



NEVADA DIVISION OF
**ENVIRONMENTAL
PROTECTION**



Nevada Department of
**CONSERVATION &
NATURAL RESOURCES**

Nevada Division of Environmental Protection

Water Pollution Control Permit & Reclamation Permit Thacker Pass Project







01 December 2021

Presented by:

*NDEP – Bureau of Mining Regulation and
Reclamation*



AGENDA

-  I. Introduction and Meeting Purpose
-  II. Meeting Ground Rules and Agenda Review
-  III. Opening Remarks
-  IV. Formal Presentation by the BMRR
-  V. Public Comment
-  VI. Closing Remarks/Adjournment



OVERVIEW



What and Where is the Thacker Pass Project?



What is the Permitting Process?



What is Different from Federal (BLM) Permitting?

Contents of the Permits



Ongoing Compliance, Monitoring, and Reporting



Current Status and Next Steps

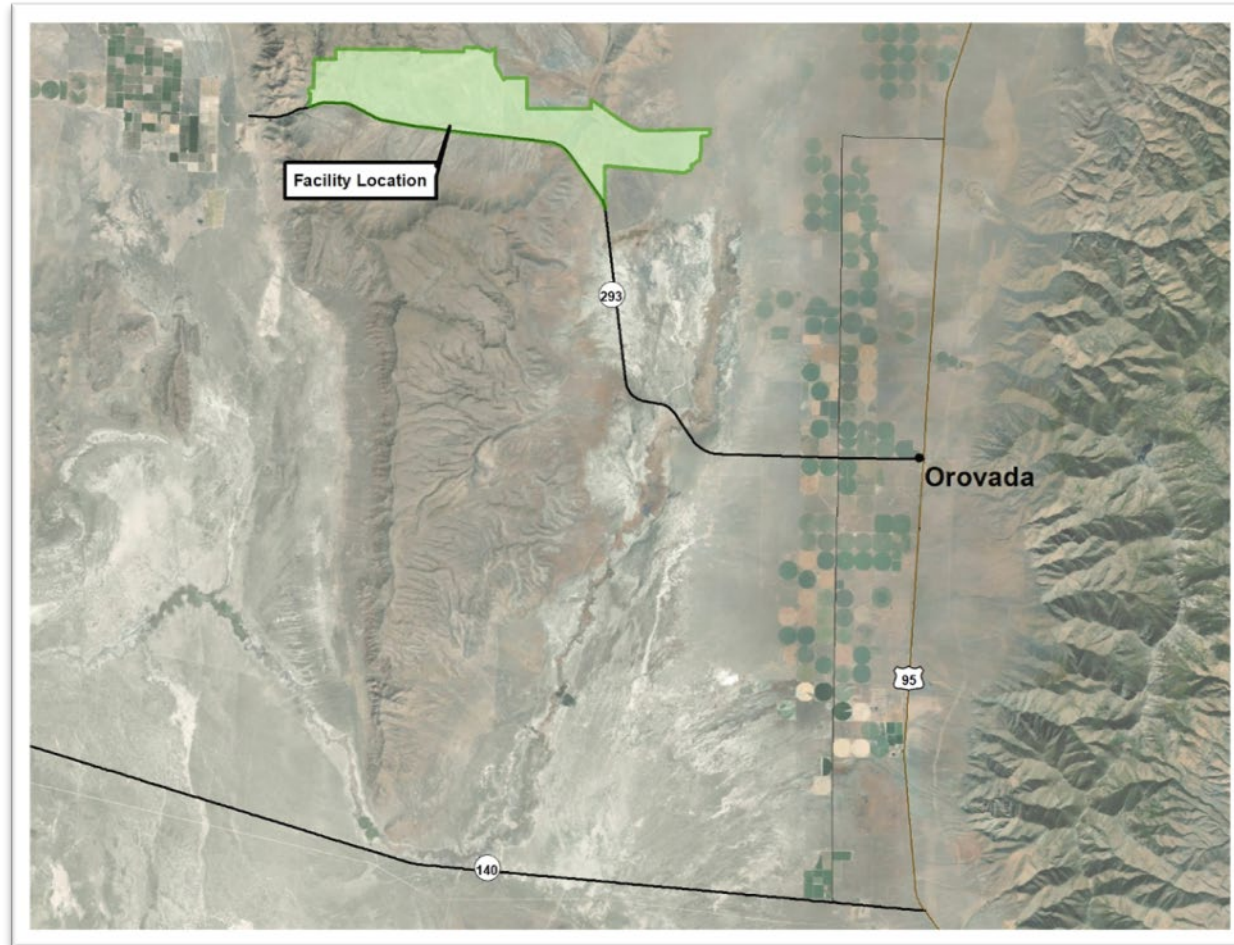
FACILITY LOCATION

Lithium Nevada Corporation's Thacker Pass Project is in Humboldt County, NV, on public land administered by the BLM.



FACILITY LOCATION (CONTINUED)

Lithium Nevada Corporation's Thacker Pass Project is located 20 miles West-Northwest of Orovada, Nevada





WHAT IS PROPOSED FOR THE PROJECT?

Facilities and Proposed Land Disturbance (Phase I):



Open Pit Lithium Mine – 371 Acres

Waste Rock Storage Facilities – 250 Acres



Sulfuric Acid Plant & Processing Plant – 36.5 Acres

Clay Tailings Storage Facility – 364.6 Acres



Other Facilities (Roads, Stockpiles, Administrative Buildings, Power Lines, Water Supply etc.) – 2122.4 Acres

Total Proposed Land Disturbance (Phase I): 3144.5 Acres

MINING WATER POLLUTION CONTROL PERMIT

PERMITTING PROCESS

The Permitting Process Generally Consists of:



Administrative Completeness Review



Technical Review



Draft Permit and Public Notice



Public Comment Period (30 Days)



Public Hearing



Comment Review

Notice of Decision Regarding Issuance of Permit



Where We Are Now

MINING WATER POLLUTION CONTROL PERMIT

WHAT'S THE TIMELINE?

Timeline for Thacker Pass Lithium Mine WPCP Application

April 3, 2020	Application Submitted
July 17, 2020	Application Deemed Administratively Complete
July 17, 2020	Technical Review Begins
October 2020 – October 2021	Technical Questions Issued to Applicant; Technical Questions & Responses Continue with Additional Requests for Information and Responses from Lithium Nevada.
October 2021	Technical Review Complete; Permit and Fact Sheet Drafted
October 28, 2021	Draft Permit and Public Notice Issued 30-Day Public Comment Period Begins
December 1, 2021	Public Hearing
December 16, 2021*	Notice of Decision Regarding Permit Issuance

*Tentative

MINING RECLAMATION PERMIT

PERMITTING PROCESS

Reclamation Permits are not Issued for Projects on Federal Land Prior to Issuance of the Federal Decision.

On Federal Land, the Permitting Process Generally Consists of:



Completeness Review, Cost Estimate Review, & Notification of Additional Information Required



Draft Permit and Public Notice



Public Comment Period (30 Days)



Public Hearing

Comment Review

Not Required for Projects on Public Land but Initiated for Thacker Pass Due to Public Interest



Notice of Decision Regarding Issuance of Permit

MINING WATER RECLAMATION PERMIT

WHAT'S THE TIMELINE?


Timeline for Thacker Pass Lithium Mine Rec Permit App


October 9, 2018	Initial Application Received
August 2, 2019	Revision Received (Supersedes Previous)
November 4, 2019	Revision Received (Supersedes Previous)
January 23, 2020	BLM Initiates EIS Process
December 29, 2020	Final EIS Received – NDEP Review Begins in Earnest
March – October 2021	Technical Questions & Responses, Rec Plan Review, Cost Estimate Review; Multiple Revisions to Reclamation Plan & Cost Estimate
October 28, 2021	Draft Permit and Public Notice Issued 30-Day Public Comment Period Begins
December 1, 2021	Public Hearing
December 16, 2021*	Notice of Decision Regarding Permit Issuance

*Tentative

DIFFERENCES BETWEEN STATE AND FEDERAL PERMITTING

WPCP Does Not Authorize Mining Below the Water Table:

-  Restricted to 15 Feet Above Regional Water Table (4,840 feet amsl)
-  Ongoing (Monthly) Verification of Water Level & Demonstration of Compliance
-  Installation and Monitoring of at least two 300-foot deep piezometers drilled two years in advance of the current mining panel.

 **Reclamation Cost Estimate (RCE) for Phase I Updated to Include Costs for Plant Demolition, Decontamination, and Disposal of Unused Reagents**

RCE = Approx. \$47,596,000

ADDITIONAL REQUIREMENTS DUE TO TECHNICAL REVIEW

Clay Tailings Filter Stack

Leak Detection

- Buried channel conveys potential leaks to the Reclaim Pond
- Shallow piezometers monitor solution present above the water table

Filtration and Drainage

- Additional tailings data required to ensure appropriate filtration and drainage

Containment Requirements for all Mined Materials and Runoff

- Stockpiles of all mined materials have a compacted soil base
- Conveys infiltration and runoff to HDPE-lined ponds
- The capacity of the ponds were increased from the 2-year event to 100-year event.

CONTENTS OF THE MINING WATER POLLUTION CONTROL PERMIT

What Can You Expect to See in the WPC Permit?



General Facility Description and Location

Schedule of Compliance

List of Fluid Management Systems:

Clay Tailings Filter Stack

Leak Detection Systems

Ponds

Waste Rock Storage Facilities

Stockpiles

Sulfuric Acid Plant & Process Plant

Other Fluid Conveyance (Pipes, Valves, Pumps, etc.)



Note: The WPCP is a Zero Discharge Permit and does not authorize release or discharge of any contaminants from the mine that have the potential to degrade waters of the State



Monitoring and Reporting Requirements

Permit Modification Requirements

Other Permit Requirements, Conditions, and Limitations

Accompanying Fact Sheet

CONTENTS OF THE MINING RECLAMATION PERMIT



List of Permitted Disturbances (Acres of Land and Type)



Permit Limitations



Requirement to Post Adequate Surety per Joint Agency Review



Requirement to Update RCE Every Three Years

Schedule of Compliance

Disturbance Table

Facilities	Phase 1	Subsequent Phases ¹	Total
Previous Authorizations			
Kings Valley Lithium Exploration Project	28.0	-	28.0
Kngs Valley Clay Mine	1.8	-	1.8
Quinn River Valley Test Wells NOI	1.0	-	1.0
Far East NOI	0.2	-	0.2
Proposed Project			
Mine Pit ²	371.1 ²	728.7	1099.8
West Waste Rock Storage Facility	153.6	7.1	160.7
East Waste Rock Storage Facility	96.4	40.8	137.2
Mine Facilities, Run-of-Mine Stockpile, Attrition Scrubbing	48.3	-	48.3
Coarse Gangue Stockpile	264.0	54.3	318.3
Processing Facility (Lithium & Sulfuric Acid Plant)	36.5	518.8	555.3
Clay Tailings Filter Stack	364.6	801.5	1166.1
Mine Facilities, Power Line, Quinn Power Line & Water Supply	269.8	-	269.8
Exploration	150.0	-	150.0
Roads	124.6	48.6	173.2
Ponds	53.4	16.6	70.0
Growth Media Stockpiles	95.1	-	95.1
Inter-Facility Disturbance ³	1086.1	184.1	1270.2
Total	3144.5	2400.5	5545.0

BUREAU OF MINING REGULATION AND RECLAMATION

Ongoing Compliance, Monitoring & Reporting

Quarterly Inspections



Verify Field Conditions

Construction & Disturbance QA/QC

Waste Rock & Tailings Placement

Housekeeping & Evidence of Spills



Condition of Containments & Chemical Storage

Success of Reclamation & Vegetation

Processing Facility Operations

Ongoing Compliance Monitoring



Quarterly Groundwater Sampling

Weekly Leak Detection Monitoring

Ore and Waste Sampling

Reported to NDEP Quarterly

Enforcement for Noncompliance



Work Plans to Remediate Issues

Fines & Penalties

Permit Revocation

CURRENT STATUS AND NEXT STEPS

Current Status

- Based on information provided, the BMRR has determined that the facility will meet all applicable requirements for the WPC and Reclamation Permits

What Happens Next?

- The BMRR must respond to comments received
- Review permit language/conditions as applicable
- Issue / Deny

Comments



Ways to comment:

Raise Your Hand – Click the Icon on your Screen



Email: ndepthackerpass@ndep.nv.gov

Contact:

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