

From: Daron Haddock
To: Jerriann Ernstsens; Leroy Mead
Date: 9/12/03 8:58AM
Subject: Re: Elk and Deer

Leroy,

I am forwarding to you the Monitoring and Mitigation Plan that was developed for the Box Canyon Area at the Sufco Mine. We have already sent a hard copy via mail to Derris Jones, but we wanted to make sure you received a copy. We have asked the various agencies to comment by September 15th. I realize this is short notice, but a decision needs to be made very soon so the company doesn't end up bypassing a tremendous amount of coal. Thanks for your help.

>>> Leroy Mead 09/10/03 05:35PM >>>

Howdy,

The Pines area is actually critical for elk during late fall, winter, early spring months on mild years when snowpack is light. Any disturbance there during this time may cause the elk to drop down into the valley where they wreak depredation havoc on private property. That becomes very expensive for us.

Winter range exclusion dates are: Nov. 1 thru May 15

Elk calving dates (usually higher elevations) May 15 thru July 5

Elk calving and deer fawning season should not be largely effected in this area.

Our fishery guys have some concerns about water loss as a result of this project. The company has assured us this is not the case. However, we strongly recommend sound, piquant mitigation measures and we'll be keeping a close eye on this area. We have sent a letter previously concerning this project. Any cliff failure in Box Cyn. or its East Fork, or water/riparian loss as a result of mining beneath here will be scrutinized closely by our agency.

Let me know if you need more information about this proposal.

Leroy

>>> Jerriann Ernstsens 09/10 4:10 PM >>>

Hi Leroy,

I am writing up a memo for Sufco amendment concerning the mining of East Fork of Box Canyon. If crack develop, we are requiring mitigation. The area is in critical elk winter range and high priority deer winter range. What are the calving or other sanative times that require no or little access.

Thanks,

Jerriann Ernstsens, Ph.D.
Division of Oil, Gas, & Mining
Department of Natural Resources
1594 West North Temple, Suite 3610
SLC Utah 84114
801-538-5214
jerriannernstsens@utah.gov

CC: Derris Jones; Pam Grubaugh-Littig; Susan White

September 9, 2003

Jim Kohler, Branch Chief
Bureau of Land Management
324 South State Street
Salt Lake City, Utah 84145

Alice Carlton, Forest Supervisor
U.S. Forest Service
599 West Price River Drive
Price, Utah 84501

Re: Undermining East Fork of Box Canyon Amendment, Canyon Fuel Company, SUFCO Mine, C/041/0002, Task ID #1640, Outgoing File

Dear Sir or Madam:

The Division has completed a review of Canyon Fuel Company's application to update their mine plan to include undermining a short segment of the East Fork of Box Canyon at the SUFCO mine.

The Office of Surface Mining was consulted and determined that this amendment does not constitute a mining plan modification. Because we are the lead agency for this SMCRA action, it is incumbent on us to coordinate our review and approval with your agency to ensure compliance with other federal regulations. We have received comments from various agencies including both the BLM and the Forest Service regarding this action and have considered those comments while developing a monitoring and mitigation plan, which we believe will provide for the protection of the East Fork of Box Canyon area. By requiring Canyon Fuel to incorporate this monitoring and mitigation plan into their mining and reclamation plan (MRP), undermining of the East Fork of Box Canyon should be able to be conducted without long term damage to this area. A copy of our proposed monitoring and mitigation plan is attached. Please provide any comments you may have on this plan or on our intended approval of this amendment by September 15, 2003.

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Jim Kohler, BLM
Alice Carlton, USFS
September 9, 2003

If you have any questions regarding this project, please call Dave Darby at (801) 538-5341 or me at (801) 538-5325.

Sincerely,

Daron R. Haddock
Permit Supervisor

an

Enclosure

cc: Jim Dykman, SHPO
Mark Page, Water Rights
Dave Ariotti, DEQ
Derris Jones, DWR
Price Field Office
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Monitoring and Mitigation Plan for Mining Under the East Fork of Box Canyon

Hydrological and Subsidence Mitigation Plan for Mining Under Panels 3LPE and 4LPE in the East Fork of Box Canyon

Subsidence R645-301-525.454

1. Conduct a pre-mining survey of the East Fork of Box Canyon stream channel over panels 3LPE and 4LPE.
 - Videotape the stream channel from Joe's Mill Ponds to the west gate road of the 3LPE panel.
 - Establish approximately 10 stations to show stream flow, vegetation, soils, ect.
 - Monitor flow at each station weekly while mining within the angle-of-draw of the stream channel, then monitor each station every two weeks for a period of eight weeks outside the angle-of-draw of the stream channel.
2. Fourth quarter water monitoring shall be conducted prior to mining under the stream channel.
3. While mining under the channel, promptly identify subsidence activity in stream channels.
4. Monitor two time per week mining within the angle-of-draw of the of the stream channel. Continue weekly for a period of 8 weeks after the shears have passed the 15 degree angle-of-draw opposite the stream channel. Then every two weeks for the next 8 weeks.
5. Immediately seal subsidence cracks and fractures identified within the stream channel wet bank with bentonite or bentonite grout.
6. Conduct uninterrupted longwall mining progression, except for normally scheduled maintenance, while under the 15 degree angle-of-draw of the stream channel.
7. Supply a weekly report to DOGM of activities, via e-mail. Identify any changes in surface expression, dates, any fracturing of surface (location, width, spacing, ect.), any repairs, location of longwall.
8. If the applicant cannot gain access to the site, attempts must be documented.
9. The applicant will be required to abide by the mitigation outlined in the approved MRP.
10. Comply with federal and State rules and regulations.
 - Refer to Conditions of Approval of the Resource Recovery and Protection Plan (R2P2), July 31, 2003.
 - A stream alteration permit is required by Utah Division of Water Rights for any stream channel construction activities. The applicant must obtain the permit prior to mining within the angle-of-draw of 15 degrees of the stream channel.

Water Rights Replacement of State Appropriated Water Supplies (R645-301-

731.530)

1. Establish a rain and temperature monitoring station.
2. Promptly replace or compensate any State appropriated water supply that is contaminated, diminished or interrupted by mining operations.
 - Cattle
 - Drinking water
3. Calculate the amount of diminished flows from monitoring data.

Hydrologic and Subsidence Summary Report

1. Submit a summary report to the Division documenting the pre- and post-mining conditions of springs and stream channel. Describe all activities and work conducted by the applicant for site evaluation and mitigation. Identify if impacts have occurred, and if mitigation activities have prevented material damage to resources. The report will be due 90 days after subsidence monitoring is complete for each panel section.

Vegetation Mitigation Plan for Mining Under Panels 3Left, 4Left in the East Fork of Box Canyon**Qualitative Evaluation**

1. Video tape starting from Joe's Mill Pond to 3LPE prior to undermining the area.
2. Qualified botanist must participate in the taping of the channel video.
3. Identify major representative plant species along the stream channel, riparian channel, and spring locations (5 springs).
4. Identify hanging gardens.

Describe stream channel:

- Width at determined water-monitoring locations (minimum of 10).
- Width and depth of pools.
- Heights of natural drop structures.
- Bedrock substrate of stream bottom.

Video tape all animal species present:

- Capture macroinvertebrate presence by turning over a few rocks at each water monitoring station.
- Capture obvious animal species within riparian area.

Video tape same areas at same time of year on the third year following undermining (~Fall 2006).

Quantitative Evaluation: Follow basics of the Division's Guidelines

1. Qualified botanist must survey the riparian area starting from Joe's Mill Pond to the 3LPE west gateroad
 - Survey at all water monitoring locations (minimum of 10), which must

- include all springs.
 - Measure Total Percent Cover: Understory and Overstory.
 - Measure Cover by Species.
 - Plant Species Frequency.
- 2. Condition of Area: Visual observations of
 - Meadow area near Joe's Mill Pond.
 - Riparian area flanking the stream channel
 - Overall.
 - At water monitoring locations (minimum of 10).
 - Hillsides flanking the steam channel. Make sure to note and numerically rate erosion on these hillsides. For example, 1=extreme erosion, 2=high erosion, 3=moderate erosion, 4=slight erosion, 5=no erosion.
- 3. Threatened Endangered Candidate and Sensitive Species
 - Link Canyon Columbine: Provide population location and individual numbers for each population.
 - All other TEC and Sensitive species: Provide population location and individual numbers for each population.
- 4. Submit 2003 vegetation report in the 2004 Annual Report.
- 5. Repeat all plant surveys at same time of year on the third year following undermining (~Fall 2006).
 - Submit 2006 vegetation report in the 2007 Annual Report.
 - The mine operator will implement, if necessary, a revegetation/enhancement plan as determined by DOGM in consultation with the USFS.

Cultural Resource Monitoring Plan for Mining Under Panels 3Left, 4Left in the East Fork of Box Canyon

Monitoring Plan B: (MOA 00-MU-11041000-017; MRP pgs 4-9 to 4-10)

1. Amend MRP to reflect the implementation of Monitoring Schedule B in respect to the NRHP eligible - Elusive Peacock. Provide an Executive Summary of monitoring results in DOGM Annual Reports. (2003, 2004, 2005, 2006, and indefinitely until movement ceases)
2. Monitoring Schedule B: (paraphrased from MOA 00-MU-11041000-017 pg 12; refer to MOA for the explicit schedule)
 - One time event: The Permittee will provide baseline conditions six months prior to the period of mining.
 - One time per month: The Permittee will monitor one time per month within six months following the onset of active subsidence. (1-6 mos)
 - Quarterly: The Permittee will monitor one time every three months for six months following the completion of the one time per month schedule. (6-12 mos)

- Yearly1: The Permittee will monitor yearly for two years following the completion of the quarterly schedule. (12 - 36 mos)
- Yearly2: The Permittee will monitor yearly for additional years following the completion of the yearly1 schedule if monitoring indicates further movement of the ground surface. (36 mos – indefinite amount of time)

Note, other sites listed under the Monitoring Schedule B are the following:

- | | | |
|--------------------|------------|--------------------------|
| • 42SV2492/ML-3582 | No name | Prehistoric Rockshelter |
| • 42SV2433/ML-3449 | Big Mac | Prehistoric Rockshelter |
| • 42SV2434/ML-3450 | Little Mac | Prehistoric Rockshelter |
| • 42SV2341/ML-3335 | No name | Prehistoric Rockshelter. |