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STATE OF UTAH
NATURAL RESOURCES & ENERGY
Wildlife Resources

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and Steve

Scott M. Matheson, Governor
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December 14, 1983

Ms. Diane Nielson, Director
Division of Oil, Gas and Mining
4241 State Office Building
Salt Lake City, Utah 84114

Attention: James Smith

RE: MRP Review - Beaver Creek Coal Company's Gordon Green No. 2 Mine
(Southwest lease)

Dear Diane:

The Division has completed a review of the Mining and Reclamation Plan - southwest lease application - (MRP) submitted by Beaver Creek Coal Company for the Gordon Creek No. 2 Mine. As you know, the Division has provided the applicant with significant input concerning inhabitation of the mine plan area by wildlife, anticipated impacts and recommendations for a mitigation plan. Generally speaking, the southwest lease application addresses the diverse wildlife population, but only some of the impacts and almost no mitigation. Due to the uncertainty for success of big game passageways, the company should intensively monitor this problem. Attached are the Division's specific comments.

Thank you for an opportunity to review the MRP and provide comment.

Sincerely,

Douglas F. Day
Director

DFD:db

Enclosure

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**DIVISION OF
OIL, GAS & MINING**

UTAH DIVISION OF WILDLIFE RESOURCES' REVIEW COMMENTS
ON THE MINING AND RECLAMATION PLAN (MRP) SUBMITTED BY
BEAVER CREEK COAL COMPANY
FOR THE GORDON CREEK NO. 2 MINE (SOUTHWEST LEASE)

Page 1-3 1.2 Environmental impacts

The plan fails to properly identify potential impacts to big game (deer and elk) migration or an active accipiter territory.

Page 3-11, 3.2.6 Conveyor

The statement in the MRP concerning animal movement across the conveyor is misleading. The structure is not designed to allow animal movement except at two locations. The conveyor and road cut are barriers to big game (deer and elk) movement, except possibly at the two crossing points. Siting of these two points was a matter of making a "guess", and the locations are not supported by field data. It is very possible that the two crossing structures may not be properly placed and that the conveyor and road cut will be barriers to big game movement.

Page 3-18 to 3-20, 3.4.1 Protection of fish, wildlife and other related environmental values

Development of the southwest lease will significantly compromise these areas of concern for wildlife. (1) The highwall for the access road, as well as the conveyor, will represent a barrier to big game (deer and elk) movement, along a 1500 foot long corridor. (2) An active accipiter territory will be encroached upon as well as loss of an accipitor nest will result from development of surface facilities associated with the southwest lease. (3) Loss of high-priority valued habitat for Williamson sapsuckers will result from surface facility development. (Reference letter from Douglas F. Day to Jim Shirazi, October 5, 1983)

These issues (impacts), as well as mitigation for each, need to be addressed in detail within the MRP.

There are no plans in the MRP for monitoring the success of big game passageways. Such a monitoring plan should be developed. This is essential, since appropriate baseline study was not conducted when the passage areas were selected and designed.

The applicant will be building fence within the southwest lease area. The MRP should identify such, as well as specifications so that big game movement will not be hindered.

Page 3-40, 3.5.4.1 Removal or reduction of highwalls

The MRP suggests that the highwall associated with the pad and access road would be retained upon abandonment of the facility. Unless the big game passage sites prove to be effective, these highwalls will need to be removed. They already represent a barrier to big game movement. It is not acceptable that this man-caused barrier should persist beyond the project life. Additionally, if the two passage points prove to be ineffective, the conveyor-road-highwall barrier will need to be modified such that big game movement is not affected.

Page 3-45, seed mixes Temporarily disturbed areas

The use of temporarily seeded areas by wildlife would be enhanced if alfalfa (Ladack) were added to the mix. It also would fix nitrogen.

Page 3-47, permanent revegetation, paragraph 4 and page 3-4, table 3-6

Due to the intense use of the mountain brush community at the mine by grazing ungulates (cattle, sheep, deer and elk), the planting rates for containerized shrub species should be substantially increased to more approximate pre-development conditions. The sheep, deer and elk all utilize these species. Bare root stock could be utilized. This product is less expensive and has acceptable survival rates if properly planted.

The permanent seed mix (Table 3-48) should include brouse seed along with the containerized stock. Rubber Rabbitbrush should be disallowed since it is a strong invader that will probably establish without being in a seed mix. It is of minimal value to the grazing ungulates of the area. Possibly, a sagebrush seed should be included as replacement for the rabbitbrush.

Page 3-49, seeding methods

Hand broadcasting of seed except on freshly disturbed soil has a high failure rate. This technique, nor the results, are not generally acceptable.

Page 10-11, paragraph 3, 10.3.3.2 Migratory birds of high Federal interest

Relative abundance of the western Bluebird is uncommon and the mountain bluebird is common. Typically, the latter species is observed more frequently in the local area. This information was provided by the Division to the applicant on February 6, 1981. To date, the Division's position concerning relative abundance of these two species has not changed.

Page 10-12, 10.4 Potential impacts on fish and wildlife

The impacts (loss of acreage) to each habitat type should be quantified; riparian, aspen forest, as well as mountain shrub will be lost. Also, reference comments for page 3-11, 3-18 to 3-20 and 3-40.

Page 10-12, 10.5 Mitigation and management plans

The applicant was required to secure various state and federal permits in order to take an accipiter nest. The State of Utah Division of Wildlife Resources permit (certificate of registration, issued October 13, 1983 to Mr. Scott Raymon, Beaver Creek Coal Company's representative) required specific mitigation for loss of one accipiter nest as well as disturbance to the birds' territory. Such mitigation consisted of development of 4 acres of riparian habitat during reclamation of the Gordon Creek No. 3 Mine. The applicant had indicated to the Division that detailed and specific planning for such would be part of the MRP. The Division also recommends that those detailed mitigation plans become part of the MRP. Enclosed for your use is a copy of the company's certificate of registration to take one accipiter nest.

Note comments for page 3-18 to 3-20.

Page 10-6 Wildlife monitoring

In view of the uncertainty concerning big game passage of the conveyor and road cut high wall, the company must monitor the success of the two passageways. It is recommended that the company outline such a monitoring study and that it become part of the MRP. Data should be collected at each crossing area through the use of remote sensing super 8 mm cameras with day or nighttime capabilities, as well as time and date documentation. These cameras must be subject activated. The state of technology for these cameras is well developed, and the Division has considerable experience in using such. It is recommended that two cameras be acquired by the company for use in a study. It should have a "pilot" year in which the cameras can be tested so that a detailed study can be designed specific to the use of crossing structures by big game.

Placement and maintenance of the cameras during a pilot study would not be labor intensive. Existing environmental personnel at the mine could shoulder that responsibility. Division biologists would make periodic contacts to review film and make recommendations as appropriate for placement of the cameras.

It is unlikely that a definitive answer concerning what percentage of the big game population that rejected crossing opportunities along the conveyor could be derived, since no baseline data was collected prior to development of the barrier situation. It appears from field observations at other conveyors, that deer that are repelled by the barrier change their route several hundred feet away from it. It is probable that other big game do likewise. Thus, a study should be directed at the behavioral response of animals willing to attempt to cross so that wildlife managers and industrial developers can learn what circumstances at crossing opportunities best accommodate animal movement.

Part of the data (film) would be rather simple in nature. It would indicate which species and numbers of big game animals made an attempt to cross and whether or not a crossing was successful. It would allow comparison of daytime to nighttime attempts for crossing by big game. Also, and more importantly, the movie film would allow evaluation of behavioral responses of the animals to the two crossing situations. If it is discovered that numerous crossings are unsuccessful, then we might consider experimentally modifying the passage areas in order to better accommodate the animals. Evaluation of this portion of the data would require the services of a qualified animal behaviorist.

The most recent cost estimate for a subject activated, daytime-nighttime remote sensing camera (super 8 mm) is \$895 (Wildlife Photographic, P. O. Box 171, Magna, Utah 84044). It is probable and very likely that answers needed to manage big game relative to Beaver Creek's conveyor corridor can be learned in one or two years of study. The pilot study will shed light on the length of time needed for study; it may in fact represent all the study needed. Possibly, the Division would consider a cooperative effort with the company to conduct the study needed.