

October 16, 2020

Jim Harrington
Colorado Legacy Land, LLC
4601 DTC Blvd. - Suite 130
Denver, CO 80237

**RE: Schwartzwalder Mine, Permit No. M-1977-300, Amendment Application (AM-5),
Preliminary Adequacy Review**

Mr. Harrington:

The Division of Reclamation, Mining and Safety (Division) has completed its preliminary adequacy review of your Amendment application (AM-5) submitted for the Schwartzwalder Mine. All comment and review periods for the application began on September 10, 2020, when the application was called complete for filing purposes. The decision date for the application is set for December 9, 2020.

The review consisted of comparing the application content with specific requirements of the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations. The Division has identified adequacy items in the application requiring clarification or additional information. These items are identified below under their respective exhibit heading, and are numbered sequentially.

Exhibit B – Index Map (Rule 6.4.2):

- 1) Please provide an updated index map showing the regional location of the affected land and all roads and other access to the area. A standard U.S. Geological Survey topographic quadrangle or equivalent is acceptable. Scale criteria need not be followed for this map.

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

- 2) Please provide an updated Exhibit C-1 map with the following revisions:
 - a) Per Rule 6.2.1(2)(e), please ensure the map is prepared at a scale that is appropriate to clearly show all elements that are required to be delineated by the Act and Rules. The acceptable range of map scales shall not be larger than 1 inch = 50 feet nor smaller than 1 inch = 660 feet. The scale of the map submitted is 1 inch = slightly more than 750 feet, which is a smaller scale than the required 1 inch = 660 feet. The scale of the map as well as the labels overlapping the permit boundary in places makes it difficult to assess the location of the permit boundary, the proposed expansion areas, and mine features. The Division recommends the map be revised to show less of the property boundary and more of the affected land/permit boundary to meet the scale criteria and to clearly show all elements required to be delineated.



- b) Per Rule 6.4.3(a), please show all immediately adjoining surface owners of record. Since the operator owns the land surrounding the permit area except at its southern and eastern edges, the surface owner information is only required in these areas.
- c) Per Rule 6.4.3(b), please show the name and location of all creeks, roads, buildings, oil and gas wells and lines, and power and communication lines on and within 200 feet of the affected land/permit area. The operator has already labeled most of these features on the map, except for the power and/or communications lines which the Division has observed on site.
- d) Per Rule 6.4.3(g), please show the owner's name, type of structures, and location of all significant, valuable, and permanent man-made structures contained on the area of the affected land and within 200 feet of the affected land. This includes structures such as roads, bridges, culverts, gates, communication and power lines, pipelines, cutoff walls in the creek, wells, sumps, diversion channel on NWRP, water treatment plant and associated structures on top of mesa, and any graveled or paved parking areas. Since the operator owns the majority of structures on site, it may be useful to indicate this using the legend to reduce clutter on the map. There is no need to show the location of structures that have been removed from the site (e.g., old water treatment plant, old retention pond). In fact, the Division recommends these references be removed from the map to reduce clutter.

Exhibit E – Reclamation Plan (Rule 6.4.5):

- 3) Per Rule 6.4.5(2), please describe the type of reclamation proposed to be implemented on the affected lands (for NWRP upland area and Black Forest Mine area), including:
 - a) A description of any grading (specify maximum anticipated slope gradient), retopsoiling, or revegetation activities required.
 - b) For areas to be retopsoiled, the approximate acreage to be retopsoiled, the approximate placement depth, and whether the topsoil will be derived from on site (specify location) or will need to be imported.
 - c) For areas requiring revegetation, the seed mixture to be used including the method and rates of seeding/planting, and the proposed time of seeding/planting.
 - d) For areas with mine openings, a detailed closure plan including the anticipated design for any proposed bulkheads.
- 4) Per Rule 6.4.5(2)(e), please provide a plan or schedule indicating how and when reclamation will be implemented on the proposed affected lands, including:
 - a) An estimate of the periods of time which will be required for the various stages or phases of reclamation.
 - b) A description of the size and location of each area to be reclaimed during each phase.

- c) An outline of the sequence in which each stage or phase of reclamation will be carried out.
- 5) According to the operator's estimates, approximately 39,000 cy of impacted soils will need to be excavated from the valley, and the Minnesota Mine "CV Glory Hole" has a remaining capacity of approximately 28,000 cy. The proposed Black Forest Mine disposal location has an estimated capacity of 15,000 cy, which means there should be enough capacity in both of these mines to accommodate the estimated volume of impacted soils remaining to be excavated. However, given the estimated volume has changed during the excavation project, it would seem there is potential for the estimated volume to change again. Therefore, in the situation where the remaining volume of impacted soils in the valley exceeds the combined capacity of the CV Glory Hole and Black Forest Mine, please describe how the operator intends to dispose of any excess material.

Exhibit F – Reclamation Plan Map (Rule 6.4.6):

- 6) Please provide an updated Exhibit F-1 map with the following revisions:
 - a) Per Rule 6.2.1(2)(e), please ensure the map is prepared at a scale that is appropriate to clearly show all elements that are required to be delineated by the Act and Rules. The acceptable range of map scales shall not be larger than 1 inch = 50 feet nor smaller than 1 inch = 660 feet. The scale of the map submitted is 1 inch = slightly more than 750 feet, which is a smaller scale than the required 1 inch = 660 feet. The scale of the map makes it difficult to assess the location of the permit boundary, the proposed expansion areas, and the reclamation proposed for affected lands, particularly for the proposed expansion areas. The Division recommends the map be revised to show less of the property boundary and more of the affected land/permit boundary to meet the scale criteria and to clearly show all elements required to be delineated.
 - b) Per Rule 6.4.6(a), please show the expected physical appearance of the area of the affected land, correlated to the proposed reclamation timetable. The map must show proposed topography of the area with contour lines of sufficient detail to portray the direction and rate of slope of all reclaimed lands. The Division understands the operator is currently developing a final reclamation plan for the site that incorporates analyses of monitoring and testing programs conducted at the site as well as the final topography to exist after conclusion of the valley excavation project, and this plan will be proposed in a subsequent Amendment application (to be submitted in 3rd quarter of 2021). Therefore, please provide as much information on the map as available at this time, including approximate final slope gradients for disturbed areas (e.g., waste rock piles, valley disturbances, mesa disturbances), mine openings to be secured/sealed, structures to remain (including roads), and any areas to be retopsoiled and revegetated for final reclamation. The specific grading plan for the valley, including any changes to the current creek channel alignment, can be provided in a subsequent revision once this information is known.
 - c) Per Rule 6.4.6(b), please ensure the map portrays the proposed final land use for each portion of the affected lands.

Exhibit G – Water Information (Rule 6.4.7):

- 7) Please provide demonstration that disposal of radionuclide-impacted alluvial valley soils into the Black Forest Mine will not directly affect surface or groundwater systems. This demonstration should include, at a minimum, a cross-section showing elevations of the Black Forest Mine with respect to elevations of the Minnesota “CV Glory Hole”, the Steve Level, the approved maximum mine pool level (150 feet below Steve Level), and the creek channel, and an explanation of how the material placed inside the Black Forest Mine is not expected to contaminate surface or alluvial groundwater in the Ralston Creek stream shed.

Exhibit L – Reclamation Costs (Rule 6.4.12):

- 8) Please provide a bond estimate that includes costs for completing reclamation in the proposed affected lands (NWRP upland area and Black Forest Mine area). All information necessary to calculate the costs of reclamation must be submitted and broken down into the various major phase of reclamation. The information provided must be sufficient to calculate the cost of reclamation that would be incurred by the state in the event the permit was revoked and the state took over reclamation liability.

Exhibit M – Other Permits and Licenses (Rule 6.4.13):

- 9) The operator states “This exhibit has not changed from the September 2016 Environmental Protection Plan”. However, the only revisions submitted for this permit in 2016 include Technical Revision No. 23 (TR-23; submitted on 5/4/2016 and approved on 3/17/2017) to change the final disposal location of valley fill and install stormwater management structures for waste rock piles, and Technical Revision No. 24 (TR-24; submitted on 6/20/2016 and approved on 11/2/2016) to relocate the water treatment plant and correct a permit boundary discrepancy. It does not appear that Exhibit M information was included with either of these submittals.

Please provide a list of all permits, licenses, and approvals the operator holds or will be seeking for the operation, including effluent discharge permits, air quality emissions permits, radioactive source material licenses, State Historic Preservation Office clearance, disposal of dredge and fill material (404) permits, USFWS approvals or permits, permit to construct a dam, well permits, EPA approvals or permits, explosives permits, highway access permits, USFS permits, BLM permits, county zoning and land use permits, and city zoning and land use permits. Alternatively, please specify exactly where in the permit file an up-to-date list can be found.

Exhibit N – Source of Legal Right to Enter (Rule 6.4.14):

- 10) The current operator, Colorado Legacy Land, LLC (CLL) took over this permit through the Division’s approval of Succession of Operators No. 1 (SO-1) on February 16, 2018. At the time of SO-1 review, the affected lands were still owned by Cotter Corporation (CC), and a notarized statement of right to enter was provided to the Division giving CLL the legal right to enter the property on which the Schwartzwalder Mine is located. Since that time, the ownership of the affected lands has changed. Therefore, per Rule 6.4.14, please provide documentation of the legal right to enter to conduct mining and reclamation for all Owners of Record to the affected lands. This may include a copy of a lease,

deed, abstract of title, a current tax receipt, or a signed statement by the landowner(s) and acknowledged by a Notary Public stating that the operator has legal right to enter to conduct mining and reclamation on the affected lands.

Exhibit S – Permanent Man-Made Structures (Rule 6.4.19):

- 11) Please provide a list of all permanent, man-made structures located on the affected lands and within 200 feet of the affected lands (e.g., roads, bridges, culverts, fences, gates, communication and power lines, pipelines, cutoff walls installed in creek, wells, sumps, diversion channel on NWRP, water treatment plant and associated structures on top of mesa, graveled or paved parking areas).

Exhibit U – Designated Mining Operation Environmental Protection Plan (Rule 6.4.21):

- 12) The operator states in this section “This information is presented in the September 2016 Environmental Protection Plan and Exhibit E of this document, which provides an updated description of the current environmental monitoring program”. Please clarify whether the Environmental Protection Plan referred to in this section is the information submitted in Technical Revision No. 23 (TR-23; submitted on 5/4/2016 and approved on 3/17/2017).
- 13) Per Rule 6.4.21(3), please identify any additional environmental protection measures, monitoring, or permitting required from other agencies or jurisdictions (if any) for the proposed disposal of radionuclide-impacted alluvial valley soils into the Black Forest Mine.
- 14) Per Rule 6.4.21(4)(a), please list any air, water quality, solid and hazardous waste, and other federal, state permits or local licenses, or other formal authorizations which the operator holds or will be seeking for the activities proposed in the expansion areas (NWRP upland area and Black Forest Mine area), if required.
- 15) Per Rule 6.4.21(8)(c), please describe all geologic media down to and including the upper most aquifer under the proposed disposal site in the Black Forest Mine where such subsurface materials and any associated waters have the potential to be contaminated by materials that are toxic or acid-forming, or that produce acid mine drainage.
- 16) Per Rule 6.4.21(8)(d), please identify and locate on a map, in Exhibit C, known major fracture systems that affect rock formations under the proposed disposal site in the Black Forest Mine where such fractures and any associated waters have the potential to be contaminated by toxic or acid-forming materials or that produce acid mine drainage.

Additional Item(s):

- 17) Please see enclosed comment letters received from the Division of Water Resources on September 17, 2020 and from History Colorado on October 2, 2020.

This concludes the Division's preliminary adequacy review of AM-5. Please ensure the Division sufficient time to complete its review process by responding to these adequacy items no later than two weeks prior to the decision date, by **November 25, 2020**.

Please remember that, pursuant to Rule 1.6.2(1)(c), any changes or additions to the application on file in our office must also be reflected in the public review copy which was placed with the County Clerk and Recorder. Pursuant to Rule 6.4.18, you must provide our office with an affidavit or receipt indicating the date this was done.

If you have any questions, you may contact me by telephone at 303-866-3567, ext. 8129, or by email at amy.eschberger@state.co.us.

Sincerely,



Amy Eschberger
Environmental Protection Specialist

Encls: Comment letter from the Division of Water Resources, received on September 17, 2020
Comment letter from History Colorado, received on October 2, 2020

Cc: Elizabeth Busby, Ensero Solutions US, Inc.
Bill Ray, Ensero Solutions US, Inc.
Paul Newman, Colorado Legacy Land, LLC
Eric Williams, Colorado Legacy Land, LLC
Michael Cunningham, DRMS



STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

M-1977-300, Schwartzwalder Mine Amendment Request Application (AM05)

Brucker - DNR, Sarah <sarah.brucker@state.co.us>

Thu, Sep 17, 2020 at 12:58 PM

To: Amy Eschberger - DNR <amy.eschberger@state.co.us>

Please see attached for comments regarding the amendment application for the Schwartzwalder Mine, File No. M-1977-300. Please add the electronic copy to your Laserfiche files. Thanks,

Sarah Brucker
Water Resources Engineer



COLORADO
Division of Water Resources
Department of Natural Resources

P 303.866.3581 x 8249 (voicemail)
1313 Sherman St., Suite 821 Denver CO 80203
sarah.brucker@state.co.us | <https://dwr.colorado.gov>



M_1977_300 Schwartzwalder Mine AM05.pdf
172K



Response to Hard Rock Reclamation Permit Amendment Application Consideration

DATE: September 17, 2020

TO: Amy Eschberger, Environmental Protection Specialist

FROM: Sarah Brucker, P.E. *SB*

RE: Schwartzwalder Mine, File No. M-1977-300 - AM05
Applicant/Operator: Colorado Legacy Land, LLC, (970) 632-2239
Section 25, Twp 2 South, Rng 71 West, 6th P.M., Jefferson County
Water Division 1, Water District 1

COMMENTS: The Schwartzwalder Mine is an underground mining operation located approximately 6 miles northwest of Golden. Mineral extraction has not occurred at the site since 2000. The site is currently undergoing reclamation, including the excavation and disposal of soil impacted by historical uranium mining practices. The applicant has requested an amendment to add a total of 3.98 acres to the currently permitted 72.24 acres in order to allow for disposal of impacted soil in the former Black Forest Mine (M-2001-036), as the remaining capacity in the onsite CV Glory Hole is insufficient to accept the remaining quantity of soil to be disposed of. The Black Forest Mine is a dry mine that does not have contact with groundwater or surface water. Excavated materials will be disposed of either in the former Black Forest Mine or the CV Glory Hole within the Schwartzwalder Mine. One excavation is complete, watertight bulkheads will be used to permanently seal all mine portals. There are no other changes to mining and reclamation activities at the Schwartzwalder Mine proposed in this amendment.

Based on the available information, this office has no concerns regarding the proposed amendment. The applicant may contact the State Engineer's Office with any questions.



STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

Correction -Schwartzwalder Mine – File No. M-1977-300, Colorado Legacy Land, LLC – Amendment Application (AM-5) - History Colorado #36461

McKee-Huth - HC, Holly <holly.mckee@state.co.us>

Fri, Oct 2, 2020 at 1:31 PM

To: Amy Eschberger - DNR <amy.eschberger@state.co.us>

From: History Colorado, Office of Archaeology and Historic Preservation

Dear Ms. Eschberger:

Please disregard the email sent with the History Colorado # 36467. I had the wrong HC # on there. I have sent a revised copy with the correct number (HC# 36461). My apologies for the confusion.

Attached is our letter on the subject undertaking in Adobe PDF format.

Beginning November 1, 2020, the Colorado State Historic Preservation Office (SHPO) will require that all federal or state consultation requests use our electronic and secure file transfer system, MoveIT. Information and registration for MoveIT is available here: https://www.historycolorado.org/sites/default/files/media/document/2020/MoveIT_OAHP.pdf

Please contact me at the below information if you have any questions.

Sincerely,

Holly McKee-Huth

Holly McKee-Huth**Cultural Resource Information | GIS Specialist |****Section 106 Compliance**

Pronouns: she/her/hers

History Colorado | Office of Archaeology and Historic Preservation

303/866-4670

1200 Broadway|Denver, Colorado 80203|[HistoryColorado.org](https://www.historycolorado.org)

The Office of Archaeology and Historic Preservation is teleworking indefinitely, and is now accepting **electronic submissions** through its secure file transfer system, MoveIT. Information for MoveIT and digital submissions is available [here](#). For permit related items, file searches, and curation agreements, please continue to contact the appropriate personnel or refer to our [website](#) for further guidance.

**History Colorado**

Events. Exploration. Experiences.

Under the Colorado Open Records Act (CORA), all messages sent by or to me on this state-owned e-mail account may be subject to public disclosure.

**HC#36461_Schwartzwalder Mine – File No. M-1977-300 (AM-5).pdf**

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HISTORY *Colorado*

Amy Eschberger
Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Schwartzwalder Mine – File No. M-1977-300, Colorado Legacy Land, LLC – Amendment
Application (AM-5) (HC#36461)

Dear Ms. Eschberger:

We received your correspondence dated September 10, 2020 on September 15, 2020 initiating consultation with our office in accordance with the Colorado State Register Act (Colorado Revised Statute (CRS) 24-80.1).

A search of the Colorado Cultural Resource Inventory database indicates that one cultural resource inventory has been conducted in or near the proposed permit area, and no properties of historical significance have been recorded therein. Please keep in mind that our files contain incomplete information for this area, as most of Colorado has not yet been inventoried for cultural resources. As a result, there is the possibility that as yet unidentified cultural resources exist within the proposed permit area. Should human remains be discovered during mining activities, the requirements under State law CRS 24-80 part 13 apply and must be followed.

Thank you for the opportunity to comment. If we may be of further assistance, please contact Holly McKee-Huth, Cultural Resource Information/106 Compliance at (303) 866-4670/
holly.mckee@state.co.us.

Sincerely,

Steve Turner, AIA
State Historic Preservation Officer