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STATE OF NEW MEXICO DEPARTMENT OF GAME & FISH

One Wildlife Way, Santa Fe, NM 87507
Post Office Box 25112, Santa Fe, NM 87504
Tel: (505) 476-8000 | Fax: (505) 476-8123
For information call: (888) 248-6866

www.wildlife.state.nm.us

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4 May 2016

David J. (DJ) Ennis, P.G., Permit Lead
Energy, Minerals and Natural Resources Department
Mining and Minerals Division (MMD)
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: North Lampbright Stockpile New Unit Expansion and Extension of the Santa Rita Beneficiation Design Limit, Revision 16-1, Permit No. GR009RE; NMDGF No. 16973

Dear Mr. Ennis,

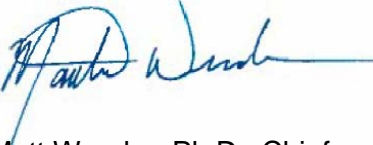
In response to your letter dated 2 March 2016, the New Mexico Department of Game and Fish (Department) has reviewed the above referenced project. Freeport-McMoRan Chino Mines Company is proposing to revise the Santa Rita Beneficiation Design Limit (DL). The increase in the DL will enable FMI to expand the main Lampbright Stockpile to the north. Freeport-McMoRan will construct this stockpile, referred to as the North Lampbright Waste Rock Stockpile (NLS), from mine waste rock that will not be part of the leach system. The existing DL will increase by approximately 273 acres, and the NLS will occupy approximately 187 acres of this area. A site visit was conducted by the Department, MMD, and the New Mexico Environment Department on 18 February 2016 to review this proposed expansion.

Sumps 1, 2 and 3 exist at the base of the Main Lampbright Leach Stockpile and collect pregnant leach solution (PLS), which is toxic to wildlife. Construction of the NLS will cover these sumps, requiring design and implementation of a new PLS collection system and sumps. The current system relies upon floating bird balls and hazing to deter wildlife from accessing the PLS. However, the Department observed areas of exposed PLS where winds had piled the bird balls up into corners so they did not adequately cover the PLS. The Department recommends frequent monitoring of bird balls utilized in PLS sumps to ensure that the balls redistribute fully after wind events to prevent exposure of the PLS surface to wildlife.

The Department also recommends use of wildlife-friendly enclosures and escape ramps to prevent wildlife from becoming trapped in toxic or hazardous waters. Guidelines for fencing and escape ramps, to prevent adverse impacts to wildlife from mining site water bodies, are available on the NMDGF website at www.wildlife.state.nm.us/conservation/habitat-information/habitat-handbook/.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Wunder", with a long horizontal flourish extending to the right.

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

cc: USFWS NMES Field Office

Ennis, David, EMNRD

From: Pine, Robert, OSE
Sent: Wednesday, March 09, 2016 3:36 PM
To: Ennis, David, EMNRD
Cc: Johnson, Mike S., OSE
Subject: North Lampbright Waste Rock Stockpile Extension, Chino Mine, Permit No. GR009RE

Dear Mr. Ennis,

The Office of the State Engineer Hydrology Bureau has reviewed the Application to Revise Mining Permit GR009RE for the North Lampbright Waste Rock Stockpile (NLS) submitted by Freeport-McMoRan Chino Mines Company. The Mining and Minerals Division sent the document to the Hydrology Bureau for review on March 2, 2016. The Hydrology Bureau has the following comments:

- 1) On Page 3 of the Closure/Closeout Plan it indicates that 18 currently existing monitor wells that lie within the proposed footprint of the NLS will be plugged and abandoned. It then states that “the specific number, schedule, and location of the replacement wells will be determined in consultation with the NMED”. It should further state that the replacement of these wells will be in accordance with Article 72-12 NMSA and with all applicable OSE regulations regarding well replacement and construction.
- 2) On Page 7 of the Closure/Closeout Plan it states that “suitable soils for cover material will be salvaged from the footprint of the NLS extension area prior to the initial build-out of the stockpiles” with between 97,000 and 145,000 cubic yards potentially salvaged and stockpiled. However, no indication is given as to where this material will be stockpiled and how it will be stored to prevent excessive erosion of the material. This should be included in the Plan.
- 3) On Page 13 of the Closure/Closeout Plan it states that “run-on from the surrounding terrain and the NLS will be controlled by perimeter channels located around the NLS”. It goes on to say that “the channels will be designed to accommodate the peak discharge from the 100-year, 24-hour storm event”. It should be noted that storms of long duration tend to be less intense than storms of shorter duration. Weather station data for Fort Bayard shows the highest extreme daily precipitation amounts occur mostly in July through September which is the summer monsoon season, so large precipitation events therefore come most often in the form of one or more intense short-duration cloudbursts. It is important that the perimeter channels be designed to accommodate the 100-year storm of whatever duration results in maximum runoff from the NLS. Therefore, it should not be restricted to the 100-year 24-hour storm event.

If you have any questions regarding the above comments, please contact me.

Robert Pine
OSE/Hydrology Bureau
(505) 476-7402

Ennis, David, EMNRD

From: Roth, Daniela, EMNRD
Sent: Friday, March 11, 2016 11:45 AM
To: Ennis, David, EMNRD
Subject: RE: North Lampbright Stockpile New Unit, Expansion and Extension Santa Rita Design Limit, Revision 16-1 (Permit No. GR009RE)

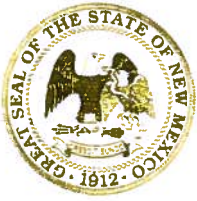
Dear David Ennis:

Thank you for giving me the opportunity to review and comment on the construction of the North Lampbright Stockpile New Unit and Expansion and the Extension of the Santa Rita Beneficiation Design Limit, Revision 16-1, at the Chino Mine, in Grant County, NM (Permit No. GR009RE). I do not anticipate any impacts to state listed endangered plants from the proposed construction of the stockpile, nor the expansion and extension of the design limit. With respect to the North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan, I am concerned about the use of non-native plant species in the proposed reclamation seed mix, specifically the use of white sweet clover (*Melilotus alba*) and smooth brome (*Bromus inermis*). These plants have shown to have a potential of spreading and invading rangelands and lowering native plant biodiversity. I highly recommend removing these introduced species from the reclamation seed mix. In addition, I recommend the development of a weed management plan to address the management and eradication of invasive species once reclamation has taken place.

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

Daniela Roth

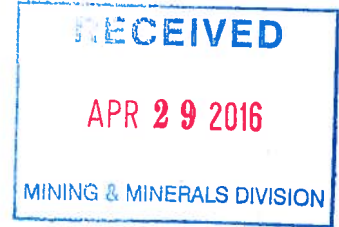
BOTANY PROGRAM COORDINATOR
EMNRD-Forestry Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505
(505)476-3347 (Phone)
(505)476-3330 (Fax)
<http://www.emnrd.state.nm.us/SFD/>



Susana Martinez
Governor

STATE OF NEW MEXICO
**DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION**

BATAAN MEMORIAL BUILDING
407 GALISTEO STREET, SUITE 236
SANTA FE, NEW MEXICO 87501
PHONE (505) 827-6320 FAX (505) 827-6338



April 27, 2016

David J. Ennis, P.G.
Permit Lead
Mining Act Reclamation Program
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Construction of North Lampbright Stockpile Expansion and Extension, Revision 16-1,
Chino Mine, Grant County, Permit No. GR009RE

Dear Mr. Ennis:

I am writing in response to your request for comments on the above referenced permit revision, received at the Historic Preservation Division (HPD) on March 3, 2016.

According to our records, there are no cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties within the proposed expansion and extension area. Furthermore, our records show that an archaeological survey was conducted in 1997 and although two archaeological sites were identified within the expansion area; both sites were determined ineligible for listing to the State or National Registers. Based on this information, the proposed project will have No Effect on Historic Properties and HPD has no concerns with the permit revision.

If you have any questions concerning these comments, please do not hesitate to contact me. I can be reached by telephone at (505) 827-4064 or by email at michelle.ensey@state.nm.us.

Sincerely,

Michelle M. Ensey
Archaeologist

Log: 103136



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

NEW MEXICO
ENVIRONMENT DEPARTMENT

Harold Runnels Building
1190 South St. Francis Drive (87505)
P.O. Box 5469, Santa Fe, New Mexico 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.env.nm.gov



RYAN FLYNN
Cabinet Secretary

BUTCH TONGATE
Deputy Secretary

MEMORANDUM

DATE: May 3, 2016

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

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

THROUGH: Jeff Lewellin, Mining Act Team Leader

RE: **NMED Comments, Freeport-McMoRan, Chino Mines Company, North Lampbright Stockpile New Unit Expansion and Extension of the Santa Rita Beneficiation Design Limit, MMD Permit No. GR009RE, Revision 16-1**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on March 4, 2016 requesting NMED review and provide comments on the above referenced permitting action. The information provided by Freeport-McMoRan Chino Mines Company (Chino) is for revision of the Santa Rita Beneficiation Design Limit (DL) and update of the Closure/Closeout Plan (CCP). MMD requested comments within 60 days of receipt in accordance with Section 19.10.5.506.E. NMAC. NMED has the following comments.

Background

On January 25, 2016, MMD received an application to revise permit GR009RE for the North Lampbright Waste Rock Stockpile (NLS) dated January 19, 2016. The associated NLS Extension CCP dated January 15, 2016 was also received by MMD on the same date. MMD is processing the application and update to the CCP as Revision 16-1 to permit GR009RE. Chino proposes to expand the Santa Rita Beneficiation Design Limit (DL) by 273 acres and update the CCP in accordance with 19.10.5 NMAC. The proposed changes to the DL include increasing the design limit by 200 acres north of the Main Lampbright Stockpile and an increase of 73 acres in the area

proximal to Reservoir 6. The increase in the DL north of the Main Lampbright Stockpile is to accommodate construction of the NLS. As stated by Chino, the NLS will be constructed from mine waste rock and thus will not be part of the leach system.

Air Quality Bureau

The Air Quality Bureau comments are attached under separate letterhead.

Surface Water Quality Bureau

The proposed construction of the NLS intersects two ephemeral tributaries of Lampbright Draw (Tributary 1 and Tributary 2) which join the main Lampbright Draw, also ephemeral. Designated uses for ephemeral drainages include livestock watering, wildlife habitat, limited aquatic life and secondary human contact. Use-specific numeric criteria for water quality standard attainment are summarized in 20.6.4.900 NMAC.

Chino Mine currently has National Pollutant Discharge Elimination System coverage under Multi-Sector General Permit #NMR053259, and the Surface Water Quality Bureau (SWQB) recently completed an inspection of the facility and Best Management Practices. The NLS would be included in the existing MSGP.

The NLS will store mine rock with the potential to produce degraded quality water, according to characterization studies summarized in the permit application. At closure, the store-and-release cover design will likely mitigate any adverse impacts to surface water, assuming the Rubio Peak Conglomerate is an adequate growth medium to ensure vegetative growth on the reclaimed stockpile. However, during the operational period surface waters may become degraded via run-on of surface water interacting with the stored mine rock, precipitation run-off from the stored mine rock, or interaction of mine rock with ground-water and subsequent lateral movement and discharge of groundwater to the surface at topographic lows and drainages bottoms.

The proposed stormwater channels will divert surface flows around the NLS to prevent water quality degradation. Run-on flows on the north and northwest sides of the NLS will be directed into the mine, while flows on the northeast and east sides will be diverted and discharged into Tributary 2. While these stormwater controls appear adequate to prevent water quality degradation, the SWQB recommends monitoring of surface waters in Tributary 2 to verify that water quality is not being impacted by the NLS and meets current water quality standards.

Surface water quality testing in Tributary 2 was included in Discharge Permit 376 (DP-376) under the *Lampbright Tributary 2 Corrective Action Completion Report and Administrative Compliance Order*. However, the stormwater sampling was only required in September 2010. As DP-376 is modified to include the NLS, additional stormwater sampling in Tributary 2 should be included to verify that the NLS is not contributing to surface water quality degradation.

Ground Water Quality Bureau

The CCP was submitted to the NMED Mining Environmental Compliance Section (MECS) as part of the Ground Water Discharge Permit modification application (application) for Discharge Permit 376 (DP-376) dated January 15, 2016 and supplemented with additional information on February 8, 2016. 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. MECS expects to have comments based on technical review of the application and associated operational, monitoring and closure plans, including the CCP. As such, comments on the application and CCP will be submitted under separate letterhead directly to Freeport-McMoRan Chino Mines Company with copy to MMD.

NMED Summary Comment

NMED finds that environmental standards will be met pending review of the CCP by MECS, and if the above comments are addressed.

Determination

NMED is withholding issuance of the determination pending completion of technical review of the application and CCP associated with DP-376.

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

cc: Trais Kliphuis, Division Director, NMED-WPD
James Hogan, Bureau Chief, SWQB
Richard Goodyear, Bureau Chief, AQB
Fernando Martinez, Division Director, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS
DJ Ennis, Lead Staff, EMNRD-MMD
John Money, Lead Staff, SWQB
Brad Reid, Lead Staff, MECS



SUSANA MARTINEZ
Governor

JOHN A. SANCHEZ
Lieutenant Governor

New Mexico
ENVIRONMENT DEPARTMENT

525 Camino de los Marquez, Suite 1

Santa Fe, NM 87505

Phone (505) 476-4300

Fax (505) 476-4375

www.env.nm.gov



Ryan Flynn
Cabinet Secretary

Butch Tongate
Deputy Secretary

MEMORANDUM

DATE: May 3, 2016

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

FROM: Neal Butt, Environmental Scientist & Specialist
Air Quality Bureau

RE: Request for Comments, Construction of North Lampbright Stockpile New Unit
Expansion and Extension of the Santa Rita Beneficiation Design Limit, Revision
16-1, Chino Mine, Grant County, Permit No. GR009RE

The New Mexico Air Quality Bureau (AQB) has completed its review of the submittal from Freeport-McMoRan Chino Mines Company ("Chino") entitled, *Freeport-McMoRan Chino Mines Company: Application To Revise Mining Permit GR009RE For North Lampbright Waste Rock Stockpile*, dated January 19, 2016. Pursuant to the New Mexico Mining Act Rules, the AQB has the following comments:

Air Quality Permitting History

Chino Mines has submitted an NSR Significant Revision application to revise their current construction permit, NSR Permit 0298-M7, to update operations at the Chino mine and the Cobre mine (Cobre) portions of the facility. The application file has been assigned Permit No. 0298-M8. The exact location of the facility is at latitude 32 degrees, 47 minutes, 0.94 seconds and longitude -108 degrees, 4 minutes, 9.1 seconds, Datum: WGS84; approximately 3.89 miles northeast of Bayard, NM in Grant County. The proposed modification will consist of increasing throughputs of copper ore and waste from the Chino and Cobre portions of the facility; expanding the Lampbright Stockpile area; adding a new waste stockpile ("NSPE Stockpile" a/k/a "NLS"); updating haul roads; updating Santa Rita Pit mining; and adding two new mining scenarios for Chino which are based on the NSPE stockpile. Mining scenario 1 represents filling the NSPE stockpile at maximum throughput and mining scenario 2 represents operation after NSPE stockpile is full. The use of two additional operating scenarios is proposed as this will

allow Chino Mines to adjust the amount and type of emission control necessary based on the mining throughputs. The NMED has conducted a preliminary review of the information submitted with the permit application. The preliminary review and applicant's dispersion modeling analysis indicates that the facility's air emissions will meet the ambient air quality standards for NO_x, CO, SO₂, TSP, and PM₁₀. A full review will evaluate the estimated emission rates and the air quality dispersion modeling analysis to determine compliance with ambient air standards. Based on the applicant's analysis, a preliminary determination is that this facility will comply with the requirements of Title 20, New Mexico Administrative Code (NMAC), Chapter 2, Parts 3, 7, 22, 61, 72, and 73; 40 CFR 50; 40 CFR 60 Subparts A, Dc, GG, and LL; 40 CFR 63 Subparts A, ZZZZ, and CCCCCC; and the New Mexico Air Quality Control Act. Therefore, the preliminary intent of NMED is to issue the air quality permit on or before July 12, 2016. This source is a PSD minor source according to 20.2.74 NMAC. To ensure compliance with state and federal air regulations, the permit is expected to include conditions that limit the emissions, hours of operation, production rate, and conditions that will require record keeping and reporting to the Department.

Details

On January 25, 2016, the Mining and Minerals Division ("MMD") received an "Application to Revise Mining Permit GR009RE for *North Lampbright Waste Rock Stockpile (NLS)*" dated January 19, 2016 and the associated "North Lampbright Waste Rock Stockpile Extension Closure/Closeout Plan ("CCP")" dated January 15, 2016 from Chino. MMD is processing the application as Permit Revision 16-1 to Permit No. GR009RE. Chino proposes to expand the Santa Rita Beneficiation Design Limit (DL) by 273 acres and update the CCP in accordance with 19.10.5 NMAC. The proposed changes to the DL include increasing the DL by 200 acres north of the Main Lampbright Stockpile and an increase of 73 acres in the area proximal to Reservoir 6. The increase in DL north of the Main Lampbright Stockpile is to accommodate the proposed construction of the NLS. The NLS will be constructed from mine waste rock and thus will not be part of the leach system.

The above is not intended to be an exhaustive list of all requirements that could apply. The applicant should be aware that this assessment does not supersede the requirements of any current federal or state air quality requirement. This written evaluation does not preclude the applicability of any forthcoming state or federal regulations.

The AQB has no objection to the current request. If you have any questions, please contact me at (505) 476-4317.