



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

1313 Sherman Street, Room 215
Denver, CO 80203

March 5, 2018

Jim Murray
High Mountain Mining Co., LLC
3040 S. Vallejo Street
Englewood, CO 80110

RE: Alma Placer Mine; DRMS File No. M-1985-029; Adequacy Review No. 1 (AM06)

Dear Mr. Murray,

The Division of Reclamation, Mining and Safety (Division) has completed its preliminary adequacy review of the Amendment Application to the 112 Hard Rock Reclamation Permit for the above referenced site. The application was received on December 20, 2017 and was called complete for review on January 10, 2018. The decision date for this application is April 10, 2018. 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 Hard Rock Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal and Designated Mining Operations. 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 1.6.5 (2), please submit a copy of the public notice which was published in a newspaper of local circulation. Proof of publication may consist of either a copy of the last newspaper publication, to include the dates published, or a certified or notarized statement from the paper.
2. As required by Rule 1.6.2(1)(g), please submit proof the above referenced public notice was circulated to all owners of record of surface lands, and easement holders that are on the affected land and within 200 feet of the boundary of all affected lands. Proof of notice may be return receipts of a Certified Mailing or by proof of personal service.



3. The Division received comments from the Colorado Historical Society and the Division of Water Resources. The letters have been attached for your review. Please address the comments noted in the letters, and make any changes in 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 Maps of Affected Lands

4. Please revise either Map C-1 or Map C-2 to include all immediately adjacent owners of record as required by Rule 6.4.3(a). If High Mountain Mining Company owns all of the property immediately adjacent to the permit boundary, then the Mining Plan Maps should be revised to include this information.
5. The legends on Map C-1 and Map C-2 use the same symbols for multiple structures which are associated with transmission and power lines. Please revise both maps so that each structure listed in the legend has a unique symbol and color.
6. As required by Rule 6.4.3(g), revise either Map C-1 or Map C-2 to show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of affected land and within two hundred feet of the affected land. The permanent man-made structures which are depicted on the revised maps should correlate to the structures listed under Exhibit T.
7. The legend on Map C-2 contains a symbol for the 200' offset from the permit boundary. However, the 200' offset is not depicted on the map. Please revise Map C-2 to include the 200' offset or remove the symbol from the legend.
8. The legend on Map C-1 contains a symbol for the mine phases. However, the mine phases are not depicted on the map. Please revise Map C-1 to include the mine phases or remove the symbol from the legend.
9. Please revise Map C-2 to show where the asphalt and concrete batch plants will be located.

6.4.4 Exhibit D – Mining Plan

10. The Mining Plan states 3 to 6 inches of topsoil is salvageable from unmined areas. This contradicts the information presented under Amendment No. 5 (AM05), which stated there are 3 to 9 inches

of salvageable topsoil from unmined areas. Please revise this section of the Mining Plan (page D-2) to be consistent with the information presented under AM05.

11. The Mining Plan states (page D-4) groundwater inflows into the active cut will be approximately 50 – 100 gallons per minute and this amount of water would be pumped to the sediment pond system. The Mining Plan also states (page D-5) water from the active pit will be pumped into a temporary settling basin adjacent to the active pit. Please clarify if the sediment pond system and the temporary settling basins are different structures or if they are terms which are used interchangeably.
12. The Mining Plan states (D-2) the overburden and topsoil stockpiles will be seeded with yellow sweetclover. The Mining Plan also states (D-10) the rangeland seed mix would be used to stabilize all stockpiles. Yellow sweetclover is considered to be a weedy species which may out-compete the desired vegetation. Please revise the Mining Plan to not include yellow sweetclover for stockpile stabilization.
13. The Applicant has stated portable asphalt and concrete batch plants may be located on site. Under Amendment No. 5, the Applicant stated no asphalt plant will be placed on site without written permission from the Town of Alma. The Amendment No. 6 application materials did not contain written authorization from the Town of Alma for the inclusion of an asphalt batch plant. Please clarify if the Applicant has received approval from the Town of Alma for the asphalt batch plant.
14. As required by Rule 3.1.6(1), disturbances to the quantity and quality of water in surface and groundwater systems shall be minimized. Please describe the protection measures that will be used to ensure that spills of asphalt and/or concrete will not contaminate surface or ground water. Will concrete trucks be washed out on site? If so, what measures will be taken to contain the wash water?
15. The Mining Plan states (D-9) hazardous materials associated with diesel motors and asphalt and concrete batch plants will be stored at the mine. The Division requires the following information on the hazardous materials to be stored:
 - a. Complete inventory of all hazardous materials to be stored.
 - b. Total volume of each type of hazardous material to be stored.
 - c. Material Safety Data Sheets for each type of hazardous material to be stored.
 - d. Specify where the hazardous materials will be stored.
 - e. Describe the secondary containment for the hazardous materials storage area.
 - f. Specify the use of each type of hazardous material to be stored.
16. Specify how many gravel processing plants will be located onsite.

17. The Mining Plan states (D-10) only two active mining areas will be disturbed at any given time. Please clarify if 'active mining area' refers to the two pits which will be active or if it refers to the mining areas defined on Map C-2.
18. Under Amendment No. 5, the Operator was approved to have three active pits. Amendment No. 6 proposes two active pits at any given time. Please specify how many active pits are currently present at the site.
19. The Operator is proposing to import topsoil to the site. The Applicant has provided a copy of the affidavit which will be used when topsoil is imported to the site. While this is a good practice to ensure only clean and inert material is imported to the site, it does not satisfy the requirements of Rule 3.1.5(9). The Operator shall provide the Division with a signed affidavit certifying the material to be imported is clean and inert, as defined in Rule 1.1(24).
20. The Mining Plan states (D-6) the equipment storage building has concrete block walls which are sealed for secondary containment. Please specify what materials are being stored in the equipment storage building which require secondary containment.
21. The Mining Plan states (D-8) no toxic or acid-forming materials have been encountered during the mining operation. On February 20, 2018, the Division forwarded a copy of a citizen complaint, which indicated mercury was historically used at the Alma Placer Mine and is being mobilized into the environment by current mining operations. Please provide the Division with any information which the Operator has regarding the historic use of mercury at the Alma Placer Mine. In addition, provide any available data from water quality or soil quality testing which has been performed at the site.

6.4.5 Exhibit E – Reclamation Plan

22. The Reclamation Plan states (E-1) the Operator reserves the right to alter the revegetation plan for areas where it has been difficult to establish vegetation. The Operator should note that any changes to the Reclamation Plan must be first approved through the appropriate revision process. Please respond.
23. The Reclamation Plan states (E-1) topsoil will be replaced to a depth of 3 inches over pre-law areas. Under Amendment No. 5 (AM05), the Operator committed to replacing substitute fines to a depth of 4.5 inches. In absence of a technical justification for reducing the depth of fines over pre-law areas, the Division will require the Operator to adhere to the commitment made under AM05. Please revise all applicable sections of the application to show 4.5 inches of substitute fines will be replaced over pre-law areas.
24. The Reclamation Plan states (E-2) 14 acres of pre-law disturbance have been graded, topsoiled and seeded. Please specify the depth to which fines were replaced over the 14 acres of pre-law disturbance.

25. According to the Reclamation Plan, wetland vegetation will be planted on 1.38 acres. Under Amendment No. 5 (AM05), the Operator committed to planting 6.6 acres of wetland vegetation. In addition, the number of wetland species to be planted has been reduced from what was proposed under AM05, including the elimination of willows from the wetland seed mix. Please explain why the size of the area to be planted with wetland vegetation has been reduced and provide a technical justification for eliminating willows from the wetland seed mix.
26. The rangeland seed mix has been modified to eliminate 6 grass species from what was approved under Amendment No. 5. The Operator stated it has been difficult to establish vegetation on reclaimed areas. Have any portions of the mine site been reclaimed using the reclamation methods approved under Technical Revision No. 12? Please provide a technical justification reducing the number of grass species to be included in the rangeland seed mix.
27. Map C-2 depicts the Old Willets Ponds adjacent to the storage building. However, the Old Willets Ponds are not depicted on the Map F-1. Please clarify if the Old Willets Ponds will be reclaimed. If the ponds will be eliminated, then update Map F-1 to account for this reclamation task. If the ponds will not be eliminated, then revise Map F-1 to show the ponds will remain following reclamation. Please see additional comments under Items No. 28 and 29.

6.4.6 Exhibit F – Reclamation Plan Map

28. The Reclamation Plan Map depicts the ponds which will remain upon final reclamation of the site. Please revise the Reclamation Plan Map to include labels for all of the ponds which exposed groundwater prior to 1981.
29. The Reclamation Plan Map shows several areas of exposed groundwater which were created after 1981. Until such time as the Operator demonstrates compliance with the Division of Water Resources and Rule 3.1.6, the Division cannot approve a Reclamation Plan which includes areas of groundwater exposed after 1981. Please revise the Reclamation Plan Map to show only the ponds which were in existence prior to 1981. The ponds must be depicted in the exact size and location as they existed prior to 1981.

6.4.7 Exhibit G – Water Information

30. Pursuant to Rule 3.1.6(1)(a), disturbances to the prevailing hydrologic balance shall be minimized by compliance with applicable Colorado water laws and regulations governing injury to existing water rights. Specify how the Operator will comply with requirements of the Division of Water Resources (DWR) which are outlined in the attached comment letter dated January 31, 2018. Please note that failure to resolve DWR's concerns may result in denial of the Amendment Application.

31. The Mining Plan states (D-4) water from the active mining area will be pumped to the sediment pond system (ponds #1-4). Also, the Mining Plan states (D-5) water from the active mining area will be pumped into a temporary settling basin adjacent to the pit. This appears to contradict the information presented in Exhibit G which states (G-2), if there is not sufficient capacity within the sediment pond system, the gold operation would stop pumping until the pond system can be expanded or a discharge permit can be obtained. Please clarify this discrepancy and explain where the water from the gold and gravel operation will be pumped to.
32. The Mining Plan states (D-8) multiple sediment sumps will be utilized to contain all runoff from a 100 year – 24 hour storm event. In addition, the Mining Plan calls for pumping water from the active mine area into a temporary settling basins adjacent to the pit. If the temporary settling basins will receive water pumped from the pit, the basins will likely become filled in with sediment over time and the capacity for stormwater to infiltrate into the ground will be diminished. Please explain how you will ensure that stormwater infiltrates into the ground within 72 hours after being captured. Alternately, describe how water will be pumped and discharged from the settling basins to the natural drainage system within 72 hours after being captured.
33. Exhibit G indicates the quality of water from within the alluvial gravel deposit to be mined is of good quality. Pursuant to Rule 3.1.6, please demonstrate how the Operator will comply with applicable federal and Colorado water quality laws and regulations, including statewide water quality standards and site-specific classifications and standards adopted by the Water Quality Control Commission. The Division requests the Operator should submit any available water quality data from groundwater sampling which has been conducted at the site.
34. As noted in the letter from the Division of Water Resources, pre-1981 areas are tied to the physical location at which groundwater was exposed prior to 1981 and may not be allocated to other areas of groundwater exposure. Please revise Map C-1 to clearly show the location of all groundwater ponds which were in existence prior to 1981. The pre-1981 ponds shall be labeled such that they can be distinguished from the other ponds on the site.
35. Exhibit G includes a table which lists the ponds which were present prior to 1981. Please revise the table to include a label which clearly indicates which ponds were present prior to 1981. In addition, please revise the 'Acreage' labels to clearly distinguish the acreages of the ponds prior to 1981 versus the acreage of the ponds upon final reclamation of the site.
36. According to the table under Exhibit G, there were 4.27 acres of groundwater exposed prior to 1981. However, the information presented under Amendment No. 5 indicated there was 4.13 acres of exposed groundwater prior to 1981. Please clarify this discrepancy.
37. Please verify the water handling system which was approved under Amendment No. 5, is still in effect. If any portions of the water handling system have changed, then update Exhibit G accordingly.

38. The Operator stated there is enough storage capacity onsite to contain the 100 year – 24 hour storm event. However, the Operator has not provided the calculations to support this statement. Please provide a comprehensive stormwater analysis, similar to what was provided under Amendment No. 5, to show the mine can contain runoff from a 100 year – 24 hour storm event.

6.4.8 Exhibit H – Wildlife Information

39. According to the Operator, a Wildlife Questionnaire was filed with Colorado Parks and Wildlife (CPW) as part of the 1985 permit application. The Reclamation Permit for the Alma Placer Mine has been revised numerous times since the issuance of the permit in 1985. The Division strongly encourages the Operator to file a new Wildlife Questionnaire with CPW to determine if their recommendations regarding impacts to wildlife have changed. Please respond.

6.4.9 Exhibit I – Soils Information

40. The information presented in Exhibit L indicates soil amendments will only be applied to the pre-law areas which will receive a cover of substitute fines. Please indicate if a soil test has been performed on the substitute fines to determine the appropriate type and rate of soil amendment application. If a soil test has been performed, then provide the results of the test for Division review. If a soil test has not been performed, then pursuant to Rule 3.1.9(8) and Rule 6.4.9(2), the Division will require the results of a soil test of the substitute fines to be submitted prior to reclaiming any additional areas with substitute fines. The Operator should consult with the Division prior to conducting any soil analyses to ensure the appropriate soil collection methods and analytical detection methods are used.

6.4.10 Exhibit J – Vegetation Information

No comment.

6.4.11 Exhibit K – Climate

No comment.

6.4.12 Exhibit L – Reclamation Costs

41. The financial warranty calculation shall be updated to reflect 4.5 inches of topsoil or topsoil substitute will be replaced across all affected lands. See additional comments under Item No. 23.
42. The financial warranty calculation includes a cost for soil amendments at \$250.00 per acre. Please clarify how this unit cost was arrived at. If the unit cost is tied to specific amendments, then specify the amendments to be applied as well as the application rate.

43. Please clarify if the Dozer task includes backfilling sediment ponds 1 – 4. If the Dozer task does not include the cost to backfill sediment ponds 1 – 4, then the financial warranty calculation must be revised to include this task.
44. Please clarify if the berms on site have been included in the total volume of material to be backfilled. If the reclamation of the berms has not been included in the total volume of material to be backfilled, then the financial warranty calculation shall be revised accordingly.
45. Specify the total number of acres of currently affected land which do not have vegetation established. The Financial Warranty must include a cost to establish vegetation on these areas, even if the Operator has already attempted to revegetate the areas.
46. Specify the total number of acres of currently affected land which still require topsoil or topsoil substitute replacement.
47. Specify the total volume of material which must currently be graded to reclaim the site, including any existing sediment or groundwater ponds which must be eliminated prior to final release.
48. The Division will calculate the required financial warranty once all adequacy concerns have been addressed.

6.4.13 Exhibit M – Other Permits and Licenses

49. Please revise the list of permits, licenses and approvals required for the operation to include the permits listed in the Division of Water Resources comment letter dated January 31, 2018.
50. Please revise Exhibit M to include authorization from the Town of Alma for the asphalt and concrete batch plants as one of the required approvals necessary for the mining operation.
51. Exhibit M states a county special use approval is not needed. It is the Division's understanding that a Park County Administrative Review is required for all new or expanding operations. Please clarify if the Operator has contacted Park County to determine if additional authorizations are needed. Exhibit M shall be revised to include the Park County Administrative Review as one of the required approvals necessary for the mining operation.
52. The Mining Plan states (D-8) slopes in the area of the drainages will be maintained at 2H:1V or shallower in accordance with the Stormwater Discharge Permit. However, Exhibit M states a CDPHE stormwater discharge permit is not required. Please clarify this discrepancy.

6.4.14 Exhibit N – Source of Legal Right to Enter

No comment.

Mr. Murray
Page 9
March 5, 2018

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.

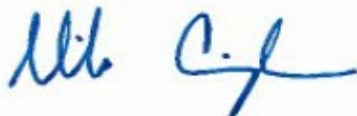
6.4.20 Exhibit T – Permanent Man-Made Structures

53. Please provide copies of all existing structure agreements between the Operator and the owners of the structures identified under Exhibit T or demonstrate that structure agreements have been provided to all structure owners within 200 feet of the affected lands.

This concludes the Division's preliminary adequacy review of this application. Please remember that the decision date for this application is April 10, 2018. 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 written over the signature line.

Michael A. Cunningham
Environmental Protection Specialist

Enclosures (2)

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



COLORADO
Division of Water Resources
Department of Natural Resources

1313 Sherman Street, Room 821
Denver, CO 80203

Response to Reclamation Permit Amendment Application Consideration

DATE: January 31, 2018
TO: Michael A. Cunningham, Environmental Protection Specialist
CC: Division 1 Office, District 23 Water Commissioner
FROM: Colin Watson, P.E.
RE: Alma Placer Mine, File No. M-1985-029
Applicant/Operator: High Mountain Mining Co., LLC
Contact: Jim Murray, (303) 806-8487
Section 12, T9 South, R78 West, 6th P.M., Park County

RECEIVED

JAN 31 2018

**DIVISION OF RECLAMATION
MINING AND SAFETY**

CONDITIONS FOR APPROVAL

- ☐ The proposed operation does not anticipate exposing groundwater. Therefore, exposure of ground water must not occur during or after mining operations.
- ☒ The proposed operation will consume ground water by: ☒ evaporation, ☐ dust control, ☐ reclamation, ☒ water removed in the mined product, ☐ processing, ☐ other: .
- ☒ The applicant has indicated plans to use surface water at the permit site for the following purposes: ☐ evaporation, ☒ dust control, ☐ reclamation, ☐ water removed in the mined product, ☒ processing, ☒ other: materials handling and domestic/sanitary uses in the shop building and living trailers.
- ☒ The proposed operation will consume ground water by: ☒ evaporation, ☐ dust control, ☐ reclamation, ☒ water removed in the mined product, ☐ processing, ☐ other:_____.
- ☒ Prior to initiation of these uses of ground water, the applicant will need to obtain either a gravel pit or other type of well permit, as applicable. However, prior to obtaining a permit, an approved substitute water supply plan or decreed plan for augmentation is required.

COMMENTS: The Applicant has submitted an amendment request for a surface mining operation on approximately 216.1 permitted acres near Alma, Colorado. The amendment request is to increase the permitted area by 13.6 acres, bringing the total permitted area to 229.7 acres. The primary commodity mined at the site is gold, with incidental mining of gravel. The site is proposed to be reclaimed to its pre-mining use of rangeland upon completion of this mining operation.

According to the submitted information, 5 ponds currently exist at the site with a total surface area of 4.27 acres that were present before mining and possibly for as long as 130 years. If the ponds exposed ground water to the atmosphere prior to January 1, 1981, as a result of open mining of sand and gravel, then pursuant to § 37-90-137(11)(b), C.R.S. and 2009CW49, the gravel pit operator or property owner does not need to replace depletions that occur due to evaporation from the ponds. However, pre-81 areas are tied to the physical location at which the groundwater was exposed prior to January 1, 1981 and may not be re-allocated to other areas of ground water exposure within the permit boundaries. Additionally, the backfilling of a pre-81 area does not create a credit to be used elsewhere. Exhibit M of the submittal states that "a gravel well permit is not required since there will be no change to pond surface areas from historical conditions." This is in direct



conflict with the table provided in Exhibit G of the application, which shows that the configuration of these ponds will change and the total surface area will be increased. The applicant must obtain a gravel pit or other type of well permit for any new areas of ground water exposed after December 31, 1980, and must make replacements for any evaporative depletions or exposed groundwater.

The Mining Plan (Exhibit C) states both that the material to be mined will be wet, and that the pit will be dewatered prior to mining. If the site will be dewatered to prevent the exposure of ground water, the applicant must obtain a well permit for such dewatering use. In addition, the Applicant must make replacements for the water removed with the mined gravel product, which will occur even if mined in a dewatered state. The Applicant must obtain either a substitute water supply plan or decreed plan for augmentation for this site.

The applicant has indicated that water for processing, dust control, material handling, and domestic use will come from two sources available on site. These two sources are identified as the Columbia No. 1 Ditch (WDID 2300651; CA-1636, priority no. 9) and the Alma Point of Diversion for the Columbia No. 1 Ditch (WDID 2300674; 96CW149), which operates as an alternate point of diversion to the Columbia No. 1 Ditch. The decreed use of the Columbia No. 1 Ditch is placer mining purposes on Alma placers. Diversions are limited to 11 cfs during the period of November 1 to April 1, and 60 cfs from April 2 to October 31.

If stormwater runoff is intercepted by this operation and is not diverted or captured in priority, it must be released to the stream system or infiltrate into the ground within 72 hours; otherwise the operator will need to make replacements for evaporation.

Due to the lack of substitute water supply plan or decreed plan for augmentation, this office objects to the proposed amendment. The applicant may contact the State Engineer's Office with any questions.





OFFICE of ARCHAEOLOGY and HISTORIC PRESERVATION

JAN 25 2018

RECEIVED

JAN 29 2018

**DIVISION OF RECLAMATION
MINING AND SAFETY**

Michael A. Cunningham
Environmental Protection Specialist
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Notice of 112 Hard Rock/Metal Mining Reclamation Permit Amendment Application
Consideration – High Mountain Mining Co., LLC, Alma Placer Mine, Permit No. M-1985-029
– AM106 (HC #67506)

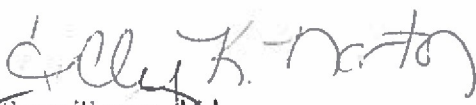
Dear Mr. Cunningham:

We received your correspondence dated January 10, 2018 on January 12, 2018 initiating consultation with our office under the State Register of Historic Places Act (CRS 24-80-1 et seq.) for the above referenced permit application.

A search of our database indicates that no cultural resource inventory has been conducted within the proposed permit area and no properties of historical significance have been recorded therein. As most of Colorado has not been inventoried for cultural resources, our files contain incomplete information. Consequently there is the possibility that as yet unidentified cultural resources exist within the proposed permit area. The requirements under CRS 24-80 part 13 apply and must be followed if human remains are discovered.

We thank you for the opportunity to comment. If we may be of further assistance, please contact Bob Cronk, Section 106 Compliance Manager, at (303) 866-4608 or robert.cronk@state.co.us.

Sincerely,


Steve Turner, MA
State Historic Preservation Officer
1200 Broadway
Denver, CO 80203

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

303-866-3392 • Fax 303-866-2711 • E-mail: ouhp@state.co.us • Internet: www.historycolorado.org

COLORADO HISTORICAL SOCIETY