

State of New Mexico
Energy, Minerals and Natural Resources Department

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Ben Shelton
Deputy Cabinet Secretary

**Drew Roybal-Chavez, Acting
Deputy Director**
Mining and Minerals Division



Electronic Transmission

May 21, 2026

Frank Bain
2425 Chof Trail
Flagstaff, AZ 86005

**RE: Agency Comments, Proposed Lordsburg Playa Lithium Exploration 2 Project,
Permit No. HI025EM**

Dear Mr. Bain,

Pursuant to 19.10.5.505 (B)(3) NMAC, the New Mexico Mining and Minerals Division (MMD) has distributed Permit Application HI025EM to the required state agencies. This application was submitted on April 9, 2026, by Frank Bain for the proposed Lordsburg Playa Lithium Exploration 2 Project.

A Site Inspection was held on April 30, 2026, and was attended by MMD, the New Mexico Environment Dept. (NMED), and the New Mexico Dept. of Wildlife (NMDW).

MMD has the following comments regarding this application:

1. A few points along both access roads, especially where they cross an arroyo, may need improvement. What is the plan for improving roads that may be impassable by drill rigs?
2. Reseeding will be required as a part of reclamation over drill sites and overland travel areas. Please attach a BLM specified seed mix and their recommended broadcast rate. Additionally, please indicate a scarification method for the seed. Hand scarification, such as raking in seeds, will be necessary at drill pads and mud pits, but not for overland travel areas.
3. Remove references to a wildlife survey in the application, as the attached document is a comment letter, not a wildlife survey.
4. Provide additional details for wildlife protection measures around mud pits per NMDW's comment letter
5. Indicate on the application all drilling methods planned for use, including mud fluid drilling and air rotary drilling

6. Well drilling and plugging is regulated by NMOSE. All materials used in these processes must meet NMOSE requirements.
7. Water sources for this project are regulated by NMOSE, and all water use must be appropriately permitted.
8. Per NMED requirements, process water must be contained within a closed-loop system or lined pits. No process water may be discharged to the ground or to the playa without a discharge permit.
9. Known endangered plants are present in the vicinity of the project area. To determine if the proposed permit qualifies as a Minimal Impact Exploration, the applicant shall conduct an endangered plants survey in compliance with New Mexico Forestry Division requirements.
10. Financial assurance will be held jointly by MMD and the Bureau of Land Management (BLM). The applicant will be required to fulfill requirements for both agencies before a permit may be issued. This may include NEPA analysis and cultural survey for the eastern access route.
11. Prior to issuance of the permit MMD will require the applicant to submit a draft of an approved financial assurance (FA) instrument. See table below for FA calculations based on MMD's updated guidance document for estimating reclamation costs (attached).

Lordsburg Playa Lithium Exploration 2 Project (Minimal Impact) HI025EM				
Financial Assurance				
Description	Unit	Quantity	Unit Rate (\$/unit)	Total Cost (\$)
Surface Reclamation 1st Acre	acre	1	12,300	12,300
Surface Reclamation 2nd Acre	acre	1	6,800	6,800
Plug and Abandon Exploration Drill Holes	ft	1000	25	25000
			Total FA	\$44,100

Additionally, please see attached comments from the following agencies:

- New Mexico Environment Dept.
 - Address SWQB comments requesting a map of playa drainage impacts, playa soil and vegetation sampling, and infiltration instrumentation
- New Mexico State Land Office
 - Address comment regarding ROW and access issues through State lands
- New Mexico Office of the State Engineer
 - Address specific questions about drilling materials and permitted water use
- New Mexico Dept. of Wildlife
 - Address specific questions about drilling mud pit fencing.
- New Mexico Historic Preservation Division
- New Mexico Forestry Division
 - Address need for endangered species survey

RE: Agency Comments, Proposed Lordsburg Playa Lithium Exploration 2 Project, Permit No.
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If you have any questions, please contact me at (505) 651-7721 or by email at
maile.gray@emnrd.nm.gov

Sincerely,



Maile Gray, Permit Lead
Mining Act Reclamation Program (MARF)

cc: DJ Ennis, Program Manager, MARF
Clint Chisler, Reclamation Supervisor, MARF
Mine File (HI025EM)

Attch: HI025EM Combined Agency Comments
MMD Guidance for Estimating Reclamation Costs, July 2025



DIRECTOR AND SECRETARY
TO THE COMMISSION
Michael B. Sloane

STATE OF NEW MEXICO DEPARTMENT OF WILDLIFE

One Wildlife Way, Santa Fe, NM 87507
Tel: (505) 476-8000 | Fax: (505) 476-8180
For information call: (888) 248-6866

<https://wildlife.dgf.nm.gov>

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5 May 2026

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

RE: Minimal Impact Exploration Permit Application, Lordsburg Playa Lithium Exploration Project, Hidalgo County, NM, Permit No. HI025EM; NMDGF No. NMERT-5931.

Dear Ms. Gray,

The New Mexico Department of Wildlife (Department) has reviewed the proposed lithium exploration project referenced above. Frank Bain (Operator) is proposing to drill 6 exploration bore holes, to a depth of approximately 500 feet, from a total of 6 drill pad sites. The project area is located on land administered by the U.S. Bureau of Land Management (BLM) in Township 23S, Range 20W, Sections 7, 8, 9, 17, 18 and 20. The proposed exploration project is anticipated to disturb a total area of approximately 2.7 acres. Staff from the Department, MMD, and New Mexico Environment Department and the Operator conducted a site inspection on 30 April 2026.

The application states that a wildlife survey was performed for the permit area and references a comment letter the Department sent to MMD on 20 November 2017 (NMDGF No. 18073) as the wildlife survey document. The Department's 2017 comment letter is not a wildlife survey and should not have been referenced as one in the permit application.

The permit application states that the Operator will use mud/fluid drilling techniques. Mud pits create an entrapment hazard for both terrestrial and volant wildlife species and should be fenced and covered by solid metal, plywood, or netting to exclude birds and bats. If netting is used, the Department recommends extruded plastic, knit, or woven netting. Monofilament netting should never be used due to its tendency to ensnare wildlife, usually resulting in injury or death. Netting material must be held taught over a rigid and adequately supportive frame to prevent sagging into the mud pits. Mesh size for both fencing and netting should not be larger than three eighths of an inch to exclude smaller animals.

The Department also strongly recommends that the Operator consider using a closed-loop drilling system. Closed-loop systems eliminate the need to build fences, install netting, or use other materials to exclude wildlife from mud pits; reduce the amount of surface disturbance associated with the drill pad site; and consume significantly less water.

During drilling operations, it is also important to prevent wildlife from entering and becoming trapped in stockpiled drill pipes. Capping piping is the most effective way to prevent wildlife entry. At a minimum, the Department recommends that each section of pipe should be visually inspected prior to use to verify that wild animals are not inside.

The permit application does not provide a BLM-approved native reclamation seed mix for review. The Department recommends that only certified weed-free seeds be used to avoid inadvertently introducing non-native species to the reclamation site and that sterile seed sources not be used. Any alternative plant species, 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 and suggests including seeds from a region that represents potential future climatic conditions at the site.

Thank you for the opportunity to review and comment on the proposed exploration project. If you have any questions, please contact Ron Kellermueller, Mining and Energy Habitat Specialist, at (505) 270-6612 or ronald.kellermueller@dof.nm.gov.

Sincerely,

Virginia Seamster, Ph.D.
Assistant Chief
Wildlife Management Division
Ecological and Environmental Planning Section

cc: USFWS NMES Field Office



Electronic Transmission

MEMORANDUM

Date: May 13, 2026

To: David Ennis, Program Manager, Mining Act Reclamation Program

CC: Maille Gray, Site Lead, Mining Act Reclamation Program

Through: Amber Rheubottom, Mining Act Team Leader, Mining Environmental Compliance Section (MECS)

From: Davena Crosley, Surface Water Quality Bureau (SWQB)
Sufi Mustafa, Air Quality Bureau (aqb)
Sean Madden, MECS

Subject: **New Mexico Environment Department (NMED) Comments, Lordsburg Playa Lithium Exploration 2 Project, Hidalgo County, New Mexico, Mining Act Permit No. HI025EM**

The New Mexico Environment Department (NMED) received correspondence from the Mining and Minerals Division (MMD) on April 20, 2026 requesting that NMED review and provide comments on the above-referenced MMD permitting action. Pursuant to the Mining Act, the operation is an exploration project. MMD requested comments on the application within 20 days of receipt of the request for comments.

Background

Frank Bain is requesting to drill exploration drill holes on Bureau of Land Management (BLM) administered land.

Air Quality Bureau

The AQB comments are attached.

Surface Water Quality Bureau

The SWQB comments are attached.

SCIENCE | INNOVATION | COLLABORATION | COMPLIANCE

Ground Water Quality Bureau | 1190 Saint Francis Drive, PO Box 5469, Santa Fe, New Mexico 87502-5469

Telephone (505) 827-2900 | www.env.nm.gov/gwqb/

Mr. David Ennis
Lordsburg Playa Exploration
May 13, 2026
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Mining Environmental Compliance Section

No comments.

NMED Summary Comment

NMED has determined the proposed activities will be protective of the environment as described in these actions.

If you have any questions, please contact Amber Rheubottom at (505) 660-2379.

cc: Joseph Fox, Program Manager, NMED-MECS
Brad Reid, Team Leader, NMED-MECS
Shelly Lemon, Bureau Chief, NMED-SWQB
Cindy Hollenberg, Bureau Chief, NMED-AQB



MEMORANDUM

DATE: May 8, 2026

TO: Amber Rheubottom, Mining Act Team Leader, Mining Environmental Compliance Section, NMED

FROM: Sufi Mustafa, Staff Manager, Air Dispersion Modeling and Emission Inventory Section, Air Quality Bureau.

Request for Review and Comment, Lordsburg Playa, Hidalgo County, New Mexico Mining Act Permit No. HI025EM

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 provides the following comments.

Details

The applicant wants to explore lithium. The exploration will result in creating up to six drill pads and six drill holes. Total land disturbance expected is less than 2.71 acres.

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.

20.2.15 NMAC, *Pumice, Mica and Perlite Processing*. Including 20.2.15.110 NMAC, *Other*

Particulate Control: "The owner or operator of pumice, mica or perlite process equipment shall not permit, cause, suffer or allow any material to be handled, transported, stored or disposed of or a building or road to be used, constructed, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne."

Paragraph (1) of Subsection A of 20.2.72.200 NMAC, *Application for Construction, Modification, NSPS, and NESHAP - Permits and Revisions*, states that air quality permits must be obtained by:

Request for Review and Comment, Lordsburg Playa, Hidalgo County, New Mexico Mining Act Permit No. HI025EM

“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.”

Further, Paragraph (3) of this subsection states that air quality permits must be obtained by:

“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:

“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.”

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

Air emissions from this project should be evaluated to determine if an air quality permit is required pursuant to 20.2.72.200.A NMAC (e.g. 10 lb/hour or 25 TPY). Fugitive dust is a common problem at mining sites and this project will temporarily impact air quality as a result of these emissions. However, with the appropriate dust control measures in place, the increased levels should be minimal. Disturbed surface areas, within and adjacent to the project area, should be reclaimed to avoid long-term problems with erosion and fugitive dust. EPA’s *Compilation of Air Pollutant Emission Factors, AP-42, “Miscellaneous Sources”* lists a variety of control strategies that can be included in a comprehensive facility dust control plan. A few possible control strategies are listed below:

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.

Request for Review and Comment, Lordsburg Playa, Hidalgo County, New Mexico Mining Act Permit No. HI025EM

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 Air Quality Bureau does not have any objection to this permit application.

This written evaluation does not supersede the applicability of any forthcoming state or federal regulations.

If you have any questions, please contact me on 505 629 6186.



MEMORANDUM

May 12, 2026

TO: Amber Rheubottom,
Mining Environmental Compliance Section,
Groundwater Quality Bureau

FROM: Davena Crosley,
Watershed Protection Section,
Surface Water Quality Bureau

SUBJECT: **Request for Review and Comment, Lordsburg Playa Lithium Exploration 2 Project,
Hidalgo County, New Mexico Mining Act Permit No. HI025EM**

The New Mexico Environment Department (NMED)-Surface Water Quality Bureau (SWQB) received the subject request for comments on April 29, 2026, regarding a new minimal impact exploration permit for the Lordsburg Playa Lithium Exploration 2 Project in Hidalgo County, New Mexico submitted by Frank Bain (Applicant).

Summary of Proposed Action

The Applicant proposes to bore six, 5-inch diameter holes to depths of no more than 500-feet from six drill pad locations. Each drill pad area will be 50 feet x 75-feet and will be overland rather than graded/bladed and two plastic sheeting lined mud/fluid pits 10-feet x 6-feet x 8-feet deep are proposed. The total acreage disturbed due to drill pads is approximately 0.17 acres. Drill cuttings will be buried at each drill pad location disturbing 0.02 acres. Existing roads and overland travel routes to drill pads will be utilized disturbing up to 2.52 acres. The total proposed disturbance of the project is estimated at 2.71 acres.

Relevant State and Federal Water Quality Regulations

Mine activities may affect Surface Waters of the State as defined in New Mexico's Standards for Interstate and Intrastate Surface Waters (20.6.4.7 NMAC), including precipitation dependent playa lakes within the mining operations, which are subject to 20.6.4.98 NMAC. These non-perennial surface waters of the state have designated uses of: livestock watering, wildlife habitat, marginal warmwater aquatic life, and primary contact. Furthermore, operations must ensure compliance with New Mexico's water quality standards including General Criteria which *"...are established to sustain and protect existing or attainable uses of surface waters of the State. These general criteria apply to all surface waters of the state at all times... Surface waters of the State shall be free of any water contaminant in such quantity and of such duration as may with reasonable probability injure human health, animal or plant life or property, or unreasonably interfere with the public welfare or the use of property."* (20.6.4.13 NMAC)

The Applicant is required to report all spills immediately to the NMED as required by the New Mexico

SWQB comments

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 (NM Dept of Public Safety).

In addition to the above regulatory standards, SWQB recommends the following mitigation measures to avoid surface water contamination and to protect surface and groundwater quality during and after project activities:

- Implement Best Management Practice (BMPs) identified in the permit application to protect Surface Waters of the State. At no time should construction materials including fuel, oil, grease or other contaminants be staged or stored in flood prone areas during the summer monsoon season, typically July-September.
- Utilize a secondary containment system for fuel, oil, hydraulic fluid, lubricants, and other petrochemicals to prevent spills. During the summer monsoon seasons, typically July-September, store these materials outside of the flood-prone zone.
- Do not use pits and drill holes as disposal sites for oil, gas, grease or other potential contaminants to surface and ground water.
- Ensure appropriate spill clean-up materials such as absorbent pads are available on-site at all times during road construction, site preparations, drilling and reclamation to address potential spills.
- Contain process water within the closed-loop system or lined pits. Do not discharge process water to the ground or to the playa unless a discharge permit is secured from the USEPA and/or NMED.
- Minimize playa impacts by limiting the number of trips crossing the playa.
- Whenever possible, move drill holes, drill pads, mud/fluid pits out of the playa and provide a minimum 50-foot setback from any playas and other Surface Waters of the State to drill pads and staging areas.
- Perform all work in the dry season and postpone work during wet and muddy conditions. If vehicles and heavy equipment could create ruts in the playa, delay work to prevent damage to the playa. In general, if a precipitation event is equal to or greater than 0.25 inches within 24 hours occurs, delay work in the playa.
- Segregate and store distinct layers of soil as they are excavated from pits. Upon project completion, backfill pits with the segregated layers of soil, replicating the original soil layers. Restoring the playa's soil layers will help to protect its natural functions.
- Size pits to prevent overtopping during precipitation events. If stormwater controls are not implemented, stormwater will enter the playa and concentrate pollutants in the playa's basin.

SWQB comments

The playa that is located within the project area is a potential pathway to groundwater. Proper sizing of pits will help to protect both surface and groundwaters.

- Line pits to prevent transport of water contaminants to groundwater or surface water. Playas can concentrate pollutants because of their basin nature, but also serve as pathways to groundwater either by direct drainage below the playa or by fracture zones that connect the playa to underground flow.
- Utilize Best Management Practices to reduce soil compaction by stationary trucks and heavy equipment by using ground protection matting under tire areas.
- Re-grade the site to pre-construction elevation and topography during reclamation to preserve run-on hydrology to the playa.
- Record pre- and post-conditions of the playa in areas disturbed by the project operation with repeat photo points. Copy SWQB on final reports to MMD to confirm reclamation of the site to SWQB.
- Copy SWQB staff on notifications to MMD for project mobilization. Please copy Davena Crosley at davena.crosley@env.nm.gov.

To understand the site hydrology and better characterize the playa for maintenance and reclamation, SWQB recommends that the permittee conduct the following studies prior to exploration activities:

- Map all playa(s) in the project area that may be impacted by drilling, drill pads, mud or fluid pits, or overland travel.
- Map all drainageways that drain to the playa(s) within the project area.
- Sample playa soils to determine shrink/swell clay content and depth.
- Sample vegetation as an indicator of playa inundation frequency.
- Install instrumentation to measure infiltration below playa and annulus.

If you have any questions, please contact Davena Crosley (NMED-SWQB) at 575-636-3425 or davena.crosley@env.nm.gov.



**STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER**



MMD REVIEW MEMORANDUM

DATE: May 5, 2026

TO: **Maille Gray**, Permit Lead, Mining Act Reclamation Specialist, Mining Act Reclamation Program (MARF), Mining and Minerals Division (MMD), Energy, Minerals and Natural Resources Department (EMNRD)
Llyod Valentine, NMOSE District 3 Manager

FROM: Christopher E. Angel, PG, Bureau Chief, Statewide Projects Bureau

SUBJECT: Lordsburg Playa Lithium Exploration 2 Project–Minimal Impact Exploration, HI025EM, Hidalgo County

KEYWORD: Lordsburg Playa, Lithium, District No. III, Hidalgo, Animas Underground Water Basin, Lordsburg, Basin Fill, Minimal Impact

ID: MMD_2026_003_HI025EM

INTRODUCTION

The New Mexico Office of the State Engineer (OSE) Statewide Projects Bureau (Statewide) received the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Mining and Minerals Division's (MMD's), request for comments on the subject Lordsburg Playa Lithium Exploration 2 Project (Lordsburg Playa). The MMD permit number is HI025EM. The application materials were downloaded from

<https://www.emnrd.nm.gov/mmd/hi025em-lordsburg-playa-lithium-exploration-2/>

The Lordsburg Playa application is requesting a permit to drill six mineral exploratory boreholes. These boreholes are to be drilled in the Animas Underground Water Basin of Hidalgo County, New Mexico. More specifically, the boreholes are to be drilled in Section 15, Township 23 South, Range 20 West. Each borehole is to be 6-inches (in) in diameter and penetrate to a depth 500 feet below ground level (fbgl). Each borehole is to be plugged and not converted for use as water wells.

This review is to evaluate the area for possible hydrogeologic concerns and the materials used in plugging the boreholes.

COMMENTS

Statewide has completed a review of the Lordsburg Playa - Minimal Impact Exploration Project (HI025EM) application and provides the following comments:

General Comments

Surface Water

All six wells are going to be drilled in the Animas Underground Water Basin in the Alkali Flats. Four of the six exploratory boreholes are to be drilled in the Lordsburg Playa. It is unlikely that the playa will be negatively affected by the drilling of these exploratory boreholes as long as the boreholes are properly drilled and plugged.

Groundwater

Groundwater flow is to the north-northwest in the Animas Valley (O'Brien and Stone, 1981). Groundwater tends to be shallower at the alkali flat area and tends to precipitate halite and gypsum through evaporative process (Hibbs et al, 2000). The precipitation of halite and gypsum in alkali flats (Hibbs et al, 2000) indicate an increased salinity at the proposed drill sites.

Drilling Type and Identified Driller

The selected drilling method is air rotary; however, mud fluid drilling is also completed on the application form but not checked. No matter which drilling method is selected, drilling cuttings and fluids must be contained on the property under the control of the applicant and must not discharged into the waters of the state (NMAC 19.27.4.29.P.(2)).

Section 5 – Chemical Use

The chemicals identified that would be used during the drilling and plugging process are shredded paper, 100 bags of cement, 100 bags of bentonite and water supplied from the City of Lordsburg or local ranch.

Shredded paper does not appear to be NSF 60 certified material. In accordance with NMAC 19.27.4.29.B. (2017), all drilling fluids, additives must be NSF/ANSI standard 60 certified. Prior to utilizing shredded paper as a lost circulation material, it must be demonstrated to the OSE that it is NSF/ANSI standard 60 certified or a variance is submitted to the OSE in accordance with (NMAC 19.27.4.37).

The type of cement is nonspecific and due to the potential for the water at the location to have high salts and sulfates the type of cement used in the plugging of the boreholes must be designated as a high sulfate resistant (HSR) cement.

The water supply for the site is identified as the City of Lordsburg or local ranch. The Office of the State Engineer must be contacted prior to using a water source other than the City of Lordsburg to determine if the water source is appropriately permitted for the desired use.

Borehole Abandonment

Wet Boreholes

The Lordsburg Playa MMD application indicates that they want to plug the borehole with “100 bags for hole plugging”. This is a **non-specific** type of cement and not acceptable. As this area is documented as precipitating halite and gypsum in the subsurface the only suitable plugging material is an HSR cement. There are many ways to obtain an HSR designation for cement. The applicant will need to submit an HSR cement design to the OSE for approval.

Miscellaneous Comments

The Lordsburg Playa minimal impact exploration application indicates the water to be used for this application is to be from the Town of Lordsburg. The Town of Lordsburg appears to have municipal water rights which would allow for the commercial sale of water. However, a “local ranch” is not an acceptable source of water. The District III Office of the State Engineer needs to be contacted to determine if the specific source of water to be used in the drilling of the Lordsburg Playa exploratory boreholes is appropriately permitted.

Summary of OSEs Concerns

- 1) Confirm whether the boreholes are going to be drilled by air or mud rotary.
- 2) Shredded paper does not appear to be ANSI/NSF standard 60 certified. Either provide the OSE with:
 - a. Documentation that shredded paper is ANSI/NSF standard 60 certified
 - b. A variance request in accordance with NMAC 19.27.4.37 (2017)
 - c. Chose an ANSI/NSF standard 60 certified lost circulation material.
- 3) Provide the OSE with a high sulfate resistant cement design or utilize an ASTM Type V cement.
- 4) Prior to utilizing a source of water other than the City of Lordsburg, the Office of the State Engineer District III of must be contacted to determine if the source (“local ranch”) is appropriately permitted.

REFERENCES

- Keith M. O’Brien and William J. Stone. “A Two-Dimensional Hydrologic Model of the Animas Valley, Hidalgo County, New Mexico.” New Mexico Bureau of Mines and Mineral Resources, January 1983. https://geoinfo.nmt.edu/publications/openfile/downloads/100-199/133/ofr_133.pdf.
- . “Water-Level Data Compiled for Hydrogeologic Study of Animas Valley, Hidalgo County, New Mexico.” New Mexico Bureau of Mines and Mineral Resources, June 1981. https://geoinfo.nmt.edu/publications/openfile/downloads/100-199/130/ofr_130.pdf.
- Lawton, T. F., N. J. McMillan, V. T. McLemore, and [Eds.] [Eds.], eds. “Some Notes on the Hydrogeology and Ground-Water Quality of the Animas Basinn System, Southwestern New Mexico.” In *Southwest Passage: A Trip through the Phanerozoic*. New Mexico Geological Society, 2000. https://nmgs.nmt.edu/publications/guidebooks/downloads/51/51_p0227_p0234.pdf.
- OSE. Guidelines. “Office of the State Engineer Sealant Guidelines for Well Construction and Plugging (for Use in Non-Contaminated Conditions).” Guidelines, June 9, 2020.

APPENDICES

Appendix A

GENERAL CONCERNS RELATED TO NMOSE REGULATION OF EXPLORATORY BOREHOLE DRILLING

Encountering Groundwater and Associated Plugging of Those Borings

Well drilling activities (including mineral exploration borehole drilling ("mine drill holes") that penetrate a water-bearing stratum) and well plugging, are regulated in part under 19.27.4 NMAC. Most recently promulgated in 6/30/2017, these regulations require any person engaged in the business of well drilling within New Mexico to obtain a Well Driller License issued by the NMOSE (New Mexico Office of the State Engineer). Therefore, a New Mexico licensed Well Driller shall perform the drilling and plugging of exploratory boreholes that encounter groundwater.

Exploration drilling where any form of groundwater is encountered will be subject to pertinent sections of 19.27.4 NMAC, including but not limited to Sections 19.27.4.30.C NMAC for plugging and abandonment of non-artesian wells/borings; 19.27.4.31 NMAC for artesian wells/borings; and 19.27.4.36 NMAC for mine drill holes that encounter water. A complete version of the NMOSE 19.27.4 NMAC regulations can be found on the NMOSE website at: <https://www.ose.state.nm.us/Statewide/wdRules.php>.

MMD will likely place additional conditions on the drilling and plugging of all mineral exploration borings via the MMD project permit.

All onsite drilling and plugging activities where groundwater is encountered shall be conducted under the supervision of the New Mexico licensed Well Driller or a NMOSE-registered Drill Rig Supervisor under the direction of the licensed Well Driller.

Additional NMOSE filings will be required where it is requested that an exploratory borehole be converted to a water well. The well design and construction shall be subject to the provisions of NMOSE regulations 19.27.4 NMAC. Appropriation of water from such a conversion may require a water right. The MMD may disallow the conversions of exploratory borings to water wells if not permitted specifically in the MMD permit.

Use/Extraction of Temporary Casing

When drilling through overburden or caving, poorly consolidated, or karst geologic units, use of temporary casing may be desired. Any temporary casing should be installed with the full intention of its removal before borehole plugging, therefore temporary casing should be inserted into a borehole of sufficiently large diameter to allow easy extraction upon termination of drilling. NMAC 19.27.4 regulations dictate methodology for the installation of permanent well casing, including the installation of required annular seal, should that option be more prudent.

If temporary casing lacking a rule-compliant annular seal or casing grade becomes stuck in-place down hole, the potential for permanent commingling of aquifers or down hole surface water drainage may occur via an unsealed annulus. In these cases, staged casing cutting and extraction, or remedial casing perforation and squeeze-cementing will be required to the satisfaction of the State Engineer as part of final well decommissioning. Steps should be taken during drilling to prevent deleterious fall-in or drainage of cuttings/sediments into the annulus outside the temporary casing to best allow for full retrieval and proper borehole plugging.

When setting of temporary casing occurs or is expected, appropriate detail of the proposed casing extraction and borehole clean-out process prior to plugging will be required in the NMOSE Well Plugging Plan of Operations form. If exploratory drilling through stratified or artesian aquifer systems, filing a NMOSE Artesian Well Plan of Operations may be required to preemptively assess and address NMOSE concerns regarding best borehole decommissioning practices.

Exploratory Borehole Plugging

Terms of borehole plugging will be established jointly by the evaluation of the NMOSE Well Plugging Plan of Operations and the review of the relevant MMD application for water-bearing boreholes. Approved high-solids bentonite abandonment-grade sealants and/or approved cement slurries will be required for plugging as deemed hydrogeologically appropriate by the agencies. NMOSE-authorized cement slurries will be required for the decommissioning of flowing artesian boreholes. If the exploratory borings do not encounter groundwater, MMD plugging regulations (19.10.3 NMAC) prevail over those of 19.27.4 NMAC.

NMOSE well plugging regulations require tremie placement of the column of well sealant, which shall extend from the bottom of the borehole to ground surface. By regulation, pumping decommissioning sealants into the top of the borehole is not allowed. The NMOSE defers to the discretion of the MMD for the choice of sealant versus natural fill in the uppermost portion of a borehole plug to facilitate site restoration.

Required plugging of water-bearing exploratory borings shall occur within the timeframe specified by either the NMOSE or MMD to minimize cave-in and the potential for incomplete plugging due to blockages in the borehole.

Drill Rig Fuels, Oils and Fluids

Drill rigs contain and consume fuels, oil, and hydraulic fluids, and are subject to leaks. Drill rigs often remain in-place longer than other pieces of exploration equipment onsite, are frequently running, and are positioned immediately above and adjacent to the open borehole. As a standard practice to prevent contamination and reduce site cleanup activities, it may be beneficial to use bermed, impermeable ground sheeting under the drill rig. Consideration of bermed containment volume sufficient to accommodate a high-intensity precipitation event is also a good practice.



New Mexico Historic Preservation Division

407 Galisteo Street, Suite 236

Santa Fe, NM 87501

Telephone: (505) 827.6320

Email: nm.shpo@dca.nm.gov

April 22, 2026

Maille Gray
Reclamation Specialist
Mining and Minerals Division, EMNRD
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RE: HPD Log #127925 – Request for Review and Comment on Hidalgo County Exploration Project

Sent Via Email Only

Dear Ms. Gray:

Thank you for the opportunity to review and comment on this exploration project in Hidalgo County. The New Mexico State Historic Preservation Office (SHPO) received this request on April 20, 2026 (HPD Log 127925). According to the application, the proposed project is within Township 23 South, Range 20 West, in portions of Sections 7, 8, 9, 17, 18, and 20. Access to the drilling sites will follow routes from the West, East, and South.

According to SHPO records the proposed drilling sites were surveyed for cultural resources / historic properties by the BLM in 2018 (NMCRI 140970 / HPD Log 108916). No cultural resources were identified during these surveys, however the SHPO reviewer did mention in their comments a concern about new access construction and the potential to impact cultural resources. It does not appear that access routes to the drill sites from already in use roads and pipelines have been surveyed.

Our records show that there are no cultural resources listed on the National Register or State Register within or near the proposed access roads however, due to limited or no surveys in this area, there is not enough information to assess the potential for cultural resources along access routes that would need to be constructed.

The Bureau of Land Management is listed as the surface and mineral estate owner and may require additional cultural resources survey of the proposed access route. As stated in HPD log 106574 (attached to the permit application) additional survey would likely be subject to review under Section 106 of the National Historic Preservation Act.

Please do not hesitate to contact me if you have any questions regarding these comments. I can be reached by phone at (505) 827-6162 or by email at cash.ficke@dca.nm.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cash Ficke', with a stylized flourish at the end.

Cash Ficke, RPA
Archaeologist
State of New Mexico Department of Cultural Affairs, Historic Preservation Division
407 Galisteo Street, Suite 236
Santa Fe, New Mexico 87501

Gray, Maille, EMNRD

From: Victor, Bryan M. <bvictor@nmslo.gov>
Sent: Wednesday, May 13, 2026 12:59 PM
To: Gray, Maille, EMNRD
Cc: Winscott, John; Chisler, Clinton, EMNRD
Subject: [EXTERNAL] RE: Lordsburg Lithium Exploration 2 SLO Comment

You don't often get email from bvictor@nmslo.gov. [Learn why this is important](#)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Maille,

Thank you for your patience and reminder. Here is the office comment from the State Land Office.

This project has access issues through State Trust Lands. There is no ROW in place for Sections 12 and 13 in the proposed western route. Also, there is no ROW in place to cross Section 2 along the proposed eastern route. In addition, this project encircles Section 16 which is part of a pending land exchange and as such will not be subject to new encumbrances.

Thanks,
-Bryan



Bryan Victor
Minerals Specialist
Oil, Gas and Minerals Division
505.827.5743
New Mexico State Land Office
310 Old Santa Fe Trail
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****My email has changed from bvictor@slo.state.nm.us to bvictor@nmslo.gov, please update your records to reflect the change. Thank you****

From: Victor, Bryan M.
Sent: Wednesday, May 13, 2026 8:31 AM
To: 'Gray, Maille, EMNRD' <Maille.Gray@emnrd.nm.gov>
Subject: RE: Lordsburg Lithium Exploration 2 SLO Comment