

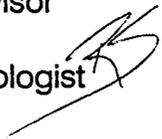


## State of Utah

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September 5, 1991

**TO:** Daron Haddock, Permit Supervisor

**FROM:** Rick P. Summers, Senior Hydrologist 

**RE:** Review Amendment to Replace Culvert UD-3 (received September 4, 1991), Genwal Coal Company, Genwal Mine, ACT/015/032, Folder #2, Emery County, Utah

## SUMMARY

The above referenced culvert diverts an ephemeral channel located above the portals and portal pad from the disturbed area. The diversion is necessary to divert the water from the sediment pond because of size limitations on the pond. The current culvert is an 18 inch PVC pipe with has deteriorated significantly.

The operator proposes to replace the culvert with a 12 inch CMP. The downsizing is due to the recently adopted changes in our rules with allow a diversion to be designed for a 10 yr. - 6 hr. event. The previous design was based on a flow of 5.5 cfs (10 yr. - 24 hr. event), while the new design is based on a flow of 0.78 cfs (10 yr. - 6 hr. event). The peak flow and culvert sizing has been verified to be correct (attached).

The proposal is approvable. The operator should submit the proposal in a format for direct insertion into the MRP (i.e. pages 11 and 12 of 27, Chapter 7 and revised text as appropriate).

GENUD3.MRC

INPUT SUMMARY

FOR W.S.: Genwal Portal Diversion UD-3

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STORM:

WATERSHED:

*Values from  
MRP, chap. 7*

DISTRIBUTION =SCS TYPE 'B'

LAND SLOPE = 0.0000 PCT

CURVE NUMBER = 69.00

PRECIP.DEPTH = 1.90 IN

CHANNEL LENGTH = 0.00 FT

TIME OF CONC. = 0.1200 HR

DURATION = 6.00 HR

AREA = 8.96 AC

NUMBER OF LINES = 391

D = 0.0160 HR

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Press ENTER to Begin Computations

Genwal Portal Diversion UD-3

1

RUNOFF DEPTH = 0.1825 IN  
INITIAL ABSTRACTION = 0.8986 IN  
PEAK FLOW = 0.78 CFS-( 0.0860 IPH)  
AT T = 2.56 HRS

*12" CMP adequate*

0

0

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TIME (Hrs.)

7