

EXHIBIT 10

Thacker Pass Lithium Project Draft EIS

- PM₁₀ (particulate matter 10 micrometers or less) – 2 tons/year
- PM_{2.5} (particulate matter 2.5 micrometers or less) – 2 tons/year
- CO – 23.52 tons/year
- NO_x – 77.76 tons/year
- SO₂ – 0.092 tons/year
- VOC – 5.68 tons/year
- GHGs – 10,184 tons/year

These emissions increases are small compared to the operational emissions under the Proposed Action (**Table 4.10**). Therefore, effects to air quality under Alternative C are anticipated to be similar to those described for the Proposed Action. Accordingly, Alternative C would not have a substantial effect on air quality.

4.9.1.4 Alternative D (No Action Alternative)

Under the No Action Alternative, the proposed Project would not be developed. Reclamation of existing disturbance would be completed according to previous authorizations.

Potential emissions and other effects to air quality under Alternative D would be related to the reclamation of existing disturbance under previous authorizations and is not anticipated to result in exceedances of the NAAQS.

4.9.2 Recommended Mitigation and Monitoring

The air quality analysis has demonstrated that all pollutant concentrations with the project would be less than the NAAQS and Nevada standards, and that effects on AQRVs in Class I areas would be negligible. Therefore, no mitigation is required.

4.9.3 Residual Effects

Because no mitigation is required, there would be no residual effects.

4.10 CULTURAL RESOURCES

Inventory of Cultural Resources

Historic properties were identified and documented through archival background research and by conducting intensive pedestrian inventories. A review of inventories and studies previously carried out within the Plan boundaries and indirect effects area identified 38 inventories conducted over the past 49 years (**Table J.1, Previous Cultural Resources Inventories, Appendix J**). In 2018, 12,963 acres were inventoried for the Project (CR2-3402; Young et al. 2019). As a result, the entirety of the Mining and Exploration Plans and portions of the indirect effects area have been covered by pedestrian inventories meeting the standards of the Nevada BLM (see BLM 2019). Together, the inventories identified over one thousand (n=1020) cultural resource sites and a component of a large cultural district: the Thacker Pass component of the Double H/Whitehorse Obsidian Procurement District (DHWOPD/CrNV-02-14275). The Thacker Pass component is a

16,030-acre area within the expansive, but dis-contiguous 166,346-acre Double H/Whitehorse Obsidian Procurement District (DHWOPD) extending north and south of the Project area around the McDermitt Caldera (Berg et al. 2008; Moore 1993; Young et al. 2008; 2019). The Thacker Pass Component became its own National Register of Historic Places (NRHP)-eligible district under Criterion D through BLM-State Historic Preservation Office (SHPO) consultation in 2009 and remains a management framework for cultural resources studies in the region.

The majority (95 percent) of the documented cultural resources throughout the Project area are prehistoric lithic scatters associated with obsidian toolstone assay and reduction within the Thacker Pass Component of the DHWOPD. Several prehistoric resources also contain grinding implements and other indicators of a broader range of activities having taken place. Historic-era resources are far less common (5 percent) and include remnants of Civilian Conservation Corps (CCC) activity in the area, built environment (architectural) linear features (roads and utility lines), and late nineteenth and early twentieth century ranching and homesteading pursuits.

Historic Properties within the Mining Plan and Exploration Plan Boundaries

The Mining and Exploration Plans constitute the direct effects area, and together intersect 923 archaeological and architectural resources (see **Appendix G** and **Table J.1, Previous Cultural Resources Inventories in Appendix J**). Of these, 56 are eligible for listing on the NRHP (i.e., historic properties). The historic properties include 52 prehistoric resources, the Thacker Pass component of the DHWOPD, and two (2) historic-era/built environment resources, and one (1) mixed resource with eligible prehistoric and historic components. All are eligible under NRHP Criterion D for data potential, and a CCC-associated refuse scatter (CrNV-21-1220) is also eligible under Criterion A for contributions to local, regional, and national history. None of the resources in the Mining or Exploration Plan areas remain unevaluated for the NRHP (**Table J.2, List of Historic Properties in the Project Area, Appendix J**).

Fifty-one (51) of the historic properties intersecting the Mining and Exploration Plan areas contribute to the eligibility of the Thacker Pass component of the DHWOPD under Criterion D. The remainder of the resources are ineligible for listing on the NRHP and/or do not contribute to the eligibility of the district.

Historic Properties Within the Indirect Effects Area

The indirect effects area intersects 134 archaeological and architectural resources. Of these, 35 are eligible for listing on the NRHP: 18 under Criterion D, two (2) under Criterion A, and 15 that remain unevaluated. These include 28 prehistoric resources and one (1) district eligible under Criterion D, two (2) historic-era resources eligible under Criterion A, and three (3) mixed resources with eligible components; one (1) CCC Camp (CrNV-02-10141) with the historic component eligible under Criterion A and two (2) prehistoric components eligible under Criterion D. Fourteen (14) of the 15 unevaluated sites are prehistoric; the other is a mixed prehistoric and historic component resource (**Table J.2, List of Historic Properties in the Project Area, Appendix J**).

The indirect effects area also overlaps a portion of the NRHP-eligible Thacker Pass component of the DHWOPD. Nine (9) of the historic properties within the indirect effects area also intersect and

contribute to the eligibility of the district under Criterion D. The remainder of the resources in the indirect effects area are ineligible for listing on the NRHP and/or do not contribute to the eligibility of the district.

4.10.1 Issues – Ground Disturbance and Project Infrastructure

Ground disturbing activities and project infrastructure development could directly, indirectly, and cumulatively affect one or more of the NRHP integrity aspects of 85 historic properties and one (1) district. Fifty-one (51) resources rest within in the Mining and Exploration Plan areas, 30 are within the indirect effects area, and five (5) overlap the direct and indirect effects area. Effects on cultural resources are assessed based on the degree to which the Proposed Action and Alternatives could adversely affect a historic property if its NRHP qualifying characteristics were to be altered.

4.10.1.1 Alternative A (Proposed Action)

Under Alternative A, BLM and Nevada SHPO have concurred that the Proposed Action has the potential to directly affect 56 historic properties (see **Table J.2, List of Historic Properties in the Project Area, Appendix J**). Surface effects in the Mining Plan area and Exploration Plan area would adversely affect all 56 historic properties eligible under Criterion D due to the loss of integrity and data from ground disturbances altering artifact and feature assemblages, temporally sensitive remains, and the depositional environment of the local landform (location), and in the case of obsidian quarrying locales, connection to large-scale prehistoric land-use patterns within the Thacker Pass component of the DHWOPD (setting). Historic properties also eligible under Criterion A, specifically the CCC remnants at CrNV-21-1220, would suffer the same integrity and data loss due to ground disturbances, as well as changes in feeling and setting with the addition of new mining infrastructure to the landscape.

Indirect effects from the Proposed Action under Alternative A could affect 35 historic properties in the area outside the Mining and Exploration Plan areas (see **Table J.2, List of Historic Properties in the Project Area, Appendix J**). However, at each of these resources, typical indirect effects on cultural resources such as visual, auditory, vibration, and airborne (i.e., fugitive dust) would not have the potential to physically damage or destroy historic property components or significantly affect any aspects of NRHP integrity. Visual effects from the additions of new mining infrastructure would not affect aspects of integrity at 18 historic properties eligible under Criterion D, including the Thacker Pass component of the DHWOPD, as there would be no adverse effects to data potential. Visual effects would be negligible at one (1) historic-era component eligible under Criterion A as changes to the landscape in the vicinity of the CCC Wash House (CrNV-21-5414) may only slightly alter the distant viewshed. Despite existing built environment elements (SR 293, utility lines, fences, gravel pits, livestock features, etc.) project infrastructure would have an adverse effect on the NRHP integrity aspects of setting and feeling at the CCC Camp (CrNV-02-10141). Each of the historic-era resources lack standing structures and, although eligible, many aspects of original integrity have been weakened through years of deconstruction, decay, and vandalism.

The Mining and Exploration Plan areas overlap 14,363 acres of the Thacker Pass component of the DHWOPD and the indirect effects area overlaps 1324 acres. As such, approximately 97 percent of the Thacker Pass component of the approximately 68,000-acre DHWOPD rests within an area that would be directly or indirectly affected by the Proposed Action. Within the direct and indirect effects areas, the Thacker Pass component contains 889 resources, 58 of which are historic properties and contributing elements of the DHWOPD. Direct and indirect effects to these historic properties due to the Proposed Action would also affect the DHWOPD as those resources contribute to the eligibility of the district under Criterion D for data potential.

Cumulatively, the Thacker Pass component is one of several obsidian procurement components within the larger DHWOPD encompassing the McDermitt Caldera; the cumulative effects study area (CESA) surrounds the caldera. The Thacker Pass component is significant because it contains artifacts, features, and geochemical information relevant to understanding prehistoric regional obsidian procurement in northern Nevada and the Great Basin. While spatial patterning of obsidian toolstone in the Thacker Component is well-understood, archaeologists lack understanding of the timing of prehistoric use of the resource. The Proposed Action would adversely affect the data potential of contributing properties, and the district itself, by fragmenting the record and disturbing the integrity of discrete procurement activities preserved within contributing properties. This would result in a loss of temporal and geochemical information within and between the components of the DHWOPD.

4.10.1.2 Alternative B (Partial Pit Backfill)

Under Alternative B, the effects to cultural resources within the Plans of Operations area would remain the same as described for Alternative A (Proposed Action).

4.10.1.3 Alternative C (No Pit Backfill)

Under Alternative C, the effects to cultural resources within the Plans of Operations area would remain the same as described for Alternative A (Proposed Action).

4.10.1.4 Alternative D (No Action Alternative)

Under the No Action Alternative, the proposed Project would not be developed. Reclamation of existing disturbance would be completed according to previous authorizations.

4.10.2 Recommended Mitigation and Monitoring

Adverse direct and indirect effects to historic properties (NRHP-eligible or unevaluated cultural resources) would be resolved through the implementation of approved mitigation. The mitigation for effects from the Proposed Action is the implementation of an approved Historic Properties Treatment Plan (HPTP), currently in development. Mitigation strategies within the HPTP may vary from property to property but would involve a combination of avoidance, cultural resources monitoring, data recovery, and public outreach/interpretation for each historic property and the DHWOPD. Data recovery excavations and artifact collection typically occur at resources that cannot be avoided through other forms of treatment or mitigation. The HPTP would be approved by BLM through consultation with Nevada SHPO and local Native American tribes. BLM and

USFWS Tribal consultations for the Project are ongoing and continue through the HPTP process. Section 4.18, *Native American Religious Concerns*, presents information regarding the government-to-government Tribal consultation process. To date, government-to-government consultation between the BLM and representatives from the Fort McDermitt Paiute and Shoshone Tribe, Summit Lake Paiute Tribe, and Winnemucca Indian Colony have not raised any concerns about specific traditional areas, sacred sites, or ceremonial areas or activities in the Project area.

4.10.3 Residual Effects

Residual effects to historic properties resulting from the Proposed Action include the direct and indirect effects from Project area activities as described in Section 4.10.1.1 above, and resulting activities that would potentially disturb or alter historic properties. The development of a HPTP as described in Section 4.10.2. would mitigate adverse effects to historic properties, but there may still be permanent loss of cultural resources and a limited fragmentation of the Thacker Pass component of the DHWOPD. The use of routes and utility corridors surrounding the Project area would also increase and change access to areas leading to potential effects through new surface disturbances, unauthorized artifact collection, and vandalism at cultural resources.

4.11 SOCIAL AND ECONOMIC CONDITIONS

4.11.1 Issues – Project Infrastructure, Public Safety, Access, and Transportation

4.11.1.1 Alternative A (Proposed Action)

Construction Effects

In order to build the new facilities construction is expected to occur over four years and would construct an open pit mine, lithium processing plant, and sulfuric acid manufacturing plant that would have the capacity to produce up to 33,000 tons of lithium carbonate. Phase 2 would increase production capacity of lithium products to approximately 66,000 tons (University of Nevada, Reno Center for Economic Development 2018-19).

Annually, the investment during the construction phase would be over \$128.3 million. That direct investment would support a total of 1,340 jobs at an average wage rate of \$51,200 per job, in addition to \$265.4 million in economic activity in Humboldt County. The construction would also support \$8.2 million in state and local taxes (University of Nevada, Reno Center for Economic Development 2018-19). **Table 4.13** details the total economic effect of the construction phase on Humboldt County.

Table 4.13. Estimated Mine and Plant Annual Construction Effects on Humboldt County

	Direct	Indirect	Induced	Total	Multiplier
Economic Activity	\$218,394,336	\$115,119,708	\$31,917,271	\$265,431,316	1.22
Personal Income	\$56,553,554	\$4,291,382	\$7,763,556	\$68,608,492	1.21
Employment	1,000	97	243	1,340	1.34