



March 22, 2023

Chris Hurley
IHC Scott, Inc.
10303 East Dry Creek Rd, Suite 300
Englewood, CO 80112

RE: Rifle Gravel Pit #1, File No. M-2021-052 , 112c Construction Materials Regular Operation – Amended Application AM-1, Adequacy Review-4

Dear Mr. Hurley:

The Division of Reclamation, Mining and Safety (Division) is in the process of reviewing the above referenced application in order to ensure that it adequately satisfies the requirements of the Colorado Land Reclamation Act for the Extraction of Construction Materials (Act) and the associated Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials (Rules). During review of the material submitted, the Division determined that the following issue(s) of concern shall be adequately addressed before the application can be considered for approval.

Comment: In the future, to avoid confusion, rather than creating additional attachments, include documentation within the Exhibits they are required by Rule for.

6.4.1 EXHIBIT A - Legal Description

- 1) Figure 1, Exhibit A is not a USGS topographic map pursuant to Rule 6.4.1(2).
- 2) Figure 1, Exhibit A, also does not contain all the required features per Rule 6.2.1(2) (b), (d) and (e).

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

Comment: All maps other than those in Exhibits A & B need to only convey information for the permit boundary and 200 ft. buffer where applicable. Presenting maps at a significantly smaller scale to depict the entire property boundary or regional information takes away from the information needing to be conveyed.

Comment: Section 4.4 does not correlate to the requirements of Rule 6.4.3. This information is better presented under Exhibit H- Vegetation Information, Rule 6.4.10. The type of vegetation need only be depicted on a map per Rule 6.4.3(e), while the narrative portion and discussions are to be included within Exhibit H.

Comment: Section 4.5 does not correlate to the requirements of Rule 6.4.3, this information is better presented under Exhibit H- Wildlife information, Rule 6.4.8.



- 3) Are there any fences within 200 ft. of the affected lands? If so pursuant to Rule 6.4.3(b) and (g) please include them on Figure 3, Exhibit C1. Also update Table 1 as necessary. Revise Section 4.1 accordingly. Note that structure agreement(s) will also be required.
- 4) Pursuant to 6.4.3(b), a portion of what appears to be the Colorado River may be within 200 ft. of the affected lands, please indicate if this is true. If so label it accordingly on Figure 3, Exhibit C1. Similarly on Figure 3, Exhibit C1 the Colorado River Floodplain Path is included in the legend, but no actual feature is depicted on the map that correlates to the legend.
- 5) Pursuant to 6.4.3(b) and (g), Based on the 200 ft. off set line of Figure 3, Exhibit C1, Interstate 70 appears to be a road/structure within 200 ft. of the affected lands. Update and label Figure 3, Exhibit C1 and Table 1 accordingly. Revise Section 4.1 accordingly.
- 6) Exhibit C maps depict the affected land and permit boundary as the same thing in the legend. Based on descriptions in Exhibit A the permit boundary is 19.63 ac while the affected lands is 19 ac, this is a problem with regards to Rule 6.4.3(d). If these are two different acreages, the maps need to reflect that. I.e. remove the outline around the wetland island and create two distinct legend features for all maps.
- 7) Figure 5 Exhibit C3 –The shading of affected lands make it unclear which vegetation type correlates to the site based on the legend colors. Additionally the supporting pictures (Figures 6-8) depict lands other than a hay/pasture. Please depict vegetation on a smaller scale map that sufficiently characterizes the site pursuant to Rule 6.4.3(e).
- 8) Figure 5, Exhibit C3 does not meet the requirements of Rule 6.2.1(2)(a) and (e). Please include the applicant name and scale on all maps/figures.
- 9) Mining Plan Maps, Figures 9, 10 and 11 Exhibits C4, C5 and C6 are not signed by a registered land surveyor, professional engineer, or other qualified person as required by Rule 6.2.1(2)(b).
- 10) Topography lines presented on Mining Plan Maps, Exhibits C4, C5 and C6 are of the current site conditions only. Where land has been mined in previous phases topography lines should depict the anticipated topography of the affected lands. See Rule 6.4.3(c) and 6.4.6(a).
- 11) Mining Plan Maps, Exhibits C4, C5 and C6. The Mine plan indicates that there will be excess topsoil and overburden required for final reclamation. Please depict these stockpiles on the mining maps. Note, they must be separate stockpiles from the excess material which may be sold and should be stabilized.
- 12) Pursuant to Rule 3.1.5(7) slopes shall be no steeper than a 3H: 1V within 10 feet of the expected water line. Also see adequacy questions in Exhibit D-Mining Plan and Exhibit E- Reclamation Plan. Revise all figures accordingly.
- 13) Section 6.1.1.3 states that piezometers have been installed. Please locate these features on the Mine Plan Map.

6.4.4 EXHIBIT D - Mining Plan

- 14) Rule 6.4.4(e) Clarify if the operation is intended to be an intermittent operation as defined in Section 34-32.5-103(11)(b), C.R.S.,
- 15) Pursuant to Rule 6.4.4(e)(ii) revise table 2 to include total acres of affected land by phase.
- 16) The dates for the timeline in section 5.3 in Exhibit D need to be updated.

Comment: Section 5.1 references that the Rifle Gravel Pit #1 parcel is 58.7 ac. Information regarding the property size is not pertinent and may be confusing if the actual permit size and affected lands acreage is not referenced.

- 17) Section 5.2.1.1 states "These berms will be placed at the inside edge of a 25-foot setback from the property line." The Property is 58.7 ac. The proposed permit is only 19.63 ac, of which only 19 will be affected. Please reword the paragraph to make it clear that only land within the permit boundary and affected lands boundary will be disturbed through the creation of these berms.
- 18) Section 5.2.1.1 States that topsoil and overburden will be stripped to build the perimeter berms.
 - a) Will the entire 19 acres be stripped all at once to build the perimeter berms or will the site be stripped in phases, Rule 6.4.4(d)?
 - b) State within the mine plan the number of acres proposed to become the perimeter berm per Rule 6.4.4(d).
- 19) Similarly in section 5.2.1.2 volumes for stripped topsoil and overburden are provided. Explicitly state in the mining plan the number of acres for which each commodity (topsoil and overburden) will be stripped (by phase). Thus justifying the volumes of excess material not necessary for reclamation which may be eligible for sale, Rule 6.4.4(e).
- 20) Section 5.2.1.2 states that earthwork volume calculations are provided in Figure 14, Exhibit E2. Figure 14 is Exhibit E1 and Figure 15 is Exhibit E2. Please correct citation.
- 21) At what phase will the processing and stockpile areas be constructed? Please state within the mine plan the acreages associated with each of these areas, Rule 6.4.4(e).
- 22) Section 5.2.2.1 briefly mentions that secondary containment structures will be installed for fueling. Please expand on this by describing the maximum anticipated quantities of hazardous materials (including hydrocarbons-fuel) stored on site, their storage location(s) and storage methods. Clearly label all hazardous materials storage location(s) on your mining map(s). Provide a general description of storage and fueling practices to prevent spills and protect the hydrologic balance. Also commit to complying with Rule 3.1.13 if a spill on site should occur.
- 23) In section 5.2.3 the total acres/area to be affected during each phase is unclear. When the site is 100% worked only 10.43 is affected. Better explain when and how the other 8.57 acres will be affected. This should correlate to the information provided in Figure 15 Exhibit E2.
- 24) Section 5.2.3.1 states that mined material will be sufficiently dewatered after 24-hrs so to not cause depletions to the water table. Provide documentation demonstrating that mined material will be sufficiently dried as to not cause depletions (i.e. weather will influence the dewater rate). What sort of testing will take place to ensure material is handled properly? See additional adequacy question within Exhibit G. This information may also be provided under Exhibit G to ensure that no depletions occur pursuant to Rule 3.1.6 and 6.4.7.
- 25) Per Rule 6.4.4(a) and (c) When mining is approaching 100% of phase 3, where/ how will material be dewatered when mining occurs within the stockpile area?
- 26) Washing of material is briefly mentioned in section 5.2.3.1. How will mining occur in a way to avoid sedimentation if no sediment/discharge pond is being constructed? Briefly explain in exhibit D, then in more detail sources of water and discharges of sediment laden water within Exhibit G?

- 27) Section 5.2.3.1 states “pit slopes to the bottom of pond will be approximately 3:1; not to exceed 2:1”. Pursuant to Rule 3.1.5(7) slopes shall be no steeper than a 3H: 1V, 5 feet above the water and 10 feet below the expected water line. Please revise the sloping to only allow 3H: 1V slopes for the first 10 feet below the expected water line. Slopes below 10 feet of the expected water line may be a 2H: 1V. Update all other applicable exhibits and figures as necessary.
- 28) Section 5.2.8 states “Reclamation will proceed in concert with excavation.” If excavated areas are inundated, how will the Operator ensure that slopes are reclaimed to the proper grade if they cannot be visually inspected, per Rule 3.1.5(7)? Ensuring proper sloping of mine highwalls shall also be discussed under Exhibit E- Reclamation Plan.

6.4.5 EXHIBIT E - Reclamation Plan

- 29) Section 6.0 states that all temporary structures will be removed. Will any permanent features be installed and thus left post mining?
- 30) Section 6.1 states “~12.56 acres of pond will be present post-mining” while Figure 14, Exhibit E1 and Figure 15, Exhibit E2 state that water surface area will only be 9.55 ac +/- 0.7 ac. Please explain this difference or update accordingly so that information is consistently presented throughout the application.

Comment: Figure 14 Exhibit E1 is the Reclamation Plan Map and therefore it need only be included under Exhibit F.

- 31) On Table 2 Wetland Seeding and Planting Mix of Figure 15, Exhibit E2, is the container size specified listed under the variety? Ex. 60 in³ for coyote willow. If not please specify the container size by species to be planted at the spacing indicated per Rule 6.4.5(2)(f)(iv).

Comment: Section 6.1.1.2 Water requirements and Section 6.1.1.3 Groundwater, speaks to specifically address the requirements of Rule 3.1.6 and 3.1.7. This information is better presented under Exhibit G, Water Information, rather than the Reclamation Plan.

Comment: Section 6.1.1.4 Wildlife, speaks to specifically address the requirements of Rule 3.1.8. This information is better presented under Exhibit H, Wildlife, rather than the Reclamation Plan.

- 32) Section 6.1.1.3 states that piezometers have been installed. Please address the reclamation of these features within Exhibit E. A line item for these features should also be included under Exhibit L- Reclamation Cost Estimate.
- 33) Section 6.1.1.5 states stockpiled topsoil and overburden areas are depicted in Figure 9, Exhibit C4 and Figure 10, Exhibit C5. Specific stockpiles to be used for reclamation purposes are not depicted on these maps. Also as noted in questions within the Exhibit D-Mine Plan, stockpiles for reclamation purposes need to be stored and stabilized separate from those stockpiles for which are salable commodities. Per Rule 6.4.5(2)(d) please commit to keeping topsoil and overburden necessary for reclamation of the mine separate from excess salable material.
- 34) Pursuant to Rule 3.1.5(7) slopes shall be no steeper than a 3H: 1V, 5 feet above the water and 10 feet below the expected water line. The wetland fringe area is only 6-foot wide. Slopes are proposed to be 3H: 1V but shall be no steeper than 2H: 1V. Please revise the sloping to only allow 3H: 1V slopes for the first 10 feet below the expected water line. Slopes below 10 feet of the expected water line may be a 2H: 1V. Update all other applicable exhibits and figures as necessary.

- 35) Given the seasonal viability and arid nature of Rifle Colorado, the Division would suggest that minimum of one additional grass and one additional shrub/forb species be added to the upland mix of Figure 15, Exhibit E2 (and Section 6.1.1.6) to increase diversity and overall chances for sustainability, pursuant to Rule 3.1.10.
- 36) Per Rule 6.4.5(2)(e)(i), (ii) and (iii), Provide a plan or schedule indicating how and when reclamation will be implemented. This plan shall be included within Exhibit E- Reclamation Plan.
- a) This estimate shall be specific to the various stages or phase of reclamation (ripping, topsoil application, seeding, etc.).
 - b) Include a description of the size and location of each area to be reclaimed during each mining phase. What is the maximum area requiring various stages of reclamation at any given time (think for bonding, max liability on site).
 - c) State within each mining stage the number of acres associated with each reclamation land type. Site wide information has been provided on Figure 15.
 - d) Outline which tasks within each mining phase can be completed immediately after completion of mining and which tasks are associated with project completion and will remain until the entire site is reclaimed.
- 37) Similar to the previous question. Section 6.6 states that seeding plans will occur by mining phases. Is this all of phase 3, 100% mined phase? Or within phase 3 at the 30%, 60% and 100% mined phase?
- a) If contemporaneous reclamation, will topsoil and seeding occur at intervals less than phase 3, 100% mined?
 - b) Please specify the maximum number of acres for each seed mix to be utilized at any given time.
- 38) Section 6.1.1.1 if reclamation will be conducted concurrently with mining. What is the maximum slope that is ungraded and requires revegetation? Or state by C.Y. the maximum amount of grading to be required at any given point in addition to topsoil application. Please include a line item for this incidental grading within Exhibit L- Reclamation Cost Estimate.
- 39) Clarify if mulch will be applied to both the wetlands and upland areas?
- 40) Based on adequacy response #32, mulch will be applied hydraulically. Please explicitly state the mulching application method utilized within section 6.1.1.6 where the mulching rates are provided, pursuant to Rule 6.4.5(2).
- 41) Adequacy response to question 25 review states that the operations are will not be reclaimed, rather it will be used for long term equipment storage. However section 6.6.1 states that the Operations Area will be reclaimed. Pursuant to Rule 6.4.5(2)(a) will the Operations Area be reclaimed to upland or will it remain stabilized with gravel post reclamation?
- 42) Please clarify the size of the Operations Area. The Mine Plan Figures 9 and 10, Exhibits C4 and C5, state that the Operation Area is 1.93 acres while section 6.6.1 states that 6.5 acres of the Operation Area will be reclaimed to upland (in addition to the 2.87 acres for upland berms). Please explain the difference in size or correct figure(s) as necessary.
- 43) Section 6.1.1.1 states that no structural fill will be imported for reclamation, while section 6.3.1 states if necessary, additional spoils will be used to fill part of the pond. Please commit to

revising the mining and/or reclamation plan(s) through the technical revision process if in the future, the need to import outside material because necessary to complete reclamation.

- 44) The Division disagrees that because the site is being wet mined there is no need for decompaction. Slopes/banks will be compacted while excavations occur and therefore should be decompacted prior to topsoil application. Similarly if the Operations area is to be reclaimed it too shall be decompacted. Please revise the reclamation plan to commit to decompacting all affected lands prior to topsoil application and seeding per Rule 6.4.5(2)(d).

6.4.6 EXHIBIT F - Reclamation Plan Map

- 45) Figure 14 Exhibit E1 is the Reclamation Plan Map and therefore should be included under Exhibit F, not Exhibit E.
- 46) Figure 14, Exhibit E1 does not state or depict the 5H: 1V slopes associated with the wetland fringe areas, pursuant to Rule 6.4.6(a).
- 47) Figure 14, Exhibit E1 does not state or depict which areas will be reclaimed to upland areas. Only the berms (2.87 ac) are noted as be revegetated, but not what type. Additionally per the reclamation plan and Figure 15 Exhibit E2, 6.5 acres are to be reclaimed as upland. Please shade or otherwise note which areas will receive upland revegetation, per Rule 6.4.6(b).
- 48) Figure 14 Exhibit E1, the legend does not specifically relate to reclamation of the affected lands. Legend describes other land types/features not related to the reclamation treatments of the affected lands. Per Rule 6.4.6(b) revise the legend to sufficiently portray the proposed final land use for each portion of the affected lands.
- 49) Reclamation Plan Map (Figure 14, Exhibit E1) is not signed as required by Rule 6.2.1(b).

6.4.7 EXHIBIT G - Water Information

- 50) Explicitly state if the mining operation is expected or not expected to directly affect surface or groundwater systems, Rule 6.4.7 (1) or (2).
- 51) Commit to providing the Division with all necessary water rights documentation for mining and reclamation once it becomes available.
- a) The adequacy response #36 stated that per Section 8.3 it a Substitute Water Supply Plan (SWSP) was filed on June 13, 2022. However this language is not actually contained within the revised Exhibit G section 8.3. Neither is language stating that a Gravel Well Pond Permit has been applied for. Please correct the narrative language and include application documentation for both permits until such time the permit is issued.
- b) Note that pursuant to Rule 3.1.5(9) The Operator shall maintain a Financial Warranty at all times adequate to cover the cost to stabilize and cover any exposed backfilled material. Meaning that if groundwater is exposed prior to obtaining water rights the Division will bond for the importation of sufficient material to backfill all exposed ground water.
- 52) Per Rule 6.4.7(2)(c) Submit a brief statement or plan showing how water from de-watering operations or from runoff from disturbed areas, piled material and operating surfaces will be managed to protect against pollution of either surface or groundwater (and, where applicable, control pollution in a manner that is consistent with water quality discharge permits), both during and after the operation.

- 53) Section 8.5 of the application discusses water management and the potential for incidental run-off at the site. Please expand the discussion on what types of BMPs are going to be employed at the site. Demonstrate how water will be managed to protect against pollution of either surface or groundwater per Rule 6.4.7(2)(c).
- a) Figure 13 Exhibit D2 (Sheet 9 Erosion Control Plan) depicts straw waddles being installed around the northwest affected land boundary. No discussion is provided as to when they will be installed.
 - b) Will any other BMP's be utilized? If so state the type, when and where they will be utilized.
- 54) Pursuant to Rule 3.1.6 and 6.4.7, explain in more detail, water lost with mined aggregate in section 8.6.2. Under what conditions is water depletions 4% of the production rate? Provide documentation from DWR-SEO that is consistent with statements in Section 5.2.3.1 of the Mining Plan that state material is sufficiently dewatered after being stockpiled for 24 hours.
- 55) Per Rule 6.4.7(5) confirm if you have already applied for a NPDES permit.
- 56) Washing of material is briefly mentioned in section 5.2.3.1 of the Mining Plan. Please identify within Exhibit G the source of process water per Rule 6.4.7(3).
- 57) If not fully addressed under Exhibit D - Mine Plan, describe how material will be washed and water will be protected from sedimentation if no sediment/ discharge pond is constructed, Rule 3.1.6?
- 58) Section 6.1.1.3 states that piezometers have been installed. Please describe the details of these features within Exhibit G and locate these features on Figure 16, Exhibit G- Water Information.

6.4.8 EXHIBIT H - Wildlife Information

Comment: All wildlife discussion presented in Section 4.5 should be included within Exhibit H to fully address the requirements of Rule 6.4.8(1)(c).

- 59) Section 9.3, is an extremely simplified list of game and non-game resources on and in the vicinity of the application area. Specifically Figure 20, Exhibit H4 Osprey Range is included in within this exhibit, however Osprey was not included as a species. Please revise section 9.3 to provide a more comprehensive list of game and non-game resources pursuant to Rule 6.4.8(1).

6.4.10 EXHIBIT J - Vegetation Information

Comment: The narrative portion of the vegetation information presented in Section 4.4 should be presented under Exhibit H- Vegetation Information, to address the requirements of Rule 6.4.10.

6.4.11 EXHIBIT L - Reclamation Costs

- 60) Figure 15, Exhibit E2 states that 6.5 acres will receive upland reclamation in addition to the 2.87 ac of berms. Exhibit L only accounts for 2.87 ac of the berms being reclaimed to upland. Please include a task item for the remaining 6.5 ac that are to be reclaimed to upland.
- 61) Also include a task for any overburden and the required topsoil replacement of the 6.5 ac uplands area.

- 62) Include a task for ripping/decompaction of affected lands prior to topsoil application. See the associated adequacy item in Exhibit E.
- 63) Per the Mining Plan slopes will be graded while mining. Based on the reclamation plan please include incidental grading of slopes within the cost estimate.
- a) The incidental grading for the wetlands shelf is only enough material to apply 6" of topsoil over the 0.70 ac, no additional grading of pond slopes was included.
- 64) Section 6.1.1.3 states that piezometers have been installed. Please include a task for the reclamation these features under Exhibit L- Reclamation Cost Estimate.

6.4.13 EXHIBIT M - Other Permits and Licenses

- 65) Please include all applications or issued water rights to support this project. I.e. SWSP, decree, Gravel Well Pond Permit

6.4.17 EXHIBIT Q - Proof of Mailing of Notices to Board of County Commissioners and Soil Conservation District

- 66) Attachment D has two mailings to Glenwood Springs and one to Silt. What is the USPS mailing to Glenwood Springs for? It's assumed that the USPS tracking for Silt is the Soil Conservation District. A FedEx Tracking was provided for Garfield BOCC. Unsure what the third mailing receipt would be for under the requirements of Rule 6.4.17.

6.4.19 EXHIBIT S - Permanent Man-made Structures

- 67) CDOT structure agreement is for a previous application (wrong permit number) and is not an original. Please submit an updated structure agreement with original notary signatures. *Note, given the time deadline a revised engineering evaluation may be more expedient in the meantime. Submit proof a new agreement was attempted and then a revised engineering evaluation which includes I-70 and CR 346.

6.5 GEOTECHNICAL STABILITY EXHIBIT

- 68) The Geotechnical Stability Analysis failed to address all of the structures for which a completed damage compensation agreements were absent. An evaluation needs to be included for CDOT features until updated agreement can be obtained.
- 69) Information presented within Figure 1 and 2 is illegible and failed to provide appropriate engineering evaluations for which each structure would not be damaged by the activities of the proposed operation, pursuant to 6.3.12(b).
- 70) Explicitly state the highwall height, slope gradients and the distance from which mining can occur from a feature while maintaining the specified FOS.
- a) Note that both CDOT roads and the URSA gas and water lines are considered critical structures and a FOS of 1.5 or higher is required.

71) Does the engineering evaluation model take into account that slopes will be wet mined and will remain inundated throughout life of mine. If so please explicitly state this was accounted for in the modeling.

1.6.2 Public Notice

72) Include documentation that a sign was posted as required by Rule 1.6.2(1)(b)

Please submit your response(s) to the above listed issue(s) by **Friday, April 21, 2023** in order to allow the Division sufficient time for review. The decision date for your application is scheduled for **April 29, 2023**.

The Division will continue to review your application and will contact you if additional information is needed. If you require additional information, or have questions or concerns, please feel free to contact me.

Sincerely,



Amy Yeldell
Environmental Protection Specialist

Cc:
Travis Marshall, Senior EPS, DRMS
Tony Roberts, IHC Scott, Inc.