



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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September 28, 1990

TO: Pamela Grubaugh-Littig, Permit Supervisor

FROM: Susan M. White, Reclamation Biologist *SMW*

RE: Proposed Main Culvert Extension Amendment, Co-Op Mining Company, Bear Canyon Mine, ACT/015/025, Folder #2, Emery County, Utah

## Synopsis and Analysis

Bear Canyon is proposing to disturb and culvert approximately 800 feet of riparian area along Bear Creek. No fisheries exist in Bear Creek. Several items of concern for the proposed disturbed area are currently addressed in the Technical Deficiencies for the Bear Canyon Five-Year Permit Renewal. These items concern success standards, disturbed area boundaries, and methods of revegetation.

Additional questions and comments which concern this culvert are as follows:

Will the techniques identified on page 7-92 of the Permit Application Package (PAP) be used for reclaiming this proposed area of disturbance? If so, this should be stated in the PAP, and page 7-92 amended.

If the techniques on page 7-92 are used to create a riparian zone then the operator should commit to planting 2500 Salix sp. cuttings per acre in addition to the other plantings identified on page 9-21. The Salix sp. cutting should be taken from an adjacent area. The success standard should be to establish 1500 Salix plants per acre.

The moving of the topsoil stockpile and topsoil from the proposed pad area should be done as soon as possible in order to facilitate seeding and mulching of the pile and disturbed areas this fall.

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If the topsoil pile, pad, side slopes, and berm are not seeded prior to the soil freezing, then the operator must commit to seeding a temporary cover crop. This cover crop may be seeded in the spring as soon as the ground begins to thaw. The area should be seeded with oats, Avena sativa, or some other annual grain as approved by the Division, at the rate of 20 PLS pounds per acre and the area raked to cover the seed. The following fall (1991) this cover crop should be incorporated into the soil surface and the area seeded with the interim seed mixture.

#### Recommendations

The culvert should not be approved until the above questions and comments are incorporated into the PAP.

SMW/djh

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