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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab District
Price River Resource Area
P. O. Drawer AB
Price, Utah 84501

To Jim, then
Coal file
ACT/007/004
IN REPLY REFER TO

3400
(U-601) JWS

September 11, 1980

Mr. Cleon B. Feight, Director
Division of Oil, Gas and Mining
1988 West North Temple
Salt Lake City, Utah 84116

Attention: Mary Ann Wright

Dear Mr. Feight:

The Price office of the Bureau of Land Management is sending the attached recommendations in response to your request for consultation concerning the level of fish and wildlife information required for Price River Coal Company.

Thank you for the opportunity to provide input in this area of concern. We will be looking forward to working with you in the future.

Sincerely yours,

Leon E. Berggren
Area Manager

Enclosure
Recommendations

RECEIVED
SEP 15 1980

DIVISION OF
OIL, GAS & MINING

GENERAL RECOMMENDATIONS

Habitat Mapping

Habitat mapping, including vegetative communities, classified and high interest wildlife species seasonal use distributions, and special habitat features is recommended on all five of the mining facilities submitted. All mapping should be accomplished on a base map--overlay system on 1:24,000 scale topographic maps or (if available) same scale, distortion corrected aerial photographs. The maps should be accompanied by descriptive narration describing the various mapping delineations involved in each series of overlays.

1. Vegetative Mapping

All present vegetative types occurring on each of the mine plan areas should be delineated on overlays. Included in narration or tabular form should be the following:

- A. Total acreage of each community
- B. Percent plant composition by dry weight for each community
- C. Canopy cover by species for each community
- D. Condition, successional stage and trend of all vegetative communities
- E. Present class, season, and amount of use of livestock

2. Wildlife Species Seasonal Use Distributions

Classified and high interest wildlife species seasonal and or special use areas should be delineated on overlays. Included in narration or tabular form should be the following:

- A. List of all aquatic and terrestrial wildlife species occurring on the mine area.
- B. Status of all high interest or classified wildlife species which occur on the mine area should be provided.
- C. List acreage for each of the high interest and classified wildlife species.

3. Special Habitat Features

All special habitat features (features which may significantly influence habitat for wildlife) should be identified and mapped. Below is a list covering the more common natural and man-made special habitat features.

Natural Special Features

- Avalanche-Slide Area
- Cave
- Cave, Ice
- Cave, Lava
- Cliff
- Cone, Volcanic
- Dike, Volcanic
- Dune, Sand
- Insect Mounds
- Overhang
- Salting Area
- Seep
- Cold Springs
- Sink Hole
- Snag or Group of Snags
- Talus, Slope
- Talus, Field
- Wallow, Elk
- Waterfall
- Waste Land
- Island (too small for habitat type)
- Log Jam
- Down Timber
- Bluff
- Beaver Dam
- Muskrat House
- Cataracts (stream)
- Barren Lands
- Hot Springs
- Blowouts
- Mudflow
- Temporary Pond
- Small Natural Ponds

Man-Made Special Features

- Bridge
- Fence
- Underpass
- Salting Area
- Goose Nesting Platforms
- Artificial Nesting Boxes
- Small Seedings
- Buffer Strip
- Building
- Bird Ramp
- Berm
- Culvert
- Dock
- Dredged Area
- Exclosure, Study Area
- Fish Migration Barrier (Man-caused)
- Gauging Station, Water
- Mining Activity
- Poles (Electrical and Telephone)
- Perches
- Road
- Trail
- Stream Improvement Structure
- Railroad
- Stream Crossing
- Shelter (overnight)
- Recreation Area
- Feeding Station
- Fire Break
- Seismographic Trail
- Oil Sump Pit
- Windmill
- Irrigation Diversion and Ditch
- Water Gap
- Stock Water Tanks and Ponds
- Corral and Loading Chute
- Artificial Wildlife Waters

Significance of special habitat features vary from one area to another. Professional judgment should be used to map special habitat features which indeed do influence wildlife habitat and its use.

Special emphasis should be placed in mapping all seeps, springs, wells, perennial intermittent and ephemeral streams, lakes, reservoirs and ponds. Narration of special habitat features should include the following.

A. Significant influence of special habitat features.

- B. Total surface acres of all lakes, reservoirs, and ponds as well as miles of stream.
- C. Stream velocity, gradient, width, depth, pool-riffle ratio and substrata type.

SITE-SPECIFIC RECOMMENDATIONS

Fish and Wildlife Inventory Needs

1. Aquatic

- A. Base line studies should be conducted in Willow Creek and Castle Gate mine to collect data on presence, abundance and variety of macroinvertebrates within portions of Willow Creek and the Price River which are adjacent to or within the mine plan areas.
- B. Fish populations should be studied in portions of the Price River and Willow Creek for the Willow Creek and Castle Gate facility. Characteristics of this population which need to be recorded include: species occurrence, relative species abundance, total population size.
- C. Physical characteristics of portions of Willow Creek and the Price River which adjoin the Castle Gate and Willow Creek mine plan areas should be recorded. These characteristics include representative stream, channel profile, velocity, flow, gradient pool-riffle ratio.
- D. Physical characteristics of the intermittent stream in the Crandell Canyon facility should be recorded. Length of flow, seasonal period of flow and representative stream width, velocity, and flow should be included.
- E. No aquatic studies are recommended for Sowbelly or Hardscrabble mine facilities as no perennial or intermittent water sources are known.

2. Terrestrial Wildlife

A. Amphibians and Reptiles

A review of the species potentially occurring within each of the five mine plan areas should be provided.

B. Birds

Breeding raptor inventories should be conducted within $\frac{1}{2}$ mile radius of all proposed surface developments and proposed exploration sites. Winter raptor surveys should be conducted to identify and protect concentration roosting areas for bald eagles.

Nongame bird inventories should be conducted in the riparian zones of the Willow Creek, Crandell Canyon and Castle Gate mine facilities. Species diversity and species density information should be collected.

A review of the species potentially occurring within each of the five mine plan areas should be provided.

C. Mammals

Inventory work should be done in each of the mine plan areas on a seasonal basis to determine concentration or critical use areas for deer, elk, and moose. Examples include critical winter use, fawning or calving areas, big game watering areas and migration routes. All impacts to these identified areas should be completely mitigated.

A review of the species potentially occurring within each of the five mine plan areas should be provided.