



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

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October 16, 2001

TO: Internal Files
THRU: Steve Demczak, Sr. Reclamation Specialist/Engineer, Team Lead
FROM: Joseph C. Helfrich, Sr. Reclamation Specialist/Biologist
RE: Gilson Water Well, Canyon Fuel Company, LLC., Dugout Mine C/007/039-AM01H

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SUMMARY:

The application for the Gilson Well was first reviewed by the Division under AM99G on January 14, 2000. The application was withdrawn and resubmitted on August 4, 2001 and given the file number AM01H. On August 27, 2001, the Division received a response to the January 14, 2000 technical Analysis (TA). This Technical Memo is an evaluation of the Biology aspects of the latest submittal. It should be noted that the technical analysis for AM99G did not include a review of the Biology sections of the regulations.

Canyon Fuel Company, LLC has submitted a proposal to drill a well along the east side of the water tank access road. The well will be 300 feet in depth and will intercept water collecting in the Gilson seam. The drill pad will be adjacent to and even with the roadway, extending approximately five feet into the existing stream channel. A retaining wall for the pad will stand fifteen feet from the channel to the pad surface as depicted in Drawing G-346 and GE4B001 in Chapter 5.

The proposal will require relocation of the west fork of Dugout Creek for a stretch of about 50 feet. A stream alteration permit has been obtained from the Division of Water Rights. The alteration permit expires on November 19, 2001. The proposal does not address disturbance and reclamation during stream channel alteration.

TECHNICAL ANALYSIS:

TECHNICAL MEMO

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

Vegetation in the proposed addition to the disturbed area is classified as Riparian, (stream bank deciduous). The current Mining and Reclamation Plan, (MRP) includes the vegetative information for the disturbance associated with the construction of the well pad and retaining wall. The location of the drill pad is approximately 450 feet below the water tank along the east side of the water tank access road. The vegetation map, (plate 3-1) of the MRP lists the proposed disturbed area as deciduous stream bank. Plate 3-1 and the vegetation inventory map provided for in attachment 3-1 accurately characterize the vegetation of the drill pad. The information in the MRP and proposal is adequate to predict the potential for revegetation.

Findings:

The information provided is adequate to meet the requirements of this section of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

The Fish and Wildlife Information is located in chapter 3 section 322.100 through 322.200 of the approved MRP, Plate 5-2 needs to be revised to include the proposed addition within the disturbed area.

A raptor survey that does encompass the proposed drill pad location area has been conducted in 2001 by the Utah Division of Wildlife resources. Plate 3-2 of the current MRP includes the current survey.

Findings:

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

R645-301-322, Plate 5-2 needs to be revised to include the proposed addition within the disturbed area.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Vegetation Reference Area Maps

Plate 3-1, (vegetation) of the current MRP does depict a riparian reference area for the proposed disturbance.

Findings:

Information in the application is adequate to meet this section of the regulations.

OPERATION PLAN

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

Protection and Enhancement Plan

Appendix 3-3 provides for a mitigation plan that could be implemented for the proposed drill pad. The application needs to be revised to include a reference to the mitigation plan contained in Appendix 3-3 section 3.1.1. Plate 3-2 indicates that the area is a high use area for deer and elk at certain times throughout the year. There are no raptor nests within one mile of the proposed drill pad.

TECHNICAL MEMO

Endangered and Threatened Species

The Fish and Wildlife Service has provided a list of proposed and listed threatened and endangered species for Carbon and Emery County for the Horizon Mine. The Division analyzed the potential for each species on this list to be affected by the proposed addition to the permit area, and, except for potential effects to the threatened and endangered fish of the upper Colorado River basin (see discussion below), there should be no effects. Species on the list are:

Graham Beardtongue	Razorback Sucker
Bald Eagle	Humpback Chub
Peregrine Falcon	Colorado Pikeminnow
Black-footed ferret	Bonytail Chub

The peregrine falcon is no longer listed, but it is still protected. Raptor surveys have failed to locate peregrine falcon scrapes in the permit area or the federal lease addition although they have been found nearby. If the current survey indicates that there are raptors within one mile from the proposed disturbed area, mitigation will be required.

According to Ben Franklin of the Utah Natural Heritage Program, there is a historical collection of Graham beardtongue from the extreme northeastern corner of Carbon County a few hundred feet from the county line. It is an endemic that occurs almost exclusively on the Green River Formation in Uintah and Duchesne counties. There is virtually no likelihood the mine would affect this species.

There have been no confirmed sightings of black-footed ferrets in Carbon County in several years, so there should be no effect on this species.

Through water use, the mine could adversely affect threatened and endangered fish of the upper Colorado River basin. The Fish and Wildlife Service requires mitigation when annual water use exceeds 100 acre-feet. According to the revised Probable Hydrologic Consequences document, the increased acreage will not result in increased water use, which is currently estimated at 46.5 acre-feet per year. The water use for the well is not provided in this application.

The Division received a letter from the Fish and Wildlife Service dated March 28, 2000, concurring with the Division's findings on threatened and endangered species. Although water depletions are considered to jeopardize the continued existence of the threatened and endangered fish of the upper Colorado River basin, depletions are addressed by existing inter-agency Section 7 agreements. Therefore, no additional action or mitigation is required at this time. If the mine causes additional depletions, it will be necessary to reassess this determination.

TECHNICAL MEMO

The existing mining and reclamation plan contains information about threatened, endangered, and sensitive species. According to Section 322.200, no threatened or endangered plant or wildlife species were discovered in recent inventories by Wildlife Resources, the Forest Service, or other qualified personnel. Appendix 3-1 contains a letter from Robert Thompson, Forest Service botanist, indicating the area contains no threatened or endangered plant species.

A June 24, 1995 survey for canyon sweetvetch found this sensitive species along Dugout Creek approximately one-half mile below the gate. The Division is aware of a fairly extensive population in the permit area in Fish Creek Canyon, and it could occur in other parts of the permit area and proposed addition.

Section 322.200 says two listed species, the bald eagle and black-footed ferret, could potentially inhabit the area. There have been no confirmed sightings of black-footed ferrets in Carbon County in several years, but bald eagles probably occur within the permit area during the winter.

Dugout Creek is within the drainage of the Green River, which is habitat for certain threatened and endangered fish of the upper Colorado River basin. Through effects on water quantity and quality, the mine could potentially adversely affect these species.

Bald and Golden Eagles

Although bald eagles are common winter residents, there are no nests or concentrated roosting sites within either the current permit area or the proposed addition. As required by R645-301-358.100, the permittee must promptly report to the Division any state or federally listed endangered or threatened species within the permit area of which it becomes aware. Seasonal or migrating bald eagles are expected and would not need to be reported.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

The applicant has not addressed this section of the regulations.

Findings:

Information provided in the proposal is not adequate to meet the requirements of these sections of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-322, -301-333, -301-342, -301-358, the applicant must address section 301-322 of the regulations. The current application does not include a wetland classification for the proposed areas to be affected or a reference to appendix 3-3. The applicant must provide the amount of water consumed on an annual basis, if any, as a result of the installation of the well and relocation of the stream.

TECHNICAL MEMO

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The vegetation map, (Plate 3-1) of the MRP describes the plant communities of the proposed site as deciduous stream bank. The drill pad has been designed to disturb the smallest area possible and still meet the requirements of the Department of Health. Appendix 3-3 section 3.1.1 of the approved MRP provides a detailed description of protective enhancement measures to be taken prior to topsoil removal. The proposal needs to include a commitment to implement the protective enhancement measures as described in this section of the approved MRP.

Findings:

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

R645-301-330, -301-331, -301-332, the proposal needs to include a commitment to implement the protective enhancement measures as described in section 3.1.1 of the approved MRP.

RECLAMATION PLAN

GENERAL REQUIREMENTS

Regulatory Reference: PL 95-87 Sec. 515 and 516; 30 CFR Sec. 784.13, 784.14, 784.15, 784.16, 784.17, 784.18, 784.19, 784.20, 784.21, 784.22, 784.23, 784.24, 784.25, 784.26; R645-301-231, -301-233, -301-322, -301-323, -301-331, -301-333, -301-341, -301-342, -301-411, -301-412, -301-422, -301-512, -301-513, -301-521, -301-522, -301-525, -301-526, -301-527, -301-528, -301-529, -301-531, -301-533, -301-534, -301-536, -301-537, -301-542, -301-623, -301-624, -301-625, -301-626, -301-631, -301-632, -301-731, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-732, -301-733, -301-746, -301-764, -301-830.

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

Regulatory Reference: 30 CFR Sec. 817.97; R645-301-333, -301-342, -301-358.

Analysis:

The application refers to the approved MRP. Control and mitigation measures provided for in section 333 of the MRP are general and do not provide the specificity required to address the protection of wildlife and related environmental values for the drill pad. The application needs to be revised to include a reference Appendix 3-3. This appendix provides a site-specific protection and enhancement plan for the vegetative and wildlife communities located in the proposed drill pad area.

The final reclamation seed mix in the MRP is adequate to provide cover and nutritional value for wildlife. The application needs to include or provide reference to an interim seed mix to establish a shallow rooting cover of grasses and alfalfa for those disturbed areas associated with the drill pad development and stream relocation.

Findings:

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

R645-301-333, -301-342, -301-358, the application also needs to include or provide reference to an interim seed mix to establish a shallow rooting cover of grasses and alfalfa. For those disturbed areas associated with the drill pad development and stream location. The application also needs to be revised to include a reference Appendix 3-3.

CONTEMPORANEOUS RECLAMATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.100; R645-301-352, -301-553, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

The permittee needs to commit to reclaiming the disturbed area contemporaneously with construction.

General

There is no information in the application that addresses this section of the regulations.

TECHNICAL MEMO

Timing

The applicant needs to commit to following the vegetative guidelines set forth by the Division. Planting is to commence during the first favorable planting season.

Mulching and other soil stabilizing practices

The application refers to the approved MRP. The MRP indicates that mulch will be used on all areas that have been regraded and topsoiled.

Standards for success

The permittee needs to commit to applying the standards of success in accordance with the approved post mining land use. The approved MRP section 356 page 3-50 outlines the success standards for the riparian vegetative community.

Findings:

The information provided in this section of the application is not adequate to meet the requirements of this section of the regulations. Prior to approval the applicant must provide the following in accordance with:

R645-301-244, -301-353, -301-354, -301-355, -301-356, the applicant needs to commit to following the vegetative guidelines set forth by the Division. Planting is to commence during the first favorable planting season. The applicant needs to commit to applying the standards of success in accordance with the approved post mining land use.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Analysis:

The application needs to include final surface configurations and cross section maps of the drill pad stream and associated embankments.

Findings:

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

R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731, the application must address these sections of the regulations.

RECOMMENDATIONS:

The amendment is not recommended for approval in its present form.