



## Electronic Transmission

March 21, 2022

Sherry Burt-Kested  
Freeport-McMoRan Chino Mines Company  
P.O. Box 10  
Bayard, NM 88023

**RE: Request for Additional Information, Vegetation Monitoring Report, Razorback Ridge IRA, Smelter/Tailings Soils Investigation Unit (STSIU), Chino AOC**

Dear Sherry Burt-Kested:

The Ground Water Quality Bureau (GWQB) of the New Mexico Environment Department (NMED) received the Vegetation Monitoring Report from Freeport-McMoRan Chino Mines Company (Chino) on August 6, 2021. NMED has reviewed the Report and requires additional information. The following issues need to be addressed and corrected for further NMED consideration.

**General Comment:** In our informal comments on the May 2020 version of the document, NMED requested more information about the reference area used to develop technical guidance for cover. In that document the reference area was identified as the 'South Mine Reference Area' which was never identified on a map in the report. The data from that area were used to develop technical guidance for shrub density. In the May 2020 version, the technical guidance for average shrub density was set at 60% of 9,780 stems per acre (5,868 stems/acre).

In the July 2021 current edition of the document, all references to the 'South Mine Reference Area' are removed, and a 'Tailing Reference Area' is introduced and shown on Figure 1 as an area directly west of the southern end of Tailings Pond 6. It is unclear if the 'Tailing Reference Area' and the 'South Mine Reference Area' are the same area. It appears that they are different since the July 2021 version provides a technical guidance for shrub density equal to 60% of the 3,193 stems per acre of the 'Tailings Reference Area' (1,915 stems/acre). No discussion of why this change was made was provided. Please explain why the reference data are different between the informal submittal and the current one.

In addition, during informal review, NMED asked for clarification on how the reference data were compiled in the May 2020 draft and no explanation was provided. The last sentence of the first paragraph on Page 3 says that 4 years of canopy data and 3 years of shrub density data from the reference area were used to gauge interim vegetation establishment. In the first full paragraph on Page 3, that document says the total canopy cover in the reference area since 1999 is 64.6%. Which value was used to develop the technical guidance, cover since 1999 or an average cover over a 4 year period

and which 4 years were averaged? The same clarification is needed for the belt transect discussed at the end of this paragraph.

Since the primary analyses presented in the document are based on comparisons to reference area data, the discussion and presentation of the reference area data used and how the criteria are calculated is a key requirement of the final document and needs to be improved.

Please add an Executive Summary to the report.

Please confirm the date of the report. The report is dated July 30, 2021 on the cover page and table of contents. However, the text part indicates an April 24, 2021 date.

Our specific comments on the report are listed below.

- 1. Section 3.3. Page 4.** This section fails to discuss the methods used to measure plant diversity but does discuss how plant diversity is compared to technical standards. This seems out of place for this section of the document since Sections 3.1 and 3.2 are used to present the methodology for how the cover and shrub density data were generated. Please revise to provide methods on how plant diversity was measured.
- 2. Section 4.3. Page 6.** It is clear that basal cover is an important measure, but without some form of comparison to reference or 'expected' conditions, this information provides no basis regarding the success of the revegetation. Please provide more information.
- 3. Section 4.4. Page 6.** The measurements for shrub density in the reference area shown here differ greatly from those provided in the May 2020 draft. Please clarify and justify the reason for the changes.
- 4. Section 5.0 Page 7.** The conclusion that the measured canopy cover demonstrates that the remediated site is resilient and self-sustaining is overstated. Please change the statement to say that the vegetation at the remediated site is "expected to be resilient and self-sustaining," provided that is your contention.
- 5. Section 5.0. Page 7. Last sentence.** The sentence is not accurate. Shrub density was equal to the criteria for belt transect (with new numbers not provided in the original draft that require clarification) but was less than 1/3 of the criteria for the quadrats. This needs to be stated more clearly.
- 6. Section 5.0. Page 8. Last paragraph.** Please change the first sentence to more clearly state that through 5-years of monitoring, the revegetation efforts appear to be successful and the remediated area is currently supporting a self-sustaining ecosystem. The current statement is too conclusive given the data available and the short time period of the monitoring.

Sherry Burt-Kested, Freeport-McMoRan Chino Mines Company  
Approval of the HWCIU IRA Completion report  
March 21, 2022

If you have any questions, please contact me at (505) 372-8545.

Sincerely,

*David Mercer*

David W. Mercer, Chino AOC Project Manager  
Mining Environmental Compliance Section  
Ground Water Quality Bureau

DM

cc: Petra Sanchez, USEPA (via email)  
Joe Fox, NMED (via email)  
Mike Steward, Freeport-McMoRan Inc. (via email)  
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