

18 February 2016

David J. (DJ) Ennis, P.G.
New Mexico EMNRD
Mining and Minerals Division
1220 South St. Francis Drive
Santa Fe, NM 87505

**RE: Supplemental Biological Work Plan for Mill Site and Substation Areas,
Copper Flat Mine, Sierra County, New Mexico, Permit Tracking No. SI027RN**

Dear Mr. Ennis,

In response to your letter dated 5 January 2016 and per our discussions on 20 January 2016, New Mexico Copper Corporation (NMCC) and GeoSystems Analysis, Inc. (GSA) put together the enclosed proposed Supplemental Biological Work Plan for Mill Site and Substation Areas for your review. The proposed work plan outlines survey methods that we believe will meet the Mining and Minerals Division's (MMD) requirements for wildlife monitoring as well as requirements for collection of data and reporting on vegetation parameters at NMCC's nine mill site claims and proposed substation area east of the mine area.

As you will see, additional surveys are proposed for January, late-May to early June, and September 2016. The field work for the January 2016 winter bird survey is now complete. The results of these surveys will be combined with findings during previous surveys in the spring of 2015 and submitted to the MMD once all surveys have been conducted.

We believe the proposed survey methods are appropriate and sufficient for the required data for these sites and we hope you find them satisfactory. We look forward to any comments you may have regarding this proposed field work and reporting. If you have any questions, please contact me via email or by phone at 505-400-7925.

Best regards,
New Mexico Copper Corporation



Katie Emmer
Permitting & Environmental Compliance

CC: Ronald Kellermueller, New Mexico Game & Fish (via email)
Chad McKenna, Geosystems Analysis, Inc. (via email)

TECHNICAL MEMORANDUM

February 18, 2016

TO: Katie Emmer; NM Copper Corporation/THEMAC Resources Group

FROM: Chad McKenna; GeoSystems Analysis, Inc.

RE: Copper Flat Mine: Supplemental Biological Work Plan for Mill Site and Substation Areas

Introduction

The New Mexico Copper Corporation (NMCC) Mine Plan of Operations (MPO) developed during 2010 listed nine mill site claims in Appendix A. Additionally, Alternative 2 in the Copper Flat Mine Draft Environmental Impact Statement (DEIS) report proposes a substation that would be constructed within a 30-acre site near the nine mill site claims. The Copper Flat Mine Sampling and Analysis Plan (SAP) and Baseline Data Report (BDR) did not include the nine mill sites and the substation areas from vegetation and wildlife surveys performed through 2012. In January/February 2015, NMCC realized these areas were not included and consulted with BLM to identify additional work that needed to be completed so the mill site and substation areas could be included in the DEIS. That work was performed during spring 2015.

In April 2015, NMCC contracted GeoSystems Analysis to survey the mill sites and substation area in accordance with BLM's survey objectives. The approach and results of the mill site and substation surveys were compiled into a summary memorandum and submitted to BLM, MMD, and NMG&F in May 2015. MMD and NMG&F provided comments to the mill site and substation area report in a letter dated 5 January 2016. NMCC organized a meeting in Santa Fe, NM on 20 January 2016 in response to MMD's letter to be sure that MMD and NM G&F have all of the baseline data required to permit the Copper Flat Mine Project. It was agreed during that meeting that a work plan would be developed to accomplish supplemental vegetation and wildlife surveys to address NMG&F and MMD comments. This work plan includes recommended timing and protocols for biological surveys at the mill site claims and substation area based on the areas to be surveyed and the goal of meeting the state agencies requirements for baseline data collection.

These proposed surveys will meet MMD's requirements for wildlife monitoring in 19.10.6.602.D(13)(d)(iii) NMAC, achieving distribution by season and habitat type, and requirements for collection of data and reporting on vegetation parameters per 19.10.6.602.D(13)(c) including description of cover, density and productivity of the plant communities within the nine mill site claims and 30 acre proposed substation area. The additional proposed vegetation monitoring will provide a second sampling event in the late summer/early fall to address MMD's concern about the timing of surveys.

Wildlife Survey Methods

Additional wildlife surveys will include:

1. Avian surveys utilizing area searches for detecting bird use within the mill sites and substation area, as well as, areas immediately surrounding the site within the same general habitat types. Survey timing will be:
 - A winter bird survey during January 2016.
 - An additional bird survey during late-May to early June.
2. Recording indications (tracks, scat, burrows, etc.) of other wildlife activity or additional species observed.
 - Observed species during 2016 field season trips will be appended to 2015 observations to provide a comprehensive table showing wildlife species detected through the 12+month survey period.
3. Marking (with a GPS) and photographing active nests, as well as, inactive raptor nests. Recording any behavioral observations that suggest breeding activity during the May/June 2016 survey.
4. Updating wildlife detection tables in the report with state- and federal- special status species observed.

Vegetation Surveys

Additional vegetation work in the mill site and substation site will consist of two additional survey methodologies both completed during September 2016. The surveys will specifically include:

1. Sampling at vegetation transects will be used to determine plant cover, density, and production.
 - a. A minimum of 12 individual 300-foot long transects will be monitored in the mill site and substation project area.
 - i. Transects will employ a stratified-random sampling design intended to capture vegetation variability through the site, prevent transect placement in existing developments (roads, wells, etc.) and distribute transects across both the mill site and substation areas.
 - ii. Transect orientation will be determined randomly in the field via an unobserved spin of the compass dial. Note that in some cases, it's possible the transect line may partially extend beyond the mill site or substation boundary.
 - b. Cover, density, and annual production will be determined within 10 frames nested at 30-foot intervals along each of the transects. Individual frames will be 9.6 ft² in area, per standard rangeland inventory protocols.
 - c. Cover will be reported as:
 - i. Aerial cover by species, life form, and total cover
 - ii. Ground cover by species, life form, bare soil, rock, gravel, and litter.
 - d. Cover will be recorded as ocular estimates via cover classes (e.g. Daubenmire cover classes).
 - e. Production will be reported as air dry weight by species and lifeform.
 - f. Production will be characterized via the double-sampling method in which production is estimated by species for all frames. Annual biomass is clipped and

- bagged by species from a subset of the sampling frames and then air dried for 10-14 days to determine a dry weight correction factor and correct for observer bias.
- g. Grass and forb density will be determined via counting the number of live individuals within each sampling frame.
 - h. Shrub and/or tree density will be determined via counting the number of live individuals in a six foot wide belt transect centered over the transect line.
 - i. The transect will be photo-documented
2. A complete late-summer inventory of all plant species encountered through the 75-acre site (45-acres of mill sites plus the 30-acre substation area).
 - a. Epithets recorded during the September 2016 inventory will be compiled with species detected during the April-May 2015 assessment and used to develop a multi-seasonal species list for the site that spans an entire 12 month monitoring period, as required by mining regulations.

Survey Reporting

The sampling methods and results from the additional wildlife and vegetation surveys will be summarized into a technical memorandum. The report will include:

- A summary for the process utilized to develop the sampling protocols implemented.
- Detailed description of survey methods implemented during the additional mill site and substation surveys, as well as, an explanation of how this survey method is appropriate for the site and why sampling methods deviate from the SAP.
- GPS coordinates that include vegetation transect locations and transect bearing to allow the transects to be resampled in the future to detect trends, serve as potential reference areas, etc., as desired.
- Graphical and tabular summaries of current vegetation attributes, including cover, density, and production data.
- A comprehensive plant species list that combines species observed during the spring 2015 and late-summer 2016 survey periods.
- Graphical and tabular summaries of wildlife species observed during various survey efforts between spring 2015 and May/June 2016.
- A list of all state- and federal- special status species observed.
- Site photographs