Ennis, David, EMNRD

From: Roth, Daniela, EMNRD
Sent: Monday, January 23, 2017 10:05 AM
To: Ennis, David, EMNRD
Subject: RE: Minimal Impact New Mining Operation Application, Fruitland Mine (Permit No. MK052MN)

Dear David Ennis:

Thank you for giving me the opportunity to review and comment on the Minimal Impact New Mining Operation Application for the Fruitland Mine, in McKinley County, NM (Permit No. MK052MN). I do not anticipate any impacts to state listed endangered plants from the mining operations, as described.

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

Sincerely,

Daniela Roth

Botany Program Coordinator
EMNRD – Forestry Division
1220 S. Saint Francis Drive
Santa Fe, NM 87505
505-476-3347
http://www.emnrd.state.nm.us/SFD/

MK052MN
Fruitland Mine

STATE OF NEW MEXICO
DEPARTMENT OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

Susana Martinez
Governor

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

January 27, 2017

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

Re: New Minimal Impact Mining Operation Application, Fruitland Mine, McKinley County, New Mexico, MK052MN (HPD log 105083)

Dear Mr. Ennis:

This letter is in response to the above referenced new minimal impact mining permit application received at the Historic Preservation Division (HPD) on January 12, 2017. According to the application, the proposed project is within Township 20 North, Range 7 West, and portions of Sections 13, 14, 23, and 24.

In accordance with rule 19.10.3 NMAC, *Minimal Impact Operations*, I reviewed our records to determine if cemeteries, burial grounds or cultural resources listed on the State Register of Cultural Properties or the National Register of Historic Places exist within or near the permit area. Our records show that there are no cultural resources listed on the National Register or State Register within or near the proposed permit area and no known cemeteries or burial grounds.

Although there are no cultural resources listed on the State or National Register, our records show that the area was partially surveyed for cultural resources and at least eighteen archaeological sites exist within the permit area. The cultural resources survey was conducted over 35 years ago and was not to current standards, thus there is a high potential for additional unidentified archaeological sites to exist within the permit area.

The application states that the surface and mineral estate is privately owned. Although a cultural resources survey is not required for minimal impact permits on private land, HPD recommends that a survey be conducted to ensure that archaeological sites are not inadvertently damaged by mining or overland travel. A list of archaeological consultants can be obtained from our website at www.nmhistoricpreservation.org.

Please do not hesitate to contact me if you have any questions regarding these comments. I can be reached by telephone at (505) 827-4225 or by email at bob.estes@state.nm.us.

Sincerely,

Bob Estes

Bob Estes Ph.D.
HPD staff Archaeologist

Log: 105083

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Deputy Secretary

MEMORANDUM

DATE: February 7, 2017

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

THROUGH: Jeff Lewellin, Mining Act Team Leader

FROM: Alan Klatt, Surface Water Quality Bureau
Neal Butt, Air Quality Bureau

RE: NMED Comments, Miocene, LLC, Fruitland Mine, Minimal Impact New Mining Operation, McKinley County, New Mexico MMD Permit No. MK052MN

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on January 10, 2017 requesting NMED review and provide comments on the above referenced MMD permitting action. The applicant has submitted an application for a new, minimal impact humate mine. MMD requested comments within 20 days of receipt in accordance with Section 19.10.3.304.H NMAC. On January 17, 2017, MMD extended the deadline for comments until February 8, 2017 so a site inspection could be performed of the area to be mined. NMED has the following comments:

Background

The location of the proposed minimal impact humate mine is in portions of T20N, R7W, Sections 13, 14, 23 and 24, McKinley County. The application submitted to MMD indicates that no more than 1.99 acres of the surface mine will be disturbed while concurrent reclamation occurs subsequent to extraction of humate to a depth of 20 feet below ground surface.

Air Quality Bureau

The Air Quality Bureau comments are attached under separate letterhead.

Surface Water Quality Bureau

The Surface Water Quality Bureau comments are attached under separate letterhead.

Ground Water Quality Bureau

The applicant indicates the depth to nearest ground water in the area to be mined is 255 feet below ground surface. With the projected maximum depth of surface mining to 20 feet below ground surface, ground water should not be encountered or adversely affected during mining activities. If ground water should be observed while mining, the applicant should notify staff at MMD and NMED to obtain guidance.

NMED Summary Comment

NMED finds the proposed activities are likely to have a minimal environmental impact if conducted and reclaimed in accordance with the approved permit and recommendations listed above.

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

cc: Bruce Yurdin, Division Director, NMED-WPD
Shelly Lemon, Acting Bureau Chief, SWQB
Richard Goodyear, Bureau Chief, AQB
Fernando Martinez, Division Director, EMNRD-MMD
DJ Ennis, Lead Staff, EMNRD-MMD
Kurt Vollbrecht, Program Manager, MECS

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Deputy Secretary

MEMORANDUM

DATE: February 6, 2017

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

FROM: Neal Butt, Environmental Analyst
Air Quality Bureau

RE: Request for Comments on Minimal Impact New Mining Operation Application, Fruitland Mine, McKinley County, New Mexico, Permit Tracking No. MK052MN

The New Mexico Air Quality Bureau ("AQB") has completed its review of the above mentioned mining project. Pursuant to the New Mexico Mining Act Rules, the AQB has the following comments:

Air Quality Permitting History

The AQB has not issued any air quality permits for this operation.

Details

The applicant, Miocene LLC, is requesting a minimal impact new mining operation permit, in order to mine for humate within portions of Township 20N, Range 7W, Sections 13, 14, 23 and 24, in McKinley County, New Mexico. Total acreage to be disturbed is 1.99 acres. According to the applicant, no processing will occur on-site. For each area mined, an equal area will be reclaimed. Mining will occur in phases. Prior to active mining, topsoil and overburden will be excavated and stockpiled for future use in reclamation to ensure proper post-mining vegetative success. Mining will then proceed in a sequence in which small pits (approximately100 x 100 feet) are excavated. Material will be stockpiled on-site and trucked using the access roads noted. Following extraction, overburden and topsoil will be used as backfill material. Surface topography will be re-contoured to reflect the pre-mining landscape. Reclamation earthwork will focus on stabilization of surface materials to prevent erosion from mobilizing sediment. Furrowing or plowing techniques will be utilized before the application of an appropriate seeding mix to ensure both hand-broadcast and naturally transported seed is captured within the reclamation area.

In addition, a site visit was conducted on February 3, 2017.

Air Quality Requirements

The New Mexico Mining Act of 1993 states that "Nothing in the New Mexico Mining Act shall supersede current or future requirements and standards of any other applicable federal or state law." Thus, the applicant is expected to comply with all requirements of federal and state laws pertaining to air quality. Current requirements which may be applicable in this mining project include, but are not limited to the following:

Subsection A of 20.2.72.200 NMAC, *Application For Construction, Modification, NSPS, And NESHAP - Permits And Revisions*, states that: "Permits must be obtained from the Department by:

(1) "any person constructing a stationary source which has a potential emission rate greater than 10 pounds per hour or 25 tons per year of any regulated air contaminant for which there is a National or New Mexico Ambient Air Quality Standard. If the specified threshold in this subsection is exceeded for any one regulated air contaminant, all regulated air contaminants with National or New Mexico Ambient Air Quality Standards emitted are subject to permit review. . ."; and

(3) "Any person constructing or modifying any source or installing any equipment which is subject to 20.2.77 NMAC, *New Source Performance Standards*, 20.2.78 NMAC, *Emission Standards for Hazardous Air Pollutants*, or any other New Mexico Air Quality Control Regulation which contains emission limitations for any regulated air contaminant;"

Also, Paragraph (1) of Subsection A of 20.2.73.200 NMAC, *Notice of Intent*, states that:

(1) "Any owner or operator intending to construct a new stationary source which has a potential emission rate greater than 10 tons per year of any regulated air contaminant or 1 ton per year of lead shall file a notice of intent with the department."

In addition, pursuant to Subsection A of 19.10.3.304 NMAC, *Minimal Impact New Mining Operations*:

"A minimal impact new mining operation will not exceed 10 acres of disturbed land, or 40 acres of disturbed land in the case of dolomite, garnet, humate, perlite and zeolite operations that: (1) are located outside Bernalillo, Dona Ana and Santa Fe counties; and (2) are committed to perform concurrent reclamation of disturbed areas to the extent practicable. . ."

Humate is prone to become suspended in the air; therefore, the AQB recommends implementation of a strategy to reduce fugitive humate from the mining operation.

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

Fugitive Dust

Fugitive dust is a common problem at mining sites. The AQB does not regulate fugitive dust; however, we do recommend controls to minimize emissions of particulate matter from fugitive dust sources. The following control strategies can be included in a comprehensive facility dust control plan (from EPA's *Compilation of Air Pollutant Emission Factors, AP-42*):

Unpaved haul roads and traffic areas: paving of permanent and semi-permanent roads, application of surfactant, watering, and traffic controls, such as speed limits and traffic volume restrictions.

Paved roads: covering of loads in trucks to eliminate truck spillage, paving of access areas to sites, vacuum sweeping, water flushing, and broom sweeping and flushing.

Material handling: wind speed reduction and wet suppression, including watering and application of surfactants (wet suppression should not confound track out problems).

Bulldozing: wet suppression of materials to "optimum moisture" for compaction.

Scraping: wet suppression of scraper travel routes.

Storage piles: enclosure or covering of piles, application of surfactants.

Miscellaneous fugitive dust sources: watering, application of surfactants or reduction of surface wind speed with windbreaks or source enclosures.

Recommendation

The AQB has no objection to the current request.

If you have any questions, please contact me at (505) 476-4317.

State of New Mexico
ENVIRONMENT DEPARTMENT

Office of the Secretary

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J. C. BORREGO
Deputy Secretary

MEMORANDUM

DATE: February 2, 2017

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

FROM: Alan Klatt, Environmental Scientist & Specialist
Watershed Protection Section
Surface Water Quality Bureau (SWQB)

RE: Requested Comments, Minimal Impact New Permit Application, Miocene, LLC, Fruitland Mine, McKinley County, MMD Permit No. MK052MN

On January 5, 2017 the Mining and Minerals Division (MMD) received a permit application from Miocene, LCC for a new Minimal Impact Mining Operation located in portions of T20N, R7W, Sections 13, 14, 23, and 24 in McKinley County, New Mexico. Surface mining for humate will not exceed a total disturbance area of 1.99 acres. Pursuant to § 19.10.3.304 NMAC, SWQB has the following comments:

The proposed permit boundary encompasses portions of Arroyo Pueblo Alto and Chaco Wash which are both tributaries of the Chaco River which then flows into the San Juan River and eventually the Colorado River. Arroyo Pueblo Alto and Chaco Wash are subject to 20.6.4.98 NMAC State of New Mexico Standards for Interstate and Intrastate Surface Waters.

The permit application states that water quality standards will be met during mining and reclamation by reestablishing topography comparable with the surrounding landscape. The permit application does not describe how the topographical comparison will be made. Similarly, the permit application states that water quality standards will be met during mining and reclamation by not exceeding 3H:1V (33%) slope gradients after reclamation. Using ArcGIS and a 10-meter digital elevation map, slopes of 3H:1V occur naturally on the landscape in less than 0.1 % of the proposed permit area. The mean slope of the proposed permit area is 3%. To promote a stable post-mining landscape and to protect water quality standards, SWQB recommends slope gradients after reclamation of 5% or less and limiting 3H:1V slope gradients.

There are 2 major soil complexes in the proposed permit area, the Doakum-Betonnie complex and the Calladito-Elias association. The parent materials of these soils are eolian deposits and alluvium derived from sandstone. The A horizon in the Calladito-Elias association extends to a depth of less than 5 cm from the surface for the Calladito series and less than 3 cm for the Elias series. Salvaging and stockpiling topsoil may be more difficult where thin, shallow topsoil is present. The NRCS ecological site description for the Elias soil series is Sodic Slopes. "Sodic Slopes are usually dissected by small drainageways which often erode quite readily when the vegetation has deteriorated (USDA NRCS Ecological Site Descriptions)." Greater effort to control erosion and revegetate surface disturbances may be needed in these areas.

To protect New Mexico's surface water quality, the following guidelines are recommended:

- Appropriate spill clean-up materials such as absorbent pads must be available on-site at all times during road construction, site preparations, and drilling activities to address potential spills. Report all spills immediately to the NMED as required by the New Mexico Water Quality Control Commission Regulations (20.6.2.1203 NMAC). For non-emergencies during normal business hours, call 505-428-2500. For non-emergencies after hours, call 866-428-6535 or 505-428-6535 (voice mail, twenty-four hours a day). For emergencies only, call 505-827-9329 twenty-four hours a day (New Mexico Department of Public Safety).

- Pressure wash and/or steam clean all mobile equipment used in the project area before the start of the project and inspect daily for leaks. A written log of daily inspections and maintenance schedules should be kept and available on-site.

- The use of overland travel and site selection, design, and construction of exploration trenches, staging areas, well pads, reserve pits, and roads should comply with the guidelines described in the Bureau of Land Management "Gold Book", Chapter 4 (http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices/gold_book.html).

- Travel should be suspended during wet, muddy conditions. Construction or maintenance activities should not be performed during periods when the soil is too wet to adequately support heavy equipment. If such equipment creates ruts in excess of six inches deep, the soil is considered too wet.

- Roads, pads, and other facility structures should be set back a minimum of 100 feet from any watercourses, including springs, wetlands, and ephemeral stream channels ("arroyos").

- Implement Best Management Practices to prevent direct impacts to watercourses, including ephemeral channels ("arroyos"). For temporary surface disturbances during

exploration and reclamation activities, the operator should implement erosion control measures that are designed, constructed and maintained using professionally recognized standards (e.g., Natural Resource Conservation Service standards, or the Bureau of Land Management "Gold Book").

- Activities within watercourses or wetlands may require coverage under a Clean Water Act Section 404 permit. If you have questions about this permitting, please contact Ms. Marcy Leavitt, Regulatory Division, US Army Corps of Engineers, Albuquerque (505-342-3678).

- The applicant should design and construct containment systems capable of retaining storm water running off of the mining area during precipitation events. The containment system should be sufficient in size to contain storm water generated within its catchment area from 100-year, 3-day storm event. Discharge of storm water from disturbed areas to any Water of the United States without an NPDES permit may be a violation of the Clean Water Act.

- Certain mining activities may require a permit from EPA under Section 402 (NPDES) of the Clean Water Act, under the Storm Water Multi-Sector General Permit (MSGP) for Industrial Activities. The permittee must submit the appropriate application to EPA prior to initiating activities that may result in an allowable storm water discharge. The 2015 MSGP documents are available online at: https://www.epa.gov/npdes/final-2015-msgp-documents. For additional information, contact:

  EPA Region 6
  1445 Ross Avenue
  Suite 1200
  Dallas, Texas 75202
  Ph: 800-887-6063 or 214-665-2760 if calling from outside Region 6

  If you have questions about this coverage please contact Sarah Holcomb, SWQB, at (505) 827-2798.

If you have any questions, please contact me at (505) 827-0388.

GOVERNOR
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DIRECTOR AND SECRETARY
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Alexandra Sandoval

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8 February 2017

David J. (DJ) Ennis, P.G., Permit Lead
Mining Act Reclamation Program
Mining and Minerals Division (MMD)
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Minimal Impact New Mining Operation Application, Fruitland Mine, McKinley County, New Mexico, Permit No. MK052MN; NMDGF No. 17510

Dear Mr. Ennis,

The New Mexico Department of Game and Fish (Department) has reviewed the project referenced above. Miocene, LLC, is requesting a permit for a new Minimal Impact Mining Operation located in portions of T20N, R7W, Sections 13, 14, 23, and 24 in McKinley County, New Mexico. The total area of land to be initially disturbed by the project is approximately 1.99 acres. A site inspection was conducted on 3 February 2017 by staff from the Department, MMD and Miocene. The Department provides the following recommendations to minimize impacts to wildlife.

The proposed areas where the humate deposits will be mined contain grassland habitat that could support Gunnison's prairie dog *(Cynomys gunnisoni)* colonies. Gunnison's prairie dog is designated by the Department as a Species of Greatest Conservation Need, and their colonies provide important habitat for other grassland wildlife. The Department recommends, if possible, that occupied prairie dog towns be left undisturbed and that mining activities be directed off the prairie dog colony. Burrowing owls *(Athene cunicularia)* may be associated with prairie dog towns and use abandoned burrows as breeding (March-August) and sometimes as wintering habitat. The Department recommends conducting burrowing owl surveys during the breeding season prior to any ground-disturbing activities. The Department's Burrowing Owl guidelines (http://www.wildlife.state.nm.us/conservation/habitat-information/habitat-handbook/project-guidelines /Burrowing-Owl-Surveys-and-Mitigation-2007.pdf) provide information on appropriate survey procedures. Burrowing owls are protected against take under New Mexico state statute and under the Migratory Bird Treaty Act, which specifies that active burrows must not be disturbed until the young have fully fledged and all the owls have left the area. If mining operations cannot wait until the burrows are vacant, then a permit must be obtained from the U.S. Fish and Wildlife Service and the Department to safely capture and relocate owls from the area.

Arroyo Pueblo Alto and Chaco Wash traverse the proposed mining area. To minimize any additional soil erosion, the Department recommends maintaining a buffer zone of intact native vegetation that is undisturbed by mining activity for at least 150 feet on both sides of Arroyo Pueblo Alto and Chaco Wash.

The noxious weed halogeton (*Halogeton glomeratus*) is known to occur near the proposed project site and is present on other humate mines in the area. Halogeton thrives on disturbed sites and along roadsides, and is toxic to grazing animals due to the accumulation of oxalates in its foliage. The Department recommends that any vehicles and equipment arriving on site be thoroughly cleaned of all visible dirt and mud to help contain/control the potential spread of associated weed seeds. The operator should initiate a weed monitoring program to aggressively detect and control the spread of halogeton if it invades the project area.

Thank you for the opportunity to review and comment on the proposed project. 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