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APR 21 2003

DIV OF OIL GAS & MINING

Canyon Fuel Company, LLC
Skyline Mines
HC 35 Box 380
Helper, Utah 84526
(435) 448-6463 Fax: (435) 448-2632

April 17, 2003

Coal Regulatory Program
Attn.: Pam Grubaugh-Littig
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Incoming
C/007/005

RE: Subsidence of a Portion of the once Proposed Lawrence Reservoir Site, Skyline Mine, Canyon Fuel Company, LLC Skyline Mine, C/007/005.

Dear Pam:

Please find enclosed with this letter copies of modified text that include a modification to Chapter 1 of the Skyline Mine M&RP. The purpose of the permit modification is to allow for subsidence of a small portion of the once proposed but now abandoned Lawrence Reservoir site. Included with this submittal are seven clean copies of text and four copies with redline-strikethrough text and the appropriate C1 and C2 forms.

I have attached to this letter a map illustrating the area of planned subsidence within the once proposed Lawrence Reservoir site. The Lawrence Reservoir was not built and the area is no longer excluded from Federal Coal Lease Utah-044076. The BLM included in the Federal Lease the coal underlying the reservoir site in April 2001. The area of the Lawrence Reservoir was included in the Skyline Mine mining plan in late 2002 with the stipulation that subsidence would not occur in this area until approved by the appropriate regulatory agencies. The BLM has since determined that NEPA has been sufficiently addressed to allow for subsidence of a portion of the abandoned reservoir site (see attached map and M&RP Drawing 3.1.8-2, panel 12LA). The remainder of the abandoned reservoir site will not be undermined or affected by subsidence in the current projected mine plan. A copy of the BLM determination is included as part of the modification to the M&RP.

The portion of the proposed but now abandoned Lawrence Reservoir site within Burnout Canyon to be subsided is approximately 2.5 acres. The abandoned reservoir site is within the mine's current subsidence monitoring area. Water monitoring sites within the Burnout Canyon are in place and are part of both the M&RP and USFS monitoring requirements (see Drawing 2.3.6-1 of the M&RP). We

believe no additional water monitoring sites are needed to monitor potential impacts of subsidence in this area of Burnout Canyon Creek.

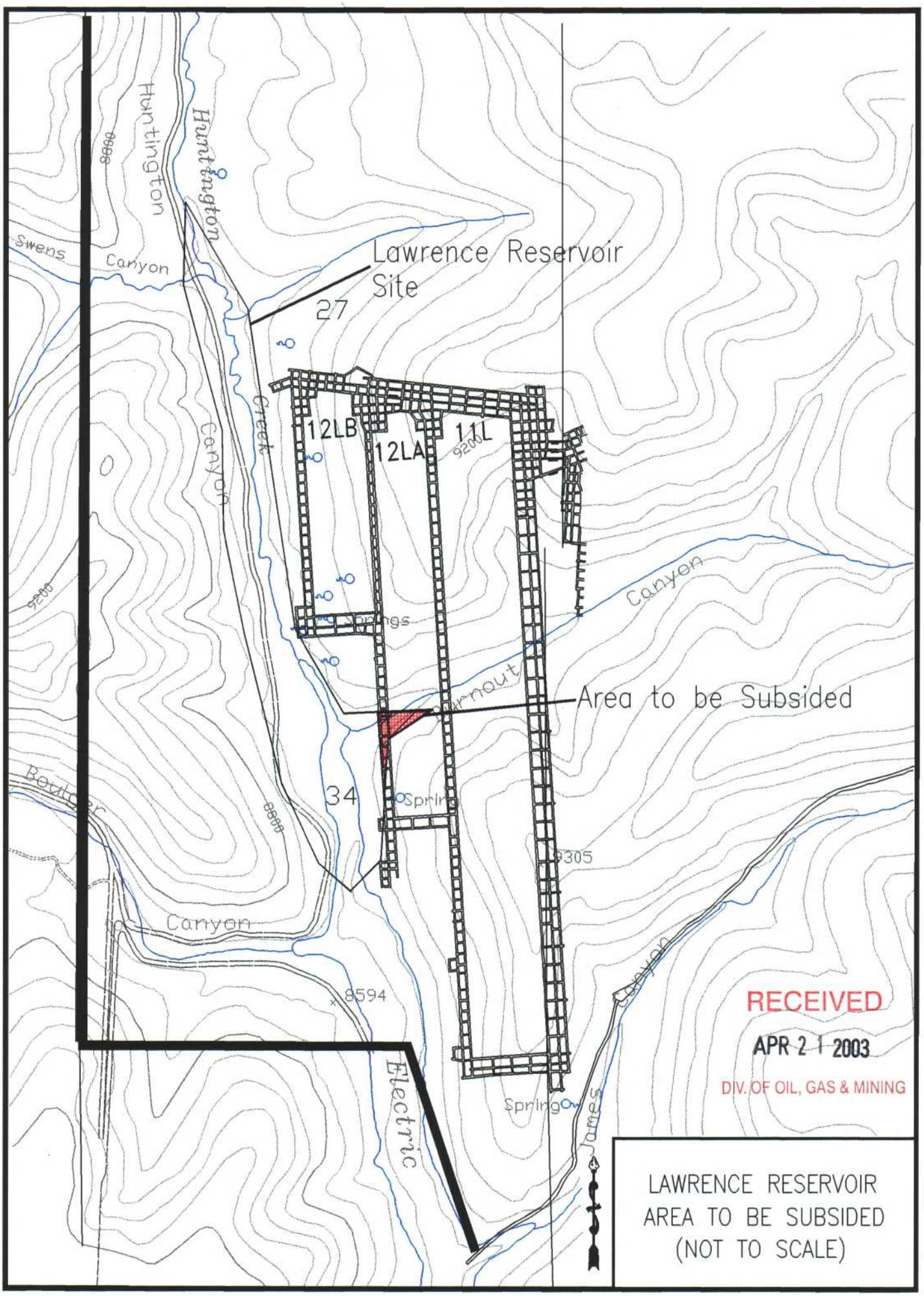
The BLM has stipulated that the area will be monitored for surface effects due to subsidence. While mining is occurring in this area (approximately 45 days), weekly site visits to inspect the ground surface will occur. Semi-weekly monitoring of the flows in Burnout Canyon will also continue. If any impacts due to mining-induced subsidence are observed, the Division, BLM, and Forest will be notified immediately. Any impacts to the stream and ground surface will be mitigated employing the mitigation techniques described in the existing M&RP.

We appreciate your immediate attention to this matter as we plan to be mining within the defunct Lawrence Reservoir site by the first week of June 2003. We would respectfully request that, if at all possible and in the interest of time, the Price Field Office take the lead in the review of this submittal. I have forwarded a copy of this modification to our inspector Steven Demczak. If you have any questions regarding this submittal, please give me a call at (435) 448-2669.

Sincerely:

Chris D. Hansen
Environmental Coordinator
Canyon Fuel Company, LLC.

attachments


Huntington
Huntington
Swens
Canyon
Lawrence Reservoir
Site
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Creek
Canyon
12LB
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Springs
Area to be Subsided
34
Spring
Boulder
8800
9305
Canyon
8594
Electric
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James
Canyon
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APR 2 1 2003
DIV. OF OIL, GAS & MINING
LAWRENCE RESERVOIR
AREA TO BE SUBSIDED
(NOT TO SCALE)

APPLICATION FOR COAL PERMIT PROCESSING

Permit Change ☒ New Permit ☐ Renewal ☐ Exploration ☐ Bond Release ☐ Transfer ☐

Permittee: Canyon Fuel Company, LLC
Mine: Skyline Mine **Permit Number:** C/007/005
Title: Revision to M&RP to include the subsidence of a portion of the abandoned Lawrence Reservoir site
Description, Include reason for application and timing required to implement:
Allow for subsidence of a small portion of Burnout Canyon in the abandoned Lawrence Reservoir area

Instructions: If you answer yes to any of the first eight (gray) questions, this application may require Public Notice publication.

☐ Yes ☒ No 1. Change in the size of the Permit Area? Acres: _____ Disturbed Area: _____ ☐ increase ☐ decrease.
☐ Yes ☒ No 2. Is the application submitted as a result of a Division Order? DO# _____
☐ Yes ☒ No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
☐ Yes ☒ No 4. Does the application include operations in hydrologic basins other than as currently approved?
☐ Yes ☒ No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
☐ Yes ☒ No 6. Does the application require or include public notice publication?
☐ Yes ☒ No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
☐ Yes ☒ No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
☐ Yes ☒ No 9. Is the application submitted as a result of a Violation? NOV # _____
☐ Yes ☒ No 10. Is the application submitted as a result of other laws or regulations or policies?
Explain: _____
☐ Yes ☒ No 11. Does the application affect the surface landowner or change the post mining land use?
☒ Yes ☐ No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
☐ Yes ☒ No 13. Does the application require or include collection and reporting of any baseline information?
☐ Yes ☒ No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
☐ Yes ☒ No 15. Does the application require or include soil removal, storage or placement?
☐ Yes ☒ No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
☐ Yes ☒ No 17. Does the application require or include construction, modification, or removal of surface facilities?
☐ Yes ☒ No 18. Does the application require or include water monitoring, sediment or drainage control measures?
☐ Yes ☒ No 19. Does the application require or include certified designs, maps or calculation?
☐ Yes ☒ No 20. Does the application require or include subsidence control or monitoring?
☐ Yes ☒ No 21. Have reclamation costs for bonding been provided?
☐ Yes ☒ No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
☐ Yes ☒ No 23. Does the application affect permits issued by other agencies or permits issued to other entities?

Please attach four (4) review copies of the application. If the mine is on or adjacent to Forest Service land please submit five (5) copies, thank you. (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

_____ Print Name

_____ Sign Name, Position, Date

Subscribed and sworn to before me this _____day of _____, 20_____

_____ Notary Public

My commission Expires: _____, 20____}
Attest: State of _____} } ss:
County of _____

For Office Use Only:	Assigned Tracking Number:	Received by Oil, Gas & Mining
		RECEIVED APR 2 1 2003

Form DOGM- C1 (Revised March 12, 2002)

APPLICATION FOR COAL PERMIT PROCESSING
Detailed Schedule Of Changes to the Mining And Reclamation Plan

Permittee: Canyon Fuel Company, LLC
Mine: Skyline Mine **Permit Number:** C/007/005
Title: Revision to M&RP to include the subsidence of a portion of the abandoned Lawrence Reservoir site

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

			DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED
☐ Add	☒ Replace	☐ Remove	Chapter 1 Page 1-35
☒ Add	☐ Replace	☐ Remove	Add BLM approval letter to Chapter 1, Exhibit 1.14-3
☐ Add	☐ Replace	☐ Remove	
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Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.

02/17/03

Received by Oil, Gas & Mining

APR 21 2003

Form DOGM - C2 (Revised March 12, 2002)

distance of 12.36 feet; thence N67° 17' 42" W a distance of 205.91 feet; thence N67° 52' 22" W a distance of 49.97 feet; thence N67° 58' 39" W a distance of 114.38 feet; thence N68° 31' 43" W a distance of 394.17 feet; thence S89° 10' 54" W a distance of 313.96; thence S84° 21' 11" W a distance of 44.32 feet; thence S05° 39' 41" E a distance of 4.00 feet; which is the point of beginning and containing .3 acres, more or less.

The facilities to be constructed on the surface easements and rights-of-way are a part of the Skyline Mines and these areas of surface use are to be included in the permit area as shown on Drawing 1.6-1.

The Lawrence Reservoir (Map 1.6-1), proposed in 1938, was never developed. Efforts to pursue the project were discontinued and resulted in case file closure by the Utah State Engineer's Office on August 8, 1961. When Federal Coal Lease Utah-044076 was issued, the site area of the proposed Lawrence Reservoir was excluded from the leased premises. On March 27, 2001, the Lawrence Reservoir area was added to Federal Coal Lease Utah-044076 by the BLM. ~~The BLM has stipulated, however, that only first mining may occur without subsidence within the Lawrence Reservoir site. Currently, the BLM and USFS are moving forward with plans that would allow CFC to subside the area. CFC will not subside the reservoir area until the BLM and USFS agree to allow such activities.~~ In a letter dated March 17, 2003 and sent certified mail to Skyline Mine, the BLM approved longwall recovery of the 12 Left "B" panel that underlies a portion of the now-abandoned Lawrence Reservoir site. The BLM further determined that impacts related to subsiding this area had been adequately addressed in previous NEPA documents. The BLM approval also had 5 stipulations with which the operator will comply. Copies of the letters addressed to CFC from the BLM stating that the reservoir site is within Federal Coal Lease Utah-044076 and discussing the stipulations related to mining this portion of the lease ~~is~~ are included as Exhibit 1.14-3.

Due to the great volume of documents involved with the ownership, right-of-entry, etc. of the Skyline properties, photocopies of the agreements have not been included in this Notice. The relevant documents are presently maintained at the offices of Canyon Fuel Company, LLC , Midvale, Utah, and at the Skyline Mine's office. Copies of the agreements can be viewed by interested persons during normal business hours.

Canyon Fuel Company, LLC holds no interest under any real estate contracts covering surface lands or other realty to be affected by mining activities at the Skyline Mines. Also, there are no purchasers of record under real estate contracts with respect to the Skyline properties.

distance of 12.36 feet; thence N67° 17' 42" W a distance of 205.91 feet; thence N67° 52' 22" W a distance of 49.97 feet; thence N67° 58' 39" W a distance of 114.38 feet; thence N68° 31' 43" W a distance of 394.17 feet; thence S89° 10' 54" W a distance of 313.96; thence S84° 21' 11" W a distance of 44.32 feet; thence S05° 39' 41" E a distance of 4.00 feet; which is the point of beginning and containing .3 acres, more or less.

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155
www.ut.blm.gov

IN REPLY REFER TO:
3480
(UT-923)
UTU-044076

MAR 17 2003

CERTIFIED MAIL -- Return Receipt Requested

Dan Meadors
Skyline Mine Manager
Canyon Fuel Company, LLC
HC 35 Box 380
Helper, Utah 84526

Re: Approval of the Minor Modification to develop longwall Panels 12 Left "A" and 12 Left "B" in Skyline Mine #3 Level 2 and approval of extraction of coal in these panels including under the old "Lawrence Reservoir site".

Dear Mr. Meadors:

Background: On April 8, 2002, BLM approved the Minor Modification to develop longwall panels 12 Left "A" and 12 Left "B" except for the mining under the old "Lawrence Reservoir site". Skyline mine is now seeking approval to longwall mine under the 2.5 acres that has not been approved to longwall mine mainly under Burnout Creek in the 12 Left "B" Panel. BLM has completed a NEPA adequacy determination for the mining under the old "Lawrence Reservoir site"(See map enclosed).

Approval: BLM approves the longwall recovery in the 12 Left "B" Panel in the old "Lawrence Reservoir site" as per the enclosed map (See Enclosure 1).

NEPA: The impacts of this approval have been adequately addressed in previously NEPA documents (reference Determination of NEPA Adequacy 923-2002-01, See Enclosure 2p).

Conditions of Approval.

1. BLM will require that a 22-degree angle of draw plus 25 feet be maintained from the edge of the longwall panel to the high water level of Electric Lake. No full extraction is authorized in this area.

2. Canyon Fuel Company will notify the BLM 24 hours prior to longwall mining in the area of the angle of draw under Burnout Creek in the 12 Left "B" Panel. Once extraction has commenced under the Burnout Creek area, mining will continue without cessation until the entire area has been traversed unless safety or unforeseen equipment problems arise.

3. BLM will require immediate notification of any mine induced seismic events that are larger than magnitude 3.0 as measured on the Richter scale.

4. Canyon Fuel Company will monitor the surface of the Burnout Creek area and immediately notify the BLM of any observed surface impacts.

5. Canyon Fuel Company will lower the shields in the head gate to 9.5 feet 1/3rd of the length of the longwall and grade out to the center of the panel to full longwall height in order to reduce the subsidence in the area next to the virgin coal abutment pillar under the stream.

If you have any questions, please call Stan Perkes at 539-4036.

Sincerely,

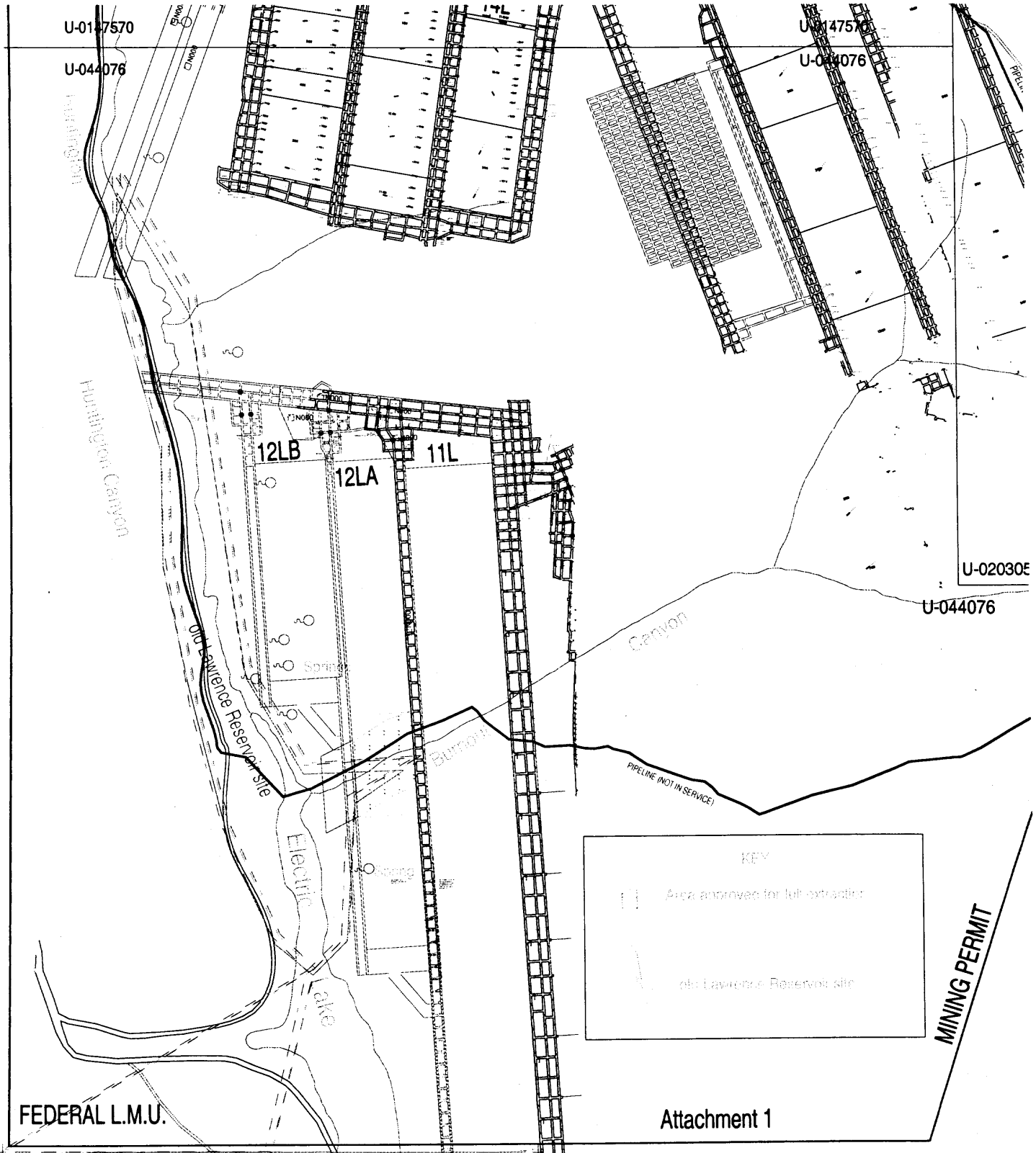
/s/

James F. Kohler
Chief, Solids Minerals Branch

Enclosure (2)
1. Map
2. Determination of NEPA Adequacy

cc: PFO
Mary Ann Wright, Utah Division of Oil, Gas and Mining, P.O. Box 145801, Salt Lake City, Utah, 84114-5801

bcc: Files - UTU-044076
Reading File



MINING PLAN APPROVED BY BUREAU OF LAND MANAGEMENT

Recommended By:

3/17/03

Mining Engineer **(Date)**

Approved By:

3/17/03

Manager **(Date)**

Worksheet
Documentation of Land Use Plan Conformance and NEPA Adequacy (DNA)

U.S. Department of the Interior
Bureau of Land Management (BLM)

Note: This worksheet is to be completed consistent with the policies stated in the Instruction Memorandum entitled "Documentation of Land Use Plan Conformance and National Environmental Policy Act (NEPA) Adequacy" transmitting this worksheet and the "Guidelines for Using the DNA Worksheet" located at the end of the worksheet. (Note: The signed CONCLUSION at the end of this worksheet is part of an interim step in the BLM's internal analysis process and does not constitute an appealable decision.)

A. **BLM Office:** USO, Solids Minerals Group
B. **Lease/Serial/Case File No.** Federal Coal Lease UTU-044076

Proposed Action Title/Type: Minor Modification to an approved Resource Recovery and Protection Plan to fully extract coal underneath a 2.5 acre portion of Burnout Creek.

Location of Proposed Action: Huntington Canyon, Emery County Utah

Description of the Proposed Action: Canyon Fuel LLC, and Skyline Mines have submitted a minor modification to the Resource and Recovery and Protection Plan that includes a proposal to fully extract coal in one seam underneath a 2.5 acre portion of the old proposed Lawrence Reservoir site that includes a stretch of Burnout Creek. The edge of the panel under Burnout Creek begins at approximately 425 feet from the high water mark of Electric Lake. Burnout Creek has already been undermined for approximately 6900 feet part of which has included two seams. This proposal would undermine an additional 645 feet of Burnout Creek. The proposal would increase coal recovery by approximately 830,000 tons of federal coal.

The old Lawrence Reservoir site comprises 121.5 acres that was included as part of Federal Coal Lease UTU-044076 on April 19, 2001. These lands were not included in the original lease because they were part of a reservoir right-of-way application submitted by the Huntington Cleveland Irrigation Company in 1939. This application was relinquished in 1961 before the preference right lease was issued in 1965. However, the preference right lease did not include the old reservoir site because those lands were excluded from the original prospecting permit. Skyline Mine engineers have determined that due to a change of the location of faults encountered in the mine an additional panel could be extracted. In order to recover the reserves in this panel, it will be necessary to undermine about 2.5 acres of the 2001 lease modification that included Burnout Creek. Such a change is normally considered as a minor modification to an existing mining plan and that would be categorically excluded under BLM's NEPA policy (BLM Categorical Exclusions, 516 DM Chapter 6, Appendix 5.4 F.(8)). However, when the Forest Service gave their consent to modify the lease to include the former reservoir site, they categorically excluded this 121.5 acres from NEPA because they did not anticipate full extraction

mining under the lease modification. In the Decision Memo (March 2001) the Forest Service supervisor stated, "I have decided to consent to the modification of Federal Coal Lease U-044076 by the BLM. This decision does not approve mining that would cause subsidence or surface disturbance. The modification area would be subject to the lease terms, conditions, and stipulations contained in lease U-044076". The decision further provides that, "the application as submitted, and/or Federal Coal Lease U-044076 would provide adequate protection for the Forest Resources". Because the Forest Service did not analyze the effects of full extraction mining, this DNA is being prepared to determine whether any impacts that mining may cause due to the full extraction of the coal resource in this small area have been adequately analyzed in the existing NEPA documents.

There are no changes in the proposed action that are relevant to environmental concerns that have not been addressed previously. There are no significant new circumstances or information relevant to environmental concerns from the impacts of the proposed action.

Applicant (if any): Canyon Fuel Company, Skyline Mine

B. Conformance with the Land Use Plan (LUP) and Consistency with Related Subordinate Implementation Plans

LUP Name Land and Resource Management Plan, Manti-La Sal National Forest , (1986) (Forest Plan). The project area lies within an RPN (Riparian Management Unit) and is potential spawning habitat for Yellowstone Cutthroat Trout.
Date Approved November 1986
Other document FS Categorical Exclusion Lawrence Reservoir site Date Approved March 2001

*List applicable LUPs (e.g., Resource Management Plans or applicable amendments).
Forest Plan, Page III-72 "Avoid and mitigate detrimental disturbance to riparian area by mineral activities. Initate timely and effective rehabilitation of disturbed sites."

Forest Plan Forest wide Management Direction for Riparian, Flood Plain & Wetlands Management
Page III-31,02 "Give preferential consideration to riparian area dependent resources in cases of irresolvable resource conflicts"
Page III-22, 08 "Manage waters capable of supporting self-sustaining fish populations to provide for those populations".
Page III-36,01,d,(5) "Coal leases may be denied or limited by special stipulations where operations would result in unacceptable or immitigable impact on wildlife or fisheries" and "Proposed management activities which may cause unfavorable conditions in existing fisheries will include mitigation measures."

**List applicable activity, project, management, water quality restoration, or program plans.

☐ The proposed action is in conformance with the applicable LUPs because it is specifically provided for in the following LUP decisions:

Minerals - Mineral activities are allowed, but they must avoid and mitigate detrimental disturbance to the riparian area.

C. Identify the applicable NEPA document(s) and other related documents that cover the proposed action.

List by name and date all applicable NEPA documents that cover the proposed action.

Flat Canyon Coal Lease Tract, Final Environmental Impact Statement, US Forest Service and BLM, Jan. 2002.

Decision Memo, Manti La Sal National Forest, Lawrence Reservoir Site, Categorically Exclusion, March 2001

Decision Notice, Manti La Sal National Forest, 1995 (Lease Readjustment)

Decision Notice, Manti La Sal National Forest, 1993, Finding of No Significant Impact (FONSI) or Burnout Creek subsidence and Upper Huntington Canyon Enhancement. (The main issue was what kind of impacts would there be on a perennial stream such as Burnout Creek if the coal was fully extracted and it was subsided. Technical reports and studies were accomplished to document the impact.)

Final Environmental Impact Statement for Development of Coal Resources in Central Utah, BLM, 1979 assessment, biological opinion, watershed assessment, allotment evaluation, and monitoring report).

Technical Report, Surface-water and Groundwater resources in the Flat Canyon Area, Norwest, 2000.
Stream response to subsidence from underground coal mining in central Utah, Environmental Geology, 39 (3-4), 279-291, 2000, Sidle, R.C., I. Kamil, A. Sharma, and S. Yamashita,

Forest Sciences Laboratory, Skyline Mine Subsidence Study, Changes in Stream Channel Characteristics and Hydraulic Parameters Related to Surface Subsidence, July 1998.

Progress Report No. 2, Updated Conceptual Hydrogeology, Evaluation of Current and Future dewatering, and Proposed Testing Program For Skyline Mine, February 2002, Hydrologic Consultants, Inc, Lakewood, Colorado.

Cumulative Hydrologic Impact Assessment, UDOGM, February 1995 (currently in the process of being updated.) to the proposed action (e.g., source drinking water assessments, biological assessment, biological opinion, watershed assessment, allotment evaluation, rangeland health standard's assessment and determinations, and monitoring the report).

Probable Hydrological Conquences, Canyon Fuel Company, November 2002.

Technical Analysis, UDOGM, November 21, 2002

Readjusted Federal Coal Lease U-044076, 1995

Decision Memo, Manti-La Sal National Forest, January 1995, Readjustment of Federal Coal lease U-044076

D. NEPA Adequacy Criteria

1. Is the current proposed action substantially the same action (or is a part of that action) as previously analyzed?

Documentation of answer and explanation: YES

The proposed action of mining under the Burnout Creek has been analyzed in several studies and is the basis for the analysis for the Flat Canyon Final Environmental Impact Statement (FEIS). The Flat Canyon FEIS project area is less than 1 mile from the project area and is 3792 acres, but the Flat Canyon FEIS analyzed impacts of full extraction of coal on a much larger area which included the west side of Upper Huntington Canyon, approximately 1/4 of a mile away from the site. In fact the development corridor that was analyzed in the Flat Canyon FEIS included the lower portion of Burnout Creek. The mining proposal of full extraction in the old Lawrence Reservoir site is limited to 2.5 acres, with 645 feet of perennial stream that will also be subsided. This area has similar geology, hydrology, vegetation, wildlife and mining conditions to the Flat Canyon FEIS area. The stream gradient is steeper in the Burnout Creek area as stated in the Flat Canyon FEIS.
The Skyline mine has been operating in this area for more than 25 years, mining coal with full extraction methods causing the land surface to subside. The subsidence of the land surface is approximately 70% of the coal height that is mined. Therefore, if 10 feet of coal is mined underground there would be approximately 7 feet of maximum subsidence (the land surface would move down 7 feet). The analysis of undermining the Burnout creek has been documented by numerous studies. This proposed mining area of approximately 2.5 acres in the old proposed Lawrence Reservoir site and an additional approximate 645 feet of stream that will be undermined that has not been previously specifically analyzed in the CX for the lease modification but was analyzed in the 1993 EA for the stream. This is part of the proposed action and subsequent study analyzed in the 1993 EA.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current proposed action, given current environmental concerns, interests, resource values, and circumstances?

Documentation of answer and explanation: YES

ATTACHMENT 1-3

The ranges of alternatives that have been analyzed in the NEPA document for the Flat Canyon FEIS include: 1) No Action or No mining; 2) leasing with no special stipulations; 3) Not restrict mining that would cause subsidence (4) Not allow subsidence of perennial drainages. (Flat Canyon EIS, USFS and BLM, 2002).

The resource values that were addressed were, terrestrial and aquatic species habitats (FC FEIS, p.5-52), stream channel morphology, and vegetation (FC FEIS p. 4-47) intercepting the flow in the stream and diverting it underground - changing the hydrology (FC FEIS p. 4-33), subsidence that could change the flow of springs and seeps, affecting the receiving streams (FC FEIS, p4-38)

The action that is being approved in the minor modification of the mining plan for the Skyline Mine is to extract coal that would cause undermining the old Lawrence Reservoir site in an area, which entails about 2.5 acres, and subside the Burnout Perennial stream for about 645 feet in length. The action of not restricting mining that would cause subsidence would be the same alternative that would be similar to this effort, but not with multiple seams.

3. Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances (including, for example, riparian proper functioning condition [PFC] reports; rangeland health standards assessments; Unified Watershed Assessment categorizations; inventory and monitoring data; most recent Fish and Wildlife Service lists of threatened, endangered, proposed, and candidate species; most recent BLM lists of sensitive species)? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis of the proposed action?

Documentation of answer and explanation: YES

The publication of the Flat Canyon EIS is so current, (January 2002) that it provides the latest information on the subject and surrounding areas. There is no new analysis or information that is available for the undermining of this area.

There has been an issue arise since the NEPA documents were written. This issue is the fact that there are claims that the mine is draining electric lake that lies next to the proposed mining area. In the Probable Hydrologic Conquences dated November 2002, Petersen (October 2002) states:

> ".... groundwater flow through the Star Point Sandstone occurs primarily through fracture openings and groundwater flow through the matrix of the sandstone occurs only at a very slow rate. Based on these findings, it is apparent that large volumes of leaking Electric Lake water cannot be the source of the large fault-related inflows in the Skyline Mine. If Electric Lake water was flowing through fractures directly to the 10 Left area, it would be anticipated that the "pulse" of lake water would arrive at the mine in a short period of time."

Experience has shown that fracture flow in fault happens very quickly from the source of water to the discharge point. In a fault related study on Little Bear Spring in Huntington Canyon the major source of water was approximately 1.7 miles away and it took approximately 42 days for eocine dye to show up at the spring when it was placed in the fault area at that location. The water in the spring has a very similar chemistry to

the water that was found at the source. Even though this is not conclusive this does indicate a mechanism whereby the rates that water can flow through a fault system.

The current mining at Skyline mine is approximately 1.5 miles away from Electric Lake. Five water samples taken from 7/2/2002 through 8/26/2002 at 10-Left averaged 1.20 TU. Seven samples were taken from 5/24/2002 to 8/1/2002 at JC-1 (well near the mine workings) and they averaged 1.09 TU. The Tritium units for Electric Lake average about 9 TU to 12 TU. (Technical Analysis, UDOGM, November 21, 2002). This seems to lend itself to the fact that water may not be traveling through fault related structures into the mine from Electric lake. There may be another source of water.

To further analyze this situation the mining company, Skyline Mine contracted with Hydrologic Consultant, Inc of Lakewood, Colorado to look at this situation

> Page v states,". . . More significantly, however, is the potential existence of a series of stacked sandstones up to 700 ft thick based on a recently obtained geophysical log of a nearby gas exploration drillhole. The presence of these deep sandstones could potentially explain the relatively large, sustained ground-water inflows to the Skyline mine along faults.". On page vi, it continues, "Final laboratory results of water chemistry analyses do not change previously report chemical interpretations. On the basis of major ions, carbon-based age, and tritium content, the underground inflows and discharge from the James Canyon wells do not have any significant component of water form Electric Lake or from any other surface source." (Note: the James Canyon Wells intercept some of the water going into the mine.)

The report also suggest the water level data from the Flat Canyon Coal Tract (which is adjacent to the lease) suggest a high interconnection among faults and that the tract will require similar dewatering requirements.

There were two other studies done that were commissioned by PacifiCorp who owns the dam. The first study was an electrical conductivity survey (July 2002) that found that the area contained "considerable water" between the mine and the lake but could not determine actual water flows. The second study was an Aqua Track study in August 2002. This uses an electrical current that defines possible preferred flow paths. The draft results of this analysis indicated that there are preferred paths from the lake to the 10th left area in the mine. The path that is shown is along a fault system that was mined through to get to this coal. The fault system is to the east and runs parallel to panels being mined. It does not intercept the area that will be mined. This study only shows possible paths it is unable to show flow direction, water quantity or quality. Without this other information the study in itself is inconclusive.
There has been a fault encountered in the gateroad development in the 11th left panel that will intercept the 12th Left A panel. This fault has minor displacement and there is no water that has been encountered by the fault. Because of these facts, and conclusions, BLM considers these issues as irrelevant to this proposed action.

4. Do the methodology and analytical approach used in the existing NEPA document(s) continue to be appropriate for the current proposed action?

Documentation of answer and explanation: YES

The methodology and analytical approach used in the Flat Canyon FEIS and the other studies are the current scientific methodologies that are available for predicting impacts due to subsidence. These are coupled with the fact that mining has been going on in the direct vicinity for more than 25 years. This becomes a check to the analysis that is finalized in the FC FEIS and the other technical studies. The Skyline Mine has undermined the Burnout Creek since 1992 and the results have been documented in several technical studies. There is no current technical analysis that could be made that would be superior or negate the findings of the FCFIES or the technical studies. Both Government and private industry have reviewed the analysis techniques and all involved have accepted them. The bottom line is that the surface impacts from the action are not different than what was analyzed in the Flat Canyon Coal Tract NEPA document.

5. Are the direct and indirect impacts of the current proposed action substantially unchanged from those identified in the existing NEPA document(s)? Does the existing NEPA document sufficiently analyze site-specific impacts related to the current proposed action?

Documentation of answer and explanation: YES

The undermining of the Burnout Creek has been analyzed and a short abstract follows. There were no negative impacts to the stream during undermining. Sidle, R.C., I. Kamil, A. Sharma, and S. Yamashita, Stream response to subsidence from underground coal mining in central Utah, Environmental Geology, 39 (3-4), 279-291, 2000.

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Stream response to subsidence from underground coal mining in central Utah

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Abstract Short-term geomorphic and hydrologic effects of subsidence induced by longwall mining under Burnout Creek, Utah were evaluated. During the year after longwall mining, 0.3-1.5 m of subsidence was measured near impacted reaches of the mountain stream channel. The major channel changes that occurred in a 700-m reach of Burnout Creek that was subsided from 1992 to 1993 were: (1) increase in lengths of cascades and to a lesser extent glides; (2) increases in pool length, numbers and volumes; (3) increase in median particle diameter of bed sediment in pools; and (4) some constriction in channel geometry. Most of the changes appeared short-lived, with channel recovery approaching pre-mining conditions by 1994. In a 300-m reach of the South Fork that was subsided from 1993 to 1994, only channel constriction was observed, although any impacts on pool morphology may have been confounded by heavy grazing in the riparian reaches during the dry summer of 1994. Similar near-channel sedimentation and loss of pool volume between 1993 and 1994 were noted throughout Burnout Creek and in adjacent, unmined James Creek. Subsidence during the 3-year period had no effect on baseflows or near-channel landslides.

The Forest Service FONSI in 1993 that looked at Burnout Creek in T13. R. 6 E., portions of Sections 26, 34 and 35 addressed specifically the following:

1) No impacts, adverse or beneficial that were determined to be significant
2) No effect on public health or safety
3) No known effects to any unique characteristics of the area and on roadless areas.
4) There are no impacts to cultural resources
5) There are no known T&E species or habitats that have been determined to be critical under the Endangered Species Act of 1973.

6. Can you conclude without additional analysis or information that the cumulative impacts that would result from implementation of the current proposed action are substantially unchanged from those analyzed in the existing NEPA document(s)?

Documentation of answer and explanation: YES

Cumulative impacts have been addressed by the Flat Canyon FEIS which is less than 1/4 mile away from this small area.

> In the Burnout study (Sidel, et. al 2000), surface changes due to subsidence were expressed mainly as increases in the extent of pools. Many of the channel attributes studied produced inconclusive results, but subsidence effects generally did not cause major detrimental impacts. Subsidence-induced changes in channel gradient at Burnout Canyon, even in the areas of maximum differential subsidence, were not great enough to cause barriers to fish movements in the stream. (FC FIES p. 4-52).
>
> Stream Subsidence: "As reported by NorWest there were no quantifiable effects on baseflow discharge attributable to mining under Burnout Creek." (FC FEIS p. 4-33, 2002).
> Seismicity: "The analysis indicates that the dam could withstand a seismic event with an equivalent horizontal ground acceleration of up to 0.1g. ... Based on an MCE of 3.3(3) or 3.45 the McGarr equation indicates that the dam could with stand this event at a distance of over 5500 feet but not closer." (FC FEIS p. 4-16)

T&E Species: The Flat Canyon FEIS states Effects to Threatened, Endangered, and Sensitive Species would be negligible (FC FEIS p. 4-55). Section 7 consultation between the US Fish and Wildlife Service and the Manti La-Sal National Forest took place with a determination in a letter dated November 2, 2001 regarding consultation for the Flat Canyon Coal Lease.

7. Are the public involvement and interagency review associated with existing NEPA document(s) adequately for the current proposed action?

Documentation of answer and explanation: YES

The previous NEPA documents addressed in this analysis all had adequate public participation, and they will not be discussed further in this document. The public input to the most recent NEPA documents is discussed below.

The Flat Canyon EIS initiated public scoping in the *Federal Register* on March 17, 2001 and the comment period ended April 18, 2001. Nine letters and two phone calls were received in response to the scoping. The DEIS Notice of Availability was published in the Federal register on Friday May 18, 2001 and the comment period ended at COB on July 2, 2001. There were nine letters received on the DEIS with comments.

An additional Public Meeting was held on the Fair Market Value of the coal tract and Draft Environmental Impact statement on June 21, 2001 and the notices were published in the "Sun Advocate" of Carbon County Utah starting on June 12, 2001 and "Pyramid" of Sanpete County Utah starting on June 13, 2001. The *Federal Register* Notice that a public meeting had been held and request for further comments was also published in the *Federal Register*. There were no comments or letters received on the DEIS due to the meetings.

The Forest Service proposal documented in the Decision Memo that Categorically Excluded this area from NEPA went through the process of Public comment on November 23, 2000 and November 28, 2000. This proposal was published in the "Sun Advocate" newspaper and in the "Emery County Progress" newspaper on the respective dates. Three letters were received. The three concerns the US Fish and Wildlife expressed were as follows (MEMO to Manti La Sal National Forest dated January 18, 2001);

(1) Full extraction under Huntington Creek. This plan modification does not propose or approve full extraction mining under Huntington Creek.

(2) Full extraction under lower James Creek. This plan modification does not propose or approve mining of any kind under lower James Creek. It only affects Burnout Creek.

(3) Study on James Creek. No mining is anticipated under the lower section of James Creek and therefore no studies are necessary.

The Forest Service was consulted in the preparation of this DNA, and they provided comments as follows:

1) The FS decision on the leasing of the tract included a statement by the FS that, "This decision does not approve mining that would cause subsidence or surface disturbance". However, the Forest Service did consent to the modification of the lease with the stipulations that existed on the lease.
2) The FS stated that, "the proposal being considered is not eligible for Categorical Exclusion under the Forest Service handbook (FSH 1909.15 Chapter 30) since there could be effects to riparian vegetation constituting extraordinary circumstances." Norwest addressed this question in the Technical Report Surface-water and Ground water Resources in the Flat Canyon Area (p. 5-13). They stated that, "Although the potential for minor changes in stream morphology does exist, the experience of CFC in mining Burnout Canyon suggests that the changes that may occur would not be large enough to cause major detrimental impacts to the streams in the RFDS area."

3) The FS stated that "Conclusions for these items fail to consider that the stream gradient of the lower portion of Burnout Canyon Creek proposed for longwall mining and mining – induced subsidence appears to be flatter and may have substantially less gradient than those portions discussed in the cited documents. Additional assessment of the stream gradient is needed to forecast potential effects". This gradient difference was carefully considered and analyzed in the light of such a situation. This modification being only for single seam mining of the Lower O'Connor A Seam. The Flat Canyon FEIS analyzed this problem for single seam situations. Also, in all of the single seam cases of low gradient streams on the Flat Canyon Coal Tract (Less than 1 mile away from the proposed area) the predicted Subsidence and degree of Effect was, very low (no major tension cracking and induced surfaced gradient changes less than about 0.4%) – to - low (low potential for surface cracking to occur and induced surface gradient changes of about 0.4% to 0.8%). (Flat Canyon FEIS p. 4-12 and 4-9). Therefore there should be little or no negative effect because the gradient of Burnout Canyon creek appears to be at least equal to the stream gradients analyzed in the Flat Canyon FEIS.

E. Interdisciplinary Analysis: Identify those team members conducting or participating in the preparation of this worksheet.

Name	Title	Resource Represented
Worksheet Preparation		
Stan Perkes	Mining Engineer	Mining
Arn Berglund	Fisheries	Fisheries and Hydrology
Steve Madsen	Wildlife	Wildlife
Jim Kohler	Geologist	Geology
Greg Thayn	NEPA Coordinator	NEPA

F. Mitigation Measures: List any applicable mitigation measures that were identified, analyzed, and approved in relevant LUPs and existing NEPA document(s). List the specific mitigation measures or identify an attachment that includes those specific mitigation measures. Document that these applicable mitigation measures must be incorporated and implemented.

Mitigation is not required, based on the current information there will be no impacts. In the event there are impacts there is mitigating stipulations in the Federal Coal lease.

CONCLUSION

☐ Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

Note: If one or more of the criteria are not met, a conclusion of conformance and/or NEPA adequacy cannot be made and this box cannot be checked

Signature of the Responsible Official

17 MARCH 2003

Date