

## **BMS Mine Concerns**

ruthielove2000@yahoo.com <ruthielove2000@yahoo.com> To: "peter.hays@state.co.us" <peter.hays@state.co.us> Fri, Aug 23, 2019 at 12:00 PM

Hi Peter,

After review of the revised application submitted by Black Mountain Sand Weld LLC for Permit Number M-2018-051, please find attached comments on the application. Please take these items into consideration when making your decision on the application.

Thanks, RLH

BMS Application - Items for Consideration - Permit No. M-2018-051 (1).pdf

 There are some deficiencies noted on the Reclamation Cost Estimate located in Exhibit L. Per 2015 Colorado Revised Statutes 34-32.5-117(4)(b)(I), "A financial warranty shall be sufficient to assure the completion of reclamation of affected lands if, because of forfeiture, the office has to complete such reclamation..." If the DRMS were required to complete the reclamation of affected lands the unit costs used in Exhibit L should be altered as they are very low compared to actual costs that would be incurred.

A review of recent bid tabs for large earthmoving projects for the Colorado Department of Transportation (CDOT) indicate that a unit cost of \$1.35 for handling waste and topsoil stockpiles is too low. It is believed that the DRMS would not be able to bid out and receive a unit cost that low if they were required to complete reclamation on the site. The unit cost should be raised to at least \$2.00 per cubic yard of earth moved. Additionally, the total cost to revegetate an acre is estimated to be \$1,098, which is also believed to be low. DRMS should increase that amount to at least \$2,000 per acre based on review of CDOT bid tabs unless BMS can provide documentation from local contractors for establishing vegetation.

- 2. Why does BMS consider the final grading plan confidential? They have already provided the estimated amount of material to be excavated and processed in Table D3. The public should be able to review the proposed final contours.
- 3. As flocculants, also described as inert surfactants, are being used on this site (Exhibit D, Page 2), will the residual contamination left by the flocculants in the waste sands be allowed to be used in the reclamation? As stated on Page 19 of the application, BMS states the chemical degrades within 14 days. BMS should provide information on the flocculants used, such as an SDS, and information to verify the chemical degrades as they claim. Additionally, BMS should provide information on what the flocculant degrades into. They should also address the potential for the degraded components in the waste sands to migrate through the two foot groundwater buffer and impact the groundwater table. This information should be provided to DRMS prior to issuance of the reclamation permit.
- 4. Recommend that BMS address heavy metals within the existing soils and sand on site. Will these naturally occurring metals be concentrated in the "fines" when washed from the sand during the processing? If so, will they exceed regulatory limits and then how will they be managed? BMS should perform leaching tests on the existing soil and again on the processed "fines" material to verify they will not leach into the groundwater. The metals listed in Table E3 should be analyzed under this requirement as it is expected these metals could appear in the groundwater.
- 5. A two foot buffer of separation between the groundwater table and bottom of mine does not appear to be sufficient to contain and/or filter releases of petroleum from on-site vehicles nor releases from leaching metals from the concentrated fines. An increased separation distance would allow BMS additional response time to react to a release prior to impacting the groundwater table.