STATE OF COLORADO

Reilley - DNR, Robin <robin.reilley@state.co.us>

Preliminary Adequacy PR12

1 message

Reilley - DNR, Robin <robin.reilley@state.co.us> Mon, Dec 9, 2024 at 9:10 AM
To: Graham Roberts <graham.roberts@trappermine.com>, Robin Reilley - DNR <robin.reilley@state.co.us>

The Good Morning Mr. Roberts,

Please find DRMS's adequacy questions for PR12.

The proposed decision due date is 13 February 2025. If you would be so kind as to please submit responses to adequacy by 15 January 2025 in order to allow ample time for DRMS to review and respond. Also, I am happy to discuss and resolve any minor issues over the phone.

Thank you

Robin Reilley, M.S. GISP
Environmental Protection Specialist II

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ADQ_Trapper_PR12.pdf
441K

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

Graham Roberts
Trapper Mining Inc.
P.O. Box 187
Craig, CO 81626

9 December 2024

Re: Trapper Mine Inc; Permit C1981010
DRMS Preliminary Adequacy Review of Permit Revision No. 12 (PR12)

Dear Mr. Roberts:

The Division has completed its preliminary review of Trapper Mine' s permit revision Permit Revision No. 12, PR12 received by the Division on 10 October 2024 via electronic submission. DRMS found the proposed revision complete on 16 October 2024. The preliminary AVS check completed on 5 December revealed no issues. The proposed decision due date is 13 February 2025, 60 days from completeness. Please submit responses to adequacy by 15 January 2025 in order to allow ample time for DRMS to review and respond.

Please see the Division's questions below regarding the applications compliance with the following Rules.

2.03	2.04.	2.05	2.06	2.10	3.0
4.03	4.05	4.08	4.16	4.27	4.27

Adequacy questions below are numbered and in italics.

DRMS December 2024
Rule: 2.03

- Trapper Mine (TMI) provided proof of publication
- DRMS performed and AVS check on 5 December and found the Trapper permit to be in good standing, with no suspensions or revocations.
- Trappper's Insurance is valid through 1 January 2025.
- Trapper Mine's public notice appeared in the Craig Daily Press beginning on 23 October 2024 and ran through 22 November 2024

DRMS finds that TMI **adequatly addressed** the above referenced rule.

Rule: 2.04.4 Cultural and Historic
Adequate, on 25 October DRMS received from History Colorado with a finding of no adverse effects to historic properties.

Rule: 2.05.3(4) Ponds
New ponds were constructed in the Buzzard drainage. As builts, and hydrologic modeling for capacity and sedimentology were submitted with the application. The new ponds West Buzzard #4 and East Buzzard #3 are slated for removal upon final reclamation with West Buzzard #3 remaining as a permanent pond.

The above rule was **adequately addressed** with the required maps, design and modelling submitted with the application.

Rule 2.06.5 AOC Variance
TMI in PR9 requested a variance from AOC. This was revisited in the PR12 submission, basically moving the PR9 topographic variance (drainage) to the east while maintaining overall topography as per PR9. TMI submitted Appendix B with included Attachment 2 detailing surface hydrology impacts in the AOC variance area demonstrating watershed improvements and reductions in flood hazard and total suspended solids. *Attachment 3* demonstrates that the surface owner requested granting the variance.

1. *DRMS does not find Attachment 3 in the submitted documentation. Please, resubmit Attachment 3.*

Rule 2.10: Maps and Plans
DRMS finds that maps submitted are **adequate.**
As builts as for the new Buzzard Ponds could be more specific. Please see Rule4.05 below.

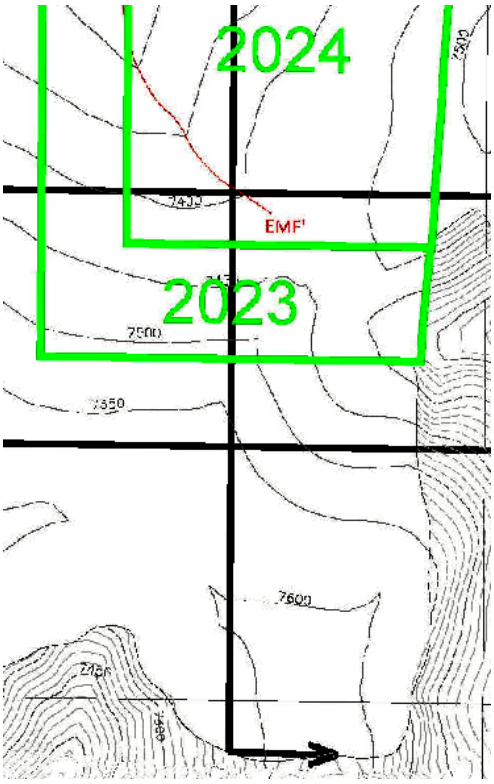
Rule 3.02: Performance Bond
No new acres of disturbance or change in bond is proposed with this permit revision. DRMS finds that the current bond held is adequate. The above rule is **adequately addressed.**

Rule 4.03: Roads
DRMS finds the updated maps submitted for PR12 are **adequate.**

Rule 4.05.4 Stream Channel Reconstruction
For the N Pit DRMS notes additional constructed drainages added at the east end of the pit and drainage expansions along the south edge of the pit. The drainages transmit runoff to the East Pyeatt System. The drainage profile submitted with the application indicates that the East Pyeatt

post mining drainage flows overall at a deeper/lower elevation than premining. Please indicate what situation the lower elevation profile addresses.

2. *To what extend is there possibly a shortage of fill for the slopes?*



In L Pit for the Middle Flume drainage DRMS notes a more uniform gradient with fewer pooling characteristics for the Middle Flume drainage than the premine gradient. DRMS also notes the removal of the following PR11 drainages routed to East Middle Flume drainage:

- EMF3
- EMF2
- EMF1

Removing the above drainages possibly puts additional runoff pressure on Middle Flume #3 Pond that previously was routed to East Middle Flume.

Also noted was rerouting of the following:

EMF from near the top (south end of the pit) at 7550 feet in elevation (PR11) to the east edge of the pit at an approximate elevation of 7425 (PR12), with no constructed routing of runoff over 200 feet of elevation and over a distance of 500 meters (0.30 miles) as illustrated at left. Topography on the PR12 map, suggests that additional routing in the south portion of the watershed could mitigate the potential for erosional features developing at the top of the watershed.

3. *Please discuss Trappers rational for not constructing routing at the upper section of the subwatershed.*

In the *Watershed Improvement Analysis* performed by Agapito DRMS notes some differences in pre mine drainage densities on Table 4 of the report and is unsure if these differences are typographical errors or attributable to something else.

4. *Please explain or correct if necessary the pre mine drainage density difference for East Flume in Table 4 of the report between PR11 and PR12.*

Rule: 4.05.6 Ponds and 4.05.9: Impoundments
SedCad modeling indicated that spillway design (Rule 4.05.9) and pond capacities and sediment storage for the Buzzard Ponds both the 10 year 24 hour and the 25 year 24 hour event (Rule 4.05.9) were adequate.

As built for West Buzzard #3 Pond indicates a principal spillway at 6,269 foot elevation. Modelling indicates two emergency spillways for the pond as does Table 4-186a. Designs submitted with PR11 were more thorough in detailing design information.

5. *Please provide additional detailed design information for West Buzzard #3 and #4 ponds utilizing the PR 11 submissions as examples.*

DRMS notes that the watershed areas for both East Middle Flume and Middle Flume drainages increased by 70 and 100 plus acres respectively from the PR11 analysis. DRMS notes that East Middle Flume drainage and pond will receive the bulk of runoff at the initial backfill and grading (Phase I) when Phase I eventually occurs. DRMS has concerns regarding the adequacy of the various ponds capacities to retain runoff and sediment during worst case bond runoff from a recently backfilled and graded L Pit.

The increase in watershed acres for Middle Flume and East Middle Flume appear to DRMS to be a function of the new variance for AOC requested in PR12 that shifted watershed boundaries. As the Agapito report appears to address modelling for a Phase III scenario hydrologic modelling for Appendix Q Sections XXXII, and XXXIII may be prudent for describing the worst case scenario of a recently backfilled and graded L Pit. Also, the original modeling for East Pyeatt may not take into account the upcoming worst case scenario associated with the current mine plan.

6. *Please consider updating modelling for East Pyeatt, East Middle Flume and Middle Flume ponds addressing the worst case scenario stage of the mine plan.*

Rule 4.08.5(17): Use of Explosives Seismographic Measurements.
Since 2015 Trapper monitored the blasts at the south end of the L Pit with a seismograph in order to protect archeological site 5MF948. Now that blasting has moved considerably to the north in the pit Trapper requests the removal of monitoring requirements for the arch site. Agapito associates, Inc proposed mitigation when within 1,230 feet of the site. Also recommended were maintaining blasts below a maximum PPV threshold of 2 inches per second. Trapper maintained the annual seismograph calibration as required. Trapper submitted data indicating the highest seismic measurements recorded at the site. On two instances the PPV was exceeded. Currently blasting operations are moving north, away from the arch site and occur in excess of 2,400feet from the site. Going forward blasting operations will continue to move north away from the site.

Five of the highest readings occurred in late summer 2019 and 2020. Two recorded events exceeded 1 inch/second and no events were recorded near or above the 2 inch/second threshold proposed in the Agapito study.

DRMS considers it reasonable to discontinue the seismograph monitoring for arch site 5MF948 at the south end of the L Pit. This topic is **adequately addressed**.

Rule 4.16: Reclamation
DRMS finds the reclamation plan and post mining land use appropriate with respect to the AOC variance. The above mentioned rule is **adequately addressed.**

Rule 4.27.3: Stability Analysis: N Pit Highwall Mining
N Pit Highwall Mining
DRMS understands that all higwalls will be completely eliminated/backfilled upon final reclamation. DRMS reviewed the provided highwall engineering report, "Inwall HWM Sequence Analysis Proposed for N Pit" (Report), conducted by Agapito Associates, Inc. on behalf of Trapper Mining Inc. regarding a proposed highwall mining operation located in the N-Pit of the Trapper Mine.

It appears to the Division that for the N Pit 's new highwall mining scenario an average depth value was used for both the M and Q seams within their highwall pillar design analysis.

7. *With the proposed highwall pillar design dependent on the depth of cover, please provide a justification for using the specific depth of cover for each seam with a statement explaining why they believe these values to be conservative enough to be used in their design.*

L Pit Mining:
Stability safety factors appear conservative. The above mentioned rule is **adequately addressed**.

Rule 4.27.4: AOC and variance 2.06.4
Ash Pit AOC Variance
Crossections provided (Map M14A) indicate shallower reclaimed slopes for the Ash Pit with average post mine gradients less than premining gradients. The watershed improvements (Johnson Gulch), indicate sediment yield post mining to be less than pre mining conditions. The Ash Pit Variance appears **adequately addressed** with the *exception* of landowner concurrence. referenced in *Attachment 3*.

8. *Please direct DRMS to letters indicating landowner concurrence or submit as Attachment 3.*

L Pit AOC Variance

Crossections provided (Map M14A) indicate shallower reclaimed slopes for the L Pit with average post mine gradients less than premining gradients. The watershed improvements (Flume Gulch), indicate sediment yield post mining to be less than pre mining conditions. The L Pit Variance appears **adequately addressed** with the *exception* of landowner concurrence.

DRMS has no further questions regarding the above mentioned permitting action.

Sincerely,

Robin Reilley, M.S. GISP
Environmental Protection Specialist II
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