State of New Mexico
Energy, Minerals and Natural Resources Department

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Fernando Martinez, Division Director
Mining and Minerals Division

April 21, 2017

Ms. Katie Emmer
New Mexico Copper Corporation
4253 Montgomery Blvd NE, Suite 130
Albuquerque, NM 87109

Re: Technical Comments on Updated Mining Operation and Reclamation Plan (MORP), Copper Flat Mine, Sierra County, Permit Tracking No. SI027RN

Dear Ms. Emmer,

The Mining and Minerals Division ("MMD") received the *Updated Mining Operation and Reclamation Plan* ("Updated MORP"), dated October 2016, submitted by New Mexico Copper Corporation ("NMCC") as a replacement of the *Mining Operation and Reclamation Plan*, dated July 18, 2012 ("Original MORP"). The Updated MORP is submitted as part of the overall Permit Application Package for the Copper Flat Mine.

In accordance with §19.10.6.605.C NMAC, MMD requested comments on the Updated MORP from the New Mexico Environment Department, New Mexico Department of Game and Fish, New Mexico State Forestry, New Mexico Office of the State Engineer, New Mexico Historic Preservation Division, and the Bureau of Land Management. Comments from the cooperating agencies are attached with this letter and shall be addressed in writing by NMCC.

In addition to the comments from the cooperating agencies, MMD has the following technical comments on the Updated MORP that shall be addressed in writing by NMCC:

1. Page 2-6, second paragraph, states that "there may be some additional acreage disturbance on lands outside the permit area boundary related to ancillary facilities such as the well field, the substation and power line, and the water pipeline."

The permit area under MMD's consideration is comprised of the boundary around the project (i.e., the pit, plant site, waste rock disposal facilities and tailings impoundment), the water well production field, the water pipeline corridor, and the various 5-acre mill site claims. The only related area not being considered a part of the Copper Flat permit area is the proposed electrical substation and associated power line due to anticipated ownership by the electrical company post-mining. The permit area being considered by MMD is best reflected in Figure 2-20 of the Updated MORP, with the exception of the proposed substation area. Under the Mining Act, only disturbance within the permit area is allowed, and any additional disturbance outside the permit area boundary could result in MMD issuing a notice of violation. Please commit to disturbance only within the permit area boundary applied for by NMCC.

2. Figure 2-14, page 2-25: the reclamation of the stormwater conveyance channel generally east and south of WRSP-3 that drains to Impacted Stormwater Impoundment C is not described.

This channel is not shown on Figures C-009 and C-010 making it difficult to compare and contrast what happens to this channel during reclamation. However, during an informal conversation with NMCC on the Updated MORP on February 15, 2017, NMCC stated that the push-down of WRSP-3 during reclamation likely covers this conveyance channel. Upon additional review, it appears this could be the case for portions of the conveyance channel, but not the entirety of the conveyance channel, especially north and south of Impoundment C. Additionally, it appears that the proposed footprint of GMSP-3 during operation may overlap with portions of this conveyance channel based on Figure C-009. Please clarify the proposed location of this conveyance channel relative to GMSP-3 and describe how this channel will be reclaimed.

3. Page 2-54, Wildlife Impacts Contingency Plan: This section does not adequately describe a contingency plan if there is an emergency or accidental discharge of toxic substances that may impact wildlife. This section states that a Spill Prevention, Control and Countermeasure ("SPCC") plan will provide contingencies to mitigate potential impacts for an accidental release. Please either provide the SPCC for MMD's review or excerpt portions of the SPCC describing how wildlife impacts will be mitigated upon an accidental release of toxic substances.

Appendix E – Mine Reclamation and Closure Plan

4. NMCC has proposed a bench-and-terrace design for waste rock stockpile reclamation. In previous comments on the Original MORP, dated February 18, 2013, MMD requested:

a. a description of the different reclamation alternatives considered and how the proposed reclamation plan was developed and designed using the most appropriate technology;

b. a description about the use of geomorphic reclamation techniques and how they might be integrated into the reclamation plan for the waste rock piles and the tailings.

Pursuant to the performance standards and requirements of §19.10.6.603.A NMAC, please provide this requested information.

5. Table E1 proposes two small detention basins at the base of EWRSP-1, and Section 2.1.2 further describes the detention basins. No details on the anticipated depth of these basins or anticipated storage volume is provided. These basins seem unlikely to provide wildlife or riparian habitat since it is likely that any water conveyed to these basins would be ephemeral. However, these basins may inadvertently allow infiltration which could facilitate an acid water seep on the pit wall and/or eventually weaken the pit wall to the point of failure. This is acknowledged as a possibility in Section 2.1.2 of the Updated MORP, which proposes to compact the soils at the bottom of the basins to minimize percolation. MMD suggests consolidation of waste rock at the southern tail to EWRSP-1 or rerouting stormwater so that these basins are unnecessary. Please address.

6. Table E1 and Appendix E2 propose a 1% top surface reclamation slope on the tailing storage facility, which is reiterated in Section 2.3.2 on page 15. However Figure C-012 shows a 0.5% top surface slope at reclamation. MMD's previous letter on the Original MORP, dated February 18, 2013, required a minimum of 1% slope. Please address.

7. Table E1 describes an assumed 100-foot wide disturbance around the open pit that will be ripped and revegetated. This assumed disturbance and reclamation is not portrayed on Figures C-013 and C-014. Please provide the anticipated grading plan of this assumed 100-foot-

wide area as well as a description of the anticipated sequencing of this reclamation as it relates to placement of the proposed perimeter berm proposed in Figure C-014.

8. Several places in Table E1 propose up to 6" of cover thickness. MMD requires a minimum of 18" of cover thickness over non-deleterious artificial fill areas in order to provide an adequate root zone for revegetation. Please address.

9. Section 2.1, page 8 references the open pit surface drainage area ("OPSDA"), however none of the drawings refer to the OPSDA. On drawings that show final buildout there is a "watershed boundary (by others)" label, and on drawings that show final reclamation topography there is a "reclamation watershed boundary" line. Please confirm that these boundaries represent the OPSDA and/or other watersheds surrounding the OPSDA.

10. Drawing C-002 shows proposed toe channel TC-2, however this channel length is different than that shown on C-013. MMD prefers the routing shown on Figure C-002 in order to reduce water going to the proposed detention basins (as discussed above in comment #5). Please address.

11. Throughout the closure plan, little reclamation/reduction of the widths of access and haul roads is proposed. While access roads can be included in the post-mining land use, leaving 50' wide haul roads is excessive for what should become a single vehicle access road. As an example, the proposed access road shown on drawing C-002 is shown as "50-feet (minimum) width." Please address.

12. Section 2.3.2, page 13 and page 14 describe an HDPE-lined runoff collection trench to be constructed at the toe of the TSF to route surface water runoff to the underdrain collection pond prior to cover placement on the TSF. This trench is not shown on Drawings C-011 and C-012. Please address.

13. The following comments related to Section 2.4 and Table E1 regarding the open pit shall be addressed:

    a. Description/justification as to how the pit walls will meet the wildlife habitat PMLU and reclamation to a self-sustaining ecosystem to meet the requirements of 19.10.6.603.C.(2) and 19.10.6.603.G;
    b. Description/justification as to how the pit walls meet the site stabilization and configuration requirements of §19.10.6.603.D NMAC including a description of how stabilization will be accomplished without backfilling or partial backfilling;
    c. Description/justification as to how adverse effects to pit water quality will be minimized in order to meet the requirements of §19.10.6.603.C(4) NMAC, which addresses hydrologic balance.

14. Section 2.5 describes reclamation of the plant area, however no overall grading plan for this large area is provided in Drawing C-016. Drawing C-016 appears to show many steep surfaces and other topographic irregularities across the former plant area (e.g. the slope east of the process water reservoir, the slope east of impacted stormwater impoundment A, the slope north and west of the crushed ore stockpile, slopes near the laydown yard, etc.). Please provide a comprehensive grading and reclamation plan for the plant area.

15. Proposed reclamation of the plant site does not include pull back and additional grading of the eastern, southern and southwestern slopes away from Grayback arroyo to achieve a 3:1 slope. These slopes are currently angle of repose and no reclamation is proposed along these edges of the plant site. Please address.

16. Figure C-015 shows an incision into the hillside south of the concentrator, however Figure C-016 does not show this incision at reclamation. Please correct.

17. No reclamation of the angle of repose, ~50 foot high land bridge used as the entrance access road (Gold Dust Road; the upstream Grayback culvert) is proposed. Similarly, no reclamation is proposed for the ~50 foot high land bridge (the downstream Grayback culvert) and ~1,000 foot long cut that facilitates the tailings pipeline. MMD recognizes that there is a wetland in this v-shaped area between the land bridges, however §19.10.6.603.C(8) NMAC states "adverse effects to riparian and wetland areas shall be mitigated during reclamation unless the mitigation conflicts with the approved post-mining land use." Please provide a reclamation plan for these land bridges including removal of the culverts.

18. The entrance road (Gold Dust Road) to the plant site contains several areas of waste rock fill that are not addressed in the reclamation plan (e.g. the stretch of access road due north of the proposed surge pond/cyclone plant.) The outslopes of these areas should be regraded to 3:1, covered with topdressing and revegetated. Additionally, the access road width should be reduced during reclamation. Please address.

19. Section 2.7 does not describe or provide an approximate layout of any roads that may be constructed or improved in order to haul cover to the growth media stockpiles, in particular GMSP-2 located across Grayback arroyo. Please provide an approximate haul route and any road improvements that are anticipated in order to construct the growth media stockpiles as well as a reclamation plan for these roads.

20. Section 2.8 in the last paragraph states that "surface disturbance at the five acre mill sites will be reclaimed." The mining operation plan does not describe any disturbance to the five acre mill site claims. Please clarify.

21. Section 2.8.2 describes the reclamation process for haul roads and access roads as ripping the surface. However, as described in other comments in this letter, the road widths should be reduced, outslopes should be regraded, and a minimum of 18" of growth media applied prior to revegetation. Please revise the reclamation plan accordingly.

22. Section 3.1, Table E6 shows the surface impoundments requiring 25,168 cy of growth media. However, MMD calculates this volume to be 29,201 cy (based on the acreage and 6" of growth media as cover). As discussed previously in comment #8, MMD requires a minimum of 18" of growth media at reclamation. Please address.

23. The reclamation plan for surface impoundments (Table E1) states that the HDPE liners will be ripped, folded over and buried in-place, and impoundments backfilled with clean fill. Will the clean backfill be material excavated during impoundment construction? If so, where will this clean backfill be stockpiled until closure? If this clean fill is to placed on the growth media

stockpile, does Table E6 account for the volume of growth media that will be required for these facilities at closure? For example, backfilling of Impacted Stormwater Impoundment C would require ~52,000 cy of growth media/backfill. Please clarify.

24. Does "surface impoundments" in Table E6 include the evaporation pond?

25. Section 3.2.2, seed mixtures, proposes 4.73 PLS drillseeded as "interim" for growth media stockpile stabilization versus 9.18 PLS drillseeded for "final" reclamation. Please provide a justification for the reduced seed density for interim stabilization.

26. Section 5.5.3 states that the growth media stockpiles need to contain 3.92 million cy, but are designed to contain 4.5 million cy (thereby there is an estimated 584,000 cy of excess growth media). However, Table E6 cites that 4.2 million cy of growth media is needed, Table E5 cites that 4.5 million cy will be stored, and page 40 states that 80,000 cy of topdressing will be stored in windrows around the plant area. This appears to be an excess of 380,000 cy of growth media, not 584,000 cy. Please clarify. Additionally, please provide a map showing the proposed location of the cover material windrows.

27. The *Supplemental Soils Investigation* performed by Golder Associates (2013) states in Section 3.4 that "nearly 68% of the test pits meet the soil suitability criteria for outslope cover and 87% meet the specifications for top surface cover." Further, this report states that development of borrow [salvage] areas will "require oversight by a qualified soil scientist and some selective handing to ensure suitable borrow materials area stockpiled" and that "oversight and coordination would be required to optimize the handing of suitable cover materials."

In contrast, Section 5.5.2 of Appendix E states that "NMCC will bulk salvage suitable soils and near-surface alluvial materials and that the deep coarse-textured alluvial materials will be mixed with the more fine-textured surficial soils." The plan to bulk salvage materials appears to contradict the necessity to selectively handle materials during salvage. The reclamation plan should commit to selective handing of topdressing with oversight by a qualified soil scientist during salvage and a Reclamation Materials Handling Plan should be developed for MMD review. Alternatively, NMCC should plan to bulk salvage and stockpile up to approximately 35% more growth media (approximately 6.1 million cy, not 4.5 million cy) since approximately 13-32% of this material will likely be deemed unsuitable for reclamation based on Golder (2013). This revised volume does not take into account the placement of 18" of growth media where 6" has been proposed. Please address.

28. NMCC will be required to implement a test plot program of the growth media proposed for use at reclamation. A condition in the future MMD permit will be for NMCC to submit a Test Plot Study Workplan in coordination and consultation with MMD. The key objectives of the study will be to evaluate erosion resistance and the ability to adequately establish vegetation. NMCC will be required to perform periodic monitoring of any test plots constructed. In the workplan, a reference area(s) should be proposed as a comparison to the test plots.

29. The north edge of EWRSP-4 in Drawing C-006 does not appear to tie into any of the existing contours. Please clarify.

30. In Figure C-010, Impacted Stormwater Pond C is not shown at reclamation. This pond should have a grading plan approximated in this figure. Please revise Figure C-010 accordingly.

31. The following comments relate to the proposed evaporation pond:

a. Figure C-019, cross section L, appears to show quite a bit of excavation required for the construction of the evaporation pond. Please describe where the stockpile of excess material will be created;
b. Figure C-012 shows that the east edge of the proposed evaporation pond is in a corner immediately adjacent to the proposed east and south mine permit boundary. Please describe how construction of the evaporation pond will be accomplished within the permit boundary;
c. The closure plan does not provide a figure showing future grading and reclamation of the evaporation pond. Also, a description of what happens to proposed toe channel TC-8 and a description of where water coming down TC-8 will be routed at reclamation is required. Please address.

32. Numerous figures depict the use of rip-rap for slope armoring, bench channels, downslope channels, etc. What is the proposed source of the rip-rap? Will rip-rap be sourced from the growth media stockpiles, and, if so, is there sufficient excess stockpiled volume to account for the volume of rip-rap needed and still have enough coarse material for outslope reclamation? Please address.

33. As discussed in the informal conversation between NMCC, NMED and MMD on February 15, 2017, NMCC may want to consider the use of articulating concrete block, or similar pre-fabricated materials, for downslope channels or other potentially high-flow channels.

MMD requests a response to these technical comments within 60-days after receipt. If you have any questions or wish to discuss any of the comments, please contact me at (505) 476-3434 or by email at david.ennis@state.nm.us.

Sincerely,

David J. ("DJ") Ennis, P.G.
Reclamation Specialist/Permit Lead

Attachments: Comments from cooperating agencies

cc: Holland Shepherd, Mining Act Program Manager
Brad Reid, NMED Permit Lead

Ennis, David, EMNRD

From: Roth, Daniela, EMNRD
Sent: Monday, November 21, 2016 2:42 PM
To: Ennis, David, EMNRD
Subject: RE: Request for agency comments, Copper Flat Mine, Sierra Co., NM (permit # SI027RN)

Dear David Ennis:

Thank you for giving me the opportunity to review and comment on the updated mining operation and reclamation plan for the Copper Flat Mine in Sierra County, NM (Permit Tracking No. SI027RN). I do not anticipate any impacts to state listed endangered plants from the updated MORP. I reviewed the updated closeout plan and have no further comments.

Please let me know if I can be of further help.

Sincerely,

Daniela Roth

Botany Program Coordinator
EMNRD – Forestry Division
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MEMORANDUM

DATE: January 6, 2017

TO: Holland Shepherd, Program Manager, Mining Act Reclamation Program

THROUGH: Jeff Lewellin, Mining Act Team Leader

FROM: Brad Reid, Mining Environmental Compliance Section
John Moeny, Surface Water Quality Bureau
Neal Butt, Air Quality Bureau

RE: NMED Comments, Updated Mining Operation and Reclamation Plan, New Mexico Copper Corporation (NMCC), Copper Flat Mine, Sierra County, New Mexico, MMD Permit No. SI027RN

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on November 8, 2016 requesting NMED review and provide comments on the above referenced MMD permitting action. The document submitted updates the Mining Operation and Reclamation Plan (MORP). MMD requested comments within 60 days of receipt in accordance with Section 19.10.6.605.C NMAC. NMED has the following comments:

Background

On July 18, 2012, NMCC submitted the original permit application package and MORP to MMD. Subsequent to the July 18, 2012 submission, updates to the MORP have been provided to MMD. This comment memorandum specifically addresses the updated MORP submitted to MMD on October 14, 2016.

Air Quality Bureau

The Air Quality Bureau comments are attached under separate letterhead.

Surface Water Quality Bureau

In 2014, the US Army Corps of Engineers approved a jurisdictional determination for the 230-acre watershed surrounding the pit lake at Copper Flat, excluding it from regulatory action under

Section 404 of the Clean Water Act. The status of the pit lake as a water-of-the-state, however, is still under review at this time, pending a survey to determine whether the lake at mine closure will remain entirely on private land. Until a formal decision is made, State Water Quality Standards for unclassified perennial waters are presumed to be relevant (NMAC 20.6.4.99). Other ephemeral drainages within and affected by the mine are also subject to water quality protections under both Federal and State regulations.

The SWQB is concerned that mine-impacted stormwater may discharge into Grayback Arroyo. The existence of a TDS/sulfate plume downgradient of the mine suggests that contaminated stormwater has, in the past, been discharged into Grayback Arroyo. A new Stormwater Pollution Prevention Plan (SWPP) and Multi-Sector General Permit will be required by NMCC which should address stormwater collection to prevent point-source discharge of contaminated stormwater. The SWQB will be reviewing the SWPPP and stormwater diversion structures for adequacy and soundness to prevent discharges, in addition to monitoring water quality data collected in Grayback Arroyo at the four sampling stations detailed in the MORP.

Ground Water Quality Bureau

The MORP was submitted to NMED on October 14, 2016 as a component of the Ground Water Quality Bureau Discharge Permit Application (Application) for Discharge Permit 1840 (DP-1840). Technical review of the Application pursuant to the Water Quality Act (WQA) and the Water Quality Control Commission (WQCC) Regulations, including the Copper Mine Rule (20.6.7 NMAC), is currently in progress. Pursuant to Subsection G of 20.6.7.10 NMAC, the technical completeness response deadline is February 14, 2017. NMED may have additional comments based on technical review of the Application and associated operational, monitoring and closure plans. As such, any additional comments will be submitted under separate letterhead directly to NMCC Copper Flats Mine with copy to MMD as these reports are critical to development of the draft Ground Water Discharge Permit. NMED will coordinate response to these documents with MMD prior to issuance of a comment letter to NMCC Copper Flats Mine.

NMED Summary Comment

NMED finds that environmental standards will be met if mining operations and reclamation are carried out as described in the pending New Mexico Mining Act permit, pending DP-1840, the Copper Mine Rule, and if the above comments are addressed.

If you have any questions, please contact Jeff Lewellin at (505) 827-1049.

cc: Bruce Yurdin, Division Director, NMED-WPD
Shelly Lemon, Acting Bureau Chief, SWQB
Richard Goodyear, Bureau Chief, AQB
Fernando Martinez, Division Director, EMNRD-MMD
DJ Ennis, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS

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Cabinet Secretary - Designate
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Acting Deputy Cabinet Secretary

MEMORANDUM

DATE: November 29, 2016

TO: Jeff Lewellin, Mining Act Team Leader
Mining Environmental Compliance Section, Ground Water Quality Bureau

FROM: Neal Butt, Environmental Analyst
Air Quality Bureau

RE: Request for Comments, Regular New Mine, Updated Mining Operation and Reclamation Plan, Copper Flat Mine, Sierra County, MMD Permit No. SI027RN

The New Mexico Air Quality Bureau (AQB) has completed its review of the above mentioned mining project. Pursuant to the New Mexico Mining Act Rules, the AQB has the following comments:

Air Quality Permitting History

Development of the Copper Flat Mine Project was begun in the 1970's by Quintana Minerals Corporation (Quintana). Quintana applied for and received Air Quality Permit #0365. In 1982 operating under Air Quality Permit #0365-M1, the Copper Flat Partnership, Ltd. developed and operated the Project, which consisted of an open pit copper mine, a 15,000-ton per day (TPD) flotation mill, and a 515-acre tailings impoundment. The Copper Flat Mine officially commenced full commercial production in April, 1982. In July 1982 the mine was shut down due to low copper prices and other economic considerations. In 1986 all on-site surface facilities were removed and a BLM approved program of non-destructive reclamation was carried out. Most of the property's infrastructure, including building foundations, power lines and water pipelines were preserved for future reuse, in the event that copper prices recovered sufficiently to make re-establishing the Project economically viable. In April of 1995, Alta Gold Company applied for a revision to Air Quality Permit #0365-M1. However, Alta Gold Company declared bankruptcy in early 1999. Air quality permit #0365-M1 was closed in 2002 due to inactivity.

NSR Permit #0365-M3 was issued on 6/25/2013 to New Mexico Copper Corporation (NMCC) to operate the Copper Flat Mine. Though this facility's permit number would indicate that this is a modification, it is not. This permit is new, since there is no current operation to modify.

Details

The Copper Flat Project is a copper/molybdenum porphyry deposit located in the Hillsboro Mining District in Sierra County, New Mexico. The center of the mineralization is at UTM coordinates 263,150 meters easting, 3,650,750 meters northing, Zone 13, NAD 83. The Project is 150 miles south of Albuquerque and 20 miles southwest of Truth or Consequences, New Mexico. Access from Truth or Consequences is via 24 miles of paved highway and 3 miles of all-weather gravel road.

NMCC proposes to reopen the mine, re-establish production and expand the scope of the previous Quintana mining activities conducted at Copper Flat in 1982. The mine would operate 24-7. A portion of the ore body at Copper Flat is exposed at the surface and will be mined by conventional truck and shovel open pit methods. The planned facilities will be similar to those of the previous operator, including an open pit mine, a 25,000 TPD crushing circuit; course ore storage pile and reclaimer; a 25,000 TPD flotation mill; concentrate production facilities; waste rock stockpiles (WRSPS); and a tailings storage facility (TSF) to be built over the previous tailings impoundment. Upon receiving the required permit approvals, the project will begin site preparation and construction for approximately 2 years. The operating life of the project ("life of mine") is projected to be 11 to 12 years. Thereafter, the site will be closed and reclaimed per an approved reclamation and closure plan.

NMCC will mine approximately 113 million tons of ore and 45 million tons of waste rock during the operating life of the mine (158 million tons). Annually, the mining operation will supply 8.9-10.8 million tons of copper ore to the mill for processing (an average rate of approximately 25.5 to 29.6 thousand TPD) depending on operational conditions in the concentrator. Waste rock production will be highest in the early years of production while the mine is developed (e.g. 8.5 million tons in the first year to 2.5 million tons in the seventh year). Thereafter, waste rock production will decrease significantly (e.g. 718,000 tons in year eight to as little as 4,000 tons in year twelve).

The area inside the proposed permit area boundary is 2,190 acres. NMCC's proposed Copper Flat Project will disturb approximately 1,290 acres within the permit area, 910 acres of which were originally disturbed by previous mining operations. There may also be some additional acreage disturbance on lands outside of the permit area boundary related to ancillary facilities such as the well field, the substation and power line, and the water pipeline.

Air Quality Impacts

Copper Flat mine will be a source of PM, NO_2, CO and SO_2 emissions. NO_2, CO and SO_2 emissions occur during blasting in the open pit mine. Blasting operations will occur mostly during the afternoon, for an estimated 290 blasts per year. The Copper Flat Project is designed to control particulate emissions to meet all regulatory standards. Committed air quality practices would include dust control for mine unit operations. The fugitive dust control program would provide for water application on haul roads and other disturbed areas; chemical dust suppressant application (e.g. magnesium chloride) where appropriate, and other dust control measures as per accepted industry practice. Disturbed areas would be seeded with an interim seed mix to

minimize fugitive dust emission from un-vegetated surfaces where appropriate. Fugitive emissions in the process area would be controlled at the crusher, stockpile reclaimer and conveyor drop points through the use of fugitive dust collectors. Other process areas requiring dust and/or emission controls include the concentrate drying and packaging circuit and the various process plants. Emission control equipment will be installed and operated in accordance with the air quality construction permit. The lime storage would be fitted with a dust collector for capture of fugitive dust during loading of the lime silo.

No gaseous contaminants, with the exception of blasting, are expected to be emitted to the atmosphere from the proposed stationary source operations. Drilling operations would be done wet or with other efficient dust control measures. At a minimum, haul roads, waste rock disposal areas, and ore transfer points would be wetted down on a regular basis to minimize dust emissions. Fugitive SO_2 emissions from ore and the flotation equipment are expected to be small due to the low volatility of the sulfur compounds present in the concentrate.

Recommendation

Assuming that the facility stays in compliance with their air quality permit, the AQB has no objection to the proposed *Updated Mining Operation and Reclamation Plan*

If you have any questions, please contact me at (505) 476-4317.

Ennis, David, EMNRD

From: Rappuhn, Doug H., OSE
Sent: Friday, January 6, 2017 4:48 PM
To: Ennis, David, EMNRD
Subject: NMOSE comments on Updated Mining Operation and Reclamation Plan, Copper Flat Mine, Sierra County, New Mexico, MMD Permit Tracking No. SI027RN

David –

NMOSE comments on subject proposed Copper Flat Mine materials (provided via 11/8/2016 link to the MMD website) are listed below. Thanks for the opportunity to comment.

Douglas H. Rappuhn
Hydrology Bureau / New Mexico Office of the State Engineer
5550 San Antonio Blvd NE
Albuquerque, NM 87109
505-383-4000

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Testimony in the LRG-4652 water rights trial concluded in 2016, but court verdict has not yet been rendered. Availability of adequate water rights to conduct the proposed mining activities is necessary, and acquisition of rights will be required if sufficient rights are not deemed already in place. The NMOSE has not yet assessed hydrologic effects related to proposed project water use. The (potential) transfer-in of an undetermined amount of new water rights would result in an (as-yet undetermined) amount of depletions on Rio Grande flow and potential effects to the viability of proximal wells of other ownership. Depletions to flow in the Rio Grande would require offset in a manner acceptable to the NMOSE, and proximal well viability concerns may need addressing.

The rights transfer and assessment process would begin with application to the NMOSE through our Las Cruces office. Assessment of effects may benefit from, but not necessarily be conducted using project consultant JSAI groundwater flow model, referenced on page 4-2 of the submitted *Updated Mining Operation and Reclamation Plan for its Copper Flat Mine (October 2016)*.

Appendix A - Feasibility Level Design, 30,000 TPD Tailings Storage Facility (November 30, 2015)* page 2 notes "The new TSF design will comply with the design and dam-safety guidelines and regulations of the New Mexico Office of the State Engineer (OSE) Dam Safety Bureau (NMDSB, 2010)." Also, *Appendix B – Copper Flat Project Impoundment Design Report (signed 12/7/2015)* page 3 notes "All impoundments for the Copper Flat Project will be considered "new" impoundments as defined by NMAC 20.6.7.17(D)."

These documents, and as necessary, *Appendix D – Copper Flat Project Site Diversion Analysis Report*, relate to the design of project tailings storage facility and diversion (re-routing) plans for existing topographic drainages in the vicinity of project facilities. As new impoundments, the structures are subject to submittal of required NMOSE Dam Safety Bureau permit application and review. I understand project representatives have conferred with NMDSB personnel regarding the required submittal and that analysis and permitting will occur via that process.

*: Note that *Updated Mining Operation and Reclamation Plan for its Copper Flat Mine (October 2016)* references a June 2016 Appendix A revision on unnumbered title page for Appendix A following Section 5.0 – References.

Appendix E - Mine Reclamation and Closure Plan (October 7, 2016) addresses final disposition of various physical components of the project, and either that "installation, operation, and maintenance of groundwater monitoring wells that may be required for post-closure monitoring in accordance with 20.6.7.35.B NMAC", or that "groundwater monitoring wells and surface water samplers that may be required for post-closure monitoring in accordance with 20.6.7.35.B NMAC" will occur relative to the closure of several of the project components. It is reasonable to assume a suite of project monitor wells will be required for assessment of project effects post-cessation of mining. With consent of the appropriate regulatory agencies, these or other monitor or production wells may be considered for eventual decommissioning by plugging. Well plugging procedures may fall under joint jurisdiction of the NMOSE, MMD, and NMED, and the authorized plugging process may be specific to the original well design, hydrogeologic unit penetrated, and/or chemistry of groundwater tapped.

All project wellheads shall be crafted at a minimum following 19.27.4 NMAC well design regulations and made safe from vandalism and the unwarranted infiltration or injection of contaminants and surface water. As project activities wind down and the presence of authorized personnel becomes less common, wellheads should be capably secured and locations documented, or decommissioned as required under project permit. Well decommissioning is generally accomplished by plugging by a New Mexico-licensed Well Driller. No well shall be buried, destroyed, or plugged without appropriate regulatory approval and permitting. The retention of an unused well is not a given, so should alternative uses be desired for any project well, the NMOSE shall be consulted to review the need for administrative filings related to amended ownership and/or use, provided the request is otherwise deemed permissible by actual property owner and collaborating regulatory agencies.

GOVERNOR
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9 January 2017

David J. (DJ) Ennis, P.G.
Permit Lead, Mining Act Reclamation Program (MARP)
EMNRD Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: New Mexico Copper Corporation (NMCC) Updated Mining Operation and Reclamation Plan, Copper Flat Mine, Sierra County, Permit No. SI027RN; NMDGF No. 17415

Dear Mr. Ennis:

In response to your letter dated 8 November 2016, the New Mexico Department of Game and Fish (Department) has reviewed the updated Mining Operation and Reclamation Plan for the Copper Flat Mine permit application.

- Section 2.3, Wildlife Impacts Contingency Plan, states that fencing of "appropriate height" will be constructed around process water and solution ponds to keep out larger wildlife such as deer and antelope. The Department recommends that exclusionary fencing for livestock be designed to minimize potential injury to any wildlife attempting to cross under or over the fence. The fence can be designed to exclude the smaller terrestrial animals as well, by wrapping the bottom of eight foot chain link fence with a smaller mesh material. Please consult the Department's Livestock Wildlife Fence Guidelines for details, at: http://www.wildlife.state.nm.us/download/conservation/habitat-handbook/project-guidelines/Livestock-Wildlife-Fence-Guidelines.pdf. For those containment ponds and reservoirs that do not require exclusionary fencing, escape ramps should be constructed to intercept an animal swimming around the periphery of the tank, pit or pond, at any water level. Ramps should be constructed from a textured, non-slippery material. This section of the plan also states that for "avian species the use of exclusionary devices will be employed, as needed, to prevent exposure to toxic chemicals and conditions created by mining activities". Exclusionary devices such as netting or other materials should be designed and maintained to prevent entanglement or entrapment of both birds and bats. Monofilament nylon netting material should never be used because it is significantly more likely to ensnare wildlife, and cause injury or death. Extruded, knit, or woven netting is preferred, and should be kept taut and inspected regularly. Department staff is available for consultation to assist in developing appropriate wildlife-friendly fence designs and netting options for specific applications.
- Section 2.5, Post Mining Land Use, states that the pit lake will "provide enhanced avian wildlife habitat and a water source for transient wildlife". The potential benefit to wildlife from the pit lake will be contingent upon meeting surface water quality standards over an

extended time frame. Since the open pit is a hydraulic sink and groundwater recharge from local precipitation to the crystalline bedrock is limited because of its low hydraulic conductivity, any metals that leach into the pit lake from the surrounding high walls and mining area could concentrate over time, if the evaporation rate exceeds the recharge rate from local precipitation. This condition will be exacerbated if the local climate becomes hotter and drier in the future. New Mexico Copper Corporation should have a long-term mitigation plan in place to protect migratory birds and local wildlife if the water quality in the pit lake becomes toxic over time. Mitigation measures could include a combination of both exclusionary and hazing techniques.

- Section 4.1, Best Management Practices, states that NMCC will use only certified weed-free seed and mulch. It should also state that only native plant species will be used for reclamation and if possible, that they are sourced from within the same region and vegetative community types.
- Section 4.3.1, Shafts, Adits or Tunnels, states that historic mine workings exist within the permit area and that NMCC will work with the Bureau of Land Management to safeguard those features from unauthorized entry. All historic mine workings should be evaluated for bat activity. Shafts and adits that are used by bats should be appropriately gated to protect bats as well as prevent unauthorized human entry. Information and guidance on determining the most appropriate closure type for specific mine openings can be found at the Abandoned Mine Closure Website (http://www.batgating.com/).
- Section 4.3.2 states that exclusionary fencing will be used in high hazard areas that include electrical substations. The Department recommends that electrical substations and associated surface power lines be constructed in conformance with the Avian Power Line Interaction Committee's "Suggested Practices for Avian Protection on Power Lines" (2006) (www.aplic.org/mission.php).

Thank you for the opportunity to review and comment on the updated Mining Operation and Reclamation Plan. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 476-8159 or ronald.kellermueller@state.nm.us.

Sincerely,

Charles Hayes

Chuck Hayes, Assistant Chief
Ecological and Environmental Planning Division

cc: USFWS NMES Field Office
Daniel Lusk (Southwest Regional Habitat Biologist, NMDGF)

Susana Martinez
Governor

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January 23, 2017

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Mining and Minerals Division
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Re: Updated Mining Operation and Reclamation Plan, Copper Flat Min, Sierra County, New Mexico, SI027RN

Dear Mr. Ennis:

This letter is in response to the above the aforementioned Mining and Operation Plan for the Copper Flat Mine.

In accordance with rule 19.10.6.605.C NMAC, I reviewed our records to determine if cemeteries, burial grounds or cultural resources listed on the State Register of Cultural Properties or the National Register of Historic Places exist within or near the permit area. Our records show that there are no cultural resources listed on the National Register or State Register within or near the proposed permit area. There are however, resources tentatively identified as burial grounds. Although there are no cultural resources listed on the State or National Register, our records show several archaeological surveys within part of the permit area. These surveys identified archaeological sites and a historic district.

The Bureau of Land Management and the New Mexico State Historic Preservation Officer have entered into a Programmatic Agreement to take into the account the mine operation's effects to historic properties and to resolve adverse effects to historic properties pursuant to Title 54 306108 (aka Section 106) of the National Historic Preservation Act and its implementing regulation, 36 CFR 800. The BLM may require avoidance of any eligible archaeological sites and an archaeological monitor to ensure that eligible sites are not affected.

Please do not hesitate to contact me if you have any questions regarding these comments. I can be reached by telephone at (505) 827-4064 or by email at bob.estes@state.nm.us..

Sincerely,

Bob Estes

Bob Estes Ph.D.
Archaeologist

Log: 104742, 104758

Cc: David Legare,
Archaeologist, Bureau of Land Management