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file to MAW

state of utah



DIVISION OF WILDLIFE RESOURCES

DOUGLAS F. DAY 1596 West North Temple/Salt Lake City, Utah 84116/801-533-9333
Director

July 11, 1979

Reply To SOUTHEASTERN REGIONAL OFFICE
455 West Railroad Avenue, Box 840, Price, Utah 84501
(801) 637-3310

Mr. Joseph A. Harvey
Blazon Company
Mining Contractors
P.O. Drawer 327
Ferron, Utah 84523



Dear Joe:

I want to take this opportunity to extend thanks for the assistance you have provided Larry Dalton in becoming familiar with surface facilities on the mine plan areas encompassed by Blazon Company's C and W No. 1 and the Clear Creek mines. I believe that you will find the enclosed information helpful at filing a mine and reclamation plan.

In response to your request for wildlife resources information (30 CFR, part 783.20) and the Division's recommendations concerning a wildlife plan (30 CFR, part 784.21) to accompany your permit application, the attached map delineating high value habitats for wildlife and supporting narrative for those use areas and other high interest wildlife species are provided. Since the primary or secondary premining and assumed postmining use of the mine plan area was and will be wildlands inhabited by wildlife, suggested vegetative species (seed list along with potential material supply sources for seed and seedlings) for use in enhancement and/or reclamation work that would benefit wildlife are included (30 CFR, parts 817.97 d 4, 817.97 d 5, 817.97 d 9, part 817.116 b 3 IV and part 817.117 c 2). Also, note that Utah's Division of Oil, Gas and Mining is the regulatory authority for approval of the mining and reclamation plan.

Thank you for an opportunity to assist Blazon Company in complying with OSM's permanent regulatory program for surface coal mining and reclamation and the resultant protection of Utah's wildlife resources. If the scientific name or other information relative to status of any wildlife species referenced is needed, please consult the Division publication 78-16 "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah" that is enclosed.

Mr. Joseph A. Harvey
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If we can be of any further service, please contact Larry Dalton as appropriate.

Sincerely,

Larry J. Wilson by Larry J. Wilson
Larry J. Wilson, Supervisor
Southeastern Region

LJW:LBD:trw

cc: Darrell Nish
Jack Topham
Clark Johnson
Cleon Feight ✓

CLEAR CREEK MINE

30 CFR, PART 783.20 FISH AND WILDLIFE RESOURCE INFORMATION

The mine plan area for Blazon Mining Company encompasses a portion of the Wasatch Plateau in Carbon County, Utah. The Division publication No. 78-16 "Species List of Vertebrate Wildlife that Inhabit Southeastern Utah" adequately identifies occurrence, status, population trend and habitat use areas for wildlife species that inhabit the Wasatch Plateau. Generally speaking, the mine plan area is inhabited on occasion and during different seasons of the year by about 350 species of vertebrate wildlife, (no known fish species -- Mud Creek above the town of Clear Creek is often dry, 6 amphibian species, 18 reptile species, 242 bird species and 84 mammal species), some of which are considered to be high interest species for the habitats and local area represented. High interest wildlife are defined as all game species; any economically important species; and any species of special aesthetic, scientific or educational significance. This definition would include all federally listed, threatened and endangered species of wildlife.

The attached map (Figure 1) displays mapable, high value habitats for high interest wildlife (mule deer, moose, elk, riparian zones and snowshoe hare) on and adjacent to the mine plan area. Mule deer, moose and elk normally utilize the high-priority summer ranges between May 16 and October 31 each year. In the instance of moose, their use of the summer range normally extends to November 30 each year. The crucial-critical areas for moose are used yearlong.

Golden eagles are common, summer residents of the mine plan area. Due to the high elevation (8,400 to 9,200 feet above sea level) of the mine plan area, no nesting golden eagles are expected. If an eagle nest was placed in the area it would be extremely sensitive to disturbance within one-fourth mile of the nest site when active between the period of April 15 and June 15.

The riparian zones associated with drainage bottoms, streams (ephemeral, intermittent or perennial -- 30 CFR, part 701.5), seeps and springs are ranked as being crucial-critical to all aquatic and terrestrial wildlife species. All of the streams associated with the mine plan area are ranked as having limited value for any fishery. They all represent class 6 waters in Utah -- class 1 waters are the best blue ribbon waters and class 6 waters are dewatered during portions of the year.

It should be noted that in addition to the mapable areas of high value habitat that have been ranked as being either crucial-critical or of high-priority to some wildlife, that the entire lease area provides high-priority yearlong habitat for cougar and black bear. Mountain cottontail (above 7,000 feet elevation), snowshoe hare, ruffed and blue grouse also inhabit the mine plan area. The entire lease area provides substantial value, yearlong habitat for cottontail rabbits. The snowshoe hare is entirely dependent upon the fir-spruce vegetation type as a yearlong habitat use area. The coniferous vegetation provides crucial-critical breeding

areas for the snowshoe hare between April 1 and August 15 each year. Ruffed grouse for the most part are dependant upon wildlands vegetated by aspen and coniferous vegetation and that are located within one-quarter mile of stream courses. These areas are crucial-critical, yearlong use areas for ruffed grouse. Blue grouse utilize the mountain brush and coniferous areas of wildlands and are not dependent upon stream courses. The mountain brush zones provide crucial-critical breeding territories for blue grouse between March 15 and June 15 each year. The high elevation, mature stands of Douglas fir are crucial-critical winter range for blue grouse during December, January and February each year.

It should be noted that the high elevation, montane habitats provide summer range for a substantial numbers of mule deer, elk and some moose between May 16 and October 31 each year. Fawning/calving and rearing processes for deer and elk take place on the summer range between May 16 and July 15 each year. Moose calf in the crucial-critical areas between May 16 and July 15 each year.

Since Utah's Division of Oil, Gas and Mining and the U.S. Fish and Wildlife Service have been provided with a copy of the publication "Vertebrate Wildlife that Inhabit Southeastern Utah" there is no apparent reason why all of the species that occur on the mine plan area should be listed in the application for a mining permit. Additionally, it is not believed that detailed population studies of wildlife specific to the mine plan area should be required.

It is recommended that your primary effort be placed on identifying species of vegetation in each vegetative association for the purposes of reclamation. It is believed that if satisfactory reclamation is achieved and man's disturbance does not continue or become a factor that most species of wildlife will return. Without doubt the key to success for enhancing or restoring wildlands will be development of habitats so that the postmining condition as compared to the premining condition will have similar species, frequency and distribution of permanent plants in each vegetative type that will allow for natural plant succession.

CLEAR CREEK MINE
30 CFR, PART 784.21 FISH AND WILDLIFE PLAN

Utah Division of Wildlife Resources provides the following recommendations to minimize disturbances and impacts on wildlife and their habitats that could be impacted during mining and reclamation operations at the Clear Creek mine. The recommendations will also address how enhancement of the wildlife resource and their habitats as discussed in 30 CFR, 783.20 can be achieved. The recommendations for minimizing disturbances and impacts and potential enhancements where practicable are consistent with the performance standards of 30 CFR, 817.97. In instances where it will be necessary to restore or beneficial to enhance high value habitats for fish and wildlife (30 CFR, part 817.97 d 4 and 817.97 d 5); or that the primary or secondary postmining land use will be for wildlife habitat (30 CFR, part 817.97 d 9) and rangeland seedings are to be used, recommended seed lists and rates of application are provided (30 CFR, parts 817.111 through 817.117; note 817.116 a, 817.116 b 3 IV and 817.117 c 2).

Threatened and endangered wildlife and their habitats

No threatened or endangered species of wildlife inhabit the mine plan area.

Eagles and other migratory birds

The golden eagle is a common, summer resident that nests on the Wasatch Plateau. There are no known golden eagle nests on the mine plan area. If an active nest is located by persons associated with the mine it should be reported to Utah Division of Wildlife Resources and

the U.S. Fish and Wildlife Service. Every effort should be made to eliminate man's disturbance within one-fourth mile of an active nest when in use between the period of April 15 and June 15, since golden eagles are sensitive to disturbance and could abandon the nest.

Disturbance that would come from above and within view of the nest should be precluded for a distance of at least one-half mile. Adult birds are not to be molested or killed.

Several other species of raptors inhabit the mine plan area. To date, location of their nests and other parameters of the population are not known. If located, nests should not be disturbed when active and abandoned stick nests are not to be damaged during inactive periods. As a general comment, whenever active raptor nests are observed, they should be reported to the Utah Division of Wildlife Resources and the U.S. Fish and Wildlife Service. All persons regularly associated with the mining operation should be made aware of the value of raptors to society and the fact that they are protected by both state and federal laws.

Design and construction of all electrical power lines and other transmission facilities shall be designed in accordance with guidelines set forth in "Environmental Criteria for Electric Transmission System" published by the USDI and USDA in 1970 and/or the REA Bulletin 61-10 "Powerline Contacts by Eagles and Other Large Birds".

All birds other than resident upland game birds, house sparrows and starlings are protected under the Federal Migratory Bird Treaty Act. All

of the migratory birds and their eggs and nests (when active) are not to be harassed, disturbed, destroyed or killed by any persons without valid federal and state collecting permits. Plantings of native and/or ornamental berry-producing shrubs around surface facilities will provide food and cover for many of the smaller species of these birds. This would enhance their natural habitat and would mitigate for disturbances and destruction of their habitats at other sites in the mine plan area.

High interest wildlife and their high value habitats

It is important to note that moose that utilize the crucial-critical areas during the winter are sensitive to disturbance. These animals are always depleted by winter conditions. Unnecessary disturbance by man causes them to use up critical and limited energy reserves which, often times, results in mortality. In less severe cases, the fetus being carried by females can be aborted or absorbed by the animal, thus reducing reproductive success. Proposed industrial activities that would permanently or for a long period of time occupy crucial-critical habitats should be placed on alternate, lesser-valued sites.

Mule deer, moose and elk inhabit the high-priority and crucial-critical summer ranges identified in Figure 1 between May 16 and October 31 each year. Fawning and calving areas should be protected from exploration or other industrial activities between May 16 and July 15 each year. Disturbances on high-priority summer ranges should be kept to a minimum.

If the mining operation should ever require any structures that would present a barrier to daily movements of wildlife, suitable passage structures are to be constructed along with wing fences to guide the animals to passageways. Detailed studies will be required to determine placement of passageways.

Most wildlife that are summer residents of the higher montane habitats give birth to their young between April 16 and July 15 each year. It is also during this period that young animals gain the strength and ability to elude man and other predators. During this period the young animals need the peace and tranquility normally afforded by remote wildlands. This allows the young animal to develop in relatively unstressed situations and to utilize habitats that are secure from predators. Disturbance by man can compromise this situation and result in abandonment of the young by the female or increased natural predation. It is recommended that employees be cautioned against disturbing these animals if accidentally located. Additionally, exploration activities should be limited as much as possible during the fawning/calving period.

It is important that blue grouse, ruffed grouse, cottontail rabbits and the limited numbers of snowshoe hares not be unnecessarily disturbed during any period of the year. During winter periods such disturbances deplete the animals' energy reserves resulting in similar losses as discussed for moose. During the spring and summer periods the birds and rabbits are producing and rearing young. Breeding territories for blue grouse (March 15 to June 15) and drumming logs for ruffed grouse (March 1 to May 30) must be

protected from disturbance while being utilized each year. In the instance of ruffed grouse their display areas must be protected from alteration or destruction since they represent traditional sites that are reused each year. Snowshoe hares give birth to their young between April 1 and August 15 each year. The nests of rabbits and grouse must also be protected from disturbance or destruction when being used. Scattering of broods and litters causes a greater frequency of accidents and increases opportunity for predation. Employees associated with the mining operation should be instructed to not molest any wildlife, their young or to disturb breeding, nesting and/or rearing sites.

It is important to note that roads and other surface facilities to be constructed should as far as practicable be placed at sites where they will not compromise wildlife or habitats previously discussed. Also, surface facilities, including roads, should be screened if possible from wildlife use areas by vegetation or terrain. Employees associated with mining operations should be instructed that when wildlife are encountered during routine work that they not stop vehicles for viewing purposes. Moving traffic is less disturbing to wildlife than traffic that stops or results in out of the vehicle activities. If viewing is desirable, the vehicle should only be slowed, but not stopped.

Hunting and other state and federal wildlife regulations should be adhered to by sportsmen utilizing the mine plan area.

All hazards associated with the mine operation should be fenced or covered to preclude use by wildlife.

In situations where wildland habitats are disturbed, reclamation will be required. Also, there are sites where enhancement of wildland habitats through vegetation treatments and/or seedings and transplants of seedlings could benefit wildlife. The attached tables (1 through 10) depict recommended seed lists for several vegetative associations and application rates for rangeland seedings that would benefit wildlife. If seed for a plant species is not available, suitable alternates are also listed. For some vegetation associations, plant species are recommended that will assist in erosion control of special sites such as roadbanks. Seedling transplants from nursery stock or nearby rangelands would also be acceptable for enhancement or reclamation of wildlands. In either instance, tables 1 through 10 provide lists of vegetation species by habitat association that would benefit wildlife.

Temporary control of rodents may be required to ensure a successful rangeland treatment. It is recommended that the county agent be consulted in this area of concern. Poisoned oats are the most common and acceptable method for rodent control, however, only licensed persons may apply the treatment.

Currently, there are some new concepts in methodology for revegetation that are being successfully implemented in other parts of the nation and world. One promising method is a procedure where a large scoop removes, from a natural and stabilized site, a small area of earth intact with vegetation and subsurface soils for placement on a site to be reclaimed. This same procedure can be utilized when disturbing pristine sites, except that the

native vegetation is stored for use in latent reclamation. Another meritorious method for stimulating natural revegetation, in combination with other reclamation techniques, is to plan facility developments so that islands of natural, native vegetation remain. This will allow for natural vegetation to spread from the islands. These techniques can also be useful for enhancement of poor quality sites that currently exist on the mine plan area.

Encapsulation of seed and fertilizer for several releases over a period of years after a single application is a new and possibly advantageous procedure. This technique along with soil stabilizing structures has been successfully used in South Africa. Dr. J. Van Wyk in the Department of Botany at Potchefstroom University in South Africa could provide additional information on this new technique.

There are also new specialized techniques coming to the forefront for stabilization of problem sites such as roadbanks and steep slopes. It is important that these sites be promptly and permanently revegetated in order to reduce siltation into local riverine systems. This will mitigate for damage to aquatic wildlife populations and habitats from siltation. Enhancement of existing problems sites or reclamation of disturbed sites can mitigate for salt loading of local river systems. It is believed that natural, nonpoint sources represent 50 percent of the salinity in the upper basin of the Colorado River system into which this mine plan area drains.

It is recommended the company make numerous contacts with appropriate agencies, institutions and persons to ensure that enhancement or reclamation projects achieve the required degree of permanency, plant diversity, extent

of cover and capability of regeneration to ensure plant succession. Generally speaking, seeding should be accomplished as late in the fall as possible. Seedling transplants need to be coordinated with local soil moisture conditions. It is paramount that suitable vegetation be maintained and/or reestablished if the life requirements of wildlife are to be satisfied in the postmining period. Success in this area of concern along with cessation of man's disturbances will likely result in natural invasion and the resultant inhabitation by most wildlife species of an impacted site.

There is also some concern for the effects that subsidence may have on sources of water that support existing wildlife populations and their habitats. If hydrologic monitoring shows a significant reduction or total loss of ground and/or surface waters, the company should immediately consult the Division of Wildlife Resources and the U.S. Fish and Wildlife Service on emergency procedures if needed. A significant local loss of water may demand temporary or permanent alternative sources of water to be established by the company for use by wildlife.

It is recommended that all natural wetlands and riparian vegetation along streams, drainage bottoms, or around seeps and springs be maintained. Roads and other facility developments should not destroy these limited, highly productive and specialized habitats. Roads crossing through those areas should do so in a manner that is least damaging to the habitat. Wetlands and riparian habitats are ranked as crucial-critical habitats and are the most productive sites in terms of herbage and biota produced as compared to other local habitat types. It is probable that a majority of the vertebrate

wildlife that inhabit the mine plan area make some use of riparian or wetland areas.

It is recommended that persistent pesticides not be utilized on the mine plan area. Other alternate pesticides or forms of control should be utilized.

It is recommended that aquatic resources be protected by avoiding impacts to stream channels. Utah Division of Wildlife Resources reaffirms all of the recommendations in 30 CFR, parts 817.44, 817.57 and 817.126 for protection of stream channels. It is also recommended that adequate precautions be taken to keep all forms of coal from being deposited in stream channels. This would include blow coal from haulage trucks, railroads or other transportation systems and storage piles along with larger particles from similar and other sources. If needed to control blow coal, haulage systems should be covered or the surface of the coal sprayed in order to solidify it against wind movement.