

Freeport-McMoRan Chino Mines Company
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Return Receipt Requested

Ms. Rebecca Roose, Director
New Mexico Environment Department
Water Protection Division
P.O. Box 5469
Santa Fe, New Mexico 87502

Dear Ms. Roose:

Re: Response to Chiricahua Leopard Frog Survey
Request in Support of the Ecological Risk Assessment
Lampbright Investigation Unit - Chino Administrative Order on Consent

Freeport-McMoRan Chino Mines Company (Chino) received a letter dated June 5, 2019 from the New Mexico Environment Department (NMED) requesting Chiricahua Leopard Frog (CLF) habitat and presence/absence surveys for the Lampbright and Smelter/Tailing Soils Investigation Units (LIU and STSIU), under the Chino Administrative Order on Consent (AOC). This request for additional information is to address uncertainties identified and defined in the LIU Ecological Risk Assessment (ERA) as:

".....the unknown presence/absence suitable or marginal unoccupied habitats within the LIU but known former populations within LIU drainages, dispersal of the CLF into the LIU from areas where the frog was historically observed is unlikely but cannot be entirely dismissed in either Tributary 1 or Tributary 2 or in Lampbright Draw."

In agreement that CLF are unlikely to populate LIU based on previous annual surveys, Chino would also add that the identified potential risk is *de minimis* for the following reasons:

- There are no exceedances of the NM acute and chronic ambient water quality criteria.
- Risk screening was performed with the Effect Concentrations at 10% of test organisms (EC10s) in which 19 out of 92 samples exceed No Observed Effect Concentration (NOEC), while only three samples exceed Lowest Observed Effect Concentration (LOEC) for the body weight endpoint (no other LOECs or the geometric mean of the LOECs was exceeded at any location). Body weight in and of itself does not impact organism survival ability although it is a relevant endpoint to drive further evaluation.
- Risk is typically screened at EC10s but is considered *de minimis* up to EC20s, plus there were no exceedances of the geometric mean NOEC or LOEC incorporating all 4 end points.

- Screened sample copper concentrations against the EC10s are within the range of natural background at or below 17 ug/L as characterized in Lucky Bill Canyon surface water, with the exception of the three samples that exceed a single endpoint at LOEC, but under the EC10s.
- As stated in the LIU ERA, studies conducted under the STSIU to address ambient water quality, water-effect ratios (WERs) identified that alkalinity, dissolved organic carbon and total dissolved solids ameliorate copper bioavailability. Therefore, the hardness-adjusted values presented in ERA Table 4.1-4 would be even higher and Hazard Quotients (HQ) for the CLF in LIU would be much lower than the EC10s highest HQ of 1.6.

NMED required Chino to provide a workplan and schedule within 30 days of receiving the letter dated June 5, 2019 requesting these surveys. To better understand the survey request and to ensure uncertainties as defined in the ERA are addressed, Chino held a conference call on June 11, 2019 with NMED.

Chino submits the following as our understanding of the discussion and current status:

- To address Chino's questions pertaining to the premise of the surveys, methods, locations, frequency and duration, NMED plans to schedule a follow-up conference call with Chino to provide additional information and clarification with respect to the CLF survey request submitted June 5, 2019.
- NMED and Chino recognize that the survey season closes after mid-October at latest and there are many logistical items to address and plan for in order to safely and properly complete licensed CLF surveys.
- As per discussions in 2018 and early 2019 to address the ERA identified uncertainty as per above, Chino is still committed to performing a licensed conventional CLF survey in September 2019 for habitat and presence therein, in Tributaries 1, 2, and 2a.

Chino looks forward to the continued discussions. This response and letter of understanding was submitted today to Mr. David Mercer, NMED AOC Project Manager. Please contact Ms. Pam Pinson at (575) 912-5213 for any questions.

Sincerely,



for Sherry Burt-Kested, Manager
Environmental Services

SBK:pp
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c via email: David Mercer, NMED
Joseph Fox, NMED
Kurt Vollbrecht, NMED
Petra Sanchez, U.S. Environmental Protection Agency
Mike Steward, Freeport-McMoRan Minerals Corporation