



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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January 10, 2000

TO: Internal File

THRU: Mike Suflita, Project Lead *MS*

FROM: Paul Baker, Reclamation Biologist *PB*

RE: Proposal to Remove a Culvert on the Haul Road, Lodestar Energy, Inc., White Oak Mine, ACT/007/001-AM99B

SUMMARY:

On October 8, 1998, the Division approved the removal of a culvert along the lower end of the haul road to the White Oak Mine. The permittee had also proposed reclamation work in this area, but because there were still deficiencies in the reclamation plan, this was not approved. White Oak has now modified the reclamation plan and is seeking approval to do this work.

TECHNICAL ANALYSIS:

OPERATION PLAN

INTERIM REVEGETATION

Regulatory Reference: R645-301-331

Analysis:

The applicant previously gained approval to remove a culvert near the lower part of the haul road leading to the White Oak Mine and has done this work. The current proposal is a reclamation plan specifically for the culvert area. There has been erosion on the slope, and there is sediment deposited at the bottom of the slope. Previous attempts to control erosion have included installation of log check dams and erosion control matting.

The applicant proposes to leave the depression where the half-round culvert was. At the top of the slope, rocks and soil may be needed to enable revegetation, but there is a very limited amount of soil and fill available. Also, it would be difficult to stabilize soils on this very steep slope.

Soils on the slope would be roughened using hand tools followed by planting and seeding. The application includes a seed mix designed specifically for this slope, and it includes some vigorous species, some of which are rhizomatous, that should be able to stabilize the slope. The applicant has included grass seedlings in the planting mix, and willows will be planted in the small wetland area at the base of the slope. Every species is native to the area, and they meet the performance standards.

Tufted hairgrass was included in the list of grass seedling species, and this is a wetland species that should not be used on the hillside. Rather, it could be planted at the base along with the willows.

The area will be hydroseeded followed by hydraulic application of a wood fiber mulch and tackifier. An erosion control mat will not be used because the slope is not smooth enough to allow good soil contact.

The site the applicant will be trying to revegetate and stabilize is challenging, and while the Division would like to see the slope topsoiled, the limited resources available and the difficult conditions make this impractical. The material on the slope is relatively resistant to erosion, and the revegetation techniques proposed are believed to be the best available for these conditions. The Division does not expect lush growth with complete erosion control at first, but it should be possible to stabilize the slope as least as much as in adjacent areas.

The small wetland at the bottom of the slope has not had vegetation, and it is not known why. It is possible the soil has high salt content from salt being used on the haul road, but the applicant will be preventing this runoff from reaching the wetland. If vegetation does not establish quickly in this area, it may be necessary to take soil samples to determine the cause.

Findings:

Information provided in the proposal is adequate to meet the requirements of this section of the regulations.

RECOMMENDATIONS:

Portions of the proposal associated with the biology regulations are adequate and can be approved.

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