



December 18, 2019

Mr. Jerald Schnabel
Castle Aggregate
549 E Cucharas Street
Colorado Springs, CO 80903

Re: Pikeview Quarry, Permit No. M-1977-211; Second Adequacy Review for 112 Construction Materials Reclamation Permit Amendment Application (AM-04)

Dear Mr. Schnabel:

The Division of Reclamation, Mining and Safety (DRMS) has reviewed your December 11, 2019 responses to our November 24, 2019 preliminary adequacy review (PAR) letter for Pikeview Quarry Permit Amendment Application (AM-04), Permit No. M-1977-211. We received a 30-day decision date extension request on December 16, 2019. **The new decision date for this application is January 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 DRMS may deny this application.

The following comments are based on the DRMS's review of your responses to the PAR and must be addressed by the applicant in order to satisfy the requirements of C.R.S. 34-32.5-101 et seq. and the Mineral Rules and Regulations of the Mined Land Reclamation Board:

APPLICATION

1. Item 1, p. 1: Applicant/operator company name. The DRMS is reviewing your response. Additional information may be required.
2. Items 6 and 7, p. 2: The DRMS is reviewing your response. Additional information may be required.
3. Item 11, p. 3: The DRMS is reviewing your response. Additional information may be required.

6.4 SPECIFIC EXHIBIT REQUIREMENTS – REGULAR 112 OPERATIONS

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

4. Exhibits C-1 and C-2 Owners: The response is adequate.



5. Exhibits C-1 and C-2 Topography: The response is adequate.
6. Exhibits C-1 and C-2 Involved Area: The response requires an update. Based on the DRMS December 5, 2019 site inspection and a subsequent meeting with Pikeview personnel in Denver on December 13, 2019, The DRMS understands additional area just north of the maintenance shop and within the permit boundary is to be affected area. Rule 6.4.3(d) requires the total area involved in the operation be identified. The area north of the maintenance shop needs to be included in the green lines outlining various areas for which the Legend identifies as "Disturbance Area". Please resubmit C-1 and C-2 with the new borrow area included in the "Disturbance Area". Please provide the disturbance acreage on the re-submitted map(s).
7. Exhibits C-1 and C-2 Vegetation: The response is adequate.
8. Exhibit C-3 Cross-Sections: The response is adequate.

6.4.4 EXHIBIT D – Mining Plan

9. Fill Compaction, p. D-3: The response is adequate.
10. Fill Monitoring, p. D-3: The response requires additional clarification. Conversations during the December 5, 2019 site visit included three types of monitoring: visual, the existing prism system, and imaging using drones. Only the visual and prism systems were discussed in your response. Furthermore, our original comment requested frequency criteria for both monitoring and reporting. Please commit to all three types of monitoring and provide a frequency for each type of monitoring and commit to reporting monitoring results to the DRMS quarterly for the first year. *The DRMS will determine after the first year of monitoring if the reporting frequency can be reduced.*
11. Commitments: No response necessary:

6.4.5 EXHIBIT E – Reclamation Plan

12. Topsoil Importation: The DRMS accepts your commitment to import and stockpile the additional 57,000 CY of growth media in 2020 for final reclamation. Please be aware the DRMS will need to hold a bond for the importation of this growth media until a sufficient quantity is stockpiled on site.

The response requires additional clarification on the topsoil volume necessary for reclamation. Based on the DRMS December 5, 2019 site inspection and a subsequent meeting with Pikeview personnel in Denver on December 13, 2019, The DRMS understands additional area just north of the maintenance shop and within the permit boundary is to be affected area. Will the new area be net neutral for topsoil needs (i.e., will topsoil be stripped from this area prior to excavating borrow material, then replacing the stripped topsoil) or will additional growth media need to be imported?

13. Subgrade: The response is adequate.

6.4.6 EXHIBIT F – Reclamation Plan Map

14. Exhibit F Proposed topography: The response is adequate.

15. Revegetation: The response requires an update. Based on the DRMS December 5, 2019 site inspection and a subsequent meeting with Pikeview personnel in Denver on December 13, 2019, The DRMS understands additional area just north of the maintenance shop and within the permit boundary is to be affected area. Please update and resubmit Exhibit L, Worksheets No. 3 and No. 14A accordingly.
16. Exhibit F Final Land Use: The response is adequate.

6.4.6 EXHIBIT G – Water Information

17. Drainage Features: The response requires additional clarification. Some of the various drainage features discussed in Exhibit G were not identified on the revised Exhibit G-1. Please address comments 17b and 17c:
- a. Informal detention basins. The response is adequate,
 - b. Open drainage paths and **drop structures**: no drop structure locations were provided on the revised Exhibit G-1. Please show proposed drop structure locations,
 - c. Final detention basin near east edge of the permit. The response is adequate,
 - d. Northeast rout to sediment pond. The response is adequate,
 - e. **Small depressions**: no small depressions were shown on the revised Exhibit G-1. Assuming these features are too small to show on the map, please provide some discussion establishing these features will provide a non-negligible amount of stormwater retention,
 - f. Terrace channels and their flow directions. The response is adequate, and
 - g. Any other channels, ditches and ponds referenced in the reclamation plan, The response is adequate.
 - h. NEW comment: Cross-gradient channel. There is a cross gradient channel running through watersheds WS3 and WS5 on Exhibit G-1. Experience shows these are frequently constructed with the top of the down-gradient bank (channel right in this case) much lower than the top of the up-gradient bank (channel left), thereby skewing the channel cross-section and significantly reducing the design capacity of the channel. What is the proposed cross-section geometry for this channel and how will the design capacity be ensured during construction?
18. Maintenance free stormwater facilities: The response is adequate.
19. Curve Numbers, Table G-2: The response is adequate.

6.4.12 EXHIBIT L – Reclamation Costs

20. Imported Material: The response requires an update. Based on the DRMS December 5, 2019 site inspection and a subsequent meeting with Pikeview personnel in Denver on December 13, 2019, The DRMS understands additional area just north of the maintenance shop and within the permit boundary is to be affected area as a borrow source. This is not reflected in the December 11, 2019 response. Please clarify if this borrow area is expected to have sufficient material to eliminate the need to import any of the required 2,345,000 yd³ of imported fill material. If not, please provide an estimate of how much will need to be

imported. The DRMS is required to hold sufficient bond to import (purchase and haul costs) fill material that is not available within the permit area.

21. Material Swell: The response is adequate.
22. Drill and Blast Material: The response requires additional clarification. The response reduced the original 247,000 yd³ to 246,299 yd³ by not rounding up. Does that mean the 610,000 yd³ in the 6th bullet needs to be reduced to 609,299 yd³ or are we 701 yd³ short?
23. Worksheets and Tables: The response is adequate.
24. Cross-References: The response is adequate.

6.4.14 EXHIBIT N – Source of Legal Right to Enter

25. Clarification may be required: The DRMS is reviewing your response. Additional information may be required.

6.5 GEOTECHNICAL STABILITY EXHIBIT

26. Design Criteria: The response is adequate.
27. Material Strength Properties: The response is adequate.
28. Slope Stability Model: The response is adequate.
29. Granite Bench: The response is adequate.

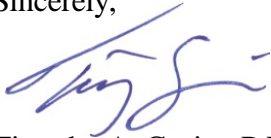
ADDITIONAL COMMENTS BASED ON RESPONSES TO THE DRMS PAR

30. Application, Item 11, p. 3: Conversations during the December 5, 2019 site visit confirmed with the DRMS the most appropriate mailing address for you is “**549 E Cucharas Street Colorado Springs CO 80903**”. Please resubmit page 3 of the application correcting the correspondence information.
31. Stormwater Control: Exhibits C-2, F-1 and G-1 show a natural by default channel/downchute by virtue of the reclaimed contours between elevations 7400 and 7700, specifically between cross-sections X-X' and Y-Y' (reference Exhibit C-2). This downchute does not have flow arrows, implying there is no proposed design for this feature. Please provide design concepts for this downchute and energy dissipation methods/features to divert flows into the terrace channel(s) at elevation 7400.
32. Exhibit R: The notice of filing the responses to our PAR with the El Paso County Clerk was blank. Please provide a signed copy.

Please remember that the decision date for this application is January 18, 2020. 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 may be denied. If you have any questions, please contact me at (303) 866-3567, ext. 8169.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tim Cazier', with a stylized flourish at the end.

Timothy A. Cazier, P.E.
Environmental Protection Specialist

ec: Michael Cunningham, DRMS
DRMS file
Paul Kos, Stantec