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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

July 20, 2010

TO: Internal File

THRU: April Abate, Lead *AAA*
7-2-2010 *WMC*

FROM: Ingrid Campbell, Environmental Scientist II

RE: 2010 Mitigation Activities, Canyon Fuel Company, SUFCO, Permit # C/041/0002 and Project #3580

SUMMARY:

On June 15, 2010 the Division received an application from Canyon Fuel Company (CFC) for Mitigation Activities related to the North water Springs area. In 2009, CFC drilled 5 wells in order to conduct slug tests to monitor how much water could be pumped to the surface to replace the loss of water from the springs. Minimal groundwater was discovered; therefore, CFC proposes to pump water from a spring near the confluence of the Main Fork of Box Canyon and the East Fork of Box Canyon. The spring has an average flow of 20 gallons per minute and CFC proposes to pump approximately 10 gpm back to the North water springs area. CFC estimates that the system will pump 1 gpm to Joe's Mill Pond spring, 6-7 gpm to Pines 105 spring and 1 gpm each to Pines 310 and 311 springs.

This application is not recommended for approval. The following deficiencies must be addressed:

R645-301-411.140: At least one potentially eligible cultural resource site exists within the Northwater Mitigation Area according to confidential appendix 4-2 of the M&RP. Please include the cultural resource locations on a map with the mitigation water line to show that the resources will not be affected.

R645-301-333.300, -358: Please include a protection and enhancement plan for habitats of unusually high value for fish and wildlife such as riparian areas. This could include protecting the riparian areas from overgrazing and ensuring an adequate amount of water to be restored to dried spring areas in addition to filling a trough for livestock and wildlife.

R645-301-353: Please include a list of plant species that will be used in the seed mix for this project that meets all the requirements of this regulation.

TECHNICAL ANALYSIS:

ENVIRONMENTAL RESOURCE INFORMATION

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

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

CFC did not include additional cultural resource inventories with this application for mitigation. However, the area is included in the original disturbed area for SUFCO mine and CFC has submitted cultural resource studies in the original permit application and other amendments. These studies are located in Appendix 4-2 of the confidential volume 1 of the M&RP. Archeological- Environmental Research Corporation (AERC) conducted a cultural resource inventory (project SUFC-97-3) of Box Canyon in 1997. Archeologists conducted an intensive evaluation which consisted of walking a series of 5 to 10 meter wide transects across surfaces within a 130 foot wide distance from the exposed canyon rims. AERC discovered sites 42SV2431, 42SV2428, 42SV2430, and 42SV2429, within the box canyon area. These sites consisted of the following:

42SV2428: a 10x10 meter lithic scatter containing primarily secondary flakes. AERC concluded that this was a non significant site with no research potential and or eligibility for listing.

42SV2429: A dispersed lithic scatter that is non-significant with no research potential or eligibility for listing.

42SV2430: a rock shelter measuring 15 meters deep by 30 meters wide. AERC determined the site to be significant and potentially eligible for listing in the National Register.

42SV2431: a dispersed lithic debitage scatter that is not considered significant and is not eligible for listing.

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Findings:

The information provided is not considered adequate to meet the minimum regulatory requirements for this section. Prior to approval, please provide the following in accordance with:

R645-301-411.140: At least one potentially eligible cultural resource site exists within the Northwater Mitigation Area according to confidential appendix 4-2 of the M&RP. Please include the cultural resource locations on a map with the mitigation water line to show that the resources will not be affected.

VEGETATION RESOURCE INFORMATION

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

Analysis:

CFC states that there appears to be no riparian vegetation supported by spring M-SP89. CFC proposes to fence a small area around this spring to prevent livestock grazing and to protect the collection box and pump box. 10 gpm of water is estimated to be left at this spring to support vegetation and wildlife. A small trench will be put in place for a portion of the water line. This disturbance will be reseeded immediately after disturbance.

Findings:

The information provided is considered adequate to meet the minimum regulatory requirements for this section.

FISH AND WILDLIFE RESOURCE INFORMATION

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

Analysis:

According to data stored with the DWR, an active golden eagle territory is located within ½ miles of the M-SP89 spring. Only areas with active subsidence zones were monitored for raptors so, this territory was not monitored in 2009 or 2010. It is recommended that this territory be monitored due to the surface disturbance and water redistribution that will occur later this year.

Findings:

The information provided is considered adequate to meet the minimum regulatory requirements for this section. Due to the increased activity and water redistribution project, the Division recommends that CFC monitor raptors in the area around all associated springs, especially the active golden eagle territory in section 3 of T21S R5E.

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:

Bald and Golden Eagles

CFC proposes to conduct this project in the later portion of 2010. It is currently past the exclusionary period date for golden eagles. No disturbance is anticipated.

Wetlands and Habitats of Unusually High Value for Fish and Wildlife

CFC proposes to fence a small portion of spring M-SP89 and leave approximately 10 gpm of water for vegetation and wildlife.

Findings:

The information provided is considered adequate to meet the minimum regulatory requirements for this section.

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RECLAMATION PLAN

PROTECTION OF FISH, WILDLIFE, AND RELATED ENVIRONMENTAL VALUES

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

Analysis:

The riparian areas associated with Northwater Springs and Joe's Mill Spring have been impacted by the loss of water due to subsidence and overgrazing (See inspection report 2164). CFC fenced a small area around North water springs. The mitigation plan needs to include a protection and enhancement plan for the high value habitat located in these areas.

Findings:

The information provided is not considered adequate to meet the minimum regulatory requirements for this section. Prior to approval, please submit the following in accordance with:

R645-301-333.300, -358: Please include a protection and enhancement plan for habitats of unusually high value for fish and wildlife such as riparian areas. This could include protecting the riparian areas from overgrazing and ensuring an adequate amount of water to be restored to dried spring areas in addition to filling a trough for livestock and wildlife.

REVEGETATION

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Analysis:

Revegetation: General Requirements

The application states that surface disturbance will occur in order to bury a 2" water line between springs M-SP89 and the North water springs. It also states that this disturbance will be reseeded with an appropriate seed mix immediately following burial of the water lines and diversion box.

Findings:

The information is not considered adequate to meet the regulatory requirements for this section. Prior to approval, please submit the following in accordance with:

R645-301-353: Please include a list of plant species that will be used in the seed mix for this project that meets all the requirements of this regulation.

RECOMMENDATIONS:

This application is not recommended for approval at this time.

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