



DIRECTOR AND SECRETARY
TO THE COMMISSION
Michael B. Sloane

STATE OF NEW MEXICO
DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507

Tel: (505) 476-8000 | Fax: (505) 476-8180

For information call: (888) 248-6866

www.wildlife.state.nm.us

STATE GAME COMMISSION

TIRZIO J. LOPEZ
Vice Chair
Cebolla

FERNANDO CLEMENTE, JR.
Sunland Park

GREGG FULFER
Jal

EDWARD T. GARCIA
Los Ranchos

SHARON SALAZAR HICKEY
Santa Fe

26 January 2024

Kevin Myers, Permit Lead
Mining Act Reclamation Program
Mining and Minerals Division (MMD)
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Revision 23-1 to Continental Mine and Mill, Update to Closure/Closeout Plan. Permit No. GR002RE; NMDGF No. NMERT-3047.

Dear Mr. Myers,

The New Mexico Department of Game and Fish (Department) has reviewed the above referenced update to the Closure/Closeout Plan (CCP), submitted by Freeport-McMoRan Chino Mines Company (Chino), for the Continental Mine. Chino proposes an updated CCP similar to the 2014 CCP that includes, but is not limited to, the following elements.

- 1) The 2023 Updated CCP is based on the facilities constructed as of 2023 and those anticipated by the end of year 2026 for the Cobre Haul Road, Hanover Mountain Mine, and South Waste Rock Disposal Facility. In the 2014 CCP, the Cobre Haul Road and Hanover Mountain Mine existed only as conceptual plans.
- 2) The 2023 Updated CCP's Reclamation Cost Estimate is based on unit costs in 2023 dollars for end of year 2026, which is expected to have the greatest anticipated reclamation cost or highest liability among years 2023 to 2027.
- 3) The 2023 Updated CCP contemplates the use of Cobre Haul Road and Santa Rita Mine's Upper South Stockpile as sources for reclamation cover material. In addition, an ongoing 2022 test plot study will continue evaluating other cover material sources.

Staff from the Department, MMD, New Mexico Environment Department, New Mexico State Forestry and Chino conducted a site inspection on 30 November 2023.

Section 3.1.3 Continental Pit in the CCP states that "Predictions in (Telesto, 2008a) and (Telesto, 2022) indicate that the open pit lake will be a hydrologic evaporite sink". There are no data provided nor discussion about the pH and water quality of the current pit lake and whether current conditions meet New Mexico standards for wildlife. Additionally, there is also no discussion of any hydrogeological modeling that was performed to predict future, post-closure pit lake water quality.

The Department believes that the hydrogeological complexities at the site and associated, inherent uncertainties will make prediction of future, long-term pit lake water quality extremely difficult. In addition to Acid Mine Drainage (AMD), the potential long-term effects of climate

change and prolonged drought could also lead to the development of hazardous water quality conditions for wildlife resulting from evapoconcentration of trace elements in the pit lake water.

As a result, the Department recommends that perimeter fencing, designed to prevent terrestrial wildlife from accessing the pit lake water, be installed.. To exclude deer and elk, the above-ground fence height should be a minimum of eight feet and an additional two feet of fence should extend below ground level to deter animals from burrowing under, for a total of ten feet. To exclude small mammals, reptiles, and amphibians, the Department also recommends that the perimeter fence is securely wrapped with a two-foot high, solid, smooth, and heavy gauge sheet metal or plastic barrier, preferably with a horizontal lip at the top.

In addition, the Department recommends providing nearby sources of clean drinking water to attract wildlife away from the pit lake. The drinker tanks should be designed with textured escape ramps to prevent entrapment and drowning of smaller animals. The Department is available for consultation regarding the different types of appropriate wildlife drinker tanks.

The CCP should address the recent AMD from historic mine workings that entered Hanover Creek. Chino postulated that unusually wet winter conditions may have significantly contributed to this AMD seepage incident. Chino has implemented a temporary fix by creating a channel filled with limestone that diverts the AMD to a created wetland area. The CCP should include a long-term plan to permanently remedy this issue.

The Department generally concurs with the proposed interim seed mix presented in Table 10 and provides the following suggestions.

- 1) Change the common name blue flax to Lewis flax; the scientific name (*Linum lewisii*) is correct for the native flax species. Blue flax (*Linum perenne*) is native to Eurasia and has been introduced throughout the United States.
- 2) For globe mallow, only the genus name *Sphaeralcea* sp. is given. The Department recommends using either of the following native species in the seed mix: copper globe mallow (*Sphaeralcea angustifolia*) or scarlet globe mallow (*Sphaeralcea coccinea*).
- 3) Correct the following errors in Table 10: a) 8 species where there is no space between the genus and species names and b) the species name for white prairie clover should be changed from *candidia* to *candida*.

The Department also recommends that only certified weed-free seed be used to avoid inadvertently introducing non-native species to the reclamation site. Any alternate species seeds, used to substitute for primary plant species that are unavailable at the time of reclamation, should also be native. When possible, the Department recommends using seeds that are sourced from the same region and habitat type as the reclamation site or from sites that represent potential future conditions at the reclamation site as climatic conditions change.

Thank you for the opportunity to provide comments on the Continental Mine updated CCP. 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,

Matt Wunder, Ph.D.
Chief, Ecological and Environmental Planning Division

cc: USFWS NMES Field Office