



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

1313 Sherman Street, Room 215
Denver, CO 80203

February 1, 2017

Alex Schatz
Brannan Sand and Gravel Company
2500 E. Brannon Way
Denver, CO 80138

RE: Trout Valley Ranch; DRMS File No. M-2016-080; Preliminary Adequacy Review

Dear Mr. Schatz,

The Division of Reclamation, Mining and Safety (Division) has completed its preliminary adequacy review of your 112 Construction Materials Reclamation Permit Application. The application was received on November 23, 2016 and was called complete for review on December 5, 2016. The decision date for this application is March 5, 2017. **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.**

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. In general the application was substantially adequate, however, as with most applications there are a few items that will require the submittal of additional information or clarification of the existing information. Inadequacies are identified under the respective exhibit heading along with suggested corrective actions to correct them.

1. As required by Rule 1.6.2(d) and 1.6.5(2), please submit proof of publication in a newspaper of general circulation in the locality of the proposed mining operation.
2. The Division received comments from History Colorado, the Colorado Division of Water Resources, the Army Corps of Engineers and Park County. The letters are attached for your review. Please address the comments noted in the letters and make any changes to the application as necessary.



6.4.1 Exhibit A – Legal Description

No comment.

6.4.2 Exhibit B – Index Map

No comment.

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

3. The Mining Plan states 452.6 acres of the overall permit area of 472.3 acres will be designated as affected area. The Division recommends designating the entire permit area as affected land. However, if the affected area will differ from the permit area, then the Mining Plan Map must clearly identify the 452.6 acres of affected area. Please revise Map C-1, C-2, and C-3 accordingly.
4. The Mining Plan Maps depicts a 50' access corridor between State Highway 9 and the Office/Shop area. A review of aerial photographs of the site shows the access corridor does not currently exist. New or improved roads must be included as part of the permitted acreage. Please revise the permit area and affected area values to include the 50' access corridor. The permit area and affected area values must be revised wherever they appear in the various Exhibits as well as on the first page of the application form.
5. Maps C-1 and C-2 depict the existing lakes within the proposed affected area. Several of the smaller lakes have not been assigned a number. Please clarify why these lakes have not been assigned a number.
6. The Mining Plan states topsoil and overburden will be stored in berms. Please clarify if the topsoil and overburden will be stored in the visual berm depicted on Map C-2. If topsoil and overburden will be stored in a different location, then depict the stockpile locations on Map C-2 and commit to storing topsoil and overburden separate from one another.
7. As required by Rule 6.4.3(g), the Mining Plan Map must show the name of the owner of any structure on the affected land and within 200 feet of the affected land. Please revise Map C-1, C-2, and C-3 accordingly.

6.4.4 Exhibit D – Mining Plan

8. The Applicant has stated the Trout Valley Ranch mine will be operated year-round. Please note the requirement of a notice of temporary cessation shall apply to operations that are not active for a period of 180 days or more.

9. Please specify how much fuel will be stored on site. If more than 1,320 gallons of fuel will be stored, the Operator must have a Spill Prevention Control and Countermeasure (SPCC) plan in place and implemented prior to storage of fuel or oil products. This can be done by submitting a letter to the Division, on company letterhead, affirmatively stating that a SPCC plan has been implemented. The Operator does not need to submit a SPCC plan to the Division; however it must be available for review at the facility or the nearest field office during an inspection conducted during normal business hours. If SPCC requirements do not apply to this operation, then describe the secondary containment for all fuel and oil products used at the site.
10. The Applicant has committed to vegetating topsoil and overburden stockpiles. Please specify the seed mix to be used for stockpile stabilization.
11. The Mining Plan indicates inert fill may be imported into the site and used for establishing slopes in final reclamation. The Applicant has provided a sample affidavit to be completed by the entity providing off-site fill. Pursuant to Rule 3.1.5, it is the Operator's responsibility to provide the Office notice of any proposed backfill activity not identified in the approved Reclamation Plan. Therefore, the Applicant may either address the notice requirements outlined in Rule 3.1.5(9)(a)-(f) during the review of this application or provide notice at a later date, but prior to the importation of inert fill.
12. The Mining Plan states all mining activity will stay at least 30 feet from the permit boundary. Please clarify if the 30' offset accounts for the 19.7 acres of the overall permit area which are not included 452.6 acres of affected land. The Operator should be aware the boundaries of the affected area, not the permit area, must be delineated by monuments as required by Rule 3.1.12(2).
13. Please clarify if mining of both the dredge piles and native ground will be done at a 2H:1V slope.
14. The Mining Plan states mining will come no closer than 200 feet to the wetlands along the Platte River. Map C-2 shows that mining will occur within less than 200 feet of the wetlands. Please revise either the Mining Plan text or Map C-2 to accurately reflect the proximity of mining to the wetlands of the Platte River.
15. According to Map C-2, Lakes 11-13 will not be mined in the first 10 years of the operation. The Applicant has stated the existing lakes are associated with a water decree and the lakes are to be maintained throughout the property. According to Map F-1, Lakes 11-13 will be replaced by two lakes. The Mining Plan does not address how the lakes will be mined through. Please revise the Mining Plan to include the following information:

- a. Specify the source of water in the lakes.
 - b. Describe how the lakes will be dewatered.
 - c. Describe the timing between mining through the existing lakes and establishing new lakes.
 - d. Confirm the surface area of the existing lakes will correspond the replacement lakes.
 - e. Describe how water will be conveyed to the replacement lakes.
16. According to Map C-2, portions of the Antero Ditch will be removed during the first phase of the mining operation. Please describe how the portion of the Antero Ditch which feeds Lakes 11-13 will be mined through.
17. Please describe all infrastructure (piping, valves, etc.) which will be used to convey water between the wash plant and the recirculation ponds. In addition, please describe any safeguards which will be implemented to prevent backflow from the recirculation pond.
18. The Mining Plan states any overflow from the recirculation pond will be contained on site by the mining highwall. The initial stages of mining consist of removing the existing dredge piles which will not result in the creation of highwalls on the site. It is not apparent how the highwalls will aid in containing overflow from the recirculation pond. The design, operation and maintenance of the recirculation pond should ensure it does not overflow. Please specify the freeboard which will be maintained in the pond and describe how the freeboard will be measured and maintained in the field.
19. The Mining Plan states the muck extracted from the recirculation pond will be hauled to various locations at the mine site and will be used as a substitute topsoil in the dredge pile areas. If processing fines will be stockpiled in excess of what is required for reclamation, then the Mining Plan must specify the maximum volume of processing fines to be stockpiled and must identify the location of the stockpiles on the Mining Plan Maps. This information is necessary to calculate the financial warranty.

6.4.5 Exhibit E – Reclamation Plan

20. Table E-1 indicates the access road is 4.9 acres in size and is included in the 472.3 acre permit boundary. Please clarify if the 4.9 acres of access road includes the whole length of the road or only the portion of the access road which lies within the proposed permit boundary. (See additional comments under Item No. 4)
21. Table D-3 indicates 85.3 acres will be mined under the 'Partial Dredge Mining' scenario. However, Table E-1 indicates there will be 76.9 acres of reclaimed dry rangeland under the 'Partial Dredge Pile Mining Reclaimed' scenario. Please account for the 8.4 acres which have not been included in the reclamation estimate.

22. Table E-1 indicates there will be 4.8 acres of undisturbed dredge piles and 10.4 acres of undisturbed non-dredge area, for a total of 15.2 acres of undisturbed land. The difference between the permit area (472.3 acres) and the affected area (452.6 acres) is 19.7 acres. Therefore, there should be 19.7 acres of unaffected land accounted for in Table E-1 under the 'Full Mining Reclaimed' scenario. Please clarify this discrepancy and revise Table E-1 as necessary.
23. The Reclamation Plan states that if mining activity ceases before all of the dredge piles are removed, then the dredge highwalls will be reduced to 2H:1V. Please clarify if the reduction of highwalls to a 2H:1V grade will apply to all remaining dredge piles which are currently at a 1H:1V grade, or if it will only include those dredge pile slopes which the Operator has affected.
24. The Reclamation Plan states approximately 19,000 CY of growth medium will be required to complete reclamation under the worst case scenario, which would occur when 85 acres have been mined. The information provided in Exhibit L indicates 137,617 CY of growth medium will be replaced. Please clarify the discrepancy between the Reclamation Plan and the Reclamation Cost Estimate.
25. The Reclamation Plan states processing fines will be used as a topsoil substitute in the dredge pile areas. In addition, the Reclamation Plan states topsoil will consist of a combination of stripped topsoil and processing fines. Please clarify if the growth medium to be replaced across all affected areas will consist of stripped topsoil combined with processing fines.
26. Table E-2 references backfilling below slopes to 3H:1V. Please clarify if this refers to the reclamation of slopes mined in the native ground surface. Also, clarify if the 3H:1V slopes will be created through backfilling or cut and fill methods.
27. Table E-3 lists Ferry's oatgrass as one of the species to be planted during reclamation. The Division is not familiar with this species. Please clarify if the species to be planted is Parry's Oatgrass (*Danthonia parryi*), or otherwise provide the scientific name of the species to be planted.
28. The Reclamation Plan calls for crimping mulch into seeded areas. Please specify the type of mulch and the application rate.
29. The Reclamation Plan calls for grading the side slopes of the pit to 2H:1V under the partial mining scenario, whereas the side slopes would be graded to 3H:1V under the full mining scenario. Please explain why the side slopes would not be graded to 3H:1V under the partial mining scenario.

30. Map F-1 shows two conceptual lakes will be created in the first phase of the mining operation. The Reclamation Plan does not address how the lakes will be established. Please revise the Reclamation Plan to include the following information:
- a. The total depth of the lakes.
 - b. Specify the grade of the lakes slopes. (Pursuant to Rule 3.1.5(7), all slopes shall be no steeper than 2H:1V, except from 5 feet above and 10 feet below the expected water line where slopes shall not be steeper than 3H:1V)
 - c. The lakes will be excavated approximately 20 feet below the native ground surface. Specify if groundwater will be exposed when the new lakes are constructed and if so, describe how the Operator will stay in compliance with applicable Colorado water laws and regulations governing injury to existing water rights.
31. The Reclamation Plan does not address the establishment of the single lake at the completion of mining, which has been depicted on Map F-2. Please revise the Reclamation Plan to include a discussion of the establishment of lake(s) at the conclusion of mining. If the Applicant is unable to provide the requested information at this time, then the Reclamation Plan should be revised to acknowledge that an appropriate revision will be submitted to address this issue at a later date.
32. The Reclamation Plan states stormwater runoff will be directed into the pit and ponds. In addition, the Reclamation Plan states lakes which are part of 40 acre/5 cfs water right will not be used for stormwater purposes. These statements seem to contradict each other. Please clarify this discrepancy.
33. The Antero Ditch is not depicted within the reclaimed area on Map F-2 which represents the full mining scenario. Please revise the Reclamation Plan to account for the elimination of the Antero Ditch, or otherwise explain how the ditch will be reestablished.
34. The Weed Control Plan prepared by the Applicant is a good start to managing weeds at the mine site. However, should the site become infested with state listed noxious weeds, the Division may require specific management objectives for each weed species to be added to the Weed Control Plan. Any change to the Weed Control Plan would be handled through a Technical Revision.
35. The Weed Control Plan states total weed removal on the property is not the objective. The State Noxious Weed list is categorized into three separate lists: List A, List B, and List C. The specific management requirements depend on which list a particular noxious weed is on. For instance, any noxious weed on List A is required to be eradicated. Please revise the management objectives of the Weed Control Plan to align with the requirements of the State Noxious Weed List.

6.4.6 Exhibit F – Reclamation Plan Map

36. The Reclamation Plan Maps do not clearly differentiate between the permit area (472.3 acres) and the affected area (452.6 acres). The Reclamation Plan Maps must clearly identify the 452.6 acres of affected area. Please revise Map F-1 and F-2 accordingly.

6.4.7 Exhibit G – Water Information

37. The Applicant has stated stormwater runoff will be detained by excavation highwalls. The initial stages of the operation will consist of processing dredge piles and will not involve excavating below the native ground surface. Please explain how stormwater will be managed to prevent a discharge from the mine site during the initial stages of mining. Alternately, the Applicant may affirmatively state that a National Pollutant Discharge Elimination System permit from the Water Quality Control Division has been acquired, or applied for.
38. The Mining Plan states all mining will stay above the static groundwater table. According to the Mining Plan, mining will occur to a depth of 20' below the native ground surface. Please provide all available supporting documentation used to determine the static groundwater table is at a depth of 25' below the native ground surface.
39. The Applicant has identified 2 wells within 600 feet of the mining area and has stated they will not be impacted for the first 50 years of the mine's life. Pursuant to Rule 3.1.6, describe the anticipated effects to the wells and specify how the Operator will stay in compliance with applicable Colorado water laws and regulations governing injury to existing water rights.
40. The Applicant has indicated either groundwater wells will be developed to supply water for the mining operation or ditch rights would be used. Pursuant to Rule 3.1.6(1)(a) and Rule 6.4.7(4), the Applicant must specify the source of water to supply the operation. If groundwater wells will be developed, then provide the Division with a copy of the well permits and depict the approximate location of the wells on the Mining Plan Maps.
41. The Applicant has stated there is a 40 acre/5 cfs water right associated with the property. Please provide documentation to demonstrate this water is available for the Operator's use.

6.4.8 Exhibit H – Wildlife Information

42. The Applicant has indicated the area surrounding the proposed mine site includes winter range for elk and deer. Has there been any documented use of the property by elk or deer for winter range?

6.4.9 Exhibit I – Soils Information

No comment.

6.4.10 Exhibit J – Vegetation Information

43. The Applicant has stated no jurisdictional wetlands are expected to be disturbed by the mining operation. Please clarify if the Applicant has consulted with the Army Corps of Engineers to determine if there are jurisdictional wetlands on the site.
44. As required by Rule 6.4.10(1)(c), provide an estimate of carrying capacity for the range lands on or in the vicinity of the affected land.

6.4.11 Exhibit K – Climate

No comment.

6.4.12 Reclamation Costs

45. The reclamation cost estimate provides a cost for removing facilities from the site. Please list and locate on the applicable Exhibit all structures that will be constructed on the site (i.e. plants, office, scale-house, etc.) and provide their associated dimensions and composition in order to accurately estimate the cost for removal in the reclamation bond estimate.
46. Please specify the average haul distance required to replace growth medium on the reclaimed areas. (See additional comments under Item No. 6)
47. The reclamation cost estimate indicates 8,067 CY of material will be required to backfill the recirculation pond. Please provide a cross-sectional drawing of the recirculation pond, or otherwise provide the Division with the calculation used to determine the backfill volume. In addition, describe where the material to backfill the recirculation pond will come from and specify the haul or push distances involved in backfilling.
48. The Reclamation Plan calls for laying back the dredge highwalls to 2H:1V or less and backfilling below slopes to 3H:1V. These reclamation tasks have not been accounted for in the reclamation cost estimate. Please revise the reclamation cost estimate to include these tasks.
49. The Division will perform a complete bond calculation when all of the adequacy concerns have been addressed.

6.4.13 Exhibit M – Other Permits and Licenses

50. The Applicant has stated a stormwater/process water discharge permit may be needed for the operation. In absence of a demonstration that stormwater will not leave the site, the Division will require the Applicant to commit to obtaining a stormwater discharge permit. Please respond.
51. The potential presence of jurisdictional wetlands on the proposed mine site may require additional permits. Please specify if the Applicant has consulted with the Army Corps of Engineers on the need for a 404 permit. (See additional comments under Item No. 43)

6.4.14 Exhibit N – Source of Legal Right to Enter

No comment.

6.4.15 Exhibit O – Owner(s) of Record of Affected Land (Surface Area) and Owners of Substance to be Mined

No comment.

6.4.16 Exhibit P – Municipalities Within Two Miles

No comment.

6.4.17 Exhibit Q – Proof of Mailing of Notices to Board of County Commissioners and Soil Conservation District

No comment.

6.4.18 Exhibit R – Proof of Filing with County Clerk and Recorder

No comment.

6.4.19 Exhibit S- Permanent Man-made Structures

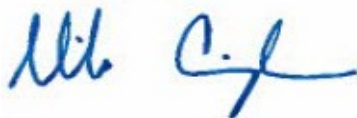
52. The list of structures under Exhibit S does not include the Antero Ditch or State Highway 9. Please revise Exhibit S to include these structures.

53. The Applicant has provided an engineering analysis to demonstrate the permanent man-made structures within 200 feet of the affected land will not be impacted by the mining operation. The Division will review the engineering analysis upon demonstration that structure agreements were provided to the structure owners. Structure agreements shall be sent by a trackable method, i.e. certified mail. In addition, the individual structure agreements shall be labeled with the certified mail number or other tracking number. Please provide proof that structure agreements were provided to all structure owners.

This concludes the Division's preliminary adequacy review of this application. Please remember that the decision date for this application is March 5, 2017. 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 x8116.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mike C.", is positioned above the printed name of the sender.

Michael A. Cunningham
Environmental Protection Specialist

Enclosures (4)

CC: Wally Erickson, DRMS
Ben Langenfeld, Greg Lewicki & Associates