~~

~~D. Concentration buildups or migration blocks shall be reported immediately to local WFGD personnel. A description of the buildup or block shall be submitted in each annual report.~~

~~iv. Incidental observations~~

~~A. All incidental observations of big game including species, sex, number, activity, and habitat type shall be documented and included in annual reports.~~

~~e. Sage Grouse Lek Attendance Surveys, Lek Searches, and Winter Concentration Areas~~

~~i. Core and connectivity areas for sage grouse within the permit area and immediate vicinity shall be identified as designated by the State of Wyoming. All applicants for state permitted projects and state permitted uses within designated migration corridors are required to consult with WFGD as part of the permitting process.~~

~~ii. Annual searches for new and previously known leks~~

~~A. Consultation with WFGD shall be required for detailed survey techniques for any new and existing leks that may occur in the permit area or immediate vicinity.~~

~~iii. Lek attendance monitoring for known leks~~

~~A. Consultation with WFGD shall be required for detailed lek~~

~~attendance monitoring techniques for existing leks that may occur in the permit area or immediate vicinity.~~

~~iv. Winter use surveys~~

~~A. Winter Concentration Areas (WCAs) shall be identified and reported if required by WGFD.~~

~~v. Measurement of distance to nearest disturbance of active leks~~

~~A. Measurement of distance to nearest disturbance of active leks shall be evaluated if required by WGFD.~~

~~vi. Incidental observation of broods~~

~~A. Incidental observations of sage grouse broods and other upland game species shall be documented if required by WGFD.~~

~~d. Raptors~~

~~i. A Raptor Monitoring and Mitigation Plan shall be required prior to permit approval, renewals, major amendments, or revisions. Raptor nest mitigation activities shall be completed and reported if deemed necessary by USFWS and WGFD.~~

~~ii. Nest locations, status, and production~~

~~A. All raptor nest locations occurring within the permit area boundary, including a 1-mile buffer, shall be documented, mapped, and reported in annual reports. Nest searches should concentrate in likely habitats, depending on species potentially present.~~

~~B. Nest status (unoccupied, occupied active, incubating, fledglings present, etc.) of new and existing raptor nests shall be documented in annual reports.~~

~~C. Breeding pair numbers and species and fledgling numbers and species shall be recorded.~~

~~D. Annual production shall be measured as nest success, brood size, and the number of young fledged from the nest.~~

~~iii. Distance to disturbances of all documented nests~~

~~A. To evaluate effects of disturbance, operators shall measure the linear distance from each nest (active or not) in the permit area and 1-mile buffer to the closest known human or equipment related activity and document findings in annual reports.~~

~~B. A record of all nests, including those which have been destroyed, and their histories shall be updated and submitted annually.~~

~~a. Deteriorated nests which are not in reusable condition should also be indicated.~~

~~C. All nest locations shall be shown on a wildlife monitoring map.~~

~~iv. Winter occurrences~~

~~A. Incidental observations of Bald Eagles during winter months~~

~~within the permit area and within a 1-mile radius of the permit boundary, including roosting locations, shall be documented and included in annual reports.~~

~~B. All other winter incidental occurrences of other raptor species within the permit area shall be documented in annual reports.~~

~~v. Mortalities~~

~~A. Electrocutions and other mortality events shall be documented for all raptor species and included in the annual report.~~

~~e. Migratory birds~~

~~i. A Birds of Conservation Concern (BCC) and Migratory Birds of High Federal Interest (MBHFI) monitoring and mitigation plan shall be required if BCC and MBHFI birds or their habitat are known to occur within the permit area or its immediate vicinity. This will be determined during the consultation process with the USFWS.~~

~~ii. Breeding bird habitat surveys~~

~~A. Belt transect surveys representing major habitat types present within the permit area boundary shall be conducted to determine breeding bird habitat, species richness, and abundance for all avian species.~~

~~f. Other mammals~~

~~i. Other mammal species surveys shall be conducted if deemed necessary by the USFWS and WGFD.~~

~~g. Aquatic Species~~

~~i. Aquatic species surveys shall be conducted if deemed necessary by USFWS and WGFD.~~