



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

May 14, 2020

Steve O'Brian  
Environment Inc.  
7985 Vance Drive #205A  
Arvada CO 80003

**Re: Second Review of a 112 Construction Materials Reclamation Permit Application Package, LG Everist, Ragsdale Reservoirs, File M2020-007**

Mr. O'Brian:

The Division of Reclamation, Mining, and Safety has completed its second adequacy review of the above referenced 112 construction materials reclamation permit application. The application was called complete for review on February 18, 2019. All comment and review periods began on February 18, 2019. **The decision date for this application has been extended at the request of the applicant to June 18, 2020. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date, it will be your responsibility to request an extension of the review period. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division will deny this application. In order to allow the Division adequate time to review your responses to any adequacy issues, please submit your adequacy responses to the Division no later than one week prior to the decision date (June 11, 2020).**

Please note that any changes or additions to the application on file in our office must also be reflected in the public review copy, which has been placed with the Weld County Clerk and Recorder.

The review consisted of comparing the application content with specific requirements of Rule 6.1, 6.2, 6.4 and 6.5 of the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials. As with most applications, there are items that will require clarification of the existing information. Any inadequacies are identified under the respective exhibit heading.

**EXHIBIT C - Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3):**

Please show the proposed locations of site facilities such as: processing plant, office, scale, settling pond, conveyor routes, etc. on the mining plan map. Costs for removing/reclaiming these features will need to be included in Exhibit L – Reclamation Costs.

Pitside and lateral berm widths/armoring – please see following comments under Exhibit E and address accordingly.



**EXHIBIT E - Reclamation Plan (Rule 6.4.5):**

The proposed mining and reclamation plan submitted states that a minimum of 150' will be maintained between the base of the existing berms/levee and the mining extent (top of pit), however no pit wall armoring or flood control structures have been included in the mining or reclamation plans. To insure that final reclamation configurations meet requirements for long-term stability, DRMS defaults to the recommendations provided within the UDFCD Guidance for Gravel Mining and Water Storage Activities Within or Adjacent to 100-Year Floodplains for sites adjacent to the South Platte River and its major tributaries.

According to UDFCD guidance Table 2.1 Rivertop Berm Width (page 27); even if DRMS assumed that the existing riprap on the bank of the South Platte met the specifications for riverbank protection, the minimum top width of the riverbank berm with no pit-side protection would be 250 feet. If both riverbank and pitside banks are protected according to the provided guidelines, the guidance states that a minimum rivertop berm width of 150 feet is acceptable.

In addition, the UDFCD guidance shown in Table 2.2 Lateral Berm Top-Width (page 28) states that the minimum berm top width for an unprotected Type A lateral berm (the berm between Phase 1 and Phase 2) should be 250 feet. If the banks of the lateral berm are protected according to the provided guidelines, that distance can be reduced to 100 feet.

DRMS could review sound arguments to modify those requirements on a site-specific basis, but there will need to be sufficient hydrologic/engineering justification provided to do so.

Please modify the mining and reclamation plans and maps as needed to depict the appropriate berm widths for unprotected features, or, provide the appropriate designs and show the locations for the necessary pitside protection structures on the Reclamation Plan Map. Costs for pitside/berm protection will also need to be included in Exhibit L.

Text remains in this exhibit requesting “..that the establishment of full revegetation will not be required for permit acreage release if "reasonable assurance" that the development for the approved post mining land use will continue prior to establishing permanent vegetation. An example of "reasonable assurance" is a letter from the landowner (Cannon Land Company) stating they accept the reclamation "as is..". As previously stated, no “reasonable assurance” exceptions as described in the permit application will be made.

**EXHIBIT F - Reclamation Plan Map (Rule 6.4.6):**

Please show the locations of proposed flood control structures/pit armoring in Phases 1 and 2, or the modified berm widths for unprotected features within the 100 year floodplain as described above.

**EXHIBIT G - Water Information (Rule 6.4.7):**

DRMS acknowledges the permittee's commitment to conducting the required well testing prior to installing slurry walls, dewatering, or exposing groundwater within 200 feet of the well. Based on the provided information it appears that the McPeck well will need to be tested prior to the commencement of mining in Phase 1A, however, it may be more cost effective to conduct all the baseline testing at the same time.

**EXHIBIT L - Reclamation Costs (Rule 6.4.12):**

All information necessary to calculate the costs of reclamation must be submitted and broken down into the various major phases of reclamation. You must provide sufficient information to calculate the cost of reclamation that would be incurred by the state. Based on the information provided for the phased mining DRMS suggests the following breakdown for calculation of the required bond at this time:

Phases 1a/2a – Cost to:

- backfill each phase excavation to original grade after mining at 3:1 slope;
- replace 10" topsoil;
- prepare disturbed areas for crop planting the following season or revegetate with provided seed mix.

Phases 1 and 2 – Cost for:

- 100% installation cost for slurry walls if groundwater will be exposed prior to obtaining provisional approval of slurry wall from SEO - Slurry wall bonding may be reduced to 20% of total cost when provisional approval by SEO is obtained prior to exposing groundwater;
- final grading for pit slopes which have been mined at a 3:1 slope;
- replace 10" of topsoil around perimeter above high water line;
- revegetate perimeter areas using provided seed mix;
- Costs for design and installation of appropriate pit wall protection will need to be included if utilized and in order to bond slurry wall at 20% rate. (see Exhibit E comments).

Phase 3 – Cost for:

- removal and disposal of all concrete pads/footers for plant, scale, office, conveyor, etc.;
- removal of all buildings and other site facilities;
- backfill settling pond
- rip/regrade all affected area;
- replace 10" topsoil over affected area and prepare for crop planting the following season or revegetate with provided seed mix;

DRMS assumes Phase 3 area will be stripped of topsoil and utilized as the plant area until the last phase of mining. Groundwater will not be exposed in this area for several years; therefore, bonding for surface reclamation will be sufficient at this time. Permittee will need to bond appropriately to install slurry wall and reclaim as lined reservoir prior to exposing groundwater in this area. If this assumption is incorrect, please clarify.

Line items provided such as: re-sloping working face to 3:1 if required; mob/demob; dewatering costs; and weed control, can be included as-is. Costs for backfilling of cells and replacement of topsoil where required should be based on total CY needed, and push distances from the appropriate stockpile locations should be included. Acreages should be provided for crop planting and revegetation tasks, and for ripping/grading tasks.

When providing installation costs for slurry walls you will need utilize a default rate of \$5/sq. ft. or provide a sufficiently detailed bid for the installation of the slurry wall as proposed for a lower cost. The generic \$3/sq. ft. cost allowed under the Division's previous policy is no longer acceptable.

The required bond for affecting the eastern portion of the permitted area (Phases 4-6) will need to be calculated and posted prior to any mining disturbance in that area.

**EXHIBIT S - Permanent Man-Made Structures (Rule 6.4.19):**

Geotechnical Stability Submittal – DRMS has reviewed the provided Slope Stability Analysis. DRMS agrees that the pit slopes should be characterized as Critical Features for the reasons given. However, the Division does not agree that utilizing back-calculated strength parameters and slope failure data from a site located one mile south of the proposed permit qualifies as multiple site-specific strength measurements, and therefore the more conservative FoS values of 1.5 for static conditions and 1.3 for seismic conditions from the DRMS guidance should be utilized. There also do not appear to be any loads applied to the slope for any topsoil or overburden stockpiles that are depicted and will be placed adjacent to the excavations.

DRMS notes that the static, and draw-down FoS provided seem to easily exceed the required value of 1.5, however the seismic FoS barely exceeds 1.15, even without stockpile loading, indicating that liquefaction may be a concern at this site. No information was provided regarding how the seismic FoS was generated, so the Division cannot evaluate the parameters used.

At this time DRMS cannot accept the Stability Analysis provided. Please modify the analysis to address the issues noted above and/or modify the proposed mining and reclamation plans as needed to demonstrate that the proposed configuration provides adequate protection for adjacent structures and long term stability.

Please see comment under “Additional Information:” below regarding providing structure damage agreements to all structure owners within 200’ of the site.

**Additional Information:** You will need to provide the Division with proof of notice to surrounding property owners/structure owners within 200’ of the permit. DRMS notes that there was a USPS “delivery failure” for the required notices to CenturyLink which still show as “in transit”. If delivery of these notices cannot be verified, the permittee will be required to re-send the required notices that the USPS failed to deliver, or provide proof of delivery for, and to allow for the 20 day comment period for those parties. DRMS suggests that the notices be resent using FedEx or another trackable service to minimize the time required.

Any letters from other commenting agencies/entities received by the Division for this permit to date are available for review through the imaged document data link provided below, or through the DRMS website.

<https://www.colorado.gov/pacific/drms/data-search>

This concludes the Division’s second adequacy review of this application. This letter shall not be construed to mean that there are no other technical deficiencies in your application. Other issues may arise as additional information is supplied. Please remember that the decision date for this application is June 18, 2010. As previously mentioned, if you are unable to provide satisfactory responses to any inadequacies prior to this date, it will be your responsibility to request an extension of time to allow for continued review of this application. If there are still unresolved issues when the decision date arrives and no extension has been requested, the application will be denied. If you have any questions, please contact me at (303) 866-3567 x8140.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric Scott", is positioned above the typed name.

Eric Scott – Environmental Protection Specialist

CC/Enclosures: