# STATE OF NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES DIVISION OF ENVIRONMENTAL PROTECTION BUREAU OF MINING REGULATION AND RECLAMATION RECLAMATION PERMIT

PERMITTEE:

Lithium Nevada Corporation

5310 Kietzke Lane, Suite 200

Reno, Nevada 89511

**PROJECT NAME:** 

**Thacker Pass** 

**PROJECT LOCATION:** 

Portion(s) of Sections 1 and 12, Township 44 North, Range 34 East; Sections 2-17, Township 44 North, Range 35 East; and Sections 7, 8, 14-23 and 29, Township 44 North, Range 36 East; Mount Diablo

Baseline and Meridian, Humboldt County, Nevada

**PERMIT NUMBER:** 

0415

BLM CASE NUMBER: N – 098586

PROJECT TYPE:

Lithium Mine

**AMENDMENTS:** None

Pursuant to Nevada Revised Statutes (NRS) 519A.010 to 519A.280, inclusive, and regulations promulgated thereunder by the State Environmental Commission as Nevada Administrative Code (NAC) 519A.010 to 519A.415, inclusive, and implemented by the Division of Environmental Protection (hereinafter the Division), this permit authorizes **Lithium Nevada Corporation** to reclaim the **Thacker Pass Project** consistent with the conditions of this permit and the reclamation plan dated, October 2021, entitled *Plan of Operations and Reclamation Plan – Thacker Pass Project*.

This permit is effective as of the 12th day of March 2022, and upon receipt by the Division of an acceptable surety, or verification from the federal land management agency that satisfactory surety has been posted. A surety is required by NAC 519A.350 prior to engaging in the activities authorized by this permit. Unless it is modified, suspended or revoked by the Division, this permit is valid for the life of the project. The permit will not now or in the future serve as a determination of ownership or the validity of any mining claim to which it might relate.

The Permittee must comply with all terms and conditions of this permit and all applicable statutes and regulations.

Issued this 25th day of February 2022.

Aimee Keys, Chief

Bureau of Mining Regulation and Reclamation

#### 1. **Permitted Disturbances**

Disturbance Acreage Table: All disturbances are located on public lands administered by the Bureau of Land Management.

Disturbance Table

Facilities	Phase 1	Subsequent Phases <sup>1</sup>	Total
Previous Authorizations			
Kings Valley Lithium Exploration.			
Project	28.0	-	28.0
Kings 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 <sup>2</sup>	371.1 <sup>2</sup>	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 <sup>3</sup>	1086.1	184.1	1270.2
Total	3144.5	2400.5	5545.0

Additional surety required before engaging in Subsequent Phases disturbance.

During Phase 1, mining will occur above the regional water table and remain above the 4,825 foot amsl elevation consistent with the Water Pollution Control Permit limitation.

Includes septic systems, communication towers, guard shacks, weather station, fiber optic line, buffer areas and fencing.

B. Drill holes will be plugged in accordance with the provisions specified in Chapter 534 of the Nevada Administrative Code. All drill hole cuttings, grout, and fluids shall be contained in sumps constructed at the drill sites. No more than four (4) drill holes will remain unplugged at any one time.

#### 2. Departure from Approved Plan for Reclamation

- A. Except in the case of an emergency, the operator may not depart from the approved plan for reclamation without a modification approved by the Division.
- B. When an operator submits an amended plan of operation to the federal agency, a copy shall also be filed with the Division.

#### 3. Fees

- A. On or before April 15 of each year submit the fees as required by NAC 519A.235.
- B. On or before April 15 of each year submit the fees as required by NRS 519A.260.

#### 4. Reports

A. On or before April 15 of each year, the operator shall submit a report (NRS 519A.260), in a format specified by the Division, relating to the status and production of the operation and identifying each acre of land affected and land reclaimed by the operation.

#### 5. Project Completion, Abandonment or Suspension of Work

- A. The Division shall be notified in writing within ninety (90) days after an operation is complete or abandoned. The notice must state the date on which the activities for reclamation will begin as specified in NAC 519A.320.
- B. The Division shall be notified in writing within ninety (90) days after work is suspended at the operation for more than one-hundred-twenty (120) days. The notice must state the nature and reason for the suspension; the anticipated duration of the suspension; and any event which would reasonably be expected to result in either the resumption of activities or the abandonment of the operation. The operator is not required to notify the Division of a temporary closure caused by weather conditions.

#### 6. Surety

- A. The Division and appropriate federal land management agency(s) shall review the estimate of the cost for reclamation submitted by the operator and determine if the estimate is adequate or reasonably sufficient to complete all required reclamation.
- B. The operator shall file and maintain an acceptable surety as specified in NAC 519A.350 to ensure that reclamation will be completed. The surety amount will be based on the approved cost for reclamation.
- C. Within three (3) years after the effective date of this permit and at least every three (3) years thereafter, the operator shall submit to the Division and the appropriate federal land management agency(s) an updated estimate of the cost for reclamation to determine whether the surety amount is still adequate to execute the approved reclamation plan. Inflation must be considered.
- D. The Division and the appropriate federal land management agency(s) may approve release of surety either in whole or in part at the request of the operator. The operator must provide documentation on reclamation work completed and/or stages of process fluid stabilization completed before any portion of the surety may be released. (See Attachment A)
- E. Release of the surety amount for reclamation of a specific component or discrete part of a disturbance does not release the operator from liability for reclamation of that component of disturbance should the reclamation fail to meet the requirements of this permit.

#### 7. Inspection of Exploration Project and/or Mining Operation

A. The operator shall allow authorized representatives of the Division, and the appropriate federal land management agency(s) to inspect the operation, during normal business hours, to determine compliance with the terms and conditions of this permit and the status of reclamation activities.

#### 8. Notice of Noncompliance/Suspension or Revocation of Permit

- A. A notice of noncompliance may be issued by the Division if an operator fails to comply with the provisions of NAC 519A.010 to 519A.415, inclusive; Chapter 519A of NRS; or an approved plan for reclamation.
- B. The Division may suspend or revoke this permit if the operator does not resolve the noncompliance or agree to a corrective plan of action approved by the Division.

C. The surety posted by the operator may be forfeited if the permit is suspended or revoked, or the operator ceases to conduct business in the State of Nevada and does not transfer the permit to a new operator.

#### 9. General Requirements

- A. The operator shall maintain a copy of this permit and all modifications at the permitted project or operation at all times.
- B. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this permit, shall not be affected.
- C. Any noncompliance with this permit shall be reported orally to the Division within forty-eight (48) hours of the time the operator has knowledge of the circumstances. A written summary shall be provided within ten (10) days after the oral report is made.
- D. Any changes in the operator's name or address shall be reported within ten (10) days to the Division in writing, and must indicate the permit number and appropriate changes.
- E. Any changes in Corporation/Partnership/Proprietorship name, officers, or address shall be reported within ten (10) days to the Division in writing, and must indicate the permit number and appropriate changes.
- F. The operator shall meet the revegetation standards as set forth in Attachment B.
- G. An operator who initiates reclamation activities prior to meeting chemical stabilization (closure) requirements will be responsible to provide a surety for and to repair any reclaimed areas which may be re-affected by closure activities.
- H. The operator shall provide a cumulative disturbance map annually, on or before April 15<sup>th</sup> of each project year, which accurately depicts locations of drill roads and drill pads, including breakdown of lengths and widths of disturbed areas. The cumulative disturbance map shall reflect site conditions as of December 31<sup>st</sup> of the previous calendar year and shall state what methods were utilized to verify disturbance sizes and acreages.

#### 10. Schedule of Compliance

- A. The permittee shall achieve compliance in accordance with the following schedule:
  - 1. On or before July 1, 2022, collect data and submit a baseline report to establish the site-specific revegetation release criteria for this project in accordance with the Attachment B guideline included with this permit.

Permit Modification History:

02/25/2022: Final Permit and Notice of Final Decision issued.

10/28/2021: Draft Permit and Notice of Intent issued.

#### **ATTACHMENT A**

#### FOR MINING OPERATIONS

#### DOCUMENTATION OF RECLAMATION ACTIVITIES FOR SURETY RELEASE

An operator may request surety release in accordance with applicable State and Federal regulations. The following documentation must be submitted simultaneously to the Nevada Division of Environmental Protection and the federal land management agency prior to the agencies conducting a site inspection:

- 1. Map(s) clearly identifying the area, noting specific treatments and sampling locations (as applicable).
- 2. Description of the following activities:

#### Earthwork:

- The number of acres regraded and/or ripped.
- Final slope angles left after regrading.
- Methodology used to check final slope angles (e.g., clinometer, transit, etc.).
- The number of acres that received topsoil/growth medium.
- Depth and source of topsoil/growth medium and application method.
- Dates of initiation and completion of activities.

#### **Revegetation Activities:**

- The number of acres that were seeded and/or planted.
- Seed bed preparation methods utilized.
- Seeding/planting methods used (e.g., broadcast seeding, etc.).
- Provide information on how seed was covered.
- Seed mix and seeding rate; document by maintaining seed tags and any testing results (PLS, germination, noxious weeds, etc.).
- If applicable, the number of acres that received fertilization, mulch or amendments.
  - Fertilizer (N-P-K, type, application rate, application method).
  - Mulches and soil amendments (type, application rate, and application method).
  - ▶ Date of initiation and completion of activities.

#### Final Revegetation Sampling:

- Adjacent representative vegetation type or range site description (baseline data).
- ♦ Sampling method (e.g., line intercept).
- Number of samples taken (disturbed and adjacent representative sites).
- ♦ Statement of methodology demonstrating sample size, adequacy and how the locations of sampling sites were determined.
- Results of sampling (copy of sampling worksheet) for disturbed and representative areas. Indicate all perennial species located.
- Dates of sampling.

Other Reclamation Activities such as; structure and debris removal, safety feature installation, erosion control treatment, equipment removal or other permit requirements.

- 3. Interim Fluid Management (IFM) and Process Fluid Stabilization (PFS) Bond Release: When the closure process of a heap leach pad (HLP) and/or tailings storage facility (TSF) is undertaken in a controlled manner by the operator, release of the project bond IFM and PFS amounts may occur at the following phases/intervals of the closure process:
  - ♦ IFM when evaporation (E) or evapotranspiration (ET) cells have been constructed and the steady state drain-down of process fluids can be managed entirely within the E/ET cells;
  - ♦ PFS Phase I recirculation of excess process fluids is no longer required and demonstration can be made that only active evaporation of process fluids is required;
  - ♦ PFS Phase II the process fluid drain-down rate is less than evaporation rate and demonstration can be made that process fluids can be managed without active evaporation, conversion of process pond(s) to E/ET cells has been completed, and the cover system on the HLP and/or the TSF has been constructed;
  - ◆ PFS Phase III drain-down managed entirely within the E/ET cells, demonstration is made that E/ET cells have functioned without overtopping for a minimum of 5 years;
  - ◆ PFS Evaporation Costs at completion of PFS (costs include evaporation equipment and power costs).
- 4. For bond reduction, an operator must provide detailed calculation of the surety amount proposed for release. This calculation should also show the surety amount required for the remaining reclamation work to be completed, and/or remaining PFS activities.
- 5. Prior to release, a field inspection is required to verify that reclamation has been performed in accordance with the approved reclamation plan and permit.

#### **ATTACHMENT B**

## NEVADA GUIDELINES FOR SUCCESSFUL REVEGETATION FOR THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION, THE BUREAU OF LAND MANAGEMENT AND THE UNITED STATES FOREST SERVICE

#### MINING OPERATIONS

#### 1. Reclaimed Desired Plant Communities (RDPC) for Mining Operation Disturbances

Reclamation goals for mining disturbances are: 1) stabilize the site, and 2) establish a productive community based on the applicable land use plan and designated post-mining land uses. To meet these goals, a *Reclaimed Desired Plant Community* (RDPC) should be selected for use on the disturbed mine sites.

#### The RDPC is defined as:

A perennial plant community established on a disturbed site which <u>contributes to</u> stability through management and land treatment, and which produces that type and amount of vegetation necessary to meet or exceed both the land use and activity plan objective established for the site.

Several RDPCs may be selected based on site-specific revegetation goals and variable site characteristics for the mining disturbances. When selecting RDPCs, major alterations in reconstructed soils and the subsequent effect of this on the site's capability to establish and sustain the desired vegetation must be considered. A RDPC must have a reasonable chance for success when making the selection.

The plant community for the RDPC should be diverse, and when appropriate for the site should include grasses, forbs, shrubs and/or trees. The RDPC shall be comprised of species native to the area, or introduced species where the need is documented for inclusion to achieve the approved post-mining land use. The RDPC must meet the requirements of applicable State and Federal seed, poisonous and noxious plants, and introduced species laws or regulations. All RDPCs must be approved by the agencies. Plants for RDPCs may be selected using one or more of the following methods:

- Select existing vegetation types around the mine site to represent the varied RDPCs.
- Use test plots, demonstration areas, or areas concurrently reclaimed within the minesite or within similar representative areas from adjacent mines to serve as the RDPCs as long as they meet the reclamation goal.
- For areas where existing vegetative types adjacent to the mine area are severely disturbed or where test plots or demonstration areas are not reasonable alternatives, RDPCs may be selected using appropriate ecological or range site descriptions or other technical sources.

#### 2. Guidelines for Successful Revegetation

The revegetation release criteria for reclaimed mine sites will be to achieve as close to 100 percent of the perennial plant cover of selected comparison areas as possible. The comparison or reference areas will be selected from representative plant communities adjacent to the mine site, test plots or demonstration areas or, as appropriate, representative ecological or range site descriptions. As approved by the agencies, the selected plant communities or reference areas must have a reasonable chance for success on the mine site. Each plan-of-operations shall identify the site-specific release criteria in the reclamation plan or permit. The agencies may also require specific release standards for individual plant species or vegetative types (grasses, forbs, shrubs, trees). Cover would be estimated using a method as described in Sampling Vegetation Attributes, Interagency Technical Reference, 1996, BLM/RS/ST-96/002+1730 or other acceptable technical methods.

The determination of successful revegetation of mining disturbances will require an evaluation of the data by the agencies on a site-specific basis. These data must include all of the information requested in Attachment A of the Reclamation Permit, "Documentation of Reclamation Activities for Surety Release and Annual Fee Responding". When making this evaluation, the following information shall also be considered:

- ♦ Have the desirable species been successfully established, and do they provide sufficient aerial cover to adequately protect the site from soil erosion?
- ♦ Is there evidence that a self-sustaining community has been established? Are vegetative reproduction (e.g. rhizomes) and seedling establishment of the desirable seeded species occurring?
- Is there evidence of site stability, including the lack of surface soil erosion, gully formation and slumping?
- ♦ Has the revegetation goal in the reclamation plan been met?
- Has the operator taken reasonable measures to establish the RDPC?

#### 3. Time Frames

The success of the vegetative growth on a reclaimed site may be evaluated for release no sooner than during the third growing season after earthwork, planting and irrigation (if used) has been completed. Final bond release may be considered at that time. Interim progress of reclamation will be monitored as appropriate by the agency and operator. Where it has been determined that revegetation success has not been met, the agencies and the operator will meet to decide on the best course of actions necessary to meet the reclamation goal.

#### **EXPLORATION PROJECTS**

The same guidelines as described above should be used to evaluate the success of the RDPCs for plan-level exploration disturbances. The agencies may also decide, depending on the size and scope of the project, to evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgment. Extenuating circumstances may be considered when evaluating the success of the revegetation effort. If regulatory agencies determine that remediation is required on the site, the operator and agencies will meet to determine the procedures.

#### **BLM NOTICES**

Regarding notice-level activities on public lands, the BLM will evaluate revegetation and reclamation success based on general ground reconnaissance and professional judgment. Notice-level disturbance may be considered reclaimed if in the professional judgment of the regulatory agency effective action has been taken to stabilize and revegetate the site to a condition designed to result in the establishment of a productive post-mining land use. Extenuating circumstances may be considered when evaluating the success of the revegetation effort. If the BLM determines that further stabilization or revegetation efforts are needed, the operator and BLM will meet to determine what further steps are necessary.

### MAILING LIST FOR PUBLIC NOTICES (Wednesdays for Regulation & Closure)

<u>PERMIT WRITERS SPECIFY</u>: BMRR Reclamation Branch, Notice of Intent Thacker Pass Mine, Permit Number 0415

A. <u>Hardcopy Permit, Fact Sheet &</u>
<u>Public Notice – Customize List for</u>
Specific Project:

LITHIUM NEVADA CORPORATION 5310 KIETZKE LANE, SUITE 200 RENO, NEVADA 89511 CERTIFIED MAIL NUMBER 9171 9690 0935 0241 5619 16

SUPERVISOR – CENTRALLY ASSESSED DEPARTMENT OF TAXATION LGS 1550 E COLLEGE PARKWAY NO 115 CARSON CITY NV 89706 INTERDEPARTMENTAL MAIL

ATTN HABITAT BUREAU NEVADA DEPARTMENT OF WILDLIFE 6980 SIERRA CENTER PKWY, STE 120 RENO NV 89511 INTERDEPARTMENTAL MAIL

#### <u>COMPLETE OR DELETE THE</u> FOLLOWING 4 AS APPLICABLE:

KEN PIRKLE
FIELD MINE BIOLOGIST
NEVADA DEPARTMENT OF
WILDLIFE email:
Carson City, Churchill, Douglas,
Humboldt, Lyon, Mineral, Pershing,
Storey or Washoe: kpirkle@ndow.org

KEN LODA US BLM WINNEMUCCA DISTRICT OFFICE

ATTN CHAIRPERSON HUMBOLDT COUNTY COMMISSIONERS

B. Email Permit, Fact Sheet & Public Notice:

BMRR-LIST-SERVE

BMRRPUBLICNOTICELIST@LISTSE RV.STATE.NV.US

C. Email as Blind Copy: Permit & Public
Notice (NOI or NOFD Only) - Delete if
Not Applicable

NDOM (for Reclamation Permits Only) ndom@govmail.state.nv.us

DIVISION OF LOCAL GOVERNMENT SERVICES mineforms@tax.state.nv.us

D. <u>Email Public Notice Only in WORD</u>
<u>Format (NOI or NoPA) – Delete for</u>
<u>NOFDs and NODs – Not Applicable</u>
for Them

Matt Mc Daniel DCNR PIO mdmcdaniel@dcnr.nv.gov

E. Email or U.S. Mail as Indicated:

Permit, Fact Sheet & Public Notice —

Delete Where Not Applicable

#### NOTICES OF PUBLIC WORKSHOPS

NEVADA DEPARTMENT OF ADMINISTRATION

<u>DeptAdmin@admin.nv.gov</u>

#### NOTICES OF PUBLIC HEARINGS

NEVADA DEPARTMENT OF ADMINISTRATION DeptAdmin@admin.nv.gov