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April 17, 2018

Leighandra Keeven, Geologist
Bureau of Land Management
Las Cruces District Office
1800 Marquess Street
Las Cruces, NM 88005

Subject: Copper Flat Administrative Final Environmental Impact Statement

Dear Miss Keeven:

The Surface Water Quality Bureau ("SWQB") of the New Mexico Environment Department ("NMED") appreciates the opportunity to provide review and comment on the above-titled document. Through a memorandum of understanding between NMED and the Bureau of Land Management ("BLM"), NMED is listed as a cooperating agency on this Administrative Final Environmental Impact Statement ("EIS") for the Copper Flat Mine ("CFM") and therefore provides the following comments:

- 1) The SWQB concurs that proper storage (minimizing run off to surface waters) of overburden, waste rock piles, and low-grade ore during and after mine life are crucial to protecting surface water quality. Since much of these matrices are to be on BLM lands and since the mine could be subject to unexpected closures, it is important that these storage facilities are developed at the start of CFM life to protect surface water quality according to 20.6.4.6 and 20.6.4.7 S(5) New Mexico Administrative Code ("NMAC").
- 2) Section 2-6 states the Greyback Arroyo, the watercourse altered through previous mining operations by Quintana Resources, is not to be altered further excepting remediation of existing waste rock piles and roads that need removal at mine closure. CFM operations should provide a demonstration of protections afforded to surface waters in Greyback during mine life. Section 2.1.15.10, the "Interim Management Plan" and section 2.1.15.13 indicate measures to isolate waste rock leachates during unplanned or temporary closures. These measures need to include (or emphasize) consideration of any water/stormwater discharges to Greyback Arroyo.

- 3) In section 2.1.11 of the EIS, fencing and other exclusions of livestock and wildlife are discussed and may preclude some wildlife uses at the pit lake. However, these measures would likely not exclude waterfowl and other avian species; smaller vertebrate species, such as amphibians, reptiles and mammals; and insects. Potential barriers to avians are noted but not with detail about which methodologies would be employed, or the extent to which these structures would be maintained, and for how long, after mine closure.
- 4) The BLM has determined that the current and future mine pit lake will be wholly on patented mine claims, and thus private land. Pages 2-46 and 2-47 state that “because the mine pit lake is privately owned...and a hydrologic sink, [CFM pit lake] water is neither a water of the state, nor a water of the U.S. and would not be required to meet state surface water quality standards [20.6.4 NMAC]”. It is also stated that the pit lake water quality, since it is not a water of the state, would meet permit conditions imposed by New Mexico Mining and Mineral Division (“MMD”), based on 19.10.6.603 NMAC, which states the water quality will be similar to what existed prior to the start of mining operations. In accordance with 20.6.4.7 S(5) NMAC, a “...water of the state does not include private waters that do not combine with other surface or subsurface water...”. The determination that the pit lake will respond as a hydrologic sink through variable site conditions over time is subject to continued monitoring and verification. The SWQB feels it premature to assert jurisdiction of the waters within the mine pit lake until such a time to which the New Mexico Environment Department has been provided sufficient information to support a determination. The SWQB requests language reflecting conditions for both scenarios; that in which the water is deemed to be private and does not combine with other surface or subsurface water, and that in which it does.
- 5) More detail is needed regarding the existing waste rock pile “west of the pit” [pg. 2-46] which is to be “reclaimed such that the western portion of the pit perimeter would be graded to drain away from the pit into a proposed toe channel that drains to Greyback Arroyo diversion”. Pending specifics for reclamation of the waste rock pile such as the use of native soil for capping, run-off and leachate from the reclaimed areas pose a direct threat to the surface water quality of Greyback Arroyo, which is protected under the State’s Standards for Interstate and Intrastate Surface Waters. The SWQB requests the EIS address how the reclamation plans to address protections of the water quality of Greyback Arroyo.
- 6) The EIS states that “during operations...NMCC would periodically update geochemical and hydrologic prediction models to incorporate new information to minimize impacts to wildlife”. Further, that the protection and other mitigation to protect birds may include investigations of other measures “to the extent practicable”. SWQB would like to clarify that incorporation of new information into the models would then lead to on-the-ground actions to minimize impacts to wildlife. Also, the SWQB would like to see the EIS address actions proposed to eliminate or severely reduce exposure to wildlife from stormwater leachates collected from low-grade reactive ore.

- 7) Section 3.4, "Water Quality" [pg. 3-21] states that characterization of the affected environment for water quality is pertinent for several reasons and that defining baseline water quality will be essential for assessing whether post-mine water quality has been degraded. While the SWQB recognizes this element is required in accordance with 19.10.6.603 NMAC, it does not supersede the water quality standards afforded to any water of the state, such as Greyback Arroyo. The EIS acknowledges this but notes that surface water in Greyback Arroyo is subject to ephemeral water quality standards. As an unclassified water of the state, the intermittent water quality standards under 20.6.4.98 NMAC apply to Greyback Arroyo until a hydrology protocol ("HP") survey and a Use Attainability Analysis ("UAA") are conducted and approved by the WQCC and EPA in accordance 20.6.4.15 NMAC. The SWQB requests language be changed to accurately reflect the current protections afforded to Greyback Arroyo as intermittent.
- 8) The SWQB requests that the environmental and ecological impacts to nearby watersheds associated with draw down during mine operation and post-closure rapid fill of the pit be addressed; specifically, those within the Percha and Animas creeks.

Again, thank you for this opportunity to comment on the BLM's Administrative Final EIS for the Copper Flat Mine. If you have any questions, please contact me by email at shelly.lemon@state.nm.us, or Bryan Dail by email at bryan.dail@state.nm.us.

Sincerely,



Shelly Lemon, Chief
Surface Water Quality Bureau
New Mexico Environment Department

Cc: Andrew Knight, Office of General Counsel, NMED (via email)
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