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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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June 20, 2000

TO: Internal File

THRU: Bob Davidson, Project Team Lead 

FROM: Joe Helfrich, Reclamation Biologist 

RE: Wild Horse Ridge Significant Revision, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025-SR98(1)

SUMMARY:

CW Mining is proposing to add an area on the east side of the Bear Canyon Fault to the permit area. The proposal includes new surface facilities in the right fork of Bear Canyon.

The proposed disturbed area is within critical big game winter range and is near two golden eagle nests, so the applicant needs to show how wildlife habitat will be protected and enhanced. Several other less serious problems need to be addressed before the proposal is approved.

TECHNICAL ANALYSIS

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: R645-301-322

Analysis:

Wildlife Information

Plates 3-3 and 10-1 have been revised to include the proposed addition to the permit area. These maps show raptor nests and big game habitat. The entire proposed addition to the permit area is either critical elk or deer winter range. Several raptor nests are in the area including two within about 2000 feet of the proposed surface facilities.

The right fork of Bear Creek consistently has water in a few places, but it is not a fishery.

TECHNICAL MEMO

The Division has consulted with the Division of Wildlife Resources concerning the adequacy of wildlife information in the application and in the current mining and reclamation plan. The applicant needs to update the raptor nesting information as a result of the survey conducted earlier this spring.

Threatened and Endangered Species

Most threatened or endangered species that could occur in Emery County occur at lower elevations than the mine and have no habitat in the proposed disturbed area. These are Barneby reed-mustard, Jones cycladenia, last chance Townsendia, Maguire daisy, Despain footcactus, Wright fishhook cactus, and the Winkler cactus. There have been no confirmed sightings of black-footed ferrets in Emery county in several years.

Bald eagles are common in the area during the winter and could occasionally fly through or roost in the proposed addition to the permit area. Mining would have negligible effects on these birds.

The proposed disturbed area does not contain habitat for the southwestern willow flycatcher, but it is not known whether suitable habitat exists in other parts of the proposed permit area addition. The proposed disturbed area has some willows and riparian vegetation, but it was not enough that it was encountered in vegetation cover samples or that it would provide habitat for southwestern willow flycatchers. Woody plant density measurements included coyote willow at a density of 25 per acre.

Canyon sweetvetch (*Hedysarum occidentale* Var. *canone*) is listed by Region 4 of the Forest Service as a sensitive species. This species has been found in the proposed disturbed area, and locations are documented in the vegetation report in Appendix 9-G.

Findings:

Information provided in the application is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-322, Plate 3-3 needs to be updated to reflect the raptor survey completed earlier this spring.

OPERATION PLAN

FISH AND WILDLIFE PROTECTION PLAN

Analysis:

Protection and Enhancement Plan

Subsidence is not likely to adversely affect critical big game habitat, but the disturbed areas would be lost during the life of the mine. The applicant is required to use the best technology currently available to protect and enhance wildlife habitat, and the application needs to show how adverse effects to big game would be mitigated.

The Division of Wildlife Resources commonly accepts mitigation at a ratio of three acres of enhanced habitat for each acre disturbed. A Wildlife Resources representative has visited the site and is considering ways the disturbance could be mitigated. Until they decide the best method, the applicant should commit to working closely with Wildlife Resources and the Division to plan and implement the best technology currently available.

Because the surface disturbance would be in critical winter range, construction should not be started in the winter months from about November 1 until April 15, and the application needs to contain a commitment to this effect.

The application has been revised to contain more design information about the conveyor. Conveyors can inhibit big game movements, and although deer and elk are known to cross under conveyors, they usually need at least three feet of clearance. The most common deer and elk movements in the winter are along ridges, but there is some movement through canyon bottoms and up and down the sides of canyons. The conveyor has been designed to not overly restrict these movements providing a minimum of three feet of clearance.

Endangered and Threatened Species and Bald and Golden Eagles

On December 21, 1999, two Division representatives met with Chris Colt of the Division of Wildlife Resources and with the applicant's representative to discuss eagle nests in the area. It was decided nesting birds could be adversely affected if construction was begun during the nesting season and if any of the nearby nests was active. Therefore, construction should be started outside the nesting season, February 1-August 15, unless monitoring shows the nests are not active. If construction or mining has already begun when the nesting season starts, the birds would have the opportunity to judge whether they can accept the disturbance and nest or if they should go elsewhere.

The Fish and Wildlife Service recommended constructing two or three nearby alternate nests at least one-half mile from human disturbance areas. In a telephone conversation, a Wildlife Resources representative suggested a better alternative might be to do some habitat manipulation to increase the prey base, mainly jackrabbits and cottontail rabbits. This could be done in a degraded pinyon/juniper area and could be in conjunction with the mitigation for loss of big game habitat. A Fish and Wildlife Service representative agreed, again by telephone, that this would be an acceptable choice but suggested the applicant could do a combination of

 TECHNICAL MEMO

- artificial nest sites and habitat manipulation. The applicant needs to ~~commit to work with the~~
- ~~Division of Wildlife Resources and the Division to develop and implement a plan.~~

FOR DEVELOPMENT AND ADVANCE

- The mine plan has been designed ~~so no~~ mining that would ¹cause subsidence ~~is planned~~ for any areas under known raptor nests. *NOT*

As discussed in the wildlife information section of this review, no proposed or listed threatened or endangered species is known to have habitat in the proposed addition to the permit area; however, the mine has potential, through water depletions, of adversely affecting four listed threatened and endangered fish species of the upper Colorado River drainage. The Fish and Wildlife Service requires mitigation when water depletions exceed 100 acre-feet annually. According to information in Section 3-3.6, the total estimated water requirements will be 0.05 cubic feet per second or 36.2 acre-feet annually. Therefore, no mitigation is required.

Findings:

Information in the application is not adequate to meet the requirements of this section of the regulations. Prior to final approval, the applicant must supply the following in accordance with:

R645-301-333, The applicant needs to show how they will use the best technology currently available to protect and enhance critical big game habitat in the proposed surface facilities area. The applicant needs to develop and implement a mitigation plan in cooperation with Wildlife Resources and the Division.

R645-301-333, The application needs to contain more design information about the conveyor. The conveyor should be designed to not overly restrict movements of wintering deer and elk.

R645-301-333, Use of the raptor nests near the proposed surface facilities will probably be adversely affected during the operations. At least two options are available for mitigating this loss, and the applicant needs to develop and implement a mitigation plan in cooperation with Wildlife Resources and the Division.