EO-2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
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DENVER, CO 80202-2466
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June 28, 2001

Ref: 8EPR-EP

Elaine Zieroth
Forest Supervisor
Manti-La Sal National Forest
599 West Price River Drive
Price, Utah 84501

Re: Flat Canyon Coal Lease Tract – Skyline Mine Expansion, DEIS Review No. 010165

Dear Ms. Zieroth:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, Region 8 of the Environmental Protection Agency (EPA) has reviewed and rated the *Draft Environmental Impact Statement (DEIS) for Flat Canyon Coal Lease Tract*, Manti-La Sal National Forests, dated May 2001.

EPA's main concerns are impacts to water quality from mine drainage discharges, and impacts to fen wetlands and stream/riparian habitat from subsidence. Salinity, effluent toxicity and phosphorus are the major pollutants of concern, if mine drainage from the expansion is discharged through the existing outfall into Eccles Creek/ Scofield Reservoir. We have additional concerns if a discharge is added to the Huntington Creek/Electric Lake watershed. The DEIS did not adequately analyze or disclose the potential impacts of the new discharge. Unless additional environmental analysis shows only minor impacts, we recommend prohibiting the mine from discharging into this high-quality, relatively healthy watershed. Our detailed comments are attached.

Based on the procedures EPA uses to evaluate the potential effects of proposed actions and the adequacy of the information in the DEIS, Alternatives B' and B will be listed in the Federal Register in the category E0-2 (EO - Environmental Objections, 2 - Insufficient Information). This rating means that the review identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment and the DEIS does not contain sufficient information to thoroughly assess environmental impacts that should be avoided to fully protect the environment. We understand that Alternative B is not likely be implemented and was intended mainly for comparison purposes. The alternative was rated because it appears the decision maker(s) could still select Alternative B. Alternative B' (Alternative B with mitigation) will have fewer environmental impacts. However, because of water quality impacts, damage to the fen(s) and perennial streams, we have also rated this

alternative as EO-2. Alternative C (limits subsidence under perennial drainages and fen area(s) will be rated as EC-2 (EC-Environmental Concerns, 2-Insufficient Information).

We would like to work with the Forest Service and BLM to reduce or mitigate environmental impacts, particularly if Alternatives B or B' are pursued as the preferred alternative or it appears that the mine will discharge into Huntington Creek. To set up a meeting or if you have any questions about these comments please contact Dana Allen at (303) 312-6870. We appreciate your interest in our comments.

Sincerely,

Cynthia G. Cody
Chief, NEPA Unit
Office of Ecosystems Protection
and Remediation

Enclosure

cc: Elaine Suriano, EPA HQ

# Environmental Protection Agency - Region 8 Comments
# Flat Canyon Coal Lease Tract DEIS
**June 28, 2001**

1. **Water Quality - Eccles Creek and Scofield Reservoir —** In the FEIS, the surface water quality effects section 4.1.4 should be revised to more accurately reflect current water quality problems caused or contributed to by the Skyline Mine and proposed expansion discharges. Excessive salinity in the Colorado River basin, effluent toxicity and phosphorus loadings are the main water quality concerns for the Eccles Creek discharge. The FEIS should also incorporate the mitigation measures needed to offset water quality impacts caused by the mine.

   According to the State of Utah, the mine has been exceeding the salinity standard as expressed in a total dissolved solids limit. As the mine has expanded, discharge flows and the salinity loading (tons/day or year) have increased. The existing salinity loading from the mine has already exceeded acceptable levels of cumulative impacts for the Colorado River and the new expansion will increase the salinity loading. It is therefore important to develop as part of this project, mitigation actions to reduce salinity discharges. At this stage of the project, a stipulation to reduce the salinity loading by the amount specified by the State of Utah or the Salinity Forum should be incorporated into the lease or ROD. If time allows, more mitigation specifics could be developed for the FEIS. For example, the most likely type of mitigation would be an off-site salinity reduction project to reduce the overall load within the basin. Alternatively, if the mine can identify saline inflows or other sources of salinity, the mine may want to develop on-site mitigation.

   Effluent from the mine has been found to be toxic to ceriodaphnia. The mine is currently in the process of identifying the parameters causing the toxicity. The FEIS should include a summary of the toxicity investigation, likely sources of the toxic parameters and estimated contributions of the toxin(s) from the existing mine and the proposed expansion.

   The DEIS did mention the water quality problems in Scofield Reservoir located downstream of the mine discharge to Eccles Creek (page 4-26). However, there was no analysis of the impacts from the mine and mine expansion on Scofield Reservoir. The State, by listing the Reservoir on the 303(d) list, has determined that cumulative impacts from increased loadings of phosphorus have reached excessive levels. The State has also prepared a total maximum daily load (TMDL) calling for a 28% reduction of phosphorus. From the one analytical results for phosphorus and the high flow rates from the mine, the mine and expansion could be significant contributors of phosphorus loading. The FEIS should more thoroughly analyze the cumulative impacts from phosphorus, including a discussion of how the TMDL will be implemented at the existing mine and expansion. What is anticipated to be the maximum phosphorus loading allowed from the existing mine and expansion? How do the projected (existing mine and expansion) phosphorus discharges compare to the TMDL loading? The

expanded analysis should also include any mitigation, treatment or alternative changes that need to be implemented to achieve the TMDL.

2. **Water Quality - Huntington Creek and Electric Lake** — The FEIS needs to more fully disclose the environmental impacts of discharging to Huntington Creek and Electric Lake because of the potential for significant impacts and the high-quality, healthy nature of the resource. In the DEIS, it appears that the federal agencies are deferring analysis of these environmental impacts to a future State water quality standard process. This analysis needs to be completed before the federal decisions are made. We also recommend that the Forest Service and BLM make the addition of this new discharge a specific decision. For example, the discharge options could be developed into specific alternatives. The decision should be recorded in the lease and/or ROD. Discharge to this watershed should be prohibited by the Forest Service and BLM if the impacts are significant or if the environmental analysis cannot be completed in time for the leasing decision.

   The expanded environmental analysis should determine the impacts (direct, indirect and cumulative) of adding a new discharge. In particular, the addition of metals, salinity, toxicity, phosphorus and other nutrients, are likely to have significant impacts. The analysis should also address impacts to any sensitive aquatic species such as cutthroat trout. Using phosphorus as an example, the FEIS will need to estimate the loadings of phosphorus from the new discharge, existing sources, and reasonably foreseeable actions. The analysis will also need to determine the acceptable level of phosphorus for this watershed.

   Appendix E should be revised to include the anti-degradation water quality standards that are currently applicable for discharges to Huntington Creek and Electric Lake. Depending on the parameter, the anti-degradation limits may be substantially more restrictive than the water quality standards to maintain beneficial uses.

3. **Fen Wetlands** — It is our understanding that fens, or peatlands, are present within the project area and will be affected by the mine expansion, particularly alternatives B and B'. The DEIS mentions wetlands containing peat in the Boulger Canyon area. It also appears that this type of wetland may also be in the Flat Creek valley. Fen-type wetlands have recently been designated by Region 6 of the Fish and Wildlife Service (USFWS) as Resource Category 1 with respect to the USFWS Mitigation Policy. The mitigation goal of Resource Category 1 is *no loss of existing habitat value* and makes the protection of fens a high priority.

   Fens or peatlands are very rare in the Rocky Mountain Region, particularly in Utah. Fens are wetlands that have primarily organic soil material (i.e., peats or muck) and are created in areas where groundwater discharges to the surface under constant chemical and flow conditions. Because the rate of plant growth exceeds that of decomposition, organic soils form very slowly by accumulation of plant debris. Fens in the Rocky Mountains are believed to develop or accumulate at rates ranging from 4.3 to 16.2 inches per thousand years.

Fens only develop when unique hydrogeologic conditions exist. The most critical condition for preserving fens is groundwater discharge and histisolic conditions. In some cases fens have been destroyed by a minor decline in the potentiometric surface (head) for the aquifer. This can happen through subsidence or when the underlying aquifer is dewatered changing the relative heads between the fen and the lower aquifers. For Flat Canyon expansion Alternatives B and B', it appears inevitable that fen(s) would be lost when subsidence changes the unique groundwater conditions. Alternative C seems less likely to have impacts on the fen(s). It appears that the lower aquifer that will be dewatered as part of the mining operation is sufficiently isolated from the surface aquifers. For more information on the groundwater aspects of fens please contact Mike Wireman of our office at (303) 312-6719.

The FEIS of should include a description and maps of the wetlands including size, quality, locations. The FEIS should also more closely evaluate the hydrologic conditions that have created these unique wetlands.

We also disagree with the DEIS conclusion in the first paragraph of page 4-43 for Alternatives B and B' have no irreversible/retrievable wetland losses. Any fens in subsidence areas are extremely unlikely to continue functioning. The wetland resource also cannot be successfully mitigated, because of the unique conditions necessary for fens to develop. We are unaware of any successful fen replacement.

4. **Stipulations Appendix C-Special Coal Lease Stipulations —**

#9 This stipulation should be amended to include preservation of riparian habitat and suitable stream morphology.

#20 This stipulation regarding damages for wasted or unrecovered coal should be amended to exclude damages for coal which is not mined because of environmental reasons.

New A stipulation should be added to prohibit discharging mine drainage into Huntington Canyon in the Electric Lake watershed. For more information see comment 2 above.

5. **Subsidence** — The FEIS should include additional information on the impacts from subsidence. In particular, more information is needed on subsidence in shallow valleys with glacial deposits. As mentioned in the DEIS, the Burnout Creek information is only applicable to steeper and more rocky valleys. We recommend using other longwall coal mines mining under similar rock and soil types to better evaluate the impacts on streams and the impacts from differential subsidence?

To enhance the public's ability to understand this project, the FEIS should include more detail regarding the on-the-ground impacts from subsidence. Appendix D and Table 4.1-*Predicted Subsidence and Relative Degree of Effect in Comparison to Skyline,* indicate that subsidence will be highly variable and widespread, but it is not clear spatially how the topography will change. For example, how closely spaced are the longwall panels, fire

barrier pillars and gate roads? Some typical cross-sections of the mining area or hypothetical topographical maps for an area before and after mining would be very useful in understanding the level of subsidence impacts.

6. **Mitigation Implementation and Bonding** — The FEIS should include additional information on how the Forest Service and BLM. will assure that mitigation will be implemented. Pages 1-3 & 4 explain generally how the agencies will oversee the lease and mine. But it is not clear how these overlapping authorities will assure adequate mitigation.

   For example in Appendix C-Special Coal Lease Stipulations, Stipulation #9 specifies that mining be conducted . . . "to prevent surface subsidence that would: . . . (3) damage or alter the flow of perennial streams." Which agency would decide the criteria and monitoring for damaged or altered perennial streams? Will the details of the mitigation for environmental impacts be developed as part of the coal mining permit administered by DOGM? Will there be other criteria such as Forest Service guidelines which will be used to evaluate compliance with this stipulation? Which agencies will be evaluating the company's monitoring information? Who decides when remediation is necessary? BLM, DOGM, and the Forest Service appear all to have overlapping responsibilities on this particular environmental impact.

   It is unclear from the DEIS if the mining company be required provide a bond to assure reclamation. The FEIS should described how the mine will be bonded, which agency holds the bond, and the type of impacts and reclamation that will be covered under the bond.

7. **Post Closure** — The FEIS should expand the discussion of potential long-term impacts after closure. For example, the access port/development corridors appear to be permanent facilities. Is there a potential for subsidence of these corridors in the future? Are there any long-term impacts to ground and surface water from preferential pathways created by mine workings? Will there be any ongoing discharges of mine drainage after closure? Are there any areas of the mine that will be subsiding after reclamation is complete? For example, it appears that some of the room and pillar type mining is present and can subside after closure. What kinds of impacts can be expected from further subsidence and how would any impacts the reclaimed after mine closure?