

## LAND USE SERVICES DEPARTMENT PLANNING COMMISSION STAFF REPORT

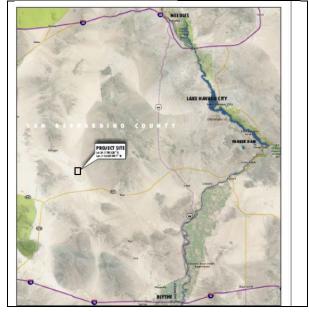
#### HEARING DATE: September 23, 2021

#### **Project Description**

APN:	All of 0646-041-08 and portions of -09, -16 and -17
Applicant: Community:	Valley Salt LLC San Bernardino County/1st Supervisorial District
Location:	Approximately 43 miles west of Parker, Arizona and 55 miles east of Twentynine Palms, Southeastern San Bernardino County
Project No:	PROJ-2020-00107
Staff:	Reuben J. Arceo
Rep:	Lilburn Corporation
Proposal:	Mining Reclamation Plan approval for the operation and reclamation of a sodium/salt mine on 481 acres of BLM land until November 30, 2072.

#### **AGENDA ITEM #3**

Vicinity Map - 🔟



#### Hearing Notice Sent on : September 8, 2021 (BLM is the sole surrounding property owner)

Report Prepared By: Reuben J. Arceo, Contract Planner

SITE INFORMATION:

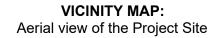
Parcel Size: 1,883 Acres Terrain: Dry Lake Bed / Salt Marsh No Vegetation Vegetation:

#### TABLE 1 - SITE AND SURROUNDING LAND USES AND ZONING:

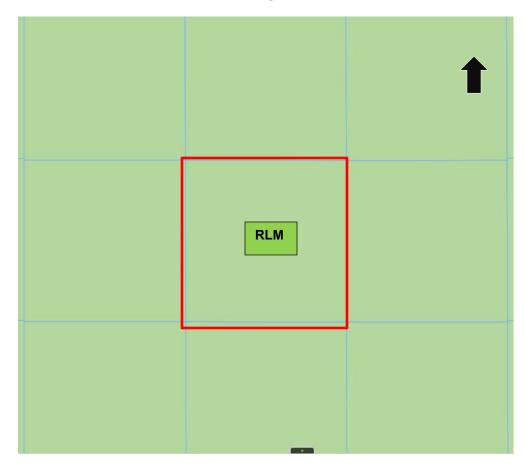
AREA	EXISTING LAND USE	LAND USE CATEGORY	ZONING DESIGNATION
SITE	Non-Permitted Salt Ponds for Salt Mining	Resource Land Management (RLM)	Resource Conservation (RC)
North	Dry Lake Bed	Resource Land Management (RLM)	Resource Conservation (RC)
South	Dry Lake Bed	Resource Land Management (RLM)	Resource Conservation (RC)
East	Dry Lake Bed	Resource Land Management (RLM)	Resource Conservation (RC)
West	Dry Lake Bed	Resource Land Management (RLM)	Resource Conservation (RC)

**STAFF RECOMMENDATION:** That the Planning Commission **ADOPT** the proposed Mitigated Negative Declaration, ADOPT the recommended Findings, APPROVE the Danby Dry Lake Sodium Lease Mining Reclamation Plan 2021M-02 based on the recommended Findings and subject to the Conditions of Approval, and **DIRECT** Staff to file a Notice of Determination.<sup>1</sup>

<sup>1.</sup> In accordance with Section 86.08.010 of the Development Code, the Planning Commission action may be appealed to the Board of Supervisors

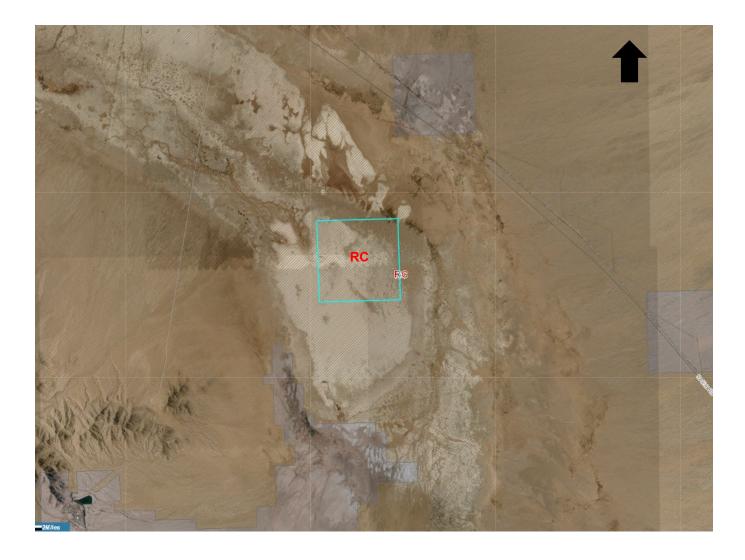


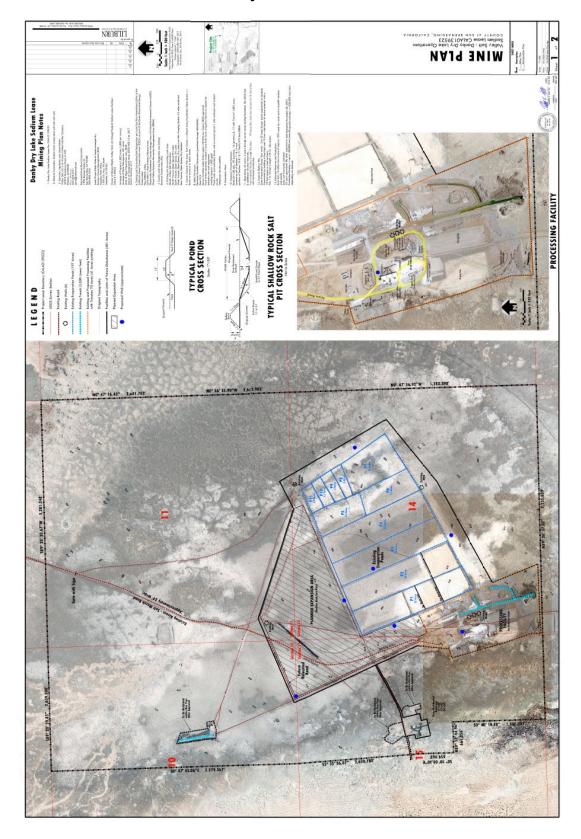




Land Use Category Resource Land Management (RLM)

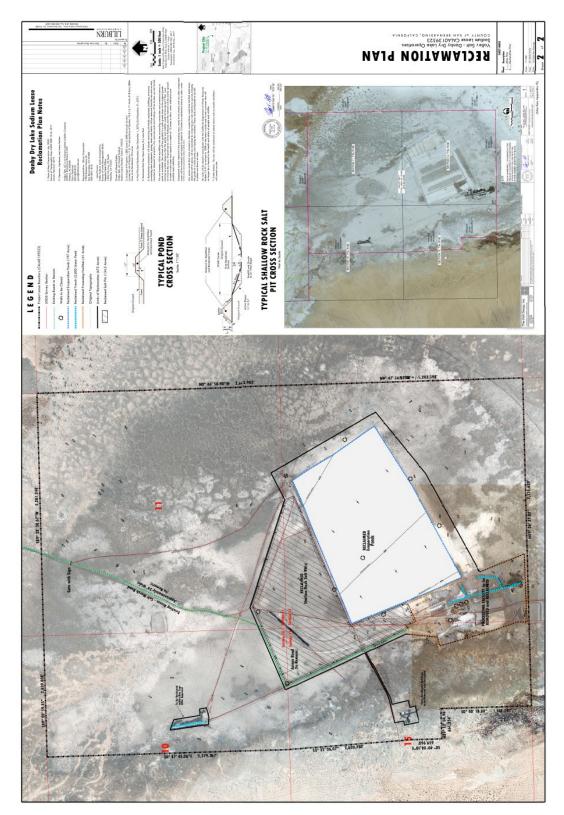
#### ZONING DESIGNATION Resource Conservation (RC)





Danby Lake Mine Plan

Danby Lake Reclamation Plan



#### PROJECT DESCRIPTION AND BACKGROUND:

Valley Salt, LLC (Applicant) requests approval of a Mining Reclamation Plan (Exhibit A) to allow sodium mining and reclamation at Danby Dry Lake (Project) in compliance with the California Surface Mining and Reclamation Act of 1975 (Public Resources Code ["PRC] Section 2710 et seq., "SMARA"). SMARA is implemented by San Bernardino County's (County) mining ordinance through County Development Code Chapter 88.03. The County has jurisdiction over mining operations on BLM land by way of a Memorandum of Understanding (MOU) with an approved Reclamation Plan. Under the terms of the MOU agreement, the County is the lead agency and has the primary responsibility to enforce the requirements of SMARA, however BLM is responsible for approving the mining permit, which is why a CUP is not part of this approval.

The Danby Dry Lake lease area (Project Site) consists of 1,883 acres within the dry lakebed. The mine site is located approximately 43 miles west of Parker, Arizona and 55 miles east of Twentynine Palms in southeastern San Bernardino County. The mine operation will be entirely on public lands under the management of BLM through the Needles Field Office. The current 10-year lease with the Federal government is scheduled to expire on November 30, 2022, and the Applicant is in process of renewing another 10-year lease. The Applicant is requesting an operating life until November 30, 2070 contingent on approval of five additional 10-year leases with BLM. Salt deposits of the Danby Dry Lake playa have been mined since the early 1880s and mined off and on throughout the last century. Numerous unimproved roads, evaporation ponds, trenches, and other historical workings exist onsite and adjacent to the lease area.

BLM has prepared and approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

• Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC)

• Ward Valley Extensive Recreation Management Area (ERMA); and

• LUPA-MIN-1: High Potential Mineral Area (defined as "These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas.")

Per LUPA-MIN-1 above, the site is a high potential mineral area and has a BLM sodium lease to produce sodium from the BLM. Implementation of sodium extraction in this area is consistent with the DRECP with approval of a Mining and Reclamation Plan per 43 CFR Parts 3590 – 3596.

#### PROJECT ANALYSIS:

The Applicant currently plans on developing a series of shallow pits, brine wells and ponds to produce salt from the underlying formation with solar evaporation of brines on approximately 481 acres within the lease area (mine site). The Project Site is currently within the land use category of Resource/Land Management (Countywide Policy Plan, November 2020) and Resource Conservation zoning district. The site is accessed from State Route 62, 43 miles west from Parker, 10.5 miles northwest on Cadiz Road, and 1.5 miles southwest to the project site on an unpaved road known as Salt Marsh Road. The site is in the southern portion of Danby Dry Lake, a flat barren salt and mud-crusted lakebed generally ranging from 600 to 615 feet above mean sea level (amsl).

<u>Rate of Production</u>: Valley Salt is proposing to mine rock salt and evaporated salts at a start-up rate of approximately 500 tons/day (tpd) up to 200 operating days per year, for a total of approximately 100,000 tons per year (tpy). Depending on future product demand, Valley Salt is proposing to increase production to 1,200 tpd up to 250 operating days per year for a total of 300,000 tpy. At the start-up rate and operating

200 days per year at approximately 20 trucks/day. 300,000 tpy production is approximately 50 trucks/day.

Approximately 5 to up to 20 employees would work on-site, typically working 4 - 10 hour shifts, Monday through Thursday. As production increases, a second shift or additional day per week may be added and/or shipping may be conducted on additional days.

<u>Solar Salt</u>: Evaporation ponds (approximately 10 to 20 acres each) will be constructed by pushing up and building berms out of native material (sand, dirt, and clay) around the ponds. The berms will be approximately 2 feet in height above grade and 2 feet below grade (for a total of 4 feet) and approximately 15 feet wide at their base, 10 feet on its top with an access road on top, and with 2:1 slopes. The ponds will be lined with clay material. The ponds will be filled with brine from the existing trenches and production wells to a depth of approximately 12" to 24" to facilitate evaporation. Heavy equipment (dozers, loaders, excavators, dump trucks, belly scraper, etc.) will be used to construct the ponds.

Saline water wells will be drilled to access brine water to be pumped into the trench or directly into the ponds or used in the production process for washing of rock salt materials and dust control (adds moisture to material if needed). There are six existing operable wells; 3 to 4 in production as needed. The wells are approximately 100 feet deep. An additional seven wells are conceptually sited on the mine plan outside the border of the ponds. The clay-lined ponds will be filled to a constant depth of 12" to 24" of brine. The sun and wind will evaporate the saline water and cause it to become a concentrated brine. Once the brine reaches 100% concentration, it will be pumped out of the concentration pond and into a neighboring grow pond. Once in the grow pond, the brine will remain there until evaporation occurs leaving solar salt that will be harvested with heavy equipment (scrapers, dozers, and loaders). Depending on the amount of moisture in the salt, some salt will be laid out onto drying pads consisting of 5 to 10 acres (size may vary) at the southwest portion of the mine site.

It is estimated that operations will use approximately 1,000 gallons per minute (gpm) of saline water during production. Saltwater will be drawn from the existing trenches but mainly from the on-site wells. This saline water will also be utilized to wash the raw rock salt to remove dirt and impurities to leave sodium concentrate. No other substances or chemicals will be introduced into the process or well water.

#### Rock Salt

The expansion area north and west of the existing ponds will be excavated in shallow pits for the removal of rock salt. Underlying rock salt beds or layers typically range from 1-foot to 10-feet thick (typically 5 feet). The pits will be excavated to a depth of up to 10 feet or less depending on the thickness of the available salt bed. Side slopes will be contoured to 3H:1V inclination. The rock salt pits will be extracted with heavy equipment and trucked to the processing area at the southwest portion of the site for crushing, screening, and washing as needed. Any overburden will be used for small safety berms around the pits as needed or simply backfilled behind the excavating equipment. Approximately 20% of the rock salt excavated is not usable for product and will be backfilled into the shallow pits to reduce the slopes or used for roads or berms as needed. After removal of rock salt from the shallow pits, the pits may be converted for use as solar evaporation ponds and then filled with saline water to produce evaporative salts.

#### Salt Processing

The portable process or production plant consists of a typical series of crushers (2), screens (4), and conveyors and stackers (17 - 20; currently a smaller configuration is being used) to crush and size the salt product to desired sizes based on customer demands. The plant is currently powered by two 838 bhp generators and two small generators less than 50 bhp each power the residential trailers and other miscellaneous needs. Additional generators may be needed in the future and the BLM and County will be notified if additional units are brought on-site.

Raw rock salt is stockpiled on approx. 0.5 acres at the process plant feeder area. The production process of raw rock salt is first to screen it through a grizzly hopper sizing it to 4" minus sizes, and screening to

remove as much of the dirt and clay off the rock salt; then sending it through a jaw crusher to size it to  $\frac{3}{4}$ " minus. The material then runs through a coarse wash to knock off the dirt and then to a sand screw wash to further clean the salt; and then through a final spray wash to rinse it for the last time. Brine water from the wells and existing trenches are used for the washing process and recycled back into the trenches and ponds. Most of the processed rock salt will go into large conical storage piles at the end of the radial stacker. The rock salt storage piles could be up to 35 feet high (per zoning restrictions) and cover approximately one acre depending on product demand.

#### <u>Transport</u>

The salt will be loaded by loaders onto commercial street-legal 25-ton haul trucks (typical). The trucks travel on unpaved routes from the plant site to paved CA State Route 62 (SR-62), then the trucks will travel east to US 95, then north to Las Vegas; or west to SR 177 to I-10 to customers in Southern California.

#### **ENVIRONMENTAL SETTING**

A Biological Resources Assessment (BRA) and protocol-level desert tortoise (Gopherus agassizii) surveys was prepared for the Proposed Project by Jericho Systems, Inc. The purpose was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish & Wildlife (CDFW and/or the California Native Plant Society (CNPS).

A number of potential impacts to desert tortoise habitat and migratory birds were evaluated for these areas and the BLM and Applicant determined to avoid these areas in the current project description.

<u>Special Status Wildlife</u> - The only State- and/or federally-listed wildlife species documented within the quads is the State- and federally-listed threatened desert tortoise. No State- and/or federally-listed threatened or endangered species were observed on-site during the field survey. The Project Site consists of undeveloped open space land adjacent to existing mining operations, surrounded by open space. Situated within Danby Dry Lake playa, the Project Site and existing access road are entirely within unvegetated playa that does not contain habitat suitable for species known or expected to occur within the general vicinity. Focused protocol-level desert tortoise surveys were conducted within the entire Project Site, wherever there was potentially suitable desert tortoise habitat present (i.e. creosote bush scrub and/or allscale scrub habitats). No desert tortoise individuals or signs were detected within the survey area during the protocol desert tortoise survey. Therefore, desert tortoise is considered absent from the Project Site.

In addition, due to the unvegetated site within the dry lakebed, there is no habitat for nesting birds or riparian habitats and no other sensitive natural communities on the Project site. With the recommended mitigation measures that have been incorporated into the Project's conditions of approval, the project impacts will be less than significant.

#### RECLAMATION

Reclamation will be conducted concurrently and completed within two years at the termination of mining operations. Final reclamation will include the removal of all equipment, structures, tanks and debris from the site, backfilling of pits, ponds and trenches with bermed material, reclaiming access roads, and closure of all wells per applicable state and local laws.

When pits, ponds, roads, and other disturbed areas are no longer being mined or planned to be utilized in the future, pits and trenches will be backfilled with the surrounding overburden and protective berms. The surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to trespass and/or traverse the area. All pond berms will be

flattened, and the material will be evenly spread to make a safe slope and ripped to a depth of 12 inches by mechanical means to allow water infiltration and possible seed collection. In addition, any small exploration trenches within the lease area will be backfilled and graded as close as possible to the existing grade with available material. After reclamation (backfilling pits, ponds and trenches and distributing salt and overburden stockpiles on the lakebed), the pits and pond areas will be slightly below the original contours of the lake bed.

The Applicant is required under SMARA (Public Resources Code §2207), to submit annual status reports to the State and County on forms provided by the California Department of Conservation - Office of Mine Reclamation. SMARA (Public Resources Code §2774(b)) requires the County to conduct inspections of the mining operation within 12-month intervals. It is expected that the BLM will conduct periodic inspections of the site as well.

#### **Revegetation**

The site and surrounding areas are generally devoid of vegetation; therefore, the site will not require revegetation.

#### Cleanup

At the completion of mining activities, all equipment, wells, and structures will be removed and reclamation is to be completed within two years thereafter. All debris will be removed and disposed at a permitted facility. The pits, ponds and trenches will be backfilled with their surrounding berm material and the area graded level to as close to existing elevations as much as possible with available materials, leaving no unsafe slopes and excavations so that the public and wildlife would not be injured if they were to traverse the area in the future.

Upon final reclamation, all on-site wells will be closed or destroyed in accordance with the California Department of Water Resources Bulletin 74-91, as revised in 1988, or the latest revision and with the San Bernardino County Division of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife. In addition, all underground pipes and wiring will be removed and disposed of properly and any trenches will be backfilled to grade.

#### ENVIRONMENTAL ANALYSIS:

An Initial Study (IS) has been completed in compliance with the California Environmental Quality Act (CEQA) (Exhibit B). The IS concludes that the Project will not have a significant adverse impact on the environment with the implementation of recommended mitigation measures contained in the Initial Study, which have been incorporated in the Conditions of Approval. A Notice of Availability/Notice of Intent (NOA/NOI) to adopt a Mitigated Negative Declaration (MND) was advertised and distributed to initiate a 30-day public comment period, which concluded on May 23, 2021. One comment letter to the NOA/NOI (Exhibit C) was received from the Center for Biological Diversity. Responses were provided (Exhibit D). The concern raised by the Center for Biological Diversity was that the project will negatively affect the BLM designated Area of Critical Environmental Concern (Chuckwalla to Chemehuevi Desert Tortoise). In response to the comment staff stated that a number of potential impacts to desert tortoise habitat and migratory birds were evaluated for these areas and the BLM and applicant determined to avoid these areas in the current project description.

#### Public Comments:

Project notices were sent to surrounding property owners within 1,300 feet of the Project site, as required by Development Code Section 85.03.080. A notice of availability of the Draft IS/MND was sent to surrounding property owners and responsible agencies, as part of the CEQA process. One response was received as a result of the circulation of the IS/MND.

**RECOMMENDATION:** That the Planning Commission:

- 1. **ADOPT** the Mitigated Negative Declaration (Exhibit B);
- 2. **ADOPT** the recommended Findings (Exhibit E);
- 3. **APPROVE** Mining Reclamation Plan 2021M-02 for the Danby Dry Lake Sodium Lease mining and reclamation, subject to the Conditions of Approval (Exhibit F); and
- 4. **DIRECT** staff to file the Notice of Determination.

#### ATTACHMENTS:

- EXHIBIT A: Mining Reclamation Plan
- EXHIBIT B: Initial Study/Mitigated Negative Declaration
- EXHIBIT C: Comment Letter
- EXHIBIT D: Responses to Comments
- EXHIBIT E: Findings
- EXHIBIT F: Conditions of Approval

# **EXHIBIT A**

**Mining Reclamation Plan** 





### RECLAMATION PLAN FOR DANBY DRY LAKE SODIUM LEASE NO. CALA 0 139523

Submitted by:

Valley Salt, LLC 3230 E. Broadway Road, C-235 Phoenix, AZ 85040

Submitted To: County of San Bernardino Planning Department 385 North Arrowhead Avenue San Bernardino, California 92415

Prepared By: Valley Salt, LLC and Lilburn Corporation 1905 Business Center Drive San Bernardino, California 92408

July 2020

### TABLE OF CONTENTS

#### PAGE

INTRO	ODUCT	ION	.1
1.0	MINE 1.1 1.2	PLAN	.5
	1.3	Salt Processing	
	1.4	Production Water	
	1.5	Erosion and Sedimentation Control1	
	1.6	Blasting1	
2.0		AMATION PLAN1	
	2.1	Land Use1	
	2.2	Visibility1	
	2.3	Vegetation1	
	2.4	Wildlife	
	2.5	Reclamation1	
	2.6	Revegetation	
	2.7	Cleanup	
	2.8	Post Reclamation and Future Mining	
	2.9	Slope and Slope Treatment	
	2.10	Ponds2	
	2.11	Soils2	
	2.12	Drainage and Erosion Controls	
	2.13	Public Safety	
	2.14	Monitoring and Maintenance	
	2.15	Reclamation Assurance	:2
3.0	GEOLO	DGY2	22
4.0	HYDR	OLOGY2	25
REFE	RENCE	S2	27
CROS	S REFE	ERENCE MATRIX	28
LIST	OF FIG	JURES	

Figure 1	Regional Location Map	2
-	Project Vicinity Map	
-	Mining Plan	
	Reclamation Plan	
Figure 5	Aerial of Danby Lake Lease Area	23
Figure 6	Crystalline Salt Deposits - Potential Brine Location Areas	25

### TABLE OF CONTENTS

#### LIST OF TABLES

Table 1	Start-Up and Proposed Mining Activities	7
Table 2	Portable Processing Plant and Equipment List (Typical)	8

#### APPENDICES

- A Sodium Preference Right Lease (CALA 0139523) granted by the BLM on February 12, 2014; expires November 30, 2022 with option to renew for 10-year periods
- B BLM Mining and Reclamation Plan for the Danby Dry Lake Sodium Lease as required by 43 CFR 3592 – 3296 (July 2020 – under BLM review)
- C Biological Resource Assessment, Jericho Systems, September 2018
- D Cultural Resources Report (Confidential: submitted directly to the BLM)
- E Financial Assurance Cost Estimate for Proposed Operations
- F Current Financial Assurance Mechanism Bond #1155795 dated July 30, 2019
- G Valley Salt Sodium Lease Boundary Map Survey The Holt Group, Nov. 2019

#### **MAP SHEETS (attached)**

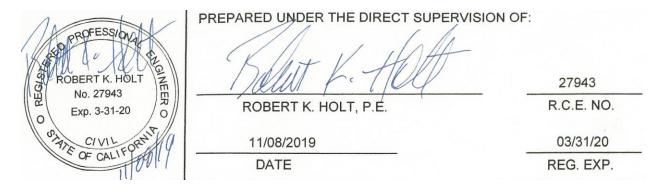
- 1 Danby Lake Mining Plan Valley Salt
- 2 Danby Lake Reclamation Plan Valley Salt

#### Land Survey of Sodium Lease Boundary Map – Appendix G)

Robert K. Holt, Registered Professional Engineer – State of California: The PE, by signing/stamping the Valley Salt – Danby Dry Lake Operations Facility; Sodium Lease Boundary Map prepared by The Holt Group, Inc. and attached in Appendix G, is accepting responsibility for information as stated on said Sodium Lease Boundary Map.

SHEET CONTENT: BLM SERIAL NO. CALA0139523

SODIUM LEASE BOUNDARY MAP



### DANBY DRY LAKE SODIUM LEASE (CALA 0 139523) RECLAMATION PLAN LEASEE: VALLEY SALT, LLC

### **INTRODUCTION**

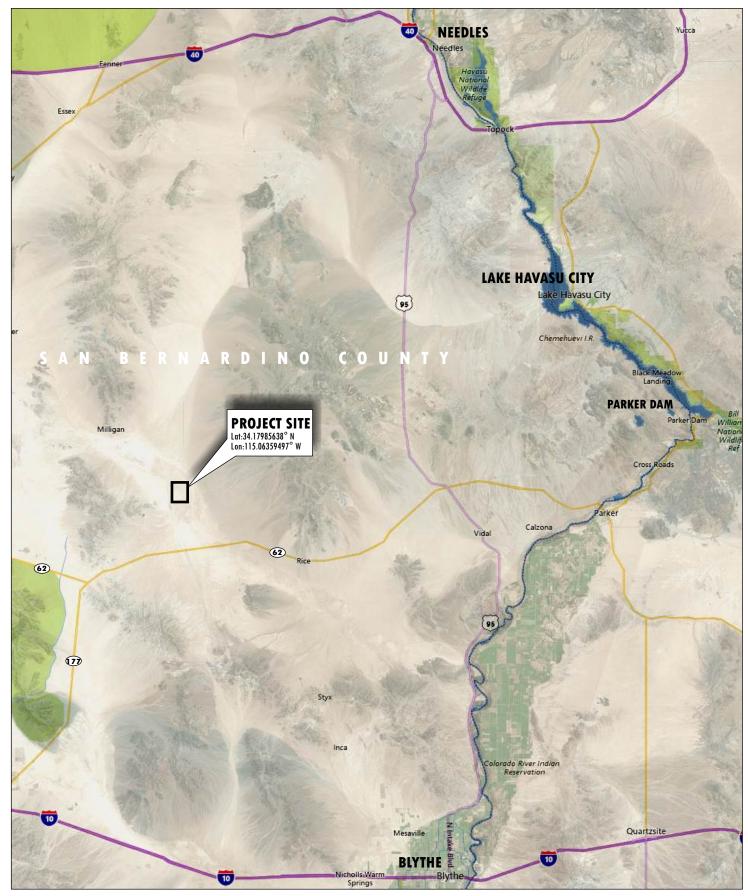
Valley Salt, LLC (Valley Salt) is submitting this Reclamation Plan for their Danby Dry Lake Sodium Lease (CALA 0 139523) mining and processing operations and reclamation in compliance with the California Surface Mining and Reclamation Act of 1975 (PRC Sections 2710 et seq.) (SMARA) as implemented by the County of San Bernardino (County) through County Development Code Chapter 88.03.

The project is entirely located on public lands under the management of the Bureau of Land Management (BLM) through the Needles Field Office. The project area is leased from the Federal government under Sodium Lease (CALA 0 139523) (see Appendix A – Lease and Appendix G – Survey Map). The current 10-year lease is scheduled to expire on November 30, 2022 but can be renewed for 10-year periods prior to the termination date(s). Valley Salt is requesting an operating life of 53 years; 3 years through the current expiration date and 50 years contingent on approval of five additional 10-year leases.

Under and in compliance with Federal regulations that manage mining leases (43 CFR 3590 particularly Subparts 3592 through 3596), Valley Salt has provided BLM Needles Field Office, a Mining and Reclamation Plan (BLM Plan) for Valley Salt's Danby Dry Lake Sodium Lease (see Appendix B) that includes information in the Federal format. This Reclamation Plan is provided to comply with SMARA and is in the County's SMARA format to describe the mining and processing of sodium resources and eventual reclamation. Much of the information in this Reclamation Plan is included in the BLM Plan. Obtaining the necessary BLM and County approvals will require compliance with both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

The Danby Dry Lake lease area consists of 1,883 acres within the Danby Dry Lake or playa. It is located approximately 43 miles west of Parker, Arizona and 55 miles east of 29 Palms in southeastern San Bernardino County, California (see Figure 1). The site is accessed from State Route 62, 40 miles west from Parker, 10.5 miles northwest on Cadiz Road, and 1.5 miles to the project site (see Figure 2). The site is in the southern portion of Danby Dry Lake, a flat barren, sandy lake bed generally ranging from 600 to 615 feet above mean sea level (amsl).

Salt deposits of the Danby Playa have been known since the 1880s (Bailey, 1902). Salt was mined from the Surprise Mines in the northwest part of Danby Lake for use in silver processing in Daggett (Jenkins, 1950). In subsequent decades the Metropolitan Water District of Southern California (MWD) and the National Chloride Company extracted brine and salts from the Playa to use as a water softening agent for the La Verne treatment plant (Calzia, 1992). These efforts were the most extensive up through the 1950s and have resulted in the publication of much of the data that exists on the Playa (Ver Planck, 1958).

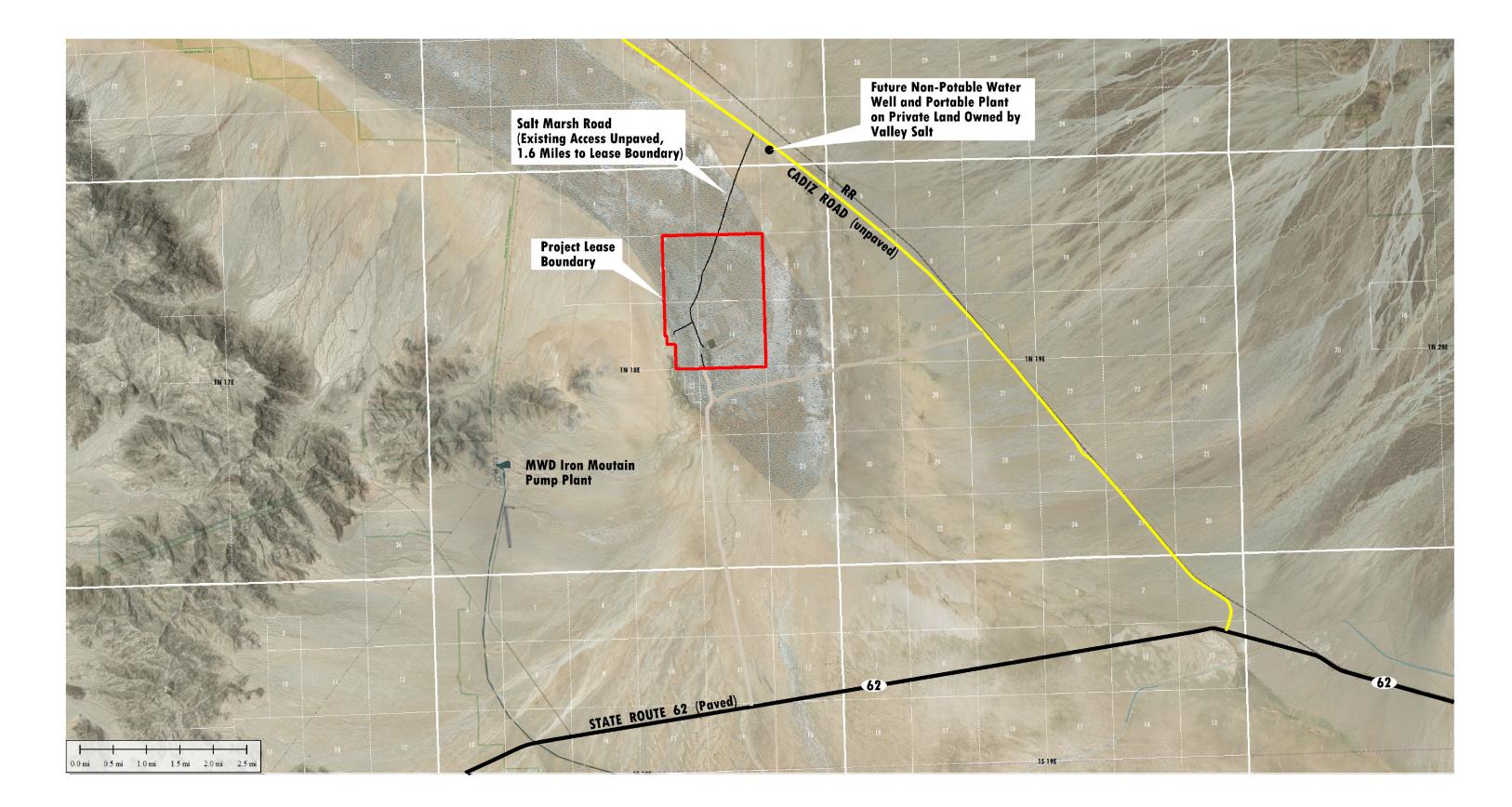






REGIONAL LOCATION

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA







## **PROJECT VICINITY and ACCESS ROAD**

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

FIGURE 2

### 1.0 MINE PLAN

Valley Salt is submitting this application for a Reclamation Plan for the Danby Dry Lake Sodium Lease Operations. Valley Salt is utilizing a series of shallow pits, brine production wells, and ponds to produce salt from rock salt and solar evaporation on approximately 481 acres within the lease area. Start-up production is estimated at up to 100,000 tons per year (tpy) with a future goal of 300,000 tpy.

The operations are located within portions of Sections 10, 11, 14, and 15, Township 1 North, Range 18 East, San Bernardino Base and Meridian. All disturbance will be within Federal lands leased by Valley Salt. Surrounding land uses consist of vacant Federal public lands administered by the BLM.

The following is pertinent information:

Operator &<br/>Lessee:Valley Salt, LLC is an Arizona Limited Liability Company located at:<br/>3230 E. Broadway Road, C-235<br/>Phoenix, AZ 85040<br/>Gary Pedersen<br/>602-828-0321<br/>gary@valleysalt.com

The managing partner is: PWC Management, LLC 2212 E Williams Field Rd., Suite 215 Gilbert, AZ 85295

#### **<u>Representative:</u>** Gary Pedersen and Lilburn Corporation 1905 Business Center Drive San Bernardino, California 92408 909/890-1818

**Federal Sodium Lease Serial Number: CALA 0 139523** - effective starting December 1, 2012 for a period of 10 years (or November 30, 2022) with a preferential right in the lease to renew for successive periods of 10 years.

<u>**Owner of surface and mineral rights:**</u> United States Department of the Interior, Bureau of Land Management (BLM); leased by Valley Salt.

General Plan Designation: Resource Conservation (RC)

**Project/Lease Area:** The project area is in the following sections containing 1,882.89 acres more or less (rounded to 1,883 acres): T. 1N., R. 18E., SBBM, San Bernardino County, California Sec. 10, E2; Sec. 11, ALL; Sec. 14, ALL; and Sec 15, lot 6, NE, E2SE. Area to be Reclaimed: 481 acres of public land managed by the BLM

Estimated Operating Life: 53 years (or until November 30, 2072)

Estimated Mining Termination Date: November 30, 2072

Estimated Reclamation Completion: November 30, 2074

Reclaimed End Use: Open space

#### 1.1 MINING OPERATIONS

Salt deposits of the Danby Playa have been known since the 1880s and have been mined off and on over the last century. Valley Salt obtained the current sodium lease number from Wilbur Reed in 2009 and renewed it for 10 years in 2012. Numerous dirt roads, evaporation ponds, trenches, and other historical workings exist onsite and adjacent to the lease area. Valley Salt conducted exploration in 2009 to determine potential brine production areas and has been conducting limited sodium production activities over the past few years.

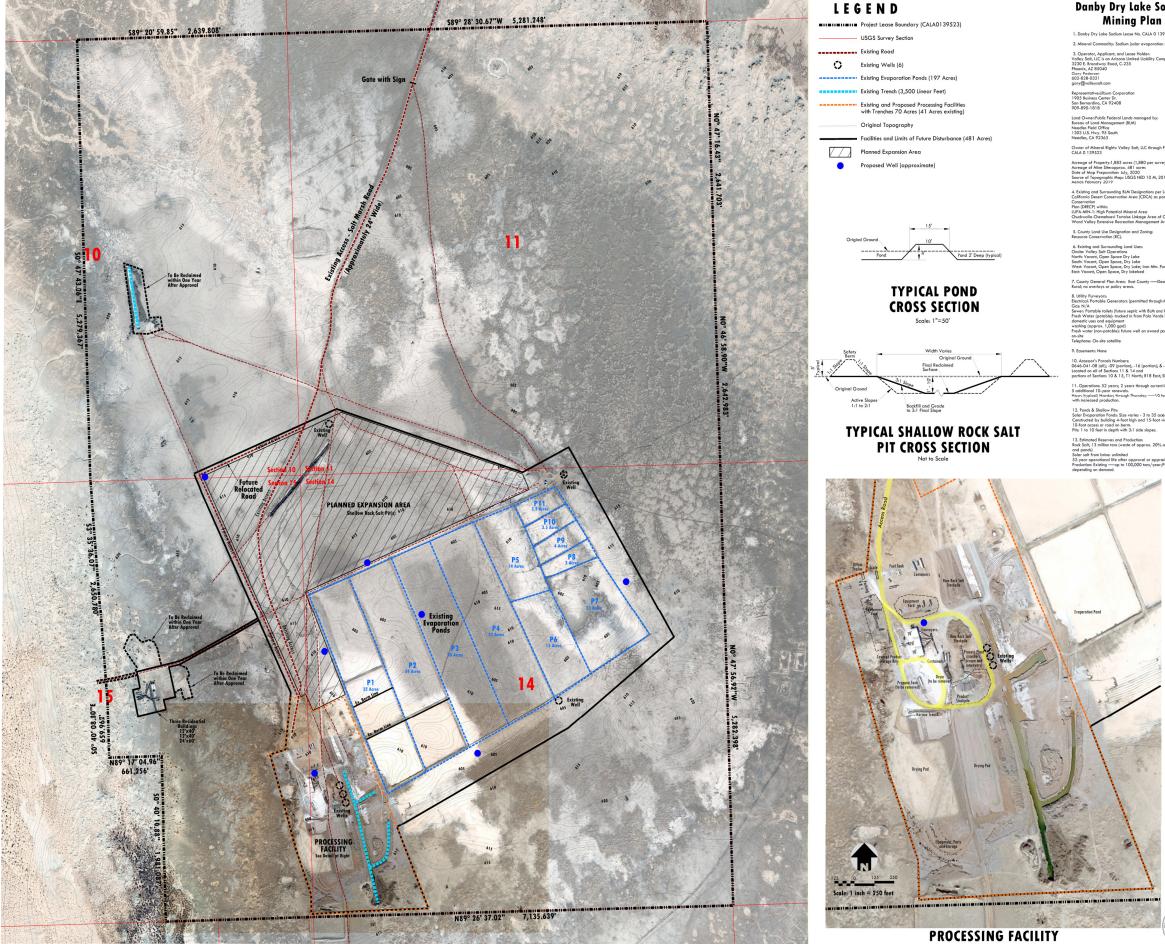
Past geologic studies report a solid salt body 1 to 10 feet thick covering between 2 to 3 square miles in the southeast part of the Playa now occupied by the Valley Salt sodium lease. These salt beds are estimated to contain somewhere between 12,600,000 and 13,000,000 tons of salt as NaCl. (These are estimates only due to limited data on this part of the Playa.)

The quality of the rock salt is similar throughout the property and is adequate for Valley Salt production. The solar salt is virtually unlimited. Brine from the lake bed from production wells on-site is used to fill the ponds which is then evaporated and leaves salt in the ponds. There are not different grades of solar salt that result from brine evaporation.

Valley Salt is proposing to mine rock salt and evaporated salts at a start-up rate of approximately 50 tons/hour (tph), 500 tons/day (tpd) on 200 operating days per year, for a total of approximately 100,000 tpy. Depending on future product demand, Valley Salt is proposing to increase production to 120 tons/hour (tph), 1,200 tons/day (tpd) on 250 operating days per year, and 300,000 tons/year.

At the start-up rate and operating 200 days/year (10 hours/day), four days /week and with a truck capacity of 24 tons, approximately 21 trucks/day would transport material to markets; 2 to 3 trucks/hour. At 300,000 tpy, approximately 50 trucks/day would transport material to markets; 5 trucks/hour. Approximately 5 to up to 20 employees would work on-site, typically working 4 - 10-hour shifts Monday through Thursday. As production increases, a second shift or additional day may be added and/or shipping may be conducted on additional days.

Valley Salt is proposing to mine the sodium resources using the following methods. The Mining Plan is detailed on Sheet 1 of 2 and Figure 3. Table 1 lists the existing or start-up facilities and activities and the planned future facilities to increase production with demand.





## Danby Dry Lake Sodium Lease Mining Plan Notes

1. Danby Dry Lake Sodium Lease No. CALA 0 139523 3. Operator, Applicant, and Lease Holder: Valley Salt. LLC is an Arizona Limited Liability Com

D 10 ML 201

10. Accessor's Parcels Numbers: 0646-041-08 (all); -09 (portion); -16 (portion); & -17 (all Located an all of Sections 11 & 14 and portions of Sections 10 & 15, T1 North; R18 East; SBBM. 6 (portion); & -17 (all). T Operations: 52 years; 2 years through current lease additional 10-year renewals.





### **MINE PLAN**

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

#### **FIGURE 3**

Diart-Op	Start-Op and Proposed Winning Activities (approx. acres)			
Activities	Existing Start-Up	Planned (acres)	Total Acres	
	(acres)			
Evaporation Ponds	197	0	107	
	(not fully developed)	0	197	
Shallow salt rock extraction		135	135	
pits	0	(includes existing 4 ac.	(includes existing 4 ac.	
_		of trenches)	of trenches)	
Trenches <sup>1</sup>	15			
	(4 ac. in NW to be			
	reclaimed; 4 ac. in	-(4) ac.		
	central area to be	(absorbed in salt rock	11	
	absorbed within new	pits)		
	salt rock pits; 7 ac. to			
	remain in plant area)			
Process Area with drying	41	22	63 (with trenches	
pads	41		approx. 70 ac)	
Roads, buffers, misc. areas		10		
	65	(5 acres to west to be	75	
		reclaimed year 1)		
Totals	318	163	481	

Table 1 Valley Salt Danby Dry Lake Sodium Lease Start-Up and Proposed Mining Activities (approx. acres)

Areas rounded to nearest whole acre.

1 - up to 110' wide (typ. 30'); excavated rock salt and native materials stockpiles on either side with protective berm; estimate up to 150-foot wide disturbance width. No new trenches are planned.

#### <u>Solar Salt</u>

Evaporation ponds (typically approximately 10 to 20 acres each) will be constructed by pushing up and building berms out of native material (sand, dirt and clay) around the ponds. The berms will be approximately 2 feet in height above grade and 2 feet below grade (for a total of 4 feet) and approximately 15 feet wide at their base, 10 feet on its top with an access road on top, and with 2:1 slopes. The ponds will be lined with clay material within the pond excavation or brought on-site if needed. The ponds will be filled with brine from the existing trenches and production wells to a depth of approximately 12" to 24" to facilitate evaporation. Heavy equipment (dozers, loaders, excavators, dump trucks, belly scraper, etc.) will be used to construct the ponds. Table 2 lists the mobile equipment, portable process plant equipment, and buildings and structures to be used for operations.

Water wells will be drilled to access brine water to be pumped into the trench or directly into the ponds or used in the production process for washing of rock salt materials and dust control (adds moisture to material if needed). There are six existing operable wells; 3 to 4 in production as needed. The wells are approximately 100 feet deep with an 8-inch diameter perforated pipe. An additional seven wells are conceptually sited on the mine plan basically around the outside border of the ponds. The clay-lined pond will be filled to a constant depth of 12" to 24" of brine. The sun and wind will evaporate the water and cause it to become more concentrated brine. Once the brine reaches 100% concentration it will be pumped out of the concentration pond and into a

neighboring grow pond. Once in the grow pond, the water will remain there until evaporation occurs leaving solar salt that will be harvested with heavy equipment (scrapers, dozers, and loaders). Depending on the amount of moisture in the salt, some salt will be laid out onto drying pads consisting of 5 to 10 acres (size may vary) in the southwest corner of the site.

Number	Description
Start-Up	MOBILE EQUIPMENT (typical; will vary with time and required
	compliance with diesel emission regulations)
3	Loaders (CAT 624; Volvo 180; & Volvo 110)
1	D6H Dozer
2	Haul Trucks (off-road), CAT 740 or similar
1 -2	CAT 330 excavator
1	CAT 623 Scraper
1	Drill rig (trailer mounted)
2 - 3	Water Trucks
1	Dump truck (3-axel)
1	Forklift
1	Roller
1	Light set (trailer mounted)
2 - 3	ATVs with trailers
<b>Buildings/Struc</b>	tures
1	Mobile Home/Trailer (12' x 70')
4	1-10,000-gallon fuel tank, above-ground and within a concrete pad with 4-foot
	high concrete berms (not in use); 2-2,000-gallon diesel portable tanks; & 1-
	240-gallon gasoline tank
5	Trailers: Adm. (12' x 60'); office (8' x 28'); & 3 dorm trailers 40'-53' x 12'
2	Water tank(s) (2,000 to 10,000 gallons)
	Equipment (all portable) - Process plant (MDAQMD Permit #B013098),
0	fuel tanks require MDAQMD air quality permits renewed annually
2	Jaw and Roll Crushers
3	Hoppers/feeders
3 - 4	
	Screens
3	Coarse and sand washers & wash plant
3	Coarse and sand washers & wash plant Wet scrubber
$\frac{1}{17-20}$	Coarse and sand washers & wash plant Wet scrubber Conveyors/stackers (# may vary slightly with product quality)
1	Coarse and sand washers & wash plantWet scrubberConveyors/stackers (# may vary slightly with product quality)Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less
$\frac{1}{17-20}$	Coarse and sand washers & wash plantWet scrubberConveyors/stackers (# may vary slightly with product quality)Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a&
$\frac{1}{17-20}$	Coarse and sand washers & wash plantWet scrubberConveyors/stackers (# may vary slightly with product quality)Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413)
$ \begin{array}{r} 1\\ 17-20\\ 4-6\\ 1\end{array} $	Coarse and sand washers & wash plantWet scrubberConveyors/stackers (# may vary slightly with product quality)Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413)Truck scale - 70'
1 17 - 20 4 - 6 1 Other Facilities	Coarse and sand washers & wash plant Wet scrubber Conveyors/stackers (# may vary slightly with product quality) Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413) Truck scale - 70' /Equipment
1 17 - 20 4 - 6 1 <b>Other Facilities</b> 8 (6 new or	Coarse and sand washers & wash plantWet scrubberConveyors/stackers (# may vary slightly with product quality)Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413)Truck scale - 70'/EquipmentProduction Wells (100 feet deep with 8' diameter perforated pipe typ); five
1 17 - 20 4 - 6 1 Other Facilities	Coarse and sand washers & wash plant Wet scrubber Conveyors/stackers (# may vary slightly with product quality) Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators less than 50 bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413) Truck scale - 70' /Equipment

 Table 2

 Processing Plant and Equipment List (Typical & varies over time)

Note that similar equipment may be used during the life of the project. Equipment numbers will vary over time as specific activities may require bringing a specific piece of equipment on-site temporarily or as a piece of equipment is being repaired or phased out.

It is estimated that operations will use approximately 1,000 gallons of water (brine not fresh water) each minute (gpm) during production. Water will be drawn from the existing trenches but mainly from the on-site brine production water wells. This water will also be used to wash the raw rock salt to remove the dirt and leave the sodium. No other substances or chemicals will be introduced into the raw minerals or water. No chemicals are used in the production process. The water used in the production process will be returned into the trenches where the dirt will settle. That same water will be pumped out of the trench into the solar ponds to be evaporated by the natural sun and wind to grow solar salt.

Fresh water is currently trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 1,000 gpd). In the future, Valley Salt plans on drilling a water well on a 20-acre parcel it owns about one mile northeast of the lease area just southeast of where the project access road meets with Cadiz Road (APN 0645-121-03) (refer to Figure 2). This water can be used for dust control, wash water and other non-potable uses. The water quality of this source would still likely be high in salts and TDS and be non-potable.

#### Rock Salt

The new expansion area north and west of the existing ponds will be excavated in shallow pits for the removal of rock salt. Rock salt typically ranges from 1-foot to 10 feet thick (typically 5 feet). The pits will be excavated to a depth of up to 10 feet or typically less depending on the thickness of the available rock salt. Side slopes will be less steep than 3H:1V. The rock salt pits will be extracted with heavy equipment and trucked to the processing area in the southwest portion of the site for crushing, screening and washing as needed. Any overburden will be used for small safety berms around the pits as needed or simply backfilled behind the ongoing mining.

Approximately 20% of the rock salt excavated in not usable for product and will be backfilled into the shallow pits to reduce slopes or used for roads or berms as needed.

After completion and removal of rock salt from the shallow pits, they may be converted for use as solar evaporation ponds. As needed, the pits will be partially backfilled with available overburden, graded level, covered with a layer of clay and salts, and then filled with saline water for the production of evaporative salts as discussed above.

#### Public Safety

Access roads to the site will be posted with signs informing the public of mine truck traffic and that they are entering a mining area with no trespassing allowed. Perimeter signs around the approved surface mine boundary shall be installed as shown on plan and shall read in English and Spanish "Active Mine Area, Keep Out" and "No Trespassing." The open trenches will be surrounded with protective berms of at least 4 feet in height and 8 feet at their base to limit access by the public and wildlife. The existing trenches to the northwest will be backfilled and reclaimed within the first year after project approval. Warning signs will be placed every 300 feet along the berm and on any access roads leading on-site and along open trenches. No other openings or adits exist or are proposed. Some existing exploratory trenches located in the lease are will be backfilled and graded to the existing contours.

Areas such as generators and fuel tanks within the processing plant area will be fenced for public safety and to limit vandalism.

#### Access Road

The existing access route to the site from Cadiz Road to the northeast is known as Salt Marsh Road. It is approximately 1.75 miles outside of the lease area and maintained as needed due to storms to a width of 24 feet (see Figure 2). The existing Salt Marsh Road distances are as follows:

- 3.25 miles within the lease area
- 1.75 miles from lease area to Cadiz Road
- 10.5 miles on Cadiz Road south to paved SH 62

Total of 15.5 miles of unpaved roads.

#### **On-Site Housing for Workers**

Because of the remote location of the mine site, residences for the miners are required to house the miners when they are working at the mine. The nearest town is one and a half hours away in one direction. It would be costly and cumbersome to require the miners to drive that distance each day. There is not adequate qualified work force in the nearest town to man the production, so most miners will be coming from even further distances, so the housing is critical to the success of the mine.

Appropriate dorms and common area buildings/trailers will be constructed with proper building and/or set down permits for placement, electrical, water, and sanitation from San Bernardino County will be obtained prior to occupancy. It is proposed to utilize up to three dorm trailers ranging from 40 to 53 feet long and 12 feet wide and 12 feet in height.

#### **1.2 MINE WASTE**

The mining of the rock salt and harvesting of the solar evaporated salt does not produce any hazardous waste. Any overburden material consisting of clays, sands, or other native materials will be used to construct the 4-foot high berms between the solar ponds, other road maintenance as needed, and for protective berms along the open trenches. Any remaining waste (overburden or non-spec salt materials) will be backfilled into the pits, trenches and pond areas when no longer needed. At the completion of operations, natural materials (not hazardous waste) or overburden materials will be graded into the pits and ponds to safe grades.

The process uses water for washing and dust control and for filling the solar ponds to produce evaporative salts. Excess process water will be collected and returned to the ponds or trenches for de-silting and evaporation.

Equipment maintenance will be done on-site by portable maintenance vehicles. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities per existing regulations. Per the County of San Bernardino, the mine is required to submit a business

plan including spill prevention and clean-up measures and BMPs to ensure that on-site materials are stored appropriately and contained in the event of uncontrolled release. Fuel storage specifications apply to all above ground fuel containers.

All refuse will be kept in closed containers and removed from the site by contracted haulers to permitted facilities as needed. No trash will be allowed to collect on the site.

#### **1.3 SALT PROCESSING**

The portable process or production plant consists of a typical series of crushers (2), screens (4), and conveyors and stackers (17 - 20; currently a smaller configuration is being used) to crush and size the salt product to desired sizes based on customer demands. The complete list of the process plant and related equipment is listed in Table 2 above (numbers will vary with production needs). The plant is currently powered by a series of two 838 bhp generators and two small generators less than 50 bhp each power the residential trailers and other miscellaneous needs. Additional generators may be needed in the future and the BLM and County will be notified if additional units are brought on-site.

Raw rock salt is stockpiled on approx. 0.5 acres at the process plant feeder area. The production process of raw rock salt is first to screen it through a grizzly hopper sizing it to 4" minus sizes, and screening as much of the dirt and clay off the rock salt; then sending it through a jaw crusher to size it to <sup>3</sup>/<sub>4</sub>" minus. The material then runs through a coarse wash to knock off the big dirt pieces and then to a sand screw wash to clean it even more; and then through a final spray wash to rinse it for the last time. Brine water from the wells and existing trenches are used for the washing process and recycled back into the trenches and ponds. Most of the processed rock salt will go into large conical storage piles at the end of the radial stacker. The rock salt storage piles could be up to 50 feet high and cover approximately one acre depending on product demand. Some finer product is conveyed to and stored in storage structures made up of concrete block sides and polyethylene covers approximately 70 feet x 40 feet each.

Some of the processed rock salt at the end of the radial stacker as well as solar salt harvested from the ponds will be further processed by drying the salt in a rolling drum using ambient air only (no heated drum). (Note that the heater drum and propane tank currently on-site will be removed within one year.) After the salt is dried, it will be crushed in a roll crusher to size it smaller than <sup>3</sup>/<sub>4</sub>", then it will go through a final screen and placed into covered storage structures according to size specs. The air quality permit limits production for the crushing/screening/drying system to not exceed 300,000 tons/year.

The final out-put of rock salt product is about 80 percent of the raw rock salt input to production. The normal processing time from digging in the shallow pits, to loading it and carrying it to the production site, then processing the raw material could take approximately 4 hours from start of the process to the end for rock salt. For solar salt, the growing time frame is about 6 months to grow, then harvesting (removing it out of the solar ponds).

The salt will be loaded by loaders onto commercial street-legal 25-ton haul trucks (typical) for transportation to the customers' location. Once the trucks traverse unpaved routes to be determined from the plant site to paved CA State Route 62 (SR-62), trucks will travel east to

US 95, then north to Las Vegas area or southeast to Phoenix area; or west to SR 177 to I-10 to customers in southern California.

All stationary equipment and the generators will comply with Mojave Desert Air Quality Management District (MDAQMD) rules and regulations and all necessary permits will be obtained prior to operation. Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system" (Permit #B013098) and for two diesel powered generators rated at 838 brake-horse power each (Permit #s B13412 a& B13413) and two small diesel generators to power the living quarters (<50 bhp). The crushing/screening/drying system is conditioned under its air quality permit to limit production to not exceed 300,000 tons/year.

Haul trucks and diesel heavy equipment will meet requirements of the California Air Resources Board's (CARB) off-road diesel vehicles regulations to reduce diesel pollutants. Operations are required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requires requirements for controlling fugitive dust). Water sprays and dust containment measures such as enclosures are required to control emissions. One to two water trucks will water spray the roads with brine and add salt gravel as needed to control dust. The salt water will act as a natural dust suppressant that is more effective than fresh water.

Most equipment will run on diesel fuel and electricity. Power will be produced by diesel fueled generators. Diesel fuel will be stored in a 10,000-gallon above-ground tank situated on an impervious concrete pad with 2-foot high catchment berms in case of a spill to contain the contents of the tank. The tank will be approximately 8 feet in diameter and 32 feet long (typical). A small portable gasoline tank will also be used onsite (approximately 240-gallon tank) along with 2-portable diesel double walled tanks. Fuel will be transferred to the site by tanker trucks. Equipment maintenance will be done onsite. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities.

The Hazardous Materials Division of the San Bernardino County Fire Department is designated as the Certified Unified Program Agency or "CUPA" for the County of San Bernardino to focus the management of specific environmental programs at the local government level. Valley Salt will prepare a Business Emergency/ Contingency Plan to include operations for the site as described. The Business Plan includes a hazardous materials inventory and Spill Prevention Control and Countermeasure Plan (SPCC) to ensure that on site materials are stored appropriately and contained in the event of uncontrolled release utilizing Best Management Practices (BMPs). Fuel storage specifications apply to all above ground fuel containers. The Plans will be provided to the BLM prior to project start-up.

#### **1.4 PRODUCTION WATER**

It is estimated that operations will use approximately 1,000 gallons of water (brine not fresh water) each minute (gpm) during production. Water will be drawn from the existing trenches but mainly from the on-site brine production water wells. This water will also be used to wash the raw rock salt to remove the dirt and leave the sodium. No other substances or chemicals will be introduced into the raw minerals or water. No chemicals are used in the production process. The

water used in the production process will be returned into the trenches where the dirt will settle. That same water will be pumped out of the trench into the solar ponds to be evaporated by the natural sun and wind to grow solar salt.

Fresh water is currently trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 1,000 gpd). In the future, Valley Salt plans on drilling a water well on a 20-acre parcel it owns about one mile northeast of the lease area just southeast of where the project access road meets with Cadiz Road (APN 0645-121-03) (refer to Figure 2). This water can be used for dust control, wash water and other non-potable uses. The water quality of this source would still likely be high in salts and TDS and be non-potable.

#### 1.5 EROSION AND SEDIMENTATION CONTROL

The project site is located within Danby Dry Lake or playa, a dry lakebed. The lakebed is a relatively flat area with interior drainage and no off-site drainage. No significantly developed watercourses exist within the vicinity. The lake bed acts as one large settling basin. The site is not subject to erosion and naturally collects sediment. The lake bed is dry for most of the year, however, after periods of heavy rainfall, standing water may occur. Control of surface drainage, and erosion for the operations area involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations;
- Diverting run-off from undisturbed areas around the active mining area as necessary;
- Using berms, ditches, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary; and
- Stabilizing disturbed areas through grading or water spraying to form a crust.

Erosion control measures along the access road and around the perimeter of stockpiled material will include construction of temporary diversion and collection ditches, berms, and other measures individually or in combination as necessary.

#### 1.6 BLASTING

No blasting is planned.

#### 2.0 **RECLAMATION PLAN**

#### 2.1 LAND USE

The site is located in a remote vacant area of southeastern San Bernardino County, 55 miles east of Twentynine Palms, 50 miles northwest of Blythe, and 53 miles southwest of Needles. The County land use designation for the site is RC - Resource Conservation. The site is located on the barren Danby Dry Lake bed or playa and consists of start-up facilities, wells, ponds, shallow pits, and trenches being set up by Valley Salt and various historic ponds and exploration activities and roads. The site is surrounded by vacant, open desert lands. MWD's Iron Mtn. Pumping Station and Colorado River Aqueduct are located about 3.5 miles to the southwest.

The BLM has prepared and recently approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC);
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area (with an existing salt lease) •

"For identified minerals lands and existing mining and energy development (locatable, salable, solid leasable and geothermal minerals) with currently approved Plans of Operations, Notices, Mine and Reclamation Plans or Plans of Development, under the authorities 43 CFR 3200; 3500; 3600; and 3802/09, the mineral resources have been characterized in the following manner:

#### **LUPA-MIN-1**: High Potential Mineral Areas (identified in CA GEM data)

- These areas have been identified as mineral lands having existing and/or historic mining • activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas.
- If an activity is proposed in a High Potential Mineral Area, analyze and consider the mineral resource value in the NEPA analysis.

In the LUPA, allowable uses and conservation and management actions are referred to as Conservation Management Actions (CMAs). The CMAs are organized by land use allocation. For the lease area plan, there are specific CMAs for ACECs and ERMAs as well as area or LUPA-wide CMAs. LUPA-wide refers to CMAs that apply to activities on all types of land allocations within the LUPA Decision Area. The proposed operations would be in conformance with the BLM's CDCA Plan and the LUPA which requires operations within mineral lease areas to meet the performance standards of the 43 CFR 3590 regulations if it is determined the operations comply with 43 CFR 3590 and applicable CMAs.

#### 2.2 VISIBILITY

The site is not viewed by significant numbers of viewers or visible from any prominent viewpoints as the site is very remote. No residences or recreational areas are in the area. The operation would not be visible from the SR 62. Ponds are constructed from lakebed materials. Visible impacts are limited to facilities on the site and the ponds. The eventual reclamation of the site will remove all equipment and facilities and fill the ponds to grade and the pits as feasible to blend with the surrounding areas.

#### 2.3 VEGETATION

A Biological Resources Assessment (BRA) was prepared by Jericho Systems, INC. in September 2018 and is included as Appendix C. The proposed Project site is entirely within unvegetated dry lakebed or playa (Danby Playa). Adjacent habitat consists of *Larrea tridentata* Shrubland Alliance (creosote bush scrub) and *Atriplex polycarpa* Shrubland Alliance (allscale scrub) habitats.

The creosote bush scrub adjacent to the Project site and outside the lake bed and project area is dominated by creosote bush (*Larrea tridentata*). This habitat is prevalent adjacent to the west side of the Project site, west of Danby Playa. The allscale scrub adjacent to the Project site and outside the lakebed is co-dominated by allscale saltbush (*Atriplex polycarpa*) and fourwing saltbush (*A. canescens*). The allscale scrub occupies the salinized areas around the playa margin and transitions to the creosote bush scrub that occupies the non-saline soils farther away from the playa margin. All plant species identified during survey are included in Appendix C.

Six sensitive plant species were documented in the relevant seven adjacent Quadrangles per the California Natural Diversity Database (CNDDB), the California Native Plant Society Electronic Inventory (CNPSEI), and other relevant literature and databases. No federally- or State-listed flora species were observed within or in the vicinity of the project area at the time of the field surveys. Refer to Appendix C for additional information.

#### 2.4 WILDLIFE

Wildlife observed or otherwise detected by the biological surveys within the project area are included in Appendix C. In addition, desert tortoise surveys were conducted in accordance with the protocols described in the USFWS's 2009 "Desert Tortoise (Mojave Population) Field Manual: (Gopherus agassizii)," the 2010 "Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats," and the August 31, 2017 survey protocol update, "Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (Gopherus agassizi)."

#### Sensitive Wildlife

Five sensitive wildlife species were documented to have occurred in the relevant seven adjacent Quadrangles per the CNDDB and other relevant literature and databases. This list of sensitive species and habitats includes any State- and/or federally-listed threatened or endangered species, California Fully Protected species, CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species" and are discussed below.

- Townsend's big-eared bat (*Corynorhinus townsendii*); CDFW SSC There are no suitable roosting sites for this species within the project area.
- Prairie falcon (*Falco mexicanus*); CDFW Watch List- There are no suitable nesting sites for this species within the project area.
- Hepatic tanager (*Piranga flava*): CDFW Watch List There is no suitable habitat for this species within the project area.
- Desert bighorn sheep (*Ovis canadensis nelson*); CDFW Fully Protected- There is no suitable habitat for this species within the project area.
- Desert tortoise (*Gopherus agassizii*); Fed. and State Threatened There is no suitable habitat for this species within the project area.

Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat. Furthermore, the Project site is not within a BLM designated Desert Wildlife Management Area (DWMA) (USFWS 2011). Therefore, the habitat surrounding the site would be characterized as Category 3 Habitat, per the BLM categorization of desert tortoise habitat on public lands.

The proposed 163-acres to be disturbed is entirely within unvegetated dry lakebed or playa (Danby Playa) not suitable habitat for desert tortoise Jericho conducted focused protocol-level desert tortoise surveys within the Project impact area, which included the Project site and an approximately 200-foot surrounding buffer area. The result of the protocol desert tortoise survey was that no desert tortoise individuals or sign including desert tortoise burrows, carcasses, scat, courtship rings or drinking depressions were detected within the survey area. Therefore, desert tortoise are considered absent from the Project site and absent from the access road.

To avoid and minimize any potential impacts to desert tortoise, Valley Salt will implement the following conditions:

- Comply with BLM conditions per the approved BLM Record of Decision including pre-construction surveys and monitoring for access road maintenance;
- An authorized biologist shall conduct a tortoise educational program for personnel at the project site that shall discuss conservation/protection measures;
- Vehicle speeds shall not exceed 20 miles per hour on access roads through desert tortoise habitat during the desert tortoise active season (March 1 through October 31) enforced by speed limit signs and employee training program;
- No cross-country travel with motorized vehicles outside of the project area or access roads by project personnel shall be permitted;
- Workers shall inspect for desert tortoise under vehicles prior to moving them;
- No firearms, dogs or other pets shall be allowed within the project area; and

• All trash and food items shall be promptly contained within closed, common ravenproofed containers and will be removed weekly from the project site to reduce the attractiveness of the area to common ravens

#### Sensitive Crustaceans

Fairy shrimp (*Order Anostraca*), tadpole shrimp (*Order Notostraca*), water fleas (*Order Cladocera*) and clam shrimp (*Order Conchostraca*) comprise the four living groups of crustaceans within the Branchiopoda class. Most branchiopods live in fresh or brackish (slightly salty) water and a few are found in marine habitats. Many are found exclusively in temporary ponds, where their eggs survive long periods of drought, and are often one of the dominant organisms inhabiting the flat, internally-drained, and generally low-elevation playas of the arid basins in the deserts of the southwestern United States (Brostoff et al 2010). Several members of these groups of crustaceans are considered sensitive by the resource agencies including eight species documented in the CNDDB that are State and/or federally-listed as threatened or endangered.

*Findings*: Per the CNDDB, there are no State- or federally-listed sensitive branchiopod species documented within the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads. The nearest documented occurrence for a sensitive branchiopod species (vernal pool fairy shrimp [*Branchinecta lynchi*]) is approximately 120 miles west/southwest of the Project area (CNDDB 2018). No sensitive fairy shrimp or other sensitive branchiopod species have been documented within the regional vicinity of the Project. Therefore, the Project is not likely to impact any sensitive branchiopod species.

#### Nesting Birds (Migratory Bird Treaty Act)

The project area contains no vegetation and no impacts to nesting birds are expected.

#### Waters of the U.S.

The U. S. Army Corps of Engineers (USACE) has authority to permit the discharge of dredged or fill material in waters of the U.S. under Section 404 of the Clean Water Act (CWA). The Project site including existing access road from Cadiz Road are within Danby Playa, which is a dry lake or playa. These features are intermittently flooded features with exposed substrate, but surface water is present for variable periods without detectable seasonal periodicity. Weeks, months, or even years may intervene between periods of inundation (USFWS Wetlands Mapper 2018).

Danby Playa is an isolated playa feature. All unevaporated surface flows from the surrounding mountains terminate at Danby Playa, which is completely cut off from and does not overflow into any other potentially jurisdictional features. Danby Playa and its tributaries are intermittent, non-traditional navigable waters (TNW), non-relatively permanent waters (RPW) features that do not have a significant nexus to a TNW. Therefore, Danby Playa and its tributaries would not be considered jurisdictional waters of the U.S.

#### U. S. Army Corps of Engineers Wetlands

None of the three required parameters for an area to meet the designation as a USACE wetlands (i.e. hydrophitic vegetation, hydric soils and/or wetland hydrology) are present within the Project site. Therefore, no wetlands were identified in the study area during this investigation based of the absence of hydrophitic vegetation, hydric soil indicators and wetland hydrology.

#### State Lake/Streambed

The proposed project site including the existing access road from Cadiz Road are within Danby Playa, which consists primarily of unvegetated playa, with some allscale scrub habitat. Danby Playa and its tributaries may be subject to the Fish and Game Code (FGC) Section 1602 Lake & Streambed Alteration Agreement under the jurisdiction of the CDFW. To comply with Section 1602, the following condition will be implemented:

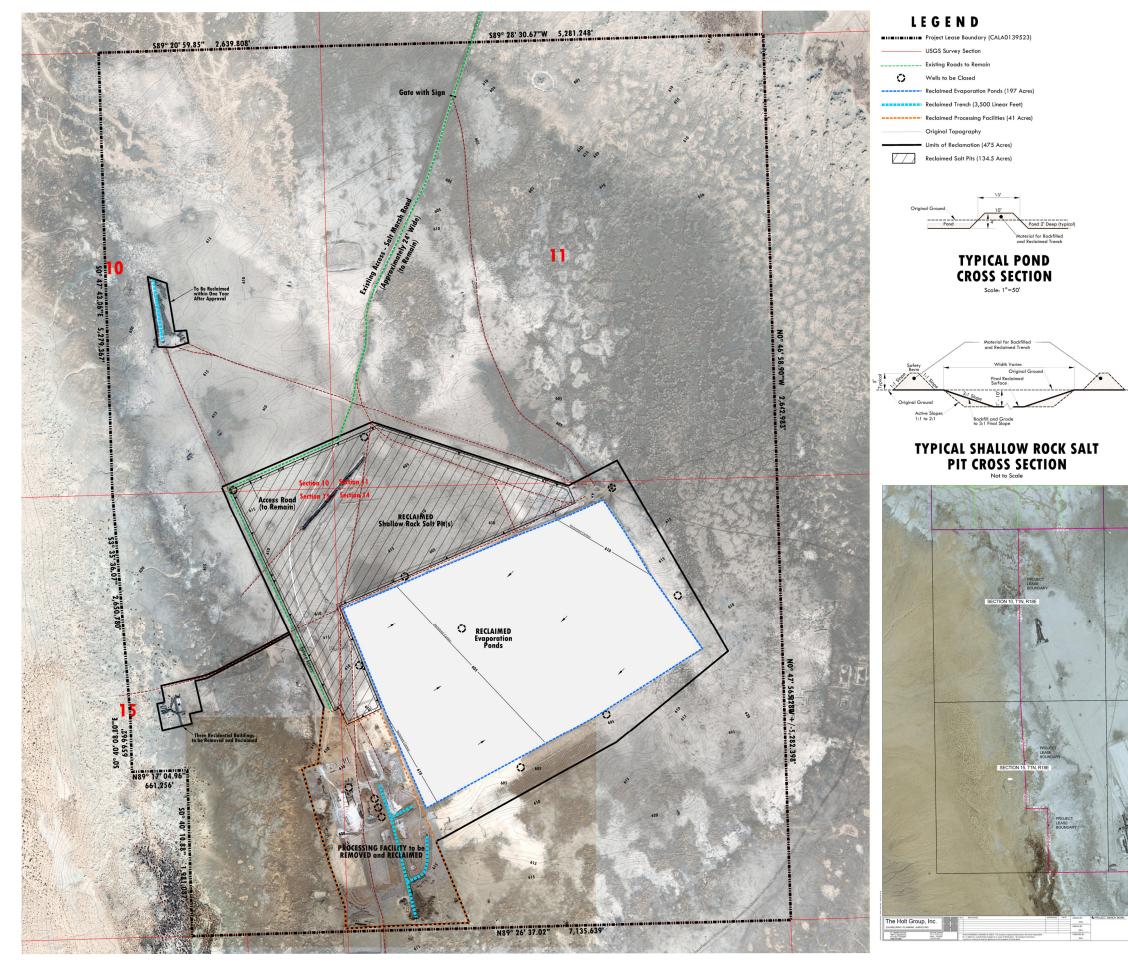
Prior to additional disturbance on the lakebed, Valley Salt will contact CDFW for a site visit to determine jurisdictional areas and submit a 1602 Lake & Streambed Alteration Agreement notification application to CDFW per their direction if applicable. Appropriate measures to protect jurisdictional waters will be implemented through the CDFW.

#### 2.5 **RECLAMATION**

Reclamation will be conducted concurrently and completed within two years at the termination of mining operations (see Figure 4 and Sheet 2 of 2). Final reclamation will include the removal of all equipment, structures, tanks and debris from the site, backfilling of pits, ponds and trenches with bermed material, reclaiming access roads, and closure of all wells per applicable state and local laws.

When pits, ponds, roads, and other disturbed areas are no longer being mined or planned to be utilized in the future, pits and trenches will be backfilled with the surrounding overburden and protective berms. The surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to traverse the area. All pond berms will be flattened, and the material will be evenly spread to make a safe slope and ripped to a depth of 12 inches by mechanical means to allow water infiltration and possible seed collection. In addition, any small exploration trenches within the lease area will be backfilled and graded as close as possible to the existing grade with available material. After reclamation (backfilling pits, ponds and trenches and distributing salt and overburden stockpiles on the lake bed), the pits and pond areas will be slightly below the original contours of the lake bed.

Within one year of termination of the mining operations, all mobile equipment, structures, plant equipment, tanks and debris will be removed from the site and re-sold, recycled on disposed of properly. Any concrete pads and footings will be broken up and buried. All piping on-site will be removed. All on-site wells will be closed or destroyed (unless the BLM requests otherwise) in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife.





#### Danby Dry Lake Sodium Lease **Reclamation Plan Notes**

1. Date of Map Preparation: July 2020 Source of Topographic Map: USGS NED 10 M, 2017 Aerial: February 2019

2. Operator, Applicant, and Le Valley Salt, LLC is an Arizona Limited Liabilit 3230 E. Broadway Road, C-235

Owner of Mineral Right Valley Salt, LLC through Sodium Lease Number

3. Acreage of Property: 1,883 acres ( Located on all of Sections 11 & 14 and the Berleimed: 475 acres

,880 acres per survey) portions of Sections 10 & 15, T1 North; R18 East; SBBM.

4. Final Physical Reclamation: Start December 1, 2072; End December 31, 2073

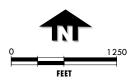
5. Reclaimed End Use: Open Space, Dry Lake Bed

All wells will be Bulletin 74-91 c no longer be a

7. Public Safety - The site will be reclaimed as stated above and no will remain on-site.



<sup>(</sup>Also See App



### **RECLAMATION PLAN**

<sup>©)</sup>Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

**FIGURE 4** 

The rock salt pits, ponds, and trenches will be backfilled with the surrounding overburden and protective berms as much as available. The surface will be graded to a safe grade close to the original grade leaving no unsafe slopes so that the public and wildlife would not be injured if they were to traverse the area. All pond berms will be flattened, and the material will be evenly spread to make a safe slope and ripped to a depth of 12 inches to allow water infiltration and possible seed collection.

Compacted surface material in the processing area, roads to be closed, and any other compacted areas will be loosened and ripped to depth of 12 inches by mechanical means to allow water infiltration and possible seed collection.

The areas disturbed by operations are located on the surface of the Danby Dry Lake bed. The site is composed of barren sands, clays, and salts with no native vegetation. Therefore, Valley Salt is not proposing to replant vegetation as part of reclamation.

Any access roads that were created or disturbed except those roads that the BLM determines should be left in-place, will be reclaimed by removing any rock material or gravel, bringing the grade to a safe grade, and ripping the roadbed. Those roads anticipated to be left in-place are shown on Sheet 2 (subject to change).

With implementation of the above reclamation activities, the site will be left in a safe condition for the safety of the public and wildlife and would return to its natural state of open playa and desert lands.

#### 2.6 **REVEGETATION**

The site and surrounding areas are generally devoid of vegetation; therefore, the site will not require revegetation.

#### 2.7 CLEANUP

At the completion of mining activities, all equipment, wells, and structures will be removed within two years. Surface material in all compacted working areas, stockpile, and processing areas will be loosened by mechanical means. All debris will be removed and disposed at a permitted facility. The pits, ponds and trenches will be backfilled with their surrounding berm material and the area graded level to as close to existing elevations as possible with available material.

Upon final reclamation, all on-site well will be closed or destroyed in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife. In addition, all underground or buried pipes and wiring will be removed and disposed of properly and any trenches will be back filled to grade.

#### 2.8 POST RECLAMATION AND FUTURE MINING

The lease area is within the 28-square mile Danby Dry Lake known for its sodium resources. It would not seem likely the removal of the volumes of water and rock salt from the lease area would dilute and certainly not contaminate the brine resource. Valley Salt will implement spill control protection measures to limit any potential surface contamination from fuel spills.

After reclamation (backfilling pits, ponds and trenches and distributing salt and overburden stockpiles on the lake bed), the pits and pond areas will be slightly below the original contours of the lake bed. Natural lake inundation and wind erosion will contribute to the leveling of the site. Future uses of the site for evaporative or rock salt mining would not be impacted.

#### 2.9 SLOPE AND SLOPE TREATMENT

The area is not conducive to landslides, earth flows, rock falls, or erosion. There will be remaining slopes along the pit boundaries and ponds as these features will be filled to near original elevation. The broad shallow pits will consist of minor depressions less than 5 to 10 feet in depth but no slopes into the pits or ponds will be steeper than 3:1.

#### 2.10 PONDS

Pond reclamation will be accomplished by pushing overburden back into the ponds to grade level. There will most likely be a slight depression after reclamation. All pond related pumps and piping would be removed

#### 2.11 SOILS

Soils within the Project area consist primarily of sandy alluvial soils, salts, and clays. The USDA Natural Resources Conservation Service Soil Survey has not completed soil surveys or mapping of the project area. The Playa is covered by a layer of efflorescent salts that overlie a thick sequence of clays inter-bedded with thin, discontinuous layers of sand and salts. In some places the clays contain individual salt crystals or salt beds of unknown, but presumably limited, lateral extent. There is no topsoil present.

#### 2.12 DRAINAGE AND EROSION CONTROLS

All surface and groundwaters drain to the interior of the basin or lake. Drainage following reclamation will be identical to the natural drainage of the lakebed. No drainage facilities will be established or maintained after reclamation.

#### 2.13 PUBLIC SAFETY

After reclamation, no refuse or dangerous material and no public safety hazards will remain onsite. The ponds and pits will be partially backfilled with available material, and all equipment

and facilities will be removed from the site. Access roads to the site will be reclaimed at the direction of the BLM.

## 2.14 MONITORING AND MAINTENANCE

Valley Salt is required under SMARA (Public Resources Code §2207), to submit an annual status report on forms provided by the California Department of Conservation - Office of Mine Reclamation. SMARA (Section 2774(b)) requires the lead agency to conduct an inspection of the mining operation within six months of receipt of the required Annual Report. It is expected that the BLM will conduct periodic inspections of the site.

## 2.15 RECLAMATION ASSURANCE

Valley Salt has provided the BLM a financial insurance cost estimate and financial assurance mechanism in a form of a \$200,000 bond to assure reclamation of the site (see Appendices E and F).

Valley Salt will increase the posted reclamation assurance as needed in an amount sufficient to pay for the cost of reclamation as outlined in Section 2. The reclamation assurance shall be reviewed by the Lead Agency annually as required by the SMARA. San Bernardino County is the lead agency for SMARA compliance and will review the Reclamation Assurance and inspect the mine site annually.

# 3.0 GEOLOGY

The following description of the Danby Dry Lake area is from GSi/water. *Preliminary Assessment of the Potential for Brine Development in the Southeast Part of Danby Dry Lake, San Bernardino County, California.* 2009 and Ver Planck, Wm. E., Jr. (1958), Salt in California: California Division Mines Bulletin 175: 25-26.

### **Overview of Physiography**

The Danby Playa is the lowest topographic point in Ward Valley (see Figure 5). It covers roughly 28 square miles in southeastern San Bernardino County, California. The Playa is oriented in a northwest to southeast trending basin that is bounded by the Old Woman Mountains in the northwest, by the Iron Mountains in the southwest and by the Turtle Mountains in the northeast. Alluvium, deposited between the Old Woman-Paiute Mountains in the west and the Turtle mountains in the east, abuts the northern boundary of the Playa. The alluvium fills Homer Wash, which extends northward towards Homer Mountain and runs roughly parallel to the north- south trending Old Woman-Paiute Mountains. Sand Draw, which also consists of alluvium, extends northward from Granite Mountain in the south and abuts the southern boundary of the Playa. These highlands and alluvial deposits make up the catchments that supply water to the Playa, which in turn acts as the hydrologic outlet for the entire Danby Basin.

The Playa trends generally northwest-southeast, but exhibits slight changes in orientation along three distinct segments: (1) The narrow northern tip of the Playa trends roughly east-west and is

situated between the alluvium extending from the southernmost tip of the Old Woman Mountains and the bajadas extending from the northern part of the Iron Mountains; (2) the middle segment of the Playa widens, trending roughly northwest-southeast between Homer Wash and the bajadas coming off the northeastern slopes of the Iron Mountains; and (3) a bend reorients the southern segment of the Playa to trend roughly north-south. This bend is most likely due to the large alluvial fan coming off of the Turtle Mountains to the east and may also be related to a local pattern of faulting. Extensive sand dunes bound the southwestern margin of the Playa and yardangs, a type of erosional feature, can be found along the Playa margins around its southern tip.

The Valley Salt lease area covers roughly 4.5 square miles on the southeast part of the Playa where it trends roughly north-south. The property also encompasses a small portion of sand dunes on its western margin where the Playa transitions to alluvial fan.

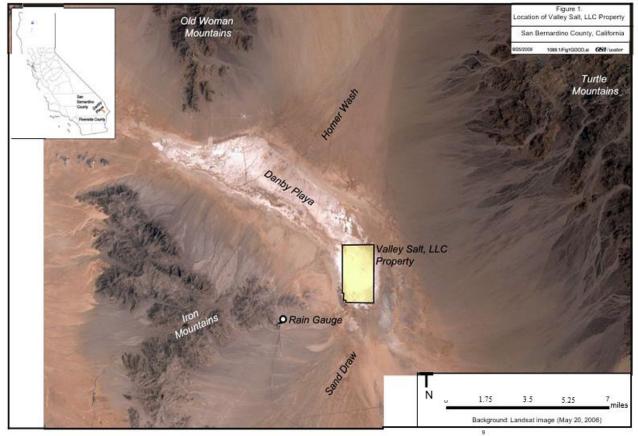


Figure 5 Aerial of Danby Lake Lease Area

Source:GSi/water, 2009

#### **Geologic Setting**

The Iron Mountains to the west of the Playa are composed of pre-Cretaceous age igneous and metamorphic rocks with some degree of fracturing. The Old-Woman Paiute range to the north of the Playa consists of Pre-Cambrian igneous and metamorphic rocks. Both are cut by faults that trend northwest-southeast, which may extend beneath alluvial and playa sediments and influence ground water flow paths. Observation of abrupt appearance of vegetation along the southwestern margin of the Playa may be associated with local faulting (see photo below showing abrupt appearance of vegetation along the southwest margin of the playa).



The Playa is covered by a layer of efflorescent salts that overlie a thick sequence of clays interbedded with thin, discontinuous layers of sand and salts (see Figure 6). In some places the clays contain individual salt crystals or salt beds of unknown, but presumably limited, lateral extent. Figure 6 shows isopach lines, or contours, that represent the thickness of crystalline salt deposits in the Playa for three areas, including land that pertains to Valley Salt. It also shows crosssections along two transects to the northwest of the Valley Salt lease area. These cross-sections illustrate the irregular distribution of salt and sand beneath the Playa. The distribution of salt within the Playa will affect brine formation while the distribution of sands and other permeable units will affect the rates at which brine may be extracted from the Playa sediments.

The sequence of lacustrine sediments that comprise the Playa is estimated by Calzia (1992, p.87) to extend to a depth of 380 feet in the southwest to more than 500 feet in the northwest. Existing data are limited but suggest that brine is not found at depths of 500 feet (Calzia, 1991). The depth to bedrock is estimated from gravity survey data to be about 2,800 feet and includes the sequence of lake-bed sediments that make up the Playa and the underlying Bouse Formation (Calzia, 1991, p. 87). Based on these data, it seems likely that fresh or brackish water can be produced from depths greater than 500 feet.

There are no known geologic hazards associates with the site. The project is not within a special study zone or fault hazard zone. It is not subject to landslides or groundshaking. It is subject to wind and water erosion. During severe flooding, portions of the site can be subject to inundation.

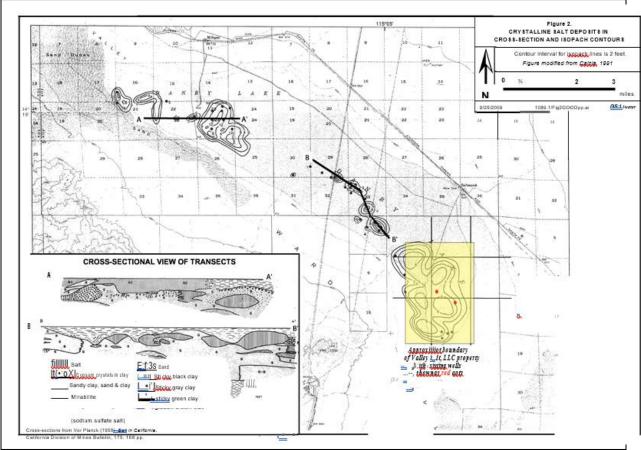


Figure 6 Crystalline Salt Deposits Danby Dry Lake

Source: California Division of Mines Bulletin, 175: page 168; 1958. (highlight added)

# 4.0 HYDROLOGY

Danby Playa is an approximately 9-mile-long by 2.5-mile-wide (covering roughly 28 square miles) dry lake or playa that is situated in the Ward Valley between the Old Woman Mountains in the northwest, by the Iron Mountains in the southwest and by the Turtle Mountains in the northeast, in the eastern Mojave Desert. Danby Playa is part of a large, northwest-trending structural trough that also includes Bristol and Cadiz Dry Lakes. This trough is divided into three separate basins by northwest trending mountain ranges that project into the trough. Danby Playa is the sump of a separate drainage basin, known as Ward Valley, that extends about 50 miles north of the playa, and has a drainage of about 1,000 square miles (Bassett, et al 1959).

The Valley Salt lease area covers roughly 4.5 square miles on the southeast part of the Playa where it trends roughly north-south.

The playa surface of Danby Playa is about 600 to 630 feet amsl and is separated from Cadiz Lake to the northwest, by an alluvial divide approximately 500 feet higher than Danby Playa. The topography of the Project area is generally flat to gently-sloped, with on-site elevations ranging from approximately 605 to a few mounds up to 615 feet amsl.

The climate within the Danby Playa area is characterized by very hot summers and mild winters. Most of the rain falls in the winter months, but August typically has some monsoonal storms. Average annual maximum temperatures peak at approximately 108.3 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 43° F in January. Average annual precipitation is typically greatest from December through March and reaches a peak generally in January (0.53 inches). Precipitation is lowest in the month of June (0.02 inches). Due to the summer monsoonal storms typical of this region, average monthly precipitation increases to approximately 0.4 inches in the month of August. Total annual precipitation averages 3.45 inches.

Hydrologically, the Project area is located within an undefined Hydrologic Sub-Area (HSA 712.00) which comprises a 718,639-acre drainage area within the larger Southern Mojave Watershed (HUC 18100100). Recharge to the Playa may occur by a variety of means including (1) direct precipitation and infiltration into the Playa sediments; (2) overland flow from surface streams (ephemerally); and (3) subsurface ground water flow. Likewise, discharge (evaporation) from the Playa surface may occur by a variety of means including (1) capillary rise; (2) direct ground water discharge via springs or seeps; and (3) via plant uptake and transpiration.

Water flows at different rates through different geologic materials. For example, water will tend to flow more swiftly through sandy alluvial sediments than through clay-rich lakebed sediments. A properly designed well can only produce at rates that the type of sediments it penetrates will allow. Potentially important pathways of ground water recharge to the Playa include the alluvial sediments filling Homer Wash and Sand Draw and alluvial fans, especially those extending from the Turtle Mountains in the east and the Iron Mountains in the west.

#### REFERENCES

43 CFR Parts 3590 – 3596 Solid Minerals (other than coal) Exploration and Mining Operations. BLM Interior

Bureau of Land Management. Desert Renewable Energy Conservation Plan Land Use Plan Amendment. September 2016.

Calzia, J.P., 1991, Geophysical, lithologic and water quality data from Danby Dry Lake, San Bernardino County, California. United States Geological Survey Open File Report 91-264.

Calzia, J.P., 1992, Geology and saline resources of Danby Lake Playa, Southeastern California; in *Old Routes to the Colorado*; compiled by R.E. Reynolds. San Bernardino County Museum Association Special Publication 92-2.

GSi/water. Preliminary Assessment of the Potential for Brine Development in the Southeast Part of Danby Dry Lake, San Bernardino County, California. September 28, 2009

Mojave Desert Air Quality Management District (MDAQMD) *Rules and Regulations* as amended, (<u>http://www.mdaqmd.ca.gov/</u>).

MDAQMD Permit Nos. B013098, B013412, and B013413.

*Surface Mining and Reclamation Act (SMARA).* California Department of Conservation, Office of Mine Reclamation, 2018.

U.S. Dept. of the Interior BLM. Sodium Preference Right Lease CALA 0 1395523

Ver Planck, Wm. E., Jr. (1958), *Salt in California: California Division Mines Bulletin 175*: Salt Deposits of Danby Lake; pages 18-24.

#### **CROSS REFERENCE MATRIX**

#### Danby Dry Lake Salt Lease Reclamation Plan Surface Mining and Reclamation Act of 1975 (SMARA) & California Code of Regulations (CCR Title 14)

#### Prepared by Lilburn Corporation – July 2020

Including reference to:

ARTICLE 1. GENERAL PROVISIONS. SECTION 2710 et seq. ARTICLE 2. DEFINITIONS. SECTION 2725 et seq. ARTICLE 3. DISTRICT COMMITTEES. SECTION 2740 – 2741 ARTICLE 4. STATE POLICY FOR THE RECLAMATION OF MINED LANDS. SECTION 2755 et seq. ARTICLE 5. RECLAMATION PLANS AND THE CONDUCT OF SURFACE MINING OPERATIONS. SECTION 2770 et seq., as amended CCR TITLE 14 (REGISTER 85, No. 18-5-4-83) CHAPTER 8. MINING AND GEOLOGY SUBCHAPTER 1. STATE MINING AND GEOLOGY BOARD ARTICLE 1. SURFACE MINING AND RECLAMATION PRACTIVE. SECTION 3500 et seq. ARTICLE 9. RECLAMATION STANDARDS. SECTION 3700 et seq.

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)		
	MINING OPERATIONS AND CLOSURE					
SMARA 2770.5	100-year flood, Caltrans contact	X				
SMARA 2772 (c) (1)	Name and Address of operator/agent.		4	1.0		
SMARA 2772 (c) (2)	Quantity & type of minerals to be mined.		4, 5	1.0, 1.1		
SMARA 2772 (c) (3)	Initiation and termination date.		5	1.0		
SMARA 2772 (c) (4)	Maximum anticipated depth of mining.		7,9	1.1		
SMARA 2772 (c) (5)	Description, including map with boundaries, topographic details, geology, streams, roads, utilities.		1 – 13 Sheets 1 & 2	1.0 - 1.5		
SMARA 2772 (c) (6)	Mining plan and time schedule for reclamation (concurrent or phased reclamation).		1- 10, 18-20	1.0, 1.1, 2.5		
SMARA 2772 (c) (7)	Proposed subsequent use.		21	2.8		
SMARA 2772 (c) (8)	Description of reclamation measures adequate for proposed end use.		18-20	2.5 -2.7		

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)	
MINING OPERATIONS AND CLOSURE					
SMARA 2772 (c) (8) (a)	Description of containment control and mine waste disposal.		10-11	1.2	
SMARA 2772 (c) (8) (b)	Rehabilitation of stream banks/beds to minimize erosion	x			
SMARA 2772 (c) (9)	Impact of reclamation on future mining.		21	2.8	
SMARA 2772 (c) (10)	Applicant statement accepting responsibility for reclamation per the reclamation plan.		Attached to application		
SMARA 2773 (a)	Water quality monitoring plan specific to property.	X			
SMARA 2773 (a)	Sediment and erosion control monitoring plan specific to property.		13	1.5	
SMARA 2773 (a)	Revegetation plan specific to property. Monitoring Plan.	X			
SMARA 2773.1	Performance (financial) assurances.		On file with Coounty		
SMARA 2777	Amended reclamation plans required prior to substantial deviations to approved plans.	x	INFORMATIONAL		
CCR 3502 (b) (1)	Environmental setting and impact of reclamation on surrounding land uses. (Identify sensitive species, wildlife habitat, sensitive natural communities, e.g., wetlands, riparian zones, etc.).		14-20	2.1 – 2.5	
CCR 3502 (b) (2)	Public health and safety (exposure).		9, 21	1.1, 2.13	
CCR 3502 (b) (3)	Slopes: critical gradient, consider physical properties and landscaping.		7, 9, 21	1.1, 2.9	
CCR 3502 (b) (4)	Fill materials in conformance with current engineering practice.		18-21	2.5-2.9	
CCR 3502 (b) (5)	Disposition of old equipment		20	2.7	

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)		
	MINING OPERATIONS AND CLOSURE					
CCR 3502 (b) (6)	Temporary stream and water diversions shown.	X				
CCR 3503 (a) (1)	Removal of vegetation and overburden preceding mining kept to a minimum.	X				
CCR 3503 (a) (2)	Overburden stockpiles managed to minimize water and wind erosion.	X				
CCR 3503 (a) (3)	Erosion control facilities (dikes, ditches, etc.) as necessary.		13, 21	1.5, 2.12		
CCR 3503 (b) (1)	Settling ponds (sedimentation and water quality).		(evaporation ponds) 5-10	1.1		
CCR 3503 (b) (2)	Prevent siltation of groundwater recharge areas.	X				
CCR 3503 (c)	Protection of fish and wildlife habitat (all reasonable measures).		15-18	2.3, 2.4		
CCR 3503 (d)	Disposal of mine waste and overburden (stable-no natural drainage restrictions without suitable provisions for diversion).		12	1.2		
CCR 3503 (e)	Erosion and drainage (grading to drain to natural courses or interior basins).		13, 21	1.5, 2.12		
CCR 3503 (f)	Resoiling (fine material on top plus mulches).	X				
CCR 3503 (g)	Revegetation and plant survival (use available research).	x				
CCR 3703 (a)	Sensitive species conserved or mitigated	X				
CCR 3703 (b)	Wildlife habitat at least as good as pre-project, if approved end use is habitat.		15-18	2.4, 2.5		
CCR 3703 (c)	Wetlands avoided or mitigated at 1:1 minimum	X				
CCR 3704 (a)	For urban use, fill compacted in accordance with UBC or local grading ordinance.	x				

SMARA/CCR	DESCRIPTION	N/A	PAGE(S)	SECTION(S)		
SECTION				SECTION(S)		
	MINING OPERATIONS AND CLOSURE					
CCR 3704 (b)	For resource conservation, compare to standard for that end use		21	2.8		
CCR 3704 (c)	Mine waste stockpiled to facilitate phased reclamation and separate from growth media.	x				
CCR 3704 (d)	Final reclamation fill slopes not exceed 2:1, except when engineering and revegetation analysis allow.		21	2.9		
CCR 3704 (e)	Final landforms or fills conform with surrounding topography or end use.		18-20	2.5		
CCR 3704 (f)	Cut slopes have minimum factor of safety for end use and conform with surrounding topography.	X	7, 9, 21	1.1, 2.9		
CCR 3704 (g)	Piles or dumps not placed in wetlands without mitigation.	X				
CCR 3705 (a)	Vegetative cover, suitable to end use, self-sustaining. Baseline studies documenting cover, density and species richness.	x				
CCR 3705 (b)	Test plots if success has not been proven previously	X				
CCR 3705 (c)	Decompaction of site.		18-20	2.5		
CCR 3705 (d)	Roads stripped of road base materials, resoiled and revegetated, unless exempted.		20-22	2.5		
CCR 3705 (e)	Soil altered or other than native topsoil, required soil analysis. Amend if necessary.	X				
CCR 3705 (f)	Temporary access not bladed. Barriers installed.	X				
CCR 3705 (g)	Use native plant species, unless exotic species meet end use.	x				
CCR 3705 (h)	Plant during correct season.	Х				

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)		
	MINING OPERATIONS AND CLOSURE					
CCR 3705 (i)	Erosion control and irrigation, when necessary.		13, 21	1.5, 2.12		
CCR 3705 (j)	If irrigated, demonstrate self- sustaining without for two- year minimum.	X				
CCR 3705 (k)	Weeds managed.	Х				
CCR 3705 (l)	Plant protection measures, fencing, caging.	X				
CCR 3705 (m)	Success quantified by cover, density and species-richness. Standards proposed in plan. Sample method set forth in plan and sample size provides 80 percent confidence level, as minimum.	x				
CCR 3706 (a)	Mining and reclamation to protect downstream beneficial uses.	Х				
CCR 3706 (b)	Water quality, recharge, and groundwater storage shall not be diminished, except as allowed by plan.	X				
CCR 3706 (c)	Erosion and sedimentation controlled during all phases as per RWQCB/SWRCB.		13, 21	1.5, 2.12		
CCR 3706 (d)	Surface runoff and drainage controlled, and methods designed for not less than 20 year/1 hour intensity storm event.	X				
CCR 3706 (e)	Altered drainages shall not cause increased erosion or sedimentation.		17	2.4		
CCR 3706 (f)	Stream diversions constructed in accordance with DFG 1603, EPA 404, Sec. 10 Rivers and Harbors.		17	2.4		
CCR 3706 (g)	All temporary diversions eventually removed.	X				
CCR 3707 (a)	Return prime ag to prime ag, unless exempted.	X				

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)	
MINING OPERATIONS AND CLOSURE					
CCR 3707 (b)	Segregate and replace topsoil by horizon.	X			
CCR 3707 (c)	Productivity rates equal pre- project or similar site for two consecutive years. Rates set forth in plan.	X			
CCR 3707 (d)	Fertilizers and amendments not contaminate water.	X			
CCR 3708	Other ag capable of sustaining crops of area.	X			
CCR 3709 (a)	Equipment stored in designated area and waste disposed of according to ordinance.		4-11	1.1, 1.2	
CCR 3709 (b)	Structures and equipment dismantled and removed.		20	2.7	
CCR 3710 (a)	Surface and groundwater protected.		13, 21	1.5, 2.12	
CCR 3710 (a)	Surface and groundwater projected in accordance with Porter Cologne and Clean Water Acts (RWQCB/SWRCB).		13, 21	1.5, 2.12	
CCR 3710 (b)	In-stream in accordance with CFG 1600, EPA 404, and Sec. 10 Rivers and Harbors.		17	2.4	
CCR 3710 (c)	In-stream channel elevations and bank erosion evaluated annually using extraction quantities, cross-sections, and aerial photos.	x			
CCR 3710 (d)	In-stream mining activities shall not cause fish to become entrapped in pools or in off-channel pits. California Fish and Game Code section 1600.	x			
CCR 3711(a)	All salvageable topsoil removed. Topsoil and vegetation removal not proceed mining by more than one year.	x			

SMARA/CCR SECTION	DESCRIPTION	N/A	PAGE(S)	SECTION(S)	
	MINING OPERATIONS AND CLOSURE				
CCR 3711 (b)	Topsoil resources mapped prior to stripping, location of stockpiles on map. Topsoil and growth media in separate stockpiles.	X			
CCR 3711 (c)	Soil salvage and phases set forth in plan, minimize disturbance, designed to achieve revegetation success.	x			
CCR 3711 (d)	Topsoiling phased ASAP. Stockpiles not to be disturbed until needed. Stockpiles clearly identified and planted with vegetation or otherwise protected.	X			
CCR 3711 (e)	Topsoil redistributed in stable site and consistent thickness.	X			
CCR 3712	Waste and tailings, and waste disposal governed by SWRCB (Article 7, Chapter 15, Title 23, CCR).		10	1.2	
CCR 3713 (a)	Drill holes, water wells, monitoring wells abandoned in accordance with laws.		18-21	2.5, 2.7	
CCR 3713 (b)	All portals, shafts, tunnels, or openings gated or protected from public entry, but preserve access for wildlife.	X			

# APPENDIX A SODIUM PREFERENCE RIGHT LEASE (CALA0139523)



# **United States Department of the Interior**

BUREAU OF LAND MANAGEMENT California State Office 2800 Cottage Way, Suite W1623 Sacramento, CA 95825 www.blm.gov/ca



February 12, 2014

#### In Reply Refer To:

CALA 0139523 3511 CA-920.lim (P)

#### CERTIFIED MAIL – 7012 0470 0002 2815 4676 RETURN RECEIPT REQUESTED

#### DECISION

Mr. Gary Pederson, Valley Salt LLC	:	Renewal of Sodium
3935 E. Palm St	:	Preference Right Lease
Mesa, Arizona 85215-1161	:	CALA0139523

#### Sodium Lease Renewed

The lessee, Valley Salt LLC, has met the conditions for renewal of sodium lease CALA 0139523 as required pursuant to 43 Code of Federal Regulation (CFR) Subpart 3511. Accordingly, the sodium preference right lease is hereby renewed for a period of ten years.

Lease Number	Renewal Effective Date	Expiration Date
CALA 0 139523	December 1, 2012	November 30, 2022

Rental on the subject lease will continue to be due and payable each year on or before the anniversary date of the lease. Please contact either Laurie Moore at (916) 978-4377 or Sean Hagerty at (916) 978-4375 if you have any questions in regard to this renewal.

Laurie I. Moore Land Law Examiner, Branch of Adjudication Division of Energy and Mineral Resources

1 Enclosure:

Renewal Lease CALA 0139523

Cc: w/copy of enclosure

Field Manager, Needles Field Office, CA-690 Mr. Michael Nestlehut, ONRR

Form 3520-7 (March 2010)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB NO. 1004-0121 Expires: February 28, 2013
a) (	BORENO OF EILES HELENO	Serial Number
	SODIUM	CALA 0 139523
PART 1. LEASE RIGH	ITS GRANTED.	
This Lease Z Land Management (BL	Lease Renewal entered into by and between the UNITED STA' M), hereinafter called lessor and ( <i>Name and Address</i> )	TES OF AMERICA, through the Bureau of
50		
	DEC 1 2012	, for a period of 10 years,
Hereinafter called lesse	e, is effective (date)	, ioi apine
Sodium, Sulphur, Hara	lrock –	
with preferential riprescribed by the S	ight in the lessee to renew for successive periods of10 Secretary of the Interior, unless otherwise provided by law at the e	years under such terms and conditions as may be expiration of any period.
Potassium, Phosphate,	Gilsonite –	
and for so long the each	reafter as lessee complies with the terms and conditions of this le year period, unless otherwise provided by law,	ase which are subject to readjustment at the end of
Sec. 1. This lease is iss	ued pursuant and subject to the terms and provisions of the:	
Mineral Leasing A	Act of 1920, as amended, and supplemented, 41 Stat. 437, 30 U.S. Act of Acquired Lands, Act of August 7, 1947, 61 Stat. 913, 30 U an No. 3 of 1946, 60 Stat. 1099 and 43 U.S.C. 1201;	.S.C. 351-359;
(Other)	and the property of the method of the production	; and
to the regulations	and general mining orders of the Secretary of the Interior in force	e on the date this lease issued.
Sec. 2. Lessor, in consi forth, hereby grants and	ideration of any bonuses, rents, and royalties to be paid, and the or d leases to lessee the exclusive right and privilege to explore for, and dispose of the SODIUM deposits and other related	conditions and covenants to be observed as herein set drill for, mine, extract, remove, beneficiate, concentrate, products

hereinafter referred to as "leased deposits," in, upon, or under the following described lands:

T. 1N., R. 18E., SBM, San Bernardino County, California

sec. 10, E2; sec. 11, ALL; sec. 14, ALL; sec. 15, lot 6, NE, E2SE.

containing 1,782.87 acres, more or less, together with the right to construct such works, buildings, plants, structures, equipment and appliances and the right to use such on-lease rights-of-way which may be necessary and convenient in the exercise of the rights and privileges granted, subject to the conditions herein provided.

#### Phosphate -

In accordance with section 11 of the Act (30 U.S.C. 213), lessee may use deposits of silica, limestone, or other rock in the processing of refining of the phosphates, phosphate rock, and associated or related minerals mined from the leased lands or other lands upon payments of royalty as set forth on the attachment to this lease. (Phosphate leases only.)

#### PART II. TERMS AND CONDITIONS

Sec. 1. (a) RENTAL RATE – Lessee shall pay lessor rental annually and in advance for each acre or fraction thereof during the continuance of the lease at the rate indicated below:

Sulphur, Gilsonite -

50 cents for the first lease year and each succeeding lease year;

#### Hardrock -

\$1 for the first lease year and \$1 for each succeeding lease year;

- Phosphate -
- 25 cents for the first lease year, 50 cents for the second and third lease years, and \$1 for each and every lease year thereafter;

#### Potassium Sodium -

25 cents for the first calendar year or fraction thereof, 50 cents for the second, third, fourth, and fifth calendar years respectively, and \$1 for the sixth and each succeeding calendar year; or

Sodium, Sulphur, Asphalt, and Hardrock Renewal Leases-

- \$ 1.00 for each lease year;
- (b) RENTAL CREDITS The rental for any year will be credited against the first royalties as they accrue under the lease during the year for which rental was paid.

Sec. 2. (a) PRODUCTION ROYALTIES – Lessee must pay lessor a production royalty in accordance with the attached schedule. Such production royalty is due the last day of the month next following the month in which the minerals are sold or removed from the leased lands.

#### (b) MINIMUM ANNUAL PRODUCTION AND MINIMUM

ROYALTY – (1) Lessee must produce on an annual basis a minimum amount of \$3.00 per acre, except when production is interrupted by strikes, the elements, or casualties not attributable to the lessee. Lessor may permit suspension of operations under the lease when marketing conditions are such that the lease cannot be operated except at a loss. (2) At the request of the lessee, made prior to initiation of the lease year, the BLM may allow in writing the payment of a \$3.00 per acre or fraction thereof minimum royalty in lieu of production for any particular lease year. Minimum royalty payments must be credited to production royalties for that year.

Sec. 3. REDUCTION AND SUSPENSION – In accordance with Section 39 of the Mineral Leasing Act, 30 U.S.C. 209, the lessor reserves the authority to waive, suspend or reduce rental or minimum royalty, or to reduce royality and reserves the authority to assent to or order the suspension of this lease.

Sec. 4. BONDS – Lessee must maintain in the proper office a lease bond in the amount of \$5,000.00, or in lieu thereof, an acceptable statewide or nationwide bond. The BLM may require an increase in this amount when additional coverage is determined appropriate.

Sec. 5. DOCUMENTS, EVIDENCE AND INSPECTION - At such times and in such form as lessor may prescribe, lessee must furnish

detailed statements showing the amounts and quality of all products removed and sold from the lease, the proceeds therefrom, and the amount used for production purposes or unavoidably lost.

Lessee must keep open at all reasonable times for the inspection of any duly prescribed employee of lessor, the leased premises and all surface and underground improvements, work, machinery, ore stockpiles, equipment, and all books, accounts, maps, and records relative to operations, surveys, or investigations on or under the leased lands.

Lessee must either submit or provide lessor access to and copying of documents reasonably necessary to verify lessee compliance with terms and conditions of the lease.

While this lease remains in effect, information obtained under this section must be closed to inspection by the public in accordance with the Freedom of Information Act (5 U.S.C. 552).

Sec. 6. DAMAGES TO PROPERTY AND CONDUCT OF

OPERATIONS – Lessee must exercise reasonable diligence, skill, and care in the operation of the property, and carry on all operations in accordance with approved methods and practices as provided in the operating regulations, having due regard for the prevention of injury to life, health or property and of waste or damage to any water or mineral deposits.

Lessee must not conduct exploration or operations, other than causal use, prior to receipt of necessary permits or approval of plans of operations by lessor.

Lessee must carry on all operations in accordance with approved methods and practices as provided in the operating regulations, and the approved mining plans in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual, minerals, and other resources, and to other land uses or users. Lessee must take measures deemed necessary by lessor to accomplish the intent of this lease term. Such measures may include, but are not limited to, modification to proposed siting or design of facilities, timing of operations, and specification of interim and final reclamation procedures.

Lessor reserves to itself the right to lease, sell, or otherwise dispose of the surface or other mineral deposits in the lands and the right to continue existing uses and to authorize future uses upon or in the leased lands, including issuing leases for mineral deposits not covered hereunder or the approval of easements or rights-of-way. Lessor will condition such uses to prevent unnecessary or unreasonable interference with rights of lessee as may be consistent with concepts of multiple use and multiple mineral development.

Sec. 7. PROTECTION OF DIVERSE INTERESTS, AND EQUAL OPPORTUNITY – Lessee must: pay when due all taxes and legally assessed and levied under the laws of the State or the United States; accord all employees complete freedom of purchase; pay all wages at least twice each month in lawful money of the United States; maintain a safe working environment in accordance with standard industry practices; restrict the workday to not more than 8 hours in any one day for underground workers, except in emergencies; and take measures necessary to protect the health and safety of the public. No person under the age of 16 years must be employed in any mine below the surface. To the extent that laws of the State in which the lands are situated are more reactive than the provisions in this paragraph, then the State laws apply. Lessee must comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended, and the rules, regulations, and relevant orders of the Secretary of Labor. Neither lessee or lessee's subcontractors must maintain segregated facilities.

Sec. 8. (a) TRANSFERS - This lease may be transferred in whole or in part to any person, association or corporation qualified to hold such lease interest.

(b) RELINQUISHMENT - The lessee may relinquish in writing at any time all rights under this lease or any portion thereof as provided in the regulations. Upon lessor's acceptance of the relinquishment, lessee must be relieved of all future obligations under the lease or the relinquished portion thereof, whichever is applicable.

Sec. 9. DELIVERY OF PREMISES, REMOVAL OF MACHINERY, EQUIPMENT, ETC. - At such time as all or portions of this lease are returned to lessor, lessee must deliver up to lessor the land leased, underground timbering, and such other supports and structures necessary for the preservation of the mine workings on the leased premises or deposits and place all wells in condition for suspension or abandonment. Within 180 days thereof, lessee must remove from the premises all other structures, machinery, equipment, tools, and materials that it elects to or as required by BLM. Any such structures, machinery, equipment, tools, and materials remaining on the leased lands beyond 180 days, or approved extension thereof, will become the property of the lessor, but lessee must either remove any or all such property or must continue to be liable for the cost of removal and disposal in the amount actually incurred by the lessor. If the surface is owned by third parties, lessor will waive the requirement for removal, provided the third parties do not object to such waiver. Lessee must, prior to the termination of bond

liability or at any other time when required and in accordance with all applicable laws and regulations, reclaim all lands the surface of which has been disturbed, dispose of all debris or solid waste, repair the offsite and onsite damage caused by lessee's activity or activities on the leased lands, and reclaim access roads or trails.

Sec. 10. PROCEEDINGS IN CASE OF DEFAULT - If lessee fails to comply with applicable laws, now existing regulations, or the terms, conditions and stipulations of this lease, and noncompliance continues for 30 days after written notice thereof, this lease will be subject to cancellation by the lessor only by judicial proceedings. This provision will not be construed to prevent the exercise by lessor of any other legal and equitable remedy, including waiver of the default. Any such remedy or waiver will not prevent later cancellation for the same default occurring at any other time.

Sec. 11. HEIRS AND SUCCESSORS-IN-INTEREST - Each obligation of this lease must extend to and be binding upon, and every benefit hereof must inure to, the heirs, executors, administrators, successors, or assigns of the respective parties hereto.

Sec. 12. INDEMNIFICATION - Lessee must indemnify and hold harmless the United States from any and all claims arising out of the lessee's activities and operations under this lease.

Sec. 13. SPECIAL STATUTES - This lease is subject to the Federal Water Pollution Control Act (33 U.S.C. 1151-1175), the Clean Air Act (42 U.S.C. 1857 et seq.), and to all other applicable laws pertaining to exploration activities, mining operations and reclamation.

Sec. 14. SPECIAL STIPULATIONS -

There is incorporated into this lease as if set forth in full;

1. The Lessee will comply with all stipulations contained in this lease unless otherwise approved in writing by the Authorized Officer. Non-compliance with these stipulations by the Lessee or any of his agents may, at the option of the Authorized Officer, result in the cancellation or suspension of the lease or adverse action against the grantee.

2. The Lessee shall comply with all applicable federal and state laws and regulations issued thereunder, existing or hereafter enacted or promulgated, affecting in any manner construction, operation, maintenance or termination of the lease.

#### **3. ROYALTY SCHEDULE:**

To pay the lessor a royalty of 5 per cent of the quantity or gross value of the output of the leased deposits at the point of shipment to market and/or place of consumption during this 10 (ten) year renewal period. It is expressly understood that the Secretary of the Interior may establish reasonable minimum values for the purpose of computing royalty on any of the leased deposits, due consideration being given to the highest price paid for a part or majority of the production of like quality products from the same general area, the price received by the lessee, posted prices, and other relevant matters.

#### Sec. 14. SPECIAL STIPULATIONS - (Cont.)

#### THE UNITED STATES OF AMERICA

By alley Satt, LLC (Company or Lessee Name) (Signing Officer's Printed Name) C Supervisigning Officer) (Signature of Lessee) Branch of Adjudication (Title) (Title) FEB 1 2 2014 (Date) (Date)

Title 18 U.S.C. Section 1001 makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 5)

#### NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished with the following information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 43 U.S.C. 3500

PRINCIPAL PURPOSE: The BLM will use the information you provide to verify your compliance with lease terms.

ROUTINE USES: The BLM will disclose information to: (1) appropriate Federal, State, local or foreign agencies when relevant to civil, criminal, or regulatory investigations or prosecutions; (2) appropriate Federal agencies when their concurrence is required before BLM grants a right in public lands or resources; (3) a member of the public in response to a specific request for pertinent information; (4) a congressional office in response to an inquiry made at the request of an individual; and (5) to a consumer reporting agency to expedite collecting debts owed the government.

EFFECT OF NOT PROVIDING INFORMATION: Filing of the information is required to obtain and keep a benefit. If you do not provide the information, BLM may seek to cancel your lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to comply with the regulations at 43 CFR 3500, which implement the provisions of the Mineral Leasing Act of 1920, as amended; the Mineral Leasing Act for Acquired Land of 1947; and section 402 of Reorganization Plan No. 3 of 1946.

The BLM uses the information to verify that you are complying with lease terms.

Response to this request is required to obtain and keep a benefit.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 300 hours per response, including the time for reviewing instructions, gathering, and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0121), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

# **ROYALTY SCHEDULE**

To pay the lessor a royalty of 5 percent of the quantity or gross value of the output of the leased deposits at the point of shipment to market and/or place of consumption during this 10-year continuance period. It is expressly understood that the Secretary of the Interior may establish reasonable minimum values for the purpose of computing royalty on any of the leased deposits, due consideration being given to the highest price paid for a part or a majority of the production of like quality products from the same general area, the price received by the lessee, posted prices, and other relevant matters.

(Signature of Lessee)

57 of 274

# APPENDIX B BLM MINING AND RECLAMATION PLAN FOR DANBY LAKE SODIUM LEASE JULY 2020



# DANBY DRY LAKE SODIUM LEASE NO. CALA 0 139523 MINING AND RECLAMATION PLAN

Submitted to:

Bureau of Land Management Needles Field Office 1303 U.S. Hwy 95 S. Needles, CA 92363

### Submitted by:

Valley Salt, LLC 3230 E. Broadway Road, C-235 Phoenix, AZ 85040

#### **July 2020**

# MINING AND RECLAMATION PLAN FOR VALLEY SALT'S DANBY DRY LAKE SODIUM LEASE AS REQUIRED BY 43 CFR 3592 - 3296

#### **TABLE OF CONTENTS**

1.0	Section 3592.1(c)(1) Lessee and Operator Information	4
2.0	Section 3592.1(c)(2) General Description of Geologic Conditions and Mineral	
	Resources	5
3.0	Section 3592.1(c)(3) Mining Maps	9
4.0	3592.1(c)(4) Mining Operations	9
5.0	3592.1(c)(5) Estimate of the Quantity and Quality of the Mineral Resources	
6.0	3592.1(c)(6) Explanation of Maximum Recovery of the Sodium Resource	
7.0	3592.1(c)(7) Maps and Cross Sections	16
8.0	3592.1(c)(8) Environmental Aspects	16
9.0	3592.1(c)(9) Reclamation Schedule and Measures Planned for Surface Reclamation	22
10.0	3592.1(c)(10) Method of Abandonment of Operations	
11.0	Section 3592.1(c)(11) Additional Information – Housing and Access Roads	24
12.0	3594.1(a) Maximum Recovery of Mineral Deposits	24
13.0	3594.1(b) New Geologic Information	24
4.0	3594.2 & 3 Support Pillars and Boundary Pillars (not applicable)	24
15.0	3594.4 Development through Adjacent Mine (not applicable)	25
16.0	3594.5(a) Well Protection	25
17.0	3594.5(b) Protection of the Deposit	25
18.0	3594.5(c) Setbacks	25
19.0	3595.1(a) Protective Measures of any Openings that could be Hazardous to Public or	
	Animals	25
20.0	3595.1(b) Concurrent Reclamation of Areas No Longer Needed for Operations	25
21.0	3595.1(c) Abandonment of Wells	26
22.0	3595.2 Abandonment of Underground Workings (not applicable)	26
23.0	3596.1 Milling	26
24.0	3596.2 Disposal of Waste	26
REFE	RENCES	27

## LIST OF FIGURES

Figure 1	Regional Location Map	.2
	Project Vicinity Map	
-	Aerial of Danby Lake Lease Area	
Figure 4	Crystalline Salt Deposits	.8
	Mining Plan	
Figure 6	Reclamation Plan	18
Figure 7	Potential Brine Location Areas	19

### TABLE OF CONTENTS

#### LIST OF TABLES

Table 1	Start-Up and Proposed Mining Activities	11
Table 2	Processing Plant and Equipment List (Typical)	12

#### APPENDICES

- A Sodium Preference Right Lease (CALA0139523)
- B Reclamation Plan for County of San Bernardino and SMARA
- C Biological Resource Assessment, Jericho Systems, September 2018
- D Cultural Resources Report (Confidential: submitted directly to BLM)
- E Financial Assurance Cost Estimate for Proposed Operations
- F Current Financial Assurance Mechanism Bond #1155795 dated July 30 2019
- G Valley Salt Sodium Lease Boundary Map Survey The Holt Group, Nov. 2019

#### MAP SHEETS (attached)

- 1 Danby Lake Mine Plan Valley Salt
- 2 Danby Lake Reclamation Plan Valley Salt

#### Land Survey of Sodium Lease Boundary Map – Appendix G

Robert K. Holt, Registered Professional Engineer – State of California: The PE, by signing/stamping the Valley Salt – Danby Dry Lake Operations Facility; Sodium Lease Boundary Map prepared by The Holt Group, Inc. and attached in Appendix G, is accepting responsibility for information as stated on said Sodium Lease Boundary Map. Any alterations or changes from the original PDF file are excluded.

SHEET CONTENT: BLM SERIAL NO. CALA0139523

SODIUM LEASE BOUNDARY MAP

PROFESSION SE	PREPARED UNDER THE DIRECT SUPERVISION OF:	
ROBERT K. HOLT W No. 27943 Exp. 3-31-20 O	ROBERT K. HOLT, P.E.	27943 R.C.E. NO.
SITE CIVIL PRINT	11/08/2019	03/31/20
COF CALIFY AMIL	DATE	REG. EXP.

# DANBY DRY LAKE SODIUM LEASE (CALA 0 139523)

# MINING AND RECLAMATION PLAN LEASEE: VALLEY SALT, LLC

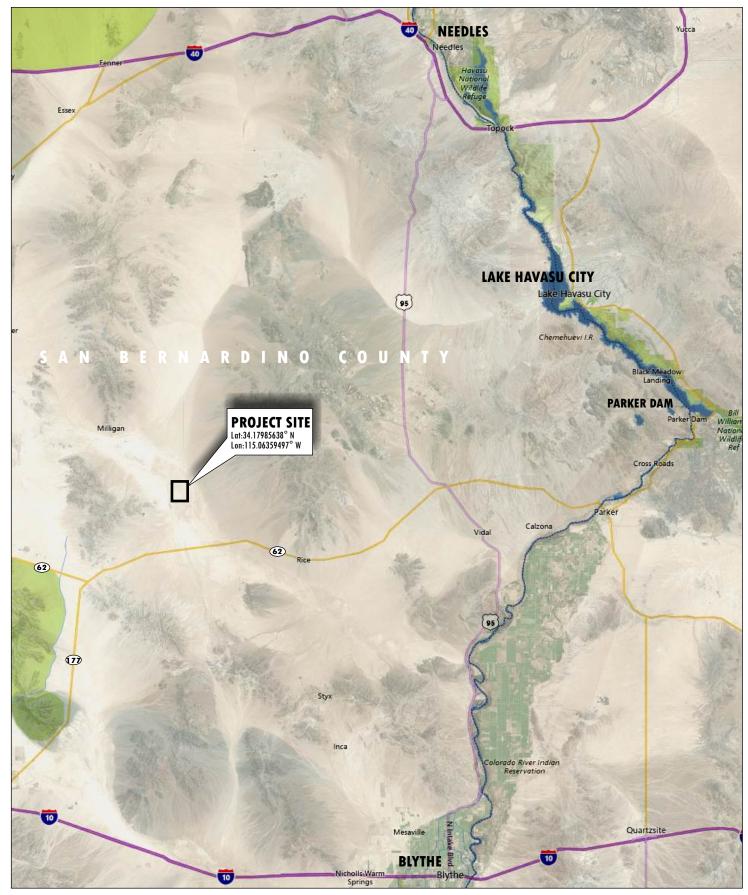
**INFORMATION AS REQUIRED BY 43 CFR 3590 particularly Subparts 3592 through 3596** is provided to the Bureau of Land Management (BLM) Needles Field Office in this Mining and Reclamation Plan (Plan) for Valley Salt's Danby Dry Lake Sodium Lease (CALA 0 139523) (see Appendix A). This Plan describes the mining and processing of sodium resources and eventual reclamation. The current 10-year lease is scheduled to expire on November 30, 2022 but can be renewed for 10-year periods prior to the termination date(s). The Plan is requesting an operating life of 52 years; 2 years through the current expiration date and 50 years contingent on approval of five addition 10-year leases.

Permitting and reclamation will require compliance with both BLM regulations and the California Surface Mining and Reclamation Act (SMARA) implemented by the County of San Bernardino (County) including projects on Federal lands. Therefore, Valley Salt will also be submitting this Plan and a Reclamation Plan to the County as the designated lead agency for SMARA (refer to Appendix B). Obtaining the necessary BLM and County approvals will require compliance with both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) and a joint environmental document will be prepared.

The Danby Dry Lake project is located on public Federal lands managed by the BLM and leased by Valley Salt. The lease area consists of 1,883 acres within the Danby Dry Lake or playa. It is located approximately 43 miles west of Parker, Arizona and 55 miles east of 29 Palms in southeastern San Bernardino County, California (see Figure 1 and Survey Map Appendix G). The site is accessed from State Route 62, 40 miles west from Parker, 10.5 miles northwest on Cadiz Road, and 1.5 miles to the project site (see Figure 2). The site is in the southern portion of Danby Dry Lake, a flat barren, sandy lake bed generally ranging from 600 to 610 feet above mean sea level (amsl).

Salt deposits of the Danby Playa have been known since the 1880s (Bailey, 1902). Salt was mined from the Surprise Mines in the northwest part of Danby Lake for use in silver processing in Daggett (Jenkins, 1950). In subsequent decades the Metropolitan Water District of Southern California (MWD) and the National Chloride Company extracted brine and salts from the Playa to use as a water softening agent for the La Verne treatment plant (Calzia, 1992). These efforts were the most extensive up through the 1950s and have resulted in the publication of much of the data that exists on the Playa (Ver Planck, 1958).

Valley Salt is proposing to utilize a series of shallow pits, brine wells, and solar evaporation ponds to produce salt from rock salt and solar evaporation on approximately 481 acres within the lease area. Start-up production is estimated at up to 100,000 tons per year (tpy) with a future goal of 300,000 tpy.

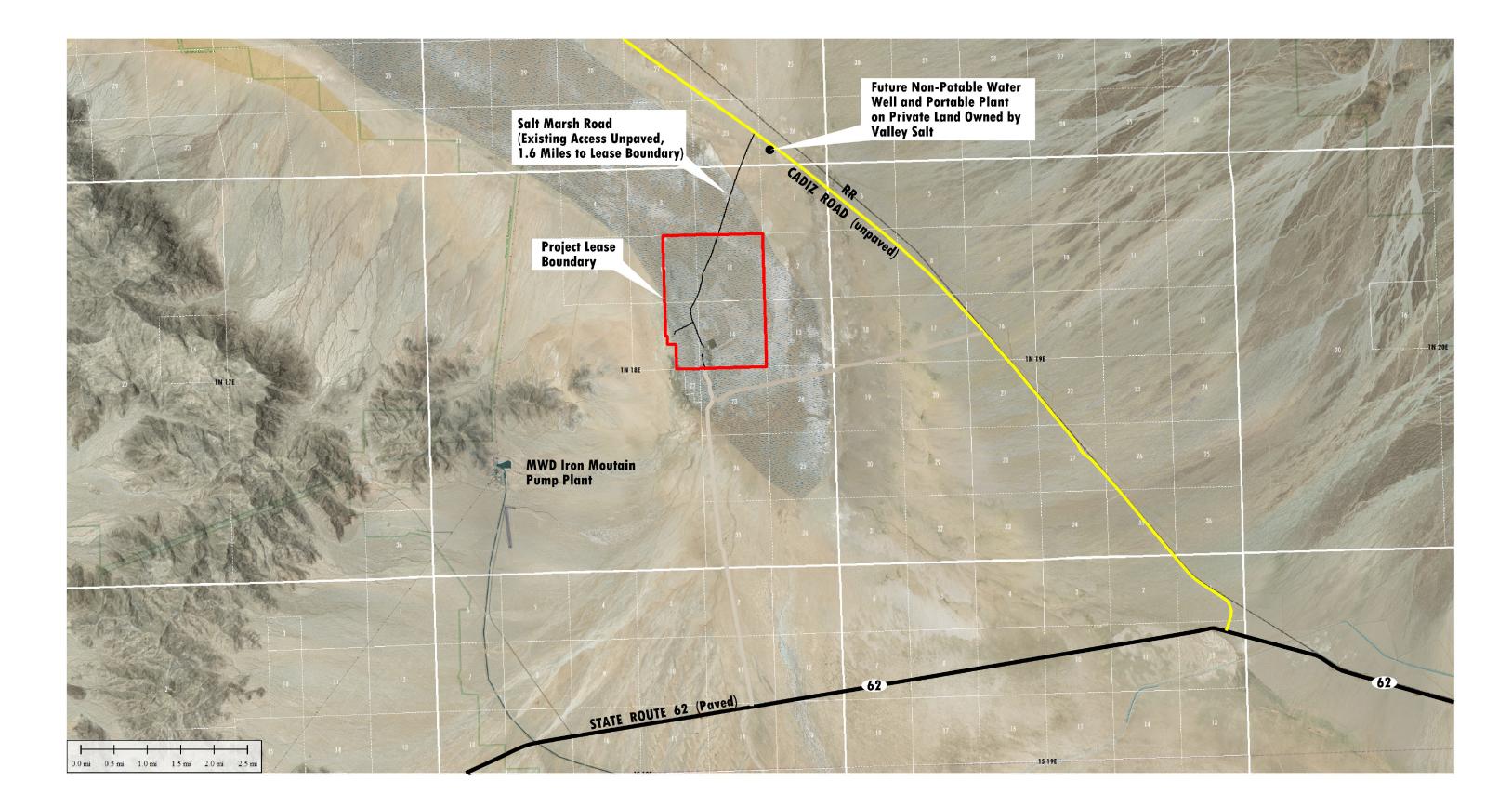






REGIONAL LOCATION

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA







# **PROJECT VICINITY and ACCESS ROAD**

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

**FIGURE 2** 

#### 1.0 Section 3592.1(c)(1) Lessee and Operator Information

Names, addresses and telephone numbers of those responsible for operation to be conducted under the approved plan to whom notices, and orders are to be delivered, names and addresses of lessees, Federal lease serial numbers and names and address of surface and mineral owners of record, if other than the United States.

Party Responsible for Operations and Lessee:

Valley Salt, LLC is an Arizona Limited Liability Company located at: 3230 E. Broadway Road, C-235 Phoenix, AZ 85040 Gary Pedersen 602-828-0321 gary@valleysalt.com

The managing partner is PWC Management, LLC located at: 2212 E Williams Field Rd. Suite 215 Gilbert, AZ 85295

<u>Name of the Lessee</u>: Valley Salt, LLC is an Arizona Limited Liability Company located at: 3230 E. Broadway Road, C-235 Phoenix, AZ 85040

<u>Federal Sodium Lease Serial Number: CALA 0 139523</u> - effective starting December 1, 2012 for a period of 10 years (or November 30, 2022) with a preferential right in the lease to renew for successive periods of 10 years.

Owner of surface and mineral rights: United States Department of the Interior Bureau of Land Management (BLM)

Lease Area:

The area of mining is located in the following sections containing 1,882.89 acres more or less (rounded to 1,883 acres): T. 1N., R. 18E., SBBM, San Bernardino County, California Sec. 10, E1/2;

Sec. 11, ALL; Sec. 14, ALL; Sec. 15, lot 6, NE, E1/2SE1/4.

# 2.0 Section 3592.1(c)(2) General Description of Geologic Conditions and Mineral Resources

A general description of geologic conditions and mineral resources, with appropriate maps, within the area where mining is to be conducted.

The following description of the Danby Dry Lake area is from GSi/water. *Preliminary Assessment of the Potential for Brine Development in the Southeast Part of Danby Dry Lake, San Bernardino County, California.* 2009 and Ver Planck, Wm. E., Jr. (1958), Salt in California: California Division Mines Bulletin 175: 25-26.

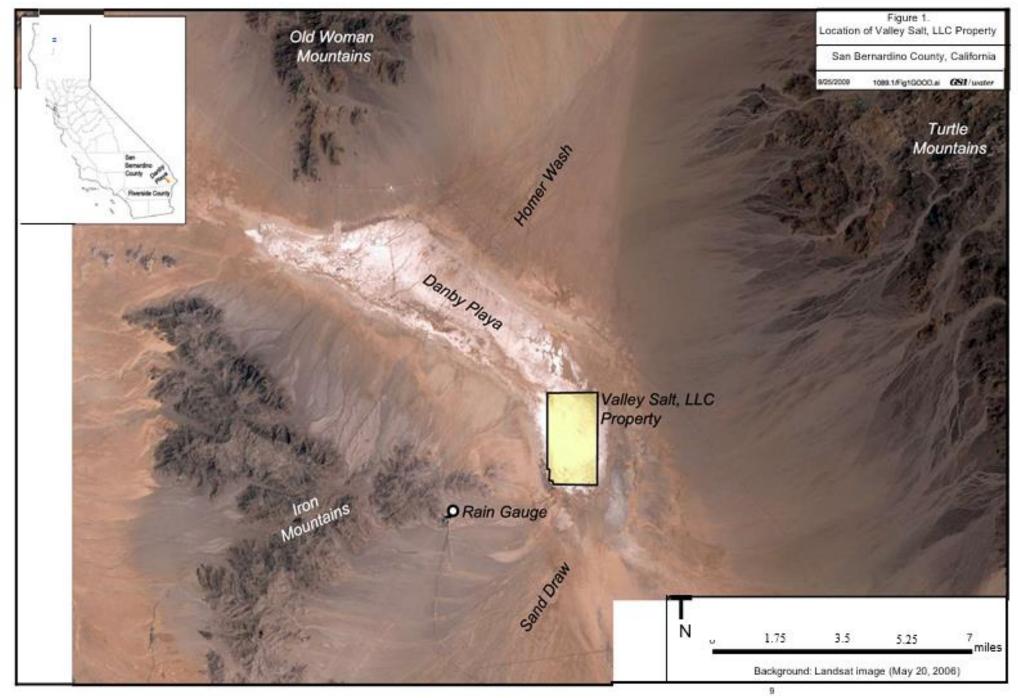
### **OVERVIEW OF PHYSIOGRAPHY**

The Danby Playa is the lowest topographic point in Ward Valley (see Figure 3). It covers roughly 28 square miles in southeastern San Bernardino County, California. The Playa is oriented in a northwest to southeast trending basin that is bounded by the Old Woman Mountains in the northwest, by the Iron Mountains in the southwest and by the Turtle Mountains in the northeast. Alluvium, deposited between the Old Woman-Paiute Mountains in the west and the Turtle mountains in the east, abuts the northern boundary of the Playa. The alluvium fills Homer Wash, which extends northward towards Homer Mountain and runs roughly parallel to the north- south trending Old Woman-Paiute Mountains. Sand Draw, which also consists of alluvium, extends northward from Granite Mountain in the south and abuts the southern boundary of the Playa. These highlands and alluvial deposits make up the catchments that supply water to the Playa, which in turn acts as the hydrologic outlet for the entire Danby Basin.

The Playa trends generally northwest-southeast, but exhibits slight changes in orientation along three distinct segments: (1) The narrow northern tip of the Playa trends roughly east-west and is situated between the alluvium extending from the southernmost tip of the Old Woman Mountains and the bajadas extending from the northern part of the Iron Mountains; (2) the middle segment of the Playa widens, trending roughly northwest-southeast between Homer Wash and the bajadas coming off the northeastern slopes of the Iron Mountains; and (3) a bend reorients the southern segment of the Playa to trend roughly north-south. This bend is most likely due to the large alluvial fan coming off of the Turtle Mountains to the east and may also be related to a local pattern of faulting. Extensive sand dunes bound the southwestern margin of the Playa and yardangs, a type of erosional feature, can be found along the Playa margins around its southern tip.

The Valley Salt lease area covers roughly 4.5 square miles on the southeast part of the Playa where it trends roughly north-south. The property also encompasses a small portion of sand dunes on its western margin where the Playa transitions to alluvial fan.

Ver Planck, Wm. E., Jr. (1958), Salt in California: California Division Mines Bulletin 175: 25-26.



#### **GEOLOGIC SETTING**

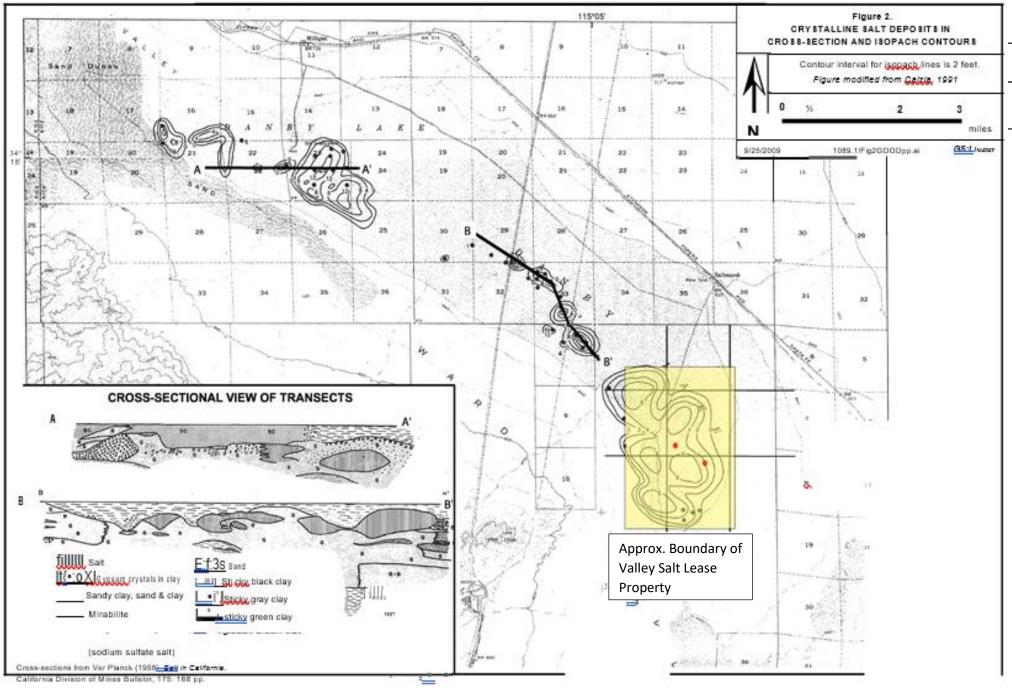
The Iron Mountains to the west of the Playa are composed of pre-Cretaceous age igneous and metamorphic rocks with some degree of fracturing. The Old-Woman Paiute range to the north of the Playa consists of Pre-Cambrian igneous and metamorphic rocks. Both are cut by faults that trend northwest-southeast, which may extend beneath alluvial and playa sediments and influence ground water flow paths. Observation of abrupt appearance of vegetation along the southwestern margin of the Playa may be associated with local faulting (see photo below showing abrupt appearance of vegetation along the southwest margin of the playa).



The Playa is covered by a layer of efflorescent salts that overlie a thick sequence of clays interbedded with thin, discontinuous layers of sand and salts (see Figure 4). In some places the clays contain individual salt crystals or salt beds of unknown, but presumably limited, lateral extent. Figure 4 shows isopach lines, or contours, that represent the thickness of crystalline salt deposits in the Playa for three areas, including land that pertains to Valley Salt. It also shows crosssections along two transects to the northwest of the Valley Salt lease area. These cross-sections illustrate the irregular distribution of salt and sand beneath the Playa. The distribution of salt within the Playa will affect brine formation while the distribution of sands and other permeable units will affect the rates at which brine may be extracted from the Playa sediments.

The sequence of lacustrine sediments that comprise the Playa is estimated by Calzia (1992, p.87) to extend to a depth of 380 feet in the southwest to more than 500 feet in the northwest. Existing data are limited but suggest that brine is not found at depths of 500 feet (Calzia, 1991). The depth to bedrock is estimated from gravity survey data to be about 2,800 feet and includes the sequence of lake-bed sediments that make up the Playa and the underlying Bouse Formation (Calzia, 1991, p. 87). Based on these data, it seems likely that fresh or brackish water can be produced from depths greater than 500 feet.

#### Figure 4



#### 3.0 3592.1(c)(3) Mining Maps

#### A copy of a suitable map or aerial photograph showing the topography, the area covered by the lease(s), the name and location of major topographic and cultural features and the drainage plan away from the affected area

Please refer to Figures 1, 2, and 3 for location and an aerial photograph showing the topography, the area covered by the lease, some of the key topographic and cultural features (Old Woman Mt., Turtle Mt., Iron Mt.) and the drainage of our leased area (Homer Wash flowing into our property and Sand Wash flowing out of our property). Map Sheet 1 attached shows the existing and planned operations on-site.

#### 4.0 **3592.1(c)(4)** ) Mining Operations

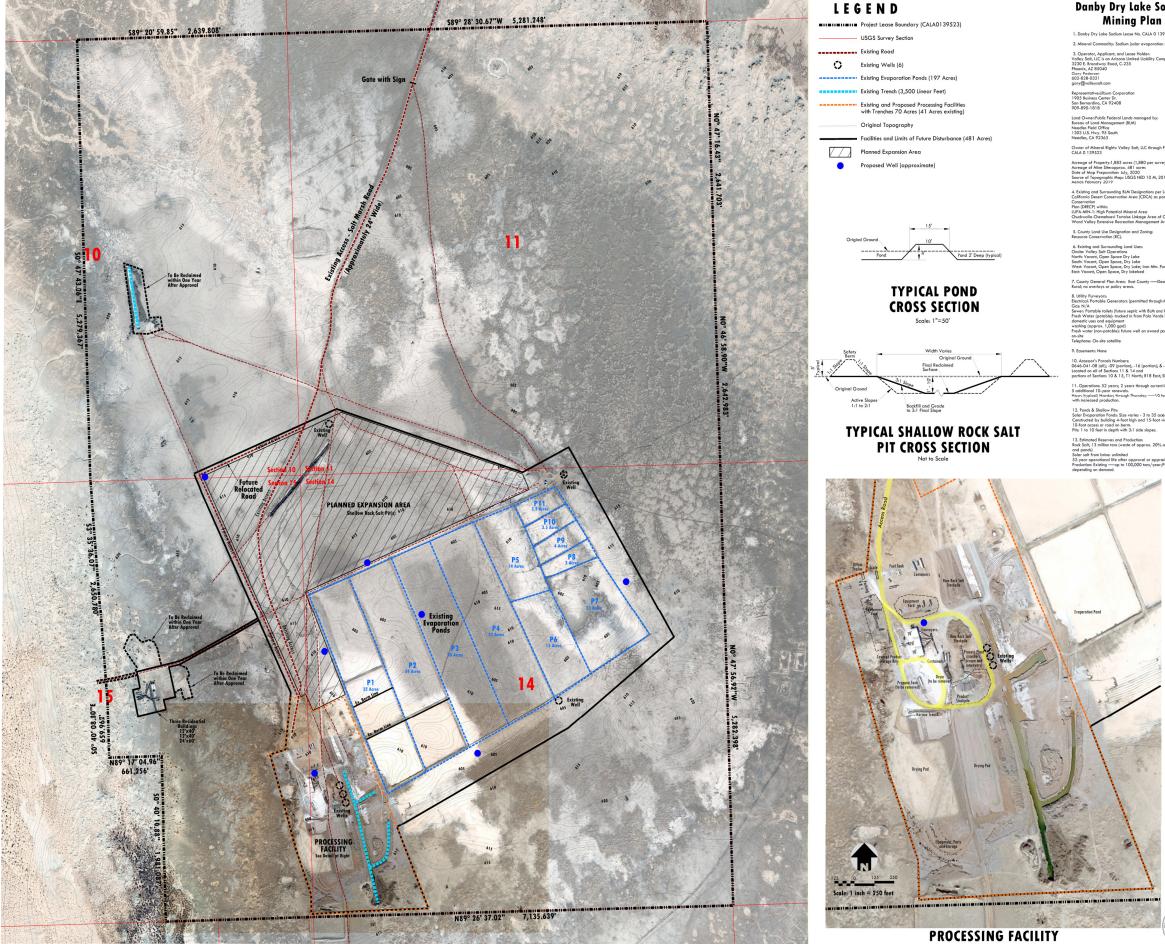
A statement of proposed methods, of operating, including a description of the surface or underground mining methods, the proposed roads, the size and location of structures and facilities to be built, mining sequence, production rate, estimated recovery factors, stripping ratios and number of acres in the Federal or Indian leases(s), license(s), or permit(s) to be affected

Salt deposits of the Danby Playa have been known since the 1880s and have been mined off and on over the last century. Valley Salt obtained the current sodium lease from Wilbur Reed in 2009 and renewed it for 10 years in 2012. Numerous dirt roads, evaporation ponds, trenches, and other historical workings exist onsite and adjacent to the lease area. Valley Salt conducted exploration in 2009 to determine potential brine production areas and has been conducting limited sodium production activities over the past couple years.

Valley Salt is proposing to mine rock salt and evaporated salts at a start-up rate of approximately 50 tons/hour (tph), 500 tons/day (tpd) on 200 operating days per year, and 100,000 tpy. Depending on future product demand, Valley Salt is proposing to increase production to 120 tons/hour (tph), 1,200 tons/day (tpd) on 250 operating days per year, and 300,000 tons/year.

At the start-up rate and operating 200 days/year (10 hours/day) and with a truck capacity of 24 tons, approximately 21 trucks/day would transport material to markets; 2 to 3 trucks/hour. At 300,000 tpy, approximately 50 trucks/day would transport material to markets; 5 trucks/hour. Approximately 5 to up to 20 employees would work on-site, typically working 4 - 10-hour shifts Monday through Thursday. As production increase, a second shift may be added and/or shipping may be conducted on additional days.

Valley Salt is proposing to mine the sodium resources using the following methods described below. The Mining Plan is detailed on Sheet 1 with a smaller map included as Figure 5. Table 1 lists the existing or start-up facilities and activities and the planned future facilities to increase production with demand.





# Danby Dry Lake Sodium Lease Mining Plan Notes

1. Danby Dry Lake Sodium Lease No. CALA 0 139523 3. Operator, Applicant, and Lease Holder: Valley Salt. LLC is an Arizona Limited Liability Com

D 10 ML 201

10. Accessor's Parcels Numbers: 0646-041-08 (all); -09 (portion); -16 (portion); & -17 (all Located an all of Sections 11 & 14 and portions of Sections 10 & 15, T1 North; R18 East; SBBM. 6 (portion); & -17 (all). T Operations: 52 years; 2 years through current lease additional 10-year renewals.





# **MINE PLAN**

Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

#### **FIGURE 5**

Start-Up and Proposed Mining Activities (approx. acres)							
Activities	<b>Existing Start-Up (acres)</b>	Planned (acres)	<b>Total Acres</b>				
Evaporation Ponds	197 (not fully developed)	0	197				
Shallow salt rock extraction pits	0	135 (includes existing 4 ac. of trenches)	135 (includes existing 4 ac. of trenches)				
Trenches <sup>1</sup>	15 (4 ac. in NW to be reclaimed year 1; 4 ac. in central area to be absorbed within new salt rock pits; 7 ac. in plant area)	-(4) ac. absorbed in salt rock pits)	11				
Process Area with drying pads	41	22	63 (with trenches approx. 70 ac)				
Roads, buffers, misc. areas	65	10 (5 acres to west to be reclaimed year 1)	75				
Totals	318	163	481				

Table 1Valley Salt Danby Dry Lake Sodium LeaseStart-Up and Proposed Mining Activities (approx. acres)

Areas rounded to nearest whole acre.

1 - up to 110' wide (typ. 30'); excavated rock salt and native materials stockpiles on either side with protective berm; estimate up to 150-foot wide disturbance width. No new trenches are planned.

#### <u>Solar Salt</u>

Evaporation ponds (typically approximately 10 to 20 acres each) will be constructed by pushing up and building berms out of native material (sand, dirt and clay) around the ponds. The berms will be approximately 4 feet in height, approximately 15 feet wide at their base and 10 feet on its top with an access road on top. The ponds may be lined with clay material available within the pond areas themselves or brought on-site if needed. The ponds will be filled with brine from the existing trenches and production wells to a depth of approximately 12" to 24" to facilitate evaporation. Heavy equipment (dozers, loaders, excavators, dump trucks, belly scraper, etc.) will be used to construct the ponds. Table 2 lists the typical mobile equipment, portable process plant equipment, and buildings and structures to be used for operations, which will vary over time.

Water wells will be drilled to access brine water to be pumped directly into the ponds or directly into the production process for washing of rock salt materials. There are six existing operable wells; 3 to 4 in production as needed. The wells are typically approximately 100 feet deep with an 8-inch diameter perforated pipe. An additional seven (7) wells are conceptually sited on the mine plan basically around the outside border of the ponds. The ponds will be filled to a constant depth of 12" to 24" of water. The sun and wind will evaporate the water and cause it to become more concentrated brine. Once the brine reaches 100% concentration, it will be pumped out of the concentration ponds and into a neighboring grow pond. Once in the grow pond, the water will remain there until evaporation occurs leaving solar salt. Depending on the amount of moisture in the salt, some salt will be laid out onto drying pads consisting of 5 to 10 acres (size may vary) in the southwest corner of the site.

Fresh water is currently trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 1,000 gpd). In the future, Valley Salt plans on drilling a water well on a 20-acre parcel it owns about one mile northeast of the lease area just southeast of where the project access road meets with Cadiz Road (APN 0645-121-03) (refer to Figure 2). This water can be used for dust control, wash water and other non-potable uses. The water quality of this source would still likely be high in salts and TDS and be non-potable.

Number	Description				
Start-Up	MOBILE EQUIPMENT (typical; will vary with time and required compliance				
with diesel emission regulations)					
3	Loaders (CAT 624; Volvo 180; & Volvo 110)				
1 D6H Dozer					
2 Haul Trucks (off-road), CAT 740 or similar					
1 -2	CAT 330 excavator				
1	CAT 623 Scraper				
1	Drill rig (trailer mounted)				
2 - 3	Water Trucks				
1	Dump truck (3-axel)				
1	Forklift				
1	Roller				
1	Light set (trailer mounted)				
2 - 3	ATVs with trailers				
Buildings/Stru	ictures				
1 Mobile Home/Trailer (12' x 70')					
4 1-10,000-gallon fuel tank, above-ground and within a concrete pad with 4-foot 1					
concrete berms (not in use); 2-2,000-gallon diesel portable tanks; & 1-240-g					
	gasoline tank				
5 Trailers: Adm. (12' x 60'); office (8' x 28'); & 3 dorm trailers 40'-53' x 12'					
2	Water tank(s) (2,000 to 10,000 gallons)				
<b>Process Plant</b>	Equipment (all portable) - Process plant (MDAQMD Permit #B013098), generators,				
and fuel tanks	require MDAQMD air quality permits renewed annually				
2	Jaw and Roll Crushers				
3	Hoppers/feeders				
3 - 4	Screens				
3	Coarse and sand washers & wash plant				
1	Wet scrubber				
17 - 20	Conveyors/stackers (# may vary slightly with product quality)				
4 - 6 Generators (2 - 838 bhp Tier 4 Final diesel units and 2 small generators					
	bhp each used at the living quarters (MDAQMD Permit #s B13412 a& B13413)				
1	Truck scale - 70'				
<b>Other Facilitie</b>	es /Equipment				
8 (6 new,	Production Wells (100 feet deep with 8' diameter perforated pipe typ)				
proposed)					
1 - 2	Non-potable water wells may be located on private parcel one mile NE of lease area				
Note that similar or	upment may be used during the life of the project. Equipment numbers will vary over time				

Table 2Processing Plant and Equipment List (Typical & varies over time)

Note that similar equipment may be used during the life of the project. Equipment numbers will vary over time as specific activities may require bringing a specific piece of equipment on-site temporarily or as a piece of equipment is being repaired or phased out.

#### Rock Salt

The new expansion area north and west of the existing ponds will be excavated in shallow pits for the removal of rock salt. Rock salt typically ranges from 1-foot to 10 feet thick. The pits will be excavated to a depth of up to 10 feet or typically less depending on the thickness of the available rock salt. Side slopes will be less steep than 3H:1V; may be steeper during initial excavations. The rock salt pits will be extracted with heavy equipment and trucked to the processing area in the southwest portion of the site for crushing, screening and washing as needed. Any overburden will be used for small safety berms around the pits as needed or simply backfilled behind the ongoing mining.

Approximately 20% of the rock salt excavated in not usable for product and will be backfilled into the shallow pits to reduce slopes or used for roads or berms as needed.

After completion of the shallow pits, they may be converted for use as solar evaporation ponds. As needed, the pits will be partially backfilled with available overburden, graded level, covered with a layer of clay and salts, and then filled with saline water for the production of evaporative salts as discussed above.

The portable process plant consists of a typical series of crushers (2), screens (4), and conveyors and stackers (17 - 20; currently a smaller configuration is being used) to crush and size the product to desired sizes based on customer demand. The complete list of the process plant and related equipment is listed in Table 2 (numbers will vary with production needs). The plant is currently powered by a series of two 838 bhp generators and two small generators less than 50 bhp each power the residential trailers and other miscellaneous needs. Additional generators may be needed in the future and the BLM and County will be notified if additional units are brought on-site.

Valley Salt is proposing to mine and process rock salt and evaporated salts at a start-up rate of approximately 500 tpd on 200 operating days per year, and 100,000 tpy. Depending on future product demand, Valley Salt is proposing to increase production to 120 tph, 1,200 tpd on 250 operating days per year, and 300,000 tons/year.

At the start-up rate and operating 200 days/year (10 hours/day) and with a truck capacity of 24 tons, approximately 21 trucks/day would transport material to markets; 2 to 3 trucks/hour. At 300,000 tpy, approximately 50 trucks/day would transport material to markets; 5 trucks/hour. Approximately 5 to up to 20 employees would work on-site, typically working 4 - 10-hour shifts Monday through Thursday. As production increases, a second shift may be added and/or shipping may be conducted on additional days.

Raw rock salt is stockpiled on approx. 0.5 to 1 acre at the process plant feeder area. The production process of raw rock salt is first to screen it through a grizzly hopper sizing it to 4" minus sizes, and screening as much of the dirt and clay off the rock salt; then sending it through a jaw crusher to size it to  $\frac{3}{4}$ " minus. The material then runs through a coarse wash to knock off the big dirt pieces and then to a sand screw wash to clean it even more; and then through a final spray wash to rinse it for the last time. Brine water from the wells are used for the washing process and recycled back into the trenches and ponds. Most of the processed rock salt will go into large conical storage piles at

the end of the radial stacker. The rock salt storage piles could be up to 50 feet high and cover approximately one acre depending on product demand. Some finer product is conveyed to and stored into three storage structures made up of concrete block sides and polyethylene covers approximately 70 feet x 40 feet each.

Some of the processed rock salt at the end of the radial stacker as well as solar salt harvested from the ponds will be further processed by drying the salt in a rolling drum using ambient air only (no heated drum). (Note that the heater drum and propane tank currently on-site will be removed within one year after approval.) After the salt is dried, it will be crushed in a roll crusher to size it smaller than  $\frac{3}{4}$ ", then it will go through a final screen and placed into covered storage structures according to size specs. The air quality permit limits production for the crushing/screening/drying system to not exceed 300,000 tons/year.

The salt will be loaded by loaders onto over the road 24-ton haul trucks (typical) for transportation to the customers' location. Once the trucks traverse unpaved routes from the plant site via Cadiz Road to paved CA State Route 62 (SR-62), trucks will travel east to US 95, then north to Las Vegas area or south to Phoenix area; or west to SR 177 to I-10 to customers in southern California.

The final out-put of rock salt product is about 80 percent of the raw rock salt input to production. The normal processing time from digging in the shallow pits, to loading it and carrying it to the production site, then processing the raw material could take approximately 4 hours from start of the process to the end for rock salt. For solar salt, the growing time frame is about 6 months to grow, then harvesting (removing it out of the solar ponds).

All stationary equipment and the generators will comply with Mojave Desert Air Quality Management District (MDAQMD) rules and regulations and all necessary permits will be obtained prior to operation. Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system" (Permit #B013098) and for two diesel powered generators rated at 838 brake-horse power each (Permit #s B13412 a& B13413) and two small diesel generators to power the living quarters (<50 bhp). The crushing/screening/drying system is conditioned under its air quality permit to limit production to not exceed 300,000 tons/year.

Haul trucks and diesel heavy equipment will meet requirements of the California Air Resources Board's (CARB) off-road diesel vehicles regulations to reduce diesel pollutants. Operations are required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requires requirements for controlling fugitive dust). Water sprays and dust containment measures such as enclosures are required to control emissions. One to two water trucks will water spray the roads with brine and add salt gravel as needed to control dust. The salt water will act as a natural dust suppressant that is more effective than fresh water.

Diesel fuel will be stored in a 10,000-gallon above-ground tank or smaller situated on an impervious concrete pad with 2-foot high catchment berms in case of a spill to contain the contents of the tank. The tank will be approximately 8 feet in diameter and 32 feet long (typical). A small portable gasoline tank will also be used onsite (approximately 240-gallon tank) along with 2-portable diesel double walled tanks. Fuel will be transferred to the site by tanker trucks.

Equipment maintenance will be done onsite by permitted off-site vendors. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities.

The Hazardous Materials Division of the San Bernardino County Fire Department is designated as the Certified Unified Program Agency or "CUPA" for the County of San Bernardino to focus the management of specific environmental programs at the local government level. Valley Salt will prepare a Business Emergency/ Contingency Plan to include operations for the site as described. The Business Plan includes a hazardous materials inventory and Spill Prevention Control and Countermeasure Plan (SPCC) to ensure that on site materials are stored appropriately and contained in the event of uncontrolled release utilizing Best Management Practices (BMPs). Fuel storage specifications apply to all above ground fuel containers. The Plans will be provided to the BLM prior to project start-up.

All refuse will be kept in closed containers and removed from the site to permitted facilities by a contracted hauler as needed. No trash will be allowed to collect on the site.

## 5.0 3592.1(c)(5) Estimate of the Quantity and Quality of the Mineral Resources

#### An estimate of the quantity and quality of the mineral resources, proposed cutoff grade and, if applicable, proposed blending procedures for all leases covered by the mining plan.

It is estimated that there are 13 million tons (MT) of rock salt on the leased property. Past geologic studies referenced in this Plan report a solid salt body 1 to 10 feet thick covering between 2 to 3 square miles in the southeast part of the Playa now occupied by the Valley Salt sodium lease. These salt beds are estimated to contain somewhere between 12.6 MT and 13 MT of salt as NaCl. (Caution is advised in interpreting these estimates due to limited data on this part of the Playa.)

The quality of the rock salt is similar throughout the property and is adequate for Valley Salt production. There is not a specific grade that limits production.

The solar salt is virtually unlimited as Valley Salt uses brine from the lake bed from production wells and trenches to fill the ponds which is then evaporated and leaves salt in the ponds. There are not different grades of solar salt that result from brine evaporation.

#### 6.0 3592.1(c)(6) Explanation of Maximum Recovery of the Sodium Resource

An explanation of how ultimate maximum recovery of the resource will be achieved for the Federal or Indian lease(s). If a mineral deposit, or portion thereof, is not to be mined or is to be rendered unminable by the operation, the operator/lessee shall submit appropriate justification to the authorized officer for approval.

The land on the lease will be able to be maximized for ultimate recovery of sodium by recovering rock salt from shallow pits in the expansion area north of the existing ponds; eventually converting these pits to solar evaporation ponds; and utilizing the existing solar evaporation ponds to make solar salt. The land will be maximized by strategically placing shallow pits to remove rock salt

while maximizing the utilization of ponds to recover solar salt. Over time as the operation expands, the maximum sodium available economically, both rock and solar-derived, will be recovered throughout the property.

As the shallow rock salt pits are converted to solar evaporation ponds, the existing solar evaporation ponds on the south side of the lease area will be excavated one pond at a time to recover the rock salt below the solar pond. The ponds will then be re-constructed as solar ponds in the newly removed area of the rock salt if needed to meet demand, thus maximizing all resources available to us over time. At no time will Valley Salt not be mining rock salt or recovering brines to the maximum extent possible for its production needs and at no time will its operations render any areas un-minable in the future if additional resources are present.

#### 7.0 3592.1(c)(7) Maps and Cross Sections

Appropriate maps and cross sections showing: (i) Federal or Indian lease boundaries and serial numbers; (ii) Surface ownership and boundaries; (iii) Locations of existing and abandoned mines; (iv) Typical structure cross sections; (v) Location of shafts or mining entries, strip pits, waste dumps, and surface facilities; and (vi) Typical mining sequence, with appropriate timeframes;

Full size Mining and Reclamation plot plans (maps) including cross sections are attached to this Plan and included in smaller versions on Figures 5 and 6. Figure 7 shows the potential production area and the boundaries of the lease with "red outlines" indicating locations of existing and abandoned mines (solar ponds). There are no shafts or mining entries, or strip pits on the mine. Existing features are included on Sheet 1. And Figure 5. Section 4 describes operations and mining sequence. There are no "phasing" plans as mining will progress depending on product demand. All surface ownership is Federal Government. The boundary description is:

T. 1N., R. 18E, SBM, San Bernardino County California Sec. 10, E1/2; Sec. 1, ALL; Sec. 14, ALL; Sec. 15, lot 6, NE, E2SE.

#### 8.0 3592.1(c)(8) Environmental Aspects

A narrative which addresses the environmental aspects associated with the proposed mine which includes, at a minimum, the following: (i) An estimate of the quantity of water to be used and pollutants that may enter any receiving waters; (ii) A design for the necessary impoundment, treatment or control of all runoff water and drainage from workings to reduce soil erosion and sedimentation and to prevent the pollution of receiving waters; (ii) A description of measures to be taken to prevent or control fire, sol erosion, subsidence, pollution of surface and ground water, pollution of air, damage to fish or wildlife or other natural resources and hazards to public health and safety.

## Land Use

The site is located on the barren Danby Dry Lake bed or playa and consists of start-up facilities, wells, ponds, and trenches being set up by Valley Salt and various historic ponds and exploration activities and roads. The site is surrounded by vacant, open desert lands. MWD's Iron Mtn. Pumping Station and Colorado River Aqueduct are located about 3.5 miles to the southwest.

The BLM has prepared and approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

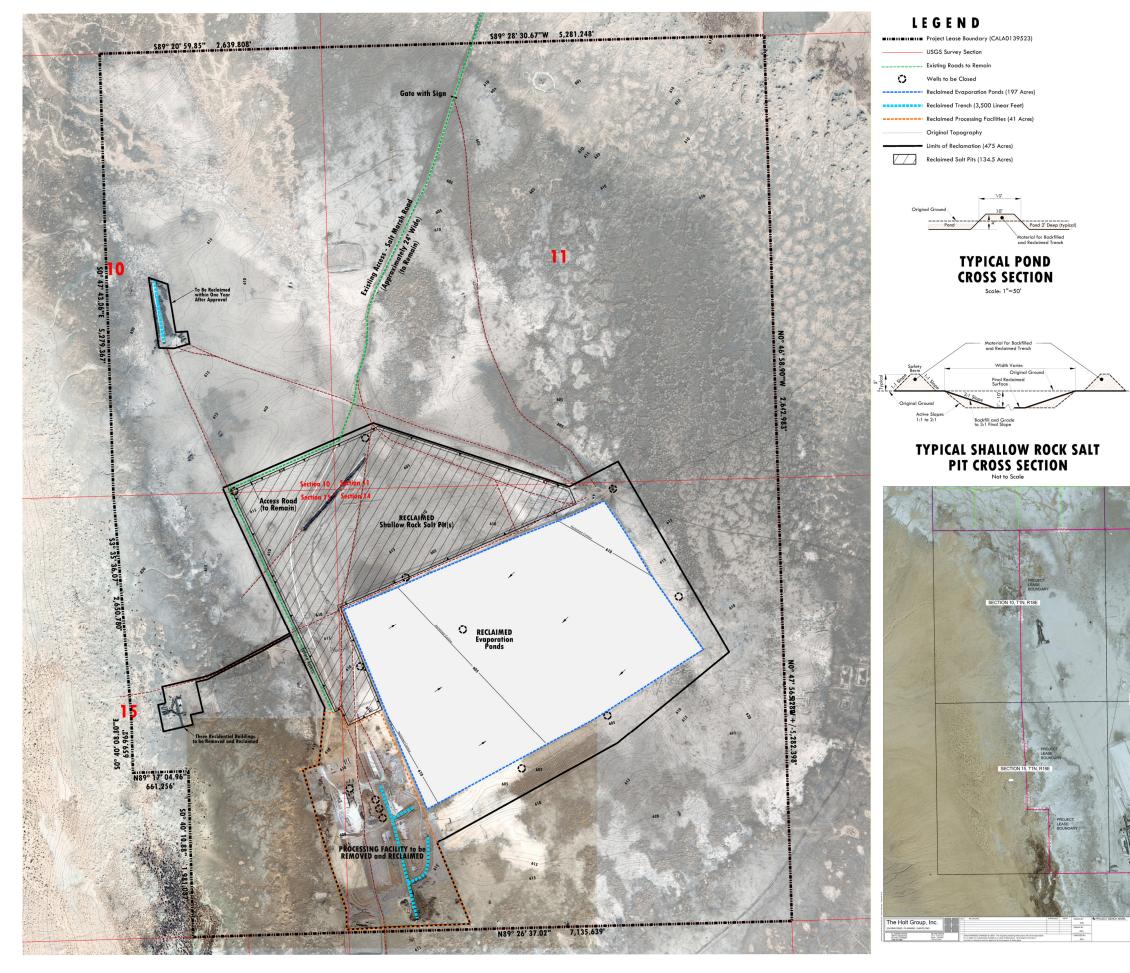
- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC);
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area as follows (DRECP pg. 136 and Appendix D, Figure D-22, High Potential Mineral Areas):

"For identified minerals lands and existing mining and energy development (locatable, salable, solid leasable and geothermal minerals) with currently approved Plans of Operations, Notices, Mine and Reclamation Plans or Plans of Development, under the authorities 43 CFR 3200; 3500; 3600; and 3802/09, the mineral resources have been characterized in the following manner:

LUPA-MIN-1: High Potential Mineral Areas (identified in CA GEM data)

- These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas.
- If an activity is proposed in a High Potential Mineral Area, analyze and consider the mineral resource value in the NEPA analysis.

In the LUPA, allowable uses and conservation and management actions are referred to as Conservation Management Actions (CMAs). The CMAs are organized by land use allocation. For the lease area plan, there are specific CMAs for ACECs and ERMAs as well as area or LUPA-wide CMAs. LUPA-wide refers to CMAs that apply to activities on all types of land allocations within the LUPA Decision Area. The proposed Plan is within a High Potential Mineral Area and would be in conformance with the BLM's CDCA Plan and the LUPA which requires operations within mineral lease areas to meet the performance standards of the 43 CFR 3590 regulations if it is determined the operations comply with 43 CFR 3590 and applicable CMAs. Operations under 43 CFR 3590 are not subject to the ACEC disturbance cap.





#### Danby Dry Lake Sodium Lease **Reclamation Plan Notes**

1. Date of Map Preparation: July 2020 Source of Topographic Map: USGS NED 10 M, 2017 Aerial: February 2019

2. Operator, Applicant, and L Valley Salt, LLC is an Arizona Limited Liabilit 3230 E. Broadway Road, C-235

Owner of Mineral Right Valley Salt, LLC through Sodium Lease Number

3. Acreage of Property: 1,883 acres ( Located on all of Sections 11 & 14 and the Berleimed: 475 acres

,880 acres per survey) portions of Sections 10 & 15, T1 North; R18 East; SBBM.

4. Final Physical Reclamation: Start December 1, 2072; End December 31, 2073

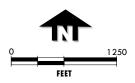
5. Reclaimed End Use: Open Space, Dry Lake Bed

All wells will be Bulletin 74-91 c no longer be a

7. Public Safety - The site will be reclaimed as stated above and no will remain on-site.



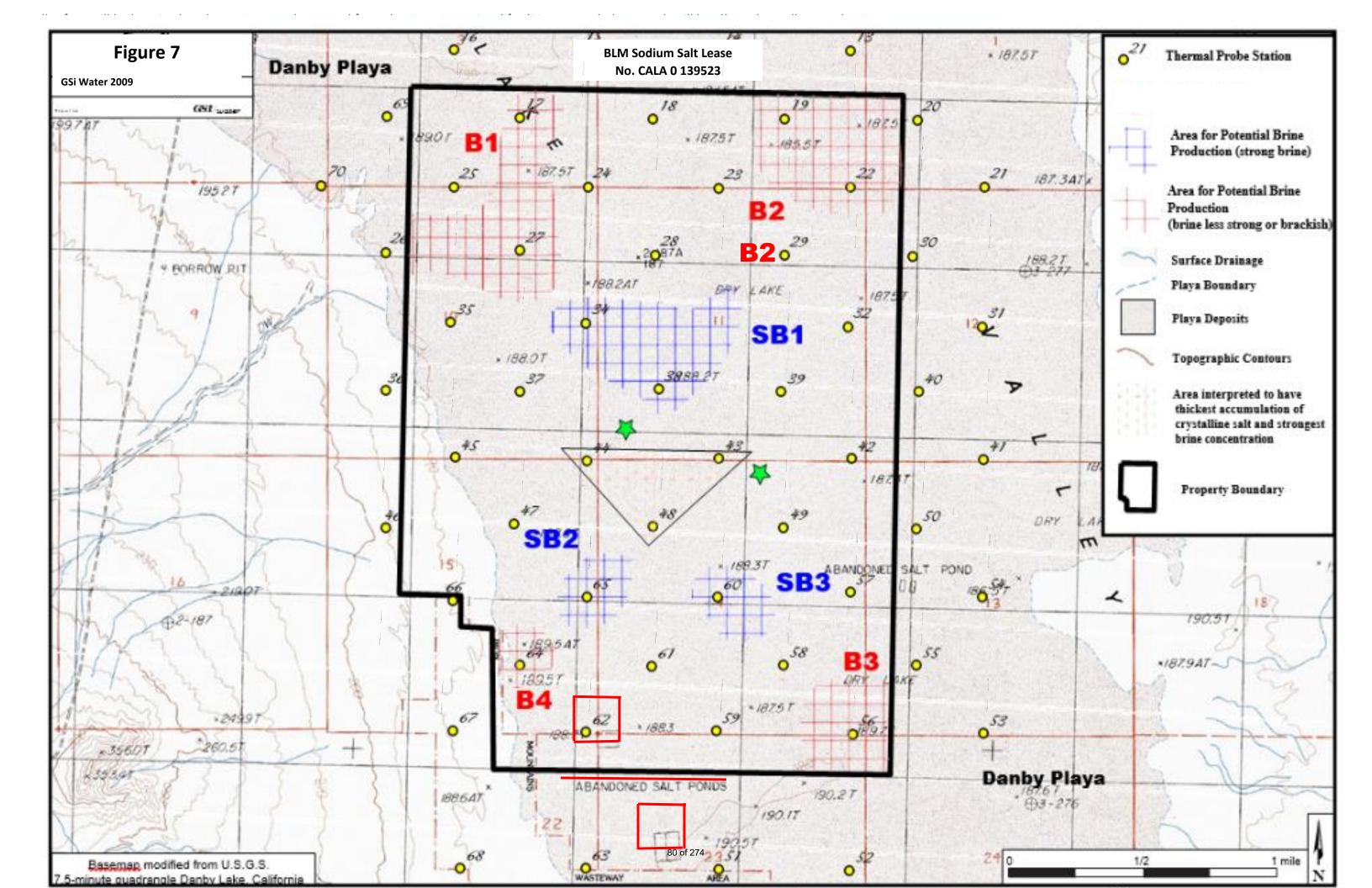
<sup>(</sup>Also See App



# **RECLAMATION PLAN**

<sup>©)</sup>Valley Salt - Danby Dry Lake Operations Sodium Lease CALA0139523 County of San Bernardino, CA

**FIGURE 6** 



## Air Quality

All stationary equipment and the generators will comply with MDAQMD rules and regulations and all necessary permits will be obtained prior to operation. Haul trucks and diesel heavy equipment will meet requirements of the California Air Resources Board's off-road diesel vehicles regulations to reduce diesel pollutants. Operations are required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requires requirements for controlling fugitive dust). Two water trucks will water spray the roads and other active operational areas with brine and add salt gravel as needed to control dust. The salt water will act as a natural dust suppressant more effective than fresh water.

Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system," two diesel powered generators rated at 838 brake-horse power each, and two small diesel generators to power the living quarters (<50 bhp) (MDAQMD Permit Nos. B013098, B013412, and B013413).

#### **Biological Resources**

Biological resource studies including desert tortoise surveys have been conducted by Jericho Systems (see Appendix C). The proposed site is entirely within an unvegetated dry lakebed or playa (Danby Playa). No federally- or State-listed flora species were observed within or in the vicinity of the project area.

The unvegetated dry lakebed or playa (Danby Playa) is not suitable habitat for desert tortoise or for other sensitive wildlife species found in the adjacent vegetated areas. The site has no vegetation or wildlife to protect or salvage. Planned operations will implement standard desert tortoise protection measures on-site and along the access road including but not limited to the following:

- Comply with BLM conditions per the approved BLM Record of Decision including pre-construction surveys and monitoring for access road maintenance;
- An authorized biologist shall conduct a tortoise educational program for personnel at the project site that shall discuss conservation/protection measures;
- Vehicle speeds shall not exceed 20 miles per hour on access roads through desert tortoise habitat during the desert tortoise active season (March 1 through October 31) enforced by speed limit signs and employee training program;
- No cross-country travel with motorized vehicles outside of the project area or access roads by project personnel shall be permitted;
- Workers shall inspect for desert tortoise under vehicles prior to moving them;
- No firearms, dogs or other pets shall be allowed within the project area; and
- All trash and food items shall be promptly contained within closed, common ravenproofed containers and will be removed weekly from the project site to reduce the attractiveness of the area to common ravens

#### Cultural Resources

Cultural resource surveys have been conducted and the planned operations will need to comply with mitigation as determined by the BLM and the NEPA process (see Appendix D).

## Water Resources

It is estimated that operations will use approximately 1,000 gallons of water (brine not fresh water) each minute (gpm) during production. Water will be drawn from the existing trenches but mainly from the on-site brine production water wells. This water will also be used to wash the raw rock salt to remove the dirt and leave the sodium. No other substances or chemicals will be introduced into the raw minerals or water. No chemicals are used in the production process. The water used in the production process will be returned into the water trenches where the dirt will settle. That same water will be pumped out of the trench into the solar ponds to be evaporated by the natural sun and wind to grow solar salt. Additional non-potable water for dust control and for rock salt material washing will be trucked from a future well located on Valley Salt's owned parcel along Cadiz Road. This water will likely also have high salts and TDS but less than on-site production wells.

Fresh water (potable) is trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 2 to 3 - 3,500 gallon trucks per week). Fresh water portable tanks are located at the residential trailers and at the process area to be used for equipment washing.

The production facility is on the lake bed which is very flat and has no vegetation. All the process water will be returned to the solar ponds or the water trenches to be reused in growing solar salt. Any precipitation that pools on the lake bed will be drained if possible into the ponds and trenches or simply left to evaporate. Little to no erosion is expected.

The work, production and activity at the mine will be done using standard mining procedures in compliance with the Mine Safety and Health Administration (MSHA) ensuring safety of workers and care of the environment.

The Hazardous Materials Division of the San Bernardino County Fire Department is designated as the Certified Unified Program Agency or "CUPA" for the County of San Bernardino to focus the management of specific environmental programs at the local government level. Valley Salt will prepare a Business Emergency/ Contingency Plan to include operations for the site as described. The Business Plan includes a hazardous materials inventory SPCC to ensure that on site materials are stored appropriately and contained in the event of uncontrolled release utilizing BMPs. Fuel storage specifications apply to all above ground fuel containers. The Plans will be provided to the BLM prior to project start-up.

All refuse will be kept in closed containers and removed from the site to permitted facilities by a contracted hauler as needed. No trash will be allowed to collect on the site.

Equipment and facilities are properly maintained and have fire extinguishers in or near each piece of equipment and or facility. The environment is such that there are no flammable trees, growth, etc. to cause damage to the property and environment.

Fuel is stored in a concrete containment that holds 110% of the volume of fuel in the tanks. Other fluids for equipment are also contained in the concrete containment to prevent contamination of surface and ground water. All human waste is removed via a professional porta-john service and future facilities will have a San Bernardino County approved and permitted septic tank system.

We maintain our site with cleanliness, so we don't introduce new elements to the wildlife in the area. We do not have any fish as we don't have any standing or running water on the site. We do not allow any new unnecessary standing water to accumulate that might change the feeding dynamics of the wildlife in the area or introduce any new wildlife to the area.

We have professional and proper signage warning the public that there is an active mine in the area and to be aware of dangers. Professional signage will be placed along the trenches warning the public to not enter.

## 9.0 3592.1(c)(9) Reclamation Schedule and Measures Planned for Surface Reclamation

A reclamation schedule and the measures to be taken for surface reclamation of the Federal or Indian lease(s), license(s), or permit(s) that will ensure compliance; with the established requirements. In those instances in which the lease requires the revegetation of an area affected by operations, the mining plan shall show: (i) Proposed methods of preparation and fertilizing the soil prior to replanting; (ii) Types and mixtures of shrubs, trees or tree seedlings, grasses or legumes to be planted; and (iii) Types and methods of planting, including the amount of grasses or legumes per acre, or the number of spacing of trees or tree seedlings, or combinations of grasses and trees;

Reclamation will be conducted concurrently and completed within one year at the termination of mining operations. Valley Salt has provided the BLM and the County of San Bernardino a financial insurance cost estimate and financial assurance mechanism in a form of a \$200,000 bond to assure reclamation of the site which we be reviewed and updated as needed annually (see Appendices E and F). A reclamation schedule is as follows:

When trenches, rock salt pits, ponds, roads, and other disturbed areas are no longer being mined or utilized, concurrent reclamation will be conducted. Trenches and pits if not to be converted to solar ponds, will be backfilled with the remaining surrounding overburden and the protective berm. The surface will be graded to a safe grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to traverse the area. All pond berms will be flattened, and the material will be evenly spread to make a safe slope less steep than 3H:1V (18° slope) and ripped to a depth of 12 inches by mechanical means to allow water infiltration and possible seed collection. In addition, any small exploration trenches within the lease area including the one to the northwest, will be backfilled and graded to the existing grade.

Within one year of termination of the mining operations, all mobile equipment, buildings, structures, processing plant equipment, tanks and debris will be removed from the site. Any concrete pads and footings will be broken up and buried. All remaining piping on-site will be removed. All on-site wells will be closed or destroyed (unless the BLM requests otherwise) in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife.

Any remaining shallow rock salt pits and trenches will be backfilled with the surrounding overburden and protective berm. The surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to traverse the area. No side slopes will be steeper than 3H:1V. All pond berms will be flattened, and the material will be evenly spread to make a safe slope and ripped to a depth of 12 inches to allow water infiltration and possible seed collection. After reclamation (backfilling pits, ponds and trenches and distributing salt and overburden stockpiles on the lake bed), the pits and pond areas will be slightly below the original contours of the lake bed.

Compacted surface material in the processing area, roads to be closed, and any other compacted areas will be loosened and ripped to depth of 12 inches by mechanical means to allow water infiltration and possible natural seed collection.

The areas disturbed by operations are located on the surface of the Danby Dry Lake bed. The site is composed of barren sands, clays, and salts with no native vegetation. Therefore, Valley Salt is not proposing to reseed vegetation as part of reclamation.

Any access roads that were created or disturbed except those roads that the BLM determines should be left in-place, will be reclaimed by removing any rock material or gravel, bringing the grade to a safe grade, and ripping the roadbed. Those roads anticipated to be left in-place are shown on Sheet 2 (subject to change).

With implementation of the above reclamation activities, the site will be left in a safe condition for the safety of the public and wildlife wand would return to its natural state of open desert lands.

#### **10.0 3592.1(c)(10)** Method of Abandonment of Operations

The method of abandonment of operations on Federal or Indian leases(s), License(s), and permit(s) proposed to protect the unmined recoverable reserves and other resources including the method proposed to fill in, fence or close all surface openings which are a hazard to people or animals. Abandonment of operations also is subject to the provisions of subpart 3595 of this title.

Please refer to Section 9 above.

## 11.0 Section 3592.1(c)(11) Additional Information – Housing and Access Roads

# Any additional information that the authorized officer deems necessary for approval of the plan.

#### On-Site Housing for Workers

Because of the remote location of the mine site, residences for the miners is required to house the miners when they are working at the mine. The nearest town is one and a half hours away in one direction. It would be costly and cumbersome to require the miners to drive that distance each day. There is not adequate qualified work force in the nearest town to man the production, so most miners will be coming from even further distances, so the housing is critical to the success of the mine.

Appropriate dorms and common area buildings/trailers will be constructed with proper building and/or set down permits for placement, electrical, water, and sanitation from San Bernardino County will be obtained prior to occupancy. It is proposed to utilize up to three dorm trailers ranging from 40 to 53 feet long and 12 feet wide and 12 feet in height.

#### Access Road

The existing access route to the site from Cadiz Road to the northeast is known as Salt Marsh Road. It is approximately 1.75 miles outside of the lease area and maintained as needed due to storms to a width of 24 feet (see Figure 2). The distances of the existing Salt Marsh Road are as follows:

- 3.25 miles within the lease area
- 1.75 miles from lease area to Cadiz Road
- 10.5 miles on Cadiz Road south to paved SH 62

#### 12.0 3594.1(a) Maximum Recovery of Mineral Deposits

Please refer to Sections 5 and 6 above.

#### 13.0 3594.1(b) New Geologic Information

Any new geologic data obtained through Valley Salt exploration and/or operations will be provided to the BLM.

#### 14.0 3594.2 & 3 Support Pillars and Boundary Pillars (not applicable)

No underground workings are planned therefore these sections are not applicable.

## 15.0 3594.4 Development through Adjacent Mine (not applicable)

Development of the sodium resource on the lease area will not be conducted from an adjacent mine.

#### 16.0 3594.5(a) Well Protection

The wells will be located and placed on slightly higher ground with a collar extending at least 1-foot above the surface so that no runoff could enter the well.

#### 17.0 3594.5(b) Protection of the Deposit

The lease area is within the 28-square mile Danby Dry Lake known for its sodium resources. It would not seem likely the removal of the volumes of water and rock salt from the lease area would dilute and certainly not contaminate the brine resource. Valley Salt will implement spill control protection measures to limit any potential surface contamination from fuel spills.

#### 18.0 3594.5(c) Setbacks

There are no adjacent uses that could be affected by mining operations. No setbacks have been proposed.

# 19.0 3595.1(a) 18.03595.1(a) Protective Measures of any Openings that Could Be Hazardous to Public or Animals

The open trench to the northwest will be filled and reclaimed within one year after project approval. The only other remaining trenches will be within the process area and is approximately 2,700 feet and will be surrounded with protective berms of at least 4 feet in height and 8 feet at their base to limit access by the public and wildlife. A narrower trench of approximately 400 feet in length and 50 feet wide is also located in the plant area. Warning signs will be placed every 300 feet along the berm and on any access roads leading on-site and to the trench locations. No other openings or adits exist or are proposed. Some existing exploratory trenches located in the lease area will be backfilled and graded to the existing contours.

#### 20.0 3595.1(b) Concurrent Reclamation of Areas No Longer Needed for Operations

When an area is no longer being mined or at the end of the mining project all remaining trench and pit banks will be graded to a safe slope of less than 3H:1V so that the public would not be injured if they were to traverse the area. All pond berms will be flattened, and the material will be evenly spread to make a safe slope.

As an area is no longer used the grade of the area will be made safe similar to the surface grade prior to the disturbance.

On a regular basis and when an area is no longer being mined, all the debris and solid waste will be removed from the area.

Any test trenches will be back filled so the surface naturally blends to the surrounding surface.

## 21.0 3595.1(c) Abandonment of Wells

Upon final reclamation, all on-site well will be closed or destroyed in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife.

In addition, all remaining underground or buried pipes and wiring will be removed and disposed of properly and any trenches will be back filled to grade. No new pipes are planned.

## 22.0 3595.2 Abandonment of Underground Workings (not applicable)

No underground workings are planned therefore this section is not applicable.

#### 23.0 3596.1 Milling

The processing and screening of the rock salt is discussed under Section 4.0 above.

#### 24.0 3596.2 Disposal of Waste

The mining of the rock salt and harvesting of the solar evaporated salt does not produce any hazardous waste. Any overburden material consisting of clays, sands, or other native materials will be used to construct the 4-foot high berms between the solar ponds, other road maintenance as needed, and for protective berms along the open trenches. Any remaining waste (overburden or non-spec salt materials) will be backfilled into trenches and into pit and pond areas when no longer needed. At the completion of operations, all natural waste material (not hazardous waste) or overburden materials will be graded into the pits, trenches and ponds to safe grades.

The process uses water for washing and dust control and for filling the solar ponds to produce evaporative salts. Excess process water will be collected and returned to the ponds or trenches for de-silting and evaporation.

Equipment maintenance will be done on-site by portable maintenance vehicles. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities per existing regulations. Per the County of San Bernardino, the mine is required to submit a business plan including spill prevention and clean-up measures and BMPs to ensure that on-site materials are stored appropriately and contained in the event of uncontrolled release. Fuel storage specifications apply to all above ground fuel containers.

All refuse will be kept in closed containers and removed from the site by contracted haulers to permitted facilities as needed. No trash will be allowed to collect on the site.

#### REFERENCES

43 CFR Parts 3590 – 3596 Solid Minerals (other than coal) Exploration and Mining Operations. BLM Interior

Bureau of Land Management. Desert Renewable Energy Conservation Plan Land Use Plan Amendment. September 2016.

Calzia, J.P., 1991, Geophysical, lithologic and water quality data from Danby Dry Lake, San Bernardino County, California. United States Geological Survey Open File Report 91-264.

Calzia, J.P., 1992, Geology and saline resources of Danby Lake Playa, Southeastern California; in *Old Routes to the Colorado*; compiled by R.E. Reynolds. San Bernardino County Museum Association Special Publication 92-2.

GSi/water. Preliminary Assessment of the Potential for Brine Development in the Southeast Part of Danby Dry Lake, San Bernardino County, California. September 28, 2009

Mojave Desert Air Quality Management District (MDAQMD) *Rules and Regulations* as amended, (<u>http://www.mdaqmd.ca.gov/</u>).

MDAQMD Permit Nos. B013098, B013412, and B013413

U.S. Dept. of the Interior BLM. Sodium Preference Right Lease CALA 0 1395523

Valley Salt LLC and Lilburn Corporation. *Reclamation Plan for Danby Dry Lake Sodium Lease; No. CALA 0 139523.* July 2020.

Ver Planck, Wm. E., Jr. (1958), *Salt in California: California Division Mines Bulletin 175*: Salt Deposits of Danby Lake; pages 18-24.

# APPENDIX C BIOLOGICAL RESOURCE ASSESSMENT JERICHO SYSTEMS, SEPTEMBER 2018

# Biological Resources Assessment For the Valley Salt Mine – Danby Dry Lake Expansion Project

Unincorporated Area of Danby Dry Lake San Bernardino County, California USGS – Danby Lake, Sablon and East of Granite Pass Quadrangles,

Prepared for:

**Lilburn Corporation** Attn: Frank Amendola 1905 Business Center Drive San Bernardino, CA 92408

Prepared September 2018

Prepared by:



Jericho Systems, Inc. 47 1<sup>st</sup> Street, Suite 1 Redlands, CA 92373-4601

# Certification

Jericho Systems, Inc. 47 1<sup>st</sup> Street, Suite 1 Redlands, CA 92373-4601 (909) 915-5900



Contact: Shay Lawrey, President and Ecologist/Regulatory Specialist

Certification: I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this Biological Resources Repot to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the Project proponent and that I have no financial interest in the Project.

Shay Lawrey, Ecologist/Regulatory Specialist

## **Table of Contents**

С	ERTIF	FICATIONI	I
1	INT	RODUCTION	L
	1.1 1.2	PROJECT DESCRIPTION	
	1.3	ENVIRONMENTAL SETTING	
2	ASS	SESSMENT METHODOLOGY	5
	2.1	BIOLOGICAL RESOURCES ASSESSMENT	
	2.2	JURISDICTIONAL DELINEATION	5
3	RES	SULTS	3
	3.1	EXISTING BIOLOGICAL AND PHYSICAL CONDITIONS	
	3.1.	1 1100 0000	
	3.1.2	2 Wildlife	3
	3.2		
	3.2.1		
	3.3	LAND USE CONSISTENCY*	
4	CO	NCLUSIONS AND RECOMMENDATIONS14	ļ
	4.1	SENSITIVE BIOLOGICAL RESOURCES	
	4.2	JURISDICTIONAL WATERS	5
5	LIT	ERATURE CITED	3

#### TABLES

Table 1 Wetland Indicator Vegetation Categories	7
Table 2 Survey Weather Conditions	
Table 3 Summary of Acreages of Jurisdictional Waters on Site	13

#### FIGURES

Figure 1 Regional Overview-Site Vicinity Figure 2 Site Location Figure 3 Project Soils Figure 4 Vegetation Map Figure 5 Desert Tortoise Occurrences Figure 6.1 Jurisdictional Areas Figure 6.2 Jurisdictional Areas

#### APPENDICES

Appendix A Species Potential to Occur Appendix B Site Photographs Appendix C Plant Species Observed Appendix D Regulatory Framework

# **1** Introduction

On behalf of Lilburn Corporation, Jericho Systems, Inc. (Jericho) conducted a biological resources assessment (BRA) and protocol-level desert tortoise (*Gopherus agassizii*) surveys for the Valley Salt Mine – Danby Dry Lake Expansion Project (Project). The purpose of the BRA and focused survey was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

The Project site and surrounding area was assessed for sensitive species known to occur locally. Attention was focused on those State- and/or federally-listed as threatened or endangered species and California species of special concern that have been documented in the Project vicinity, whose habitat requirements are present within the vicinity of the Project site. Results of the focused survey and habitat assessment are intended to provide sufficient baseline information to the Project proponent and, if required, to federal and State regulatory agencies, including the U.S. Fish and Wildlife Service (USFWS) and CDFW, respectively, to determine if impacts will occur and to identify mitigation measures to offset those impacts.

In addition to the BRA and focused desert tortoise survey, Jericho biologists Daniel Smith, Eugene Jennings and Todd White conducted a Jurisdictional Delineation (JD) of the Project site. The purpose of the JD is to determine the extent of State and federal jurisdictional waters within the Project area potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1602 of the California Fish and Game Code (FGC), respectively.

# **1.1 Project Description**

Valley Salt currently operates under its existing Danby Dry Lake Sodium Lease (CALA 0 139523). This current 10-year lease is scheduled to expire on November 30, 2022 but can be renewed for 10-year periods prior to the termination date(s). Valley Salt is requesting an operating life of 54 years; 4 years through the current expiration date and 50 years contingent on approval of five additional 10-year leases (Danby Dry Lake Sodium Lease Mining and Reclamation Plan, May 2018).

Under its existing lease, Valley Salt is proposing to expand its current mining operations from approximately 308 acres of existing disturbance, to 465 acres of disturbance, which would include existing and proposed disturbances. The current 308 acres of disturbance includes approximately 197 acres of existing evaporation ponds, 12 acres of exiting trenches (3,500 linear feet), a 20-acre processing area and approximately 79 acres of existing roads, buffers and other miscellaneous mining disturbance. The proposed 157 acres of disturbance includes approximately 13 acres (3,775 linear feet) of trenches, 18 acres of additional processing facilities, an 80-acre clay borrow site and 46 acres of roads, buffers and other miscellaneous mining disturbance.

Mining operations utilize a series of trenches, wells, and ponds to produce salt from rock salt and solar evaporation on approximately 465 acres within the lease area. The Project would mine rock salt and evaporated salts at a start-up rate of approximately 50 tons per hour (tph), 500 tons per day (tpd) on 200 operating days per year, and 100,000 tons per year (tpy). Depending on future product demand, Valley Salt is proposing to increase production to 100 tph, 1,000 tpd on 200 operating days per year, and 200,000 tpy.

At the start-up rate and operating 200 days per year (10 hours per day) and with a truck capacity of 25 tons, approximately 20 trucks per day would transport material to markets; 2 to 3 trucks per hour. At 200,000 tpy, approximately 40 trucks per day would transport material to markets; 4 to 5 trucks per hour. Approximately 5 to up to 20 employees would work on-site, typically working 4- to 10-hour shifts, Monday through Thursday. As production increase, a second shift may be added.

The Project site and access roads, including the existing and proposed alternate access roads, are entirely within land managed by the federal Bureau of Land Management (BLM).

#### Solar and Rock Salt Production/Extraction

The Project will consist of approximately 157 acres of planned disturbance within Danby Dry Lake (hereafter referred to as Danby Playa in this report), including an approximately 80-acre proposed clay borrow site and approximately 77 acres of salt mining facilities. Existing and expanded salt production methods will include solar salt production and rock salt production. Project activities are anticipated to include the construction of evaporation ponds (approximately 10 to 20 acres each) for solar salt production, trenching (approximately 30 to 60 feet wide) to excavate rock salt, drilling of wells to access brine water for solar salt production and operation of equipment to process extracted sodium resources including, crushing, screening and washing equipment.

The planned borrow area is an 80-acre site located within the lease area, to the northeast of the existing and proposed mining activities, that has clay material that would be used as needed to augment available clays within the evaporation ponds themselves. These clays will be used to "seal" the ponds from the brine percolating back into the playa sub-surface. The site would be scraped by a scraper to a depth of no more than about two feet and would avoid any isolated "islands" with vegetation.

Once the salt has been extracted and processed, it will be loaded by loaders onto over the road 25-ton haul trucks (typical) for transportation to the customers' location. Once the trucks traverse unpaved routes, to be determined, from the plant site to paved California State Route 62 (SR-62), trucks will travel east to U.S. Route 95 (US-95), then north to Las Vegas area or south to Phoenix area; or west to State Route 177 (SR-177) to Interstate 10 (I-10) to customers in southern California.

#### Access Roads

Currently the existing access route to the site from Cadiz Road to the northeast is known as Salt Marsh Road. It is approximately 1.75 miles outside of the lease area and maintained as needed due to storms to a width of 24 feet (Figure 2b). Valley Salt is proposing two alternate routes (one or both could be selected if approved) that provide less travel on unpaved roads and access when the lake gets flooded and muddy on occasion. One alternative, the old Sablon Road, is a graded road generally due east of the plant site in the southern lease area (Figure 2c). It has been used in past but not maintained to the extent of improvement as Salt Marsh Road. Permanent use would require updated construction grading and maintenance. A second alternative is a more direct and preferred access that would require the development of a new road, due south from the south plant site (new South Road alternative; Figure 2d). It would provide a much shorter route on unpaved roads to paved SR-62 and avoid travel across the lake when unpassable. It would need to be graded and designed per BLM road development guidelines (MS 9113 – Roads). Because haul trucks would be using the haul roads, they would need to be two-lane with a surface width of 24 feet.

These existing and proposed access road alternatives have the following approximate lengths to the intersection of Cadiz Road and SR-62:

#### Existing Access - Salt Marsh Road (northeast access):

- 3.25 miles within the lease area
- 1.75 miles from lease area to Cadiz Road
- 10.5 miles on Cadiz Road south to paved SR-62
- Total of 15.5 miles of unpaved roads

#### Proposed New Access - Old Sablon Road (east access; graded, used in past but needs upgrading):

- 0.25 miles within the lease area
- 4.75 miles from lease area to Cadiz Road on past graded route
- 6 miles on Cadiz Road south to SR-62
- Total of 11 miles of unpaved roads

#### Proposed New - South Road Alternative (new road to be developed to south):

- 0.25 miles within the lease area
- 5.25 miles from lease area to paved SR-62
- 7.25 miles on paved SR-62 to Cadiz Road/SR-62 intersection
- Total of 5.5 miles of unpaved roads (1/2 less than old Sablon Road and 2/3 less than existing Salt Marsh Road) and 7.25 miles of paved road (12.75 miles total)

Valley Salt's preference would be to utilize the proposed new South Road in combination with Sablon Road to shorten the distances travelled and to avoid the lake bed during wet times. In addition, Valley Salt is under discussion with the rail road company on utilizing the siding at Sablon Road as well as the one at Freda. The Sablon Road siding would again reduce truck miles traveled.

Other benefits for the use of Sablon Road and the South Road alternatives would be a reduction in dust from travel on unpaved roads, less truck exhaust and greenhouse gas (GHG) emissions from less miles traveled (travel on paved roads also reduces engine exhaust compared to dirt road travel), and less wear and tear on trucks. The negative impact would be the road construction of about 17 acres (4.45 miles with a construction width of 30 feet) for the new South Road. As environmental compensation for the road construction, Valley Salt has indicated it would be willing to consider reclaiming some old remnant ponds, roads and trenches, on and off the lease area, and protect and compensate for impact to desert tortoise habitat, as required by the BLM and USFWS.

#### **On-site Housing for Workers**

Because of the remote location of the mine site, residences for the miners are required to house the miners when they are working at the mine. Therefore, in addition to the existing and expanded salt production activities and proposed access road alternatives, the Project will construct and/or set down up to three dorm trailers ranging from 40 to 53 feet long, 12 feet wide and 12 feet in height. These facilities will be located within the Valley Salt Mine lease area and will provide housing for the on-site workers.

# **1.2 Project Location**

The Project is located on public lands managed by the federal BLM and leased by Valley Salt. The lease area consists of 1,883 acres within the southern portion of Danby Playa, which is generally located

approximately 43 miles west of the Town of Parker, Arizona and 55 miles east of the City of 29 Palms in unincorporated southeastern San Bernardino County, California (Figures 1 & 2). Specifically, the Project site is located west of Cadiz Road and approximately 5 miles north of SR-62, (Figure 2a). The Project site is situated in the *Danby Lake* USGS 7.5-minute Series Quadrangle, in Sections 10, 11, 14 and 15 of Township 1 North, Range 18 East, San Bernardino Base Meridian (SBBM). The site is accessed from SR-62, 40 miles west from Parker, 10.5 miles northwest on Cadiz Road, and 1.5 miles west on an existing access road (Salt Marsh Road) from Cadiz Road to the Project site (Figure 2a).

The alignment for the old Sablon Road alternative is mostly within the *Danby Lake* quad, with approximately 0.37 miles of the alignment extending into the westernmost portion of the *Sablon* quad (Figure 2c). This eastern access road alternative is within Sections 16, 17, 18 and 19 of Township 1 North, Range 19 East, and Sections 23 and 24 of Township 1 North, Range 18 East, SBBM. The alignment for the proposed new South Road alternative is within the *Danby Lake* and *East of Granite Pass* quads, in Sections 23, 26 and 35 of Township 1 North, Range 18 East, and Sections 2 and 11 of Township 1 South, Range 18 East, SBBM (Figure 2d).

# **1.3** Environmental Setting

Danby Playa is an approximately 9-mile-long by 2.5-mile-wide (covering roughly 28 square miles) dry lake or playa that is situated in the Ward Valley between the Old Woman Mountains in the northwest, by the Iron Mountains in the southwest and by the Turtle Mountains in the northeast, in the eastern Mojave Desert. Danby Playa is part of a large, northwest-trending structural trough that also includes Bristol and Cadiz Dry Lakes. This trough is divided into three separate basins by northwest trending mountain ranges that project into the trough. Danby Playa is the sump of a separate drainage basin, known as Ward Valley, that extends about 50 miles north of the playa, and has a drainage of about 1,000 square miles (Bassett, et al 1959). The Valley Salt lease area covers roughly 4.5 square miles on the southeast part of the Playa where it trends roughly north-south. The property also encompasses a small portion of sand dunes on its western margin where the Playa transitions to alluvial fan.

The playa surface of Danby Playa is about 630 feet above mean sea level (amsl) and is separated from Cadiz Lake to the northwest, by an alluvial divide approximately 500 feet higher than Danby Playa. The topography of the Project area is generally flat to gently-sloped, with on-site elevations ranging from approximately 605 feet amsl near the northwestern corner of the proposed clay borrow pit site, to approximately 785 feet amsl at the southernmost end of the new South Road access road alignment, where the alignment connects to SR-62.

The climate within the Danby Playa area is characterized by very hot summers and mild winters. Most of the rain falls in the winter months, but August typically has some monsoonal storms. Average annual maximum temperatures peak at approximately 108.3 degrees Fahrenheit (° F) in July and fall to an average annual minimum temperature of 43° F in January. Average annual precipitation is typically greatest from December through March and reaches a peak generally in January (0.53 inches). Precipitation is lowest in the month of June (0.02 inches). Due to the summer monsoonal storms typical of this region, average monthly precipitation increases to approximately 0.4 inches in the month of August. Total annual precipitation averages 3.45 inches.

Hydrologically, the Project area is located within an undefined Hydrologic Sub-Area (HSA 712.00) which comprises a 718,639-acre drainage area within the larger Southern Mojave Watershed (HUC 18100100).

Soils within the Project area consist primarily of sandy alluvial soils and aeolian sand dunes. Danby Playa itself has salt crystal bodies at the surface at both the north and south ends of the playa, areas of claypan

along the southeastern part, and efflorescent ground (caused by the evaporation of capillary brine) for most of the rest of the playa (Bassett, et al 1959). The Playa is covered by a layer of efflorescent salts that overlie a thick sequence of clays interbedded with thin, discontinuous layers of sand and salts. In some places the clays contain individual salt crystals or salt beds of unknown, but presumably limited, lateral extent (Valley Salt, LLC 2018).

The general Project vicinity consists of existing salt mining operations (Valley Salt Mine), transportation corridor (SR-62) and undeveloped open space.

Habitat within the Project vicinity consists primarily of dry lakebed or playa (Danby Playa) surrounded by *Larrea tridentata* Shrubland Alliance (creosote bush scrub) and *Atriplex polycarpa* Shrubland Alliance (allscale scrub) habitats.

# 2 Assessment Methodology

# 2.1 Biological Resources Assessment

Data regarding biological resources on the Project site were obtained through literature review and field investigations. Prior to performing the surveys, available databases and documentation relevant to the Project site were reviewed for documented occurrences of sensitive species in the area. These databases contain records of reported occurrences of State- and federally-listed species or otherwise sensitive species and habitats that may occur within the vicinity of the Project site (approximately 5 miles). The Project site including the proposed access road alternatives, is situated within the *Danby Lake, Sablon* and *East of Granite Pass* USGS 7.5-minute Series Quadrangles and the site's proximity to the *East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads lead to their inclusion in the review. The U.S. Fish and Wildlife Service (USFWS) threatened and endangered species occurrence data overlay and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data on the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads. Other available technical information on the biological resources of the area was also reviewed including previous surveys and recent findings.

#### **Biological Resources Assessment**

Jericho biologists Daniel Smith, Eugene Jennings and Todd White conducted a biological resources assessment of the Project area on June 26 through 29, 2018. The survey area encompassed the entire Project area and included 100 percent visual coverage of the site, as well as an approximately 200-foot buffer area surrounding the site, where feasible and appropriate. Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the Project area.

#### Protocol-level Desert Tortoise Survey

Desert tortoise surveys were conducted in accordance with the protocols described in the USFWS's 2009 "Desert Tortoise (Mojave Population) Field Manual: (Gopherus agassizii)," the 2010 "Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats," and the August 31, 2017 survey protocol update, "Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (Gopherus agassizii)". Per the USFWs survey protocol, 100 percent visual coverage of the survey area was achieved

by walking 10-meter (30-foot) wide belt transects over the entire Project site including the proposed access road alternatives, wherever there was potentially suitable desert tortoise habitat present (i.e. creosote bush scrub and/or allscale scrub habitats), to provide sufficient coverage to find signs of desert tortoise use (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc. in addition to live tortoises). Areas within the Project site that were not surveyed to protocol-level coverage consisted entirely of unvegetated playa comprised primarily of salt flats and other bare ground, which would not be considered suitable for desert tortoise. In addition to the 100 percent coverage of any potentially suitable habitat within the Project site, jericho biologists walked 200-, 400- and 600-meter transects around the perimeter of the Project site, in accordance with the USFWS 2010 *Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats*. It should be noted that these "zone of influence" transects are no longer required as of the 2017 updated protocol. However, to provide additional sampling of the areas adjacent the Project site, the 200-, 400- and 600-meter transects are no longer required as of the 2017 updated protocol. However, to provide additional sampling of the areas adjacent the Project site, the 200-, 400- and 600-meter transects around the perimeter of the Project site were included in the survey. The transect routes were calculated and downloaded to handheld global positioning system (GPS) units that were used to accurately navigate the transects. Site photographs were taken during the field survey to catalog representative habitat (See attached Site Photos).

# 2.2 Jurisdictional Delineation

On June 26 through 29, 2018, Jericho biologists Daniel Smith, Eugene Jennings and Todd White also evaluated the Project site and adjacent areas for the presence of riverine/riparian/wetland habitat and jurisdictional waters, i.e. Waters of the U.S. (WoUS) as regulated by the USACE and RWQCB, and/or jurisdictional streambed and associated riparian habitat as regulated by the CDFW.

Prior to the field visit, aerial photographs of the site were viewed and compared with the surrounding USGS 7.5-minute Topographic Quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The USFWS National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" data layer were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the United States Department of Agriculture (USDA) – Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed for soil types found within the Project area to identify the soil series in the area and to check these soils to determine whether they are regionally identified as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field and on aerial photographs and topographic maps to determine jurisdictional status.

The survey team conducted a field verification of measurements established via aerials and carefully assessed the site for depressions, inundation, presence of hydrophytic vegetation, staining, cracked soil, ponding, and indicators of active surface flow and corresponding physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris. Suspected jurisdictional areas were checked for the presence of definable channels, soils, and hydrology. The lateral extent of potential USACE jurisdiction was measured at the Ordinary High Watermark (OHWM) in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents.

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction would occur where a stream has a definite course showing evidence of where waters rise to their highest level and to the extent of associated riparian vegetation.

To be considered a *jurisdictional wetland* under the federal CWA, Section 404, an area must possess three (3) wetland characteristics: hydrophytic *vegetation*, hydric *soils*, and wetland *hydrology*.

Hydrophytic vegetation: Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2016 National Wetland Plant List (Arid West Region) (Lichvar, 2016). Each species on the list is rated per a wetland indicator category, as shown in Table 2. To be considered hydrophytic, the species must have wetland indicator status, i.e., be rated as OBL, FACW or FAC.

Trefaile indicator regetation categories				
Category	Probability			
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)			
Facultative Wetland (FACW) Usually occur in wetlands (estimated probability 67 to 9				
	Equally likely to occur in wetlands and non-wetlands (estimated			
Facultative (FAC)	probability 34 to 66%)			
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)			
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)			

 Table 1

 Wetland Indicator Vegetation Categories

► <u>Hydric Soil</u>: Soil maps from the USDA-NRCS Web Soil Survey (USDA 2018) were reviewed for soil types found within the Project area. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are several indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Gretag/Macbeth, 2000). Soil pits were dug to an approximate depth of 18 inches to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

► <u>Wetland Hydrology</u>: The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

# **3** Results

# 3.1 Existing Biological and Physical Conditions

The Project site consists almost entirely of undeveloped open space, occupying flat to gently-sloped terrain comprised of unvegetated dry lakebed or playa (Danby Playa) surrounded by sparsely-vegetated sand dunes. Most of the Project area is relatively undisturbed, with disturbances on site consisting primarily of the existing mining operations, which include unpaved access roads, temporary structures, equipment and material stockpiles.

Table 2 (below) lists weather conditions for all fieldwork conducted on site.

Date	% Cloud Cover	Wind (mph)	Temperature (° F)	Precipitation
06/26/18	0	0-5	82-110	0
06/27/18	0	0-5	79-113	0
06/28/18	0	0-10	83-110	0
06/29/18	0	0-10	76-105	0

Table 2Survey Weather Conditions

## 3.1.1 Habitat

The proposed 157-acre Project site is entirely within unvegetated dry lakebed or playa (Danby Playa). Adjacent habitat consists of *Larrea tridentata* Shrubland Alliance (creosote bush scrub) and *Atriplex polycarpa* Shrubland Alliance (allscale scrub) habitats. The two proposed access road alternatives (old Sablon Road and new South Road to SR-62) are partially within unvegetated playa and partially within mixed creosote bush scrub and allscale scrub habitats (Figure 3).

The creosote bush scrub adjacent the Project site and within the proposed access road alignments is dominated by creosote bush (*Larrea tridentata*). This habitat is prevalent along the proposed access road alignments and adjacent the west side of the Project site, west of Danby Playa. The allscale scrub adjacent the Project site and within the proposed access road alignments is co-dominated by allscale saltbush (*Atriplex polycarpa*) and fourwing saltbush (*A. canescens*). This habitat is more prevalent around the shoreline of the dry lakebed, particularly adjacent the proposed 80-acre clay borrow pit site and proposed access road alignments, where they are closest to the dry lakebed. The allscale scrub occupies the salinized areas around the playa margin and transitions to the creosote bush scrub that occupies the non-saline soils farther away from the playa margin. Other native species that are conspicuous in the shrub layer within the survey area include iodine bush (*Allenrolfea occidentalis*), white bursage (*Ambrosia dumosa*), long leafed ephedra (*Ephedra trifurca*) and smoke tree (*Psorothamnus spinosus*). All plant species identified during survey are included in Appendix A.

## 3.1.2 Wildlife

## 3.1.2.1 Amphibians and Reptiles

No amphibian species were observed or otherwise detected within the Project area and none are expected to occur. Reptile species observed within the Project area include Great Basin whiptail (*Aspidoscellis tigris tigris*), western zebra-tailed lizard (*Callisaurus draconoides rhodostictus*), northern desert iguana (*Dipsosaurus dorsalis dorsalis*), Mojave fringe-toed lizard (*Uma scoparia*) and western side-blotched lizard (*Uta stansburiana elegans*). Other common species expected to occur within the Project area include

desert glossy snake (Arizona elegans eburnata), Mohave shovel-nosed snake (Chionactis occipitalis), desert banded gecko (Coleonyx variegatus variegatus), Mojave Desert sidewinder (Crotalus cerastes cerastes), northern Mohave rattlesnake (C. scutulatus scutulatus).

## 3.1.2.2 Birds

Avian species observed in the Project area include verdin (*Auriparus flaviceps*), lesser nighthawk (*Chordeiles acutipennis*), lesser nighthawk (*Chordeiles acutipennis*), loggerhead shrike (*Lanius ludovicianus*), black-tailed gnatcatcher (*Polioptila melanura*) and LeConte's thrasher (*Toxostoma lecontei*).

## 3.1.2.3 Mammals

Identification of mammals within the Project area was generally determined by physical evidence rather than direct visual identification. This is because: 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey; and, 2) no mammal trapping was performed. Mammal species observed or otherwise detected on site included white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*) and kit fox (*Vulpes macrotis*). Mammal sign consisted primarily of scat and fossorial mammal burrows or dens. Numerous small mammal burrows were observed on site and two kit fox dens were observed.

# 3.2 Special Status Species and Habitats

Per the CNDDB, CNPSEI, and other relevant literature and databases, 11 sensitive species (six plant species, five animal species) have been documented in the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* USGS 7.5-minute Series Quadrangles. This list of sensitive species and habitats includes any State- and/or federally-listed threatened or endangered species, California Fully Protected species, CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or "special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

The only State- and/or federally-listed species documented within the quads is the State- and federallylisted as threatened desert tortoise (*Gopherus agassizii*). An analysis of the likelihood for occurrence of all CNDDB sensitive species documented in the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads is provided in Appendix A. This analysis considers species' range as well as documentation within the vicinity of the Project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions.

## **3.2.1** Special Status Species

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the reconnaissance-level field survey. However, there is some habitat within and adjacent the Project site that may be suitable for several sensitive species identified in the literature review (Appendix A), including the State- and federally-listed as threatened desert tortoise, and several sensitive species have been documented near the Project site. In addition to the biological resources assessment, focused protocollevel desert tortoise surveys were conducted within the Project impact area.

#### Desert Tortoise – Threatened (State/Federal)

The desert tortoise is a State- and federally-listed threatened species. Throughout its range, it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise can be found primarily within creosote bush scrub vegetation, but also in succulent scrub, cheesebush scrub, blackbush scrub, hop-sage scrub, shadscale scrub, microphyll woodland, and Mojave saltbush-allscale scrub. Desert tortoise habitat may also include Joshua tree (*Yucca brevifolia*) woodlands at elevations up to approximately 5,000 feet (USFWS 2009). Desert tortoise primarily forage on annual forbs, but also perennials (e.g., cacti and grasses). They are most often found on level or sloped ground where the substrate is firm but not too rocky. They prefer surfaces covered with sand and fine gravel versus course gravel, pebbles, and desert pavement. Friable soil is important for digging burrows. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers.

In 1992 the BLM issued the *California Statewide Desert Tortoise Management Policy* which included categorizing habitat into three levels of classification. The management goal for Category I areas is to maintain stable, viable populations and to increase the population where possible. The management goal for Category II areas is to maintain stable, viable populations. The management goal for Category III areas is to limit population declines to the extent feasible. In April 1993, the BLM amended the CDCA plan to delineate these three categories of desert tortoise habitat on public lands. With the adoption of the West Mojave Plan (BLM 2005), all lands that are outside Desert Wildlife Management Areas are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the desert tortoise.

*Findings*: Per the CNDDB, the only documented desert tortoise occurrences within the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads, are approximately 8.5 miles southwest of where the proposed new South Road alignment connects with SR-62 (1986) and approximately 16 miles east/northeast of where the old Sablon Road alignment connects with Cadiz Road (1987), respectively (Figure 4a). These occurrences represent estimated desert tortoise population areas within the Mojave Desert, rather than specific point locations of desert tortoise individuals (CNDDB 2018).

Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat. Furthermore, the Project site is not within a BLM designated Desert Wildlife Management Area (USFWS 2011). Therefore, the habitat surrounding the site would be characterized as Category 3 Habitat, per the BLM categorization of desert tortoise habitat on public lands.

The proposed 157-acre Project site is entirely within unvegetated dry lakebed or playa (Danby Playa). However, adjacent habitat consists of creosote bush scrub and allscale scrub habitats that are potentially suitable for desert tortoise. Additionally, the two proposed access road alignments are partially within suitable creosote bush scrub and allscale scrub habitats. Therefore, Jericho conducted focused protocol-level desert tortoise surveys within the Project impact area, which included the Project site and an approximately 200-foot surrounding buffer area, as well as the two proposed access road alignments.

The result of the protocol desert tortoise survey was that no desert tortoise individuals or sign including desert tortoise burrows, carcasses, scat, courtship rings or drinking depressions were detected within the survey area. Therefore, desert tortoise are considered absent from the Project site and absent from the proposed access roads at the time of survey.

#### Sensitive Crustaceans

Fairy shrimp (Order Anostraca), tadpole shrimp (Order Notostraca), water fleas (Order Cladocera) and clam shrimp (Order Conchostraca) comprise the four living groups of crustaceans within the Branchiopoda class. Most branchiopods live in fresh or brackish (slightly salty) water and a few are found in marine habitats. Many are found exclusively in temporary ponds, where their eggs survive long periods of drought, and are often one of the dominant organisms inhabiting the flat, internally-drained, and generally low-elevation playas of the arid basins in the deserts of the southwestern United States (Brostoff et al 2010). Several members of these groups of crustaceans are considered sensitive by the resource agencies including eight species documented in the CNDDB that are State and/or federally-listed as threatened or endangered.

*Findings*: Per the CNDDB, there are no State- or federally-listed sensitive branchiopod species documented within the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads. No focused fairy shrimp surveys were conducted. However, the nearest documented occurrence for a sensitive branchiopod species (vernal pool fairy shrimp [*Branchinecta lynchi*]) is approximately 120 miles west/southwest of the Project area (CNDDB 2018). No sensitive fairy shrimp or other sensitive branchiopod species have been documented within the regional vicinity of the Project. Therefore, the Project is not likely to impact any sensitive branchiopod species.

#### **3.2.2** Jurisdictional Delineation

The Project site is located within an undefined Hydrologic Sub-Area (HSA 712.00) which comprises a 718,639-acre drainage area within the larger Southern Mojave Watershed (HUC 18100100). This watershed encompasses an approximately 8,867-square-mile area northeast of the San Bernardino Mountains and Coachella Valley in the Mojave Desert, primarily within San Bernardino and Riverside Counties, with the extreme southern boundary overlapping into Imperial County. The Southern Mojave Watershed is bound on the south/southwest by the Santa Ana, Whitewater River and Salton Sea watersheds, on the north/northwest by the Mojave and Ivanpah-Pahrump Valleys watersheds, and on the east by the Piute Wash, Havasu-Mohave Lakes and Imperial Reservoir watersheds. The Southern Mojave Watershed is comprised of mountains, valleys, and dry lakes or playas, including Danby Playa, which is situated at the southern end of Ward Valley, bounded by the Old Woman Mountains to the north, by the Iron Mountains to the south and west, and by the Turtle Mountains to the east. Large episodic rainstorms in these surrounding mountains occasionally generate runoff that flows down the alluvial fans and drainages that provide ephemeral surface flows to Danby Playa.

#### Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in waters of the U.S. under Section 404 CWA. WoUS are defined as: "All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters" (Section 404 of the CWA; 33 CFR 328.3 (a). CWA jurisdiction exists over the following:

- 1. all traditional navigable waters (TNWs);
- 2. all wetlands adjacent to TNWs;

- 3. non-navigable tributaries of TNWs that are relatively permanent waters (RPWs) i.e., tributaries that typically flow year-round or have continuous flow at least seasonally; and
- 4. every water body determined to have a significant nexus with TNWs.

The Project site including the proposed 80-acre clay borrow site, existing access road from Cadiz Road, and portions of the two proposed access road alternatives are within Danby Playa, which is a dry lake or playa (Figure 5a). Additionally, portions of the two proposed access road alignments intersect several ephemeral drainage systems. The old Sablon Road alignment crosses two individual ephemeral drainages (Drainage 1 and Drainage 2; Figure 5b). The proposed new South Road alignment crosses part of a large alluvial fan drainage system that is comprised of numerous braided channels (Figure 5c). All of these features (i.e. Danby Playa, Drainage 1, Drainage 2 and alluvial fan) are intermittently flooded features with exposed substrate, but surface water is present for variable periods without detectable seasonal periodicity. Weeks, months, or even years may intervene between periods of inundation (USFWS Wetlands Mapper 2018).

Drainages 1 and 2 originate east of Danby Playa, near the western foothills of the Turtle Mountains to the east, and flow generally east to west, crossing the old Sablon Road alignment, before terminating at Danby Playa. The large alluvial fan drainage system that crosses the proposed new South Road alignment, originates southwest of Danby Playa, at the foothills of the Granite Mountains and the Iron Mountains to the south/southwest, and flows generally southwest to northeast, crossing the proposed South Road alignment, before terminating at Danby Playa (Figure 5c).

As previously discussed, Danby Playa is an isolated playa feature. All unevaporated surface flows from the surrounding mountains terminate at Danby Playa, which is completely cut off from and does not overflow into any other potentially jurisdictional features. Danby Playa and its tributaries, including Drainage 1, Drainage 2 and the large alluvial fan drainage system to the southwest, are intermittent, non-TNW, non-RPW features that do not have a significant nexus to a TNW. Therefore, Danby Playa and its tributaries would not be considered jurisdictional WoUS.

#### USACE Wetlands

Areas meeting all three parameters would be designated as USACE wetlands. None of the three required parameters (i.e. hydrophitic vegetation, hydric soils and/or wetland hydrology) are present within the Project site or proposed access road alternatives. Therefore, no wetlands were identified in the study area during this investigation based of the absence of hydrophitic vegetation, hydric soil indicators and wetland hydrology.

#### State Lake/Streambed

The 157-acre proposed Project site including the proposed 80-acre clay borrow site, existing access road from Cadiz Road, and portions of the two proposed access road alternatives are within Danby Playa, which consists primarily of unvegetated playa, with some allscale scrub habitat. Additionally, portions of the proposed access road alternatives intersect several ephemeral drainage systems that are within a mix of creosote bush scrub and allscale scrub habitats. Danby Playa and its tributaries, including Drainage 1, Drainage 2 and the large alluvial fan drainage system to the southwest, all have a definable bed and bank and several of the braided channels that cross the proposed new South Road alignment also support blue paloverde (*Parkinsonia florida*) and catclaw (*Senegalia greggii*), which is restricted to the streambed channels and absent from the surrounding upland habitat. Therefore, these features would be subject to the FGC under the jurisdiction of the CDFW.

Existing and proposed salt mining activities within Danby Playa would likely be covered under Valley Salt's existing Danby Dry Lake Sodium Lease (CALA 0 139523). However, the construction of the two proposed access road alternatives would likely be considered activities that fall outside the scope of Valley Salt's existing lease. Therefore, any proposed permanent or temporary impacts to jurisdictional features from the construction or improvement of the proposed access road alternatives will likely require a Streambed Alteration Agreement from the CDFW.

	CDFW Jurisdiction (acres)					
Project Component	Danby Playa	Drainage 1	Drainage 2	Alluvial Fan Drainage System	All Features	
Clay Borrow Site*	80.0	0	0	0	80.0	
Proposed Mining						
Expansion Site*	77.0	0	0	0	77.0	
South Road						
Alternative**	3.0	0	0	6.7	9.7	
Sablon Road						
Alternative**	9.5	0.01	0.05	0	9.6	
Total	169.5	0.01	0.05	6.7	≈ <b>176</b>	

 Table 3

 Summary of Acreages of Jurisdictional Waters on Site

\* Impacts likely covered under existing lease (CALA 0 139523).

\*\*Impacts likely to require CDFW permitting.

# 3.3 Land Use Consistency\*

The Project site is located on the barren Danby Playa and consists of start-up facilities, wells, ponds, and trenches being set up by Valley Salt and various historic ponds and exploration activities and roads. The site is surrounded by vacant, open desert lands.

The BLM has prepared and recently approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC);
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area

In the LUPA, allowable uses and conservation and management actions are referred to as CMAs. The CMAs are organized by land use allocation. For the lease area plan, there are specific CMAs for ACECs and ERMAs as well as area or LUPA-wide CMAs. LUPA-wide refers to CMAs that apply to activities on all types of land allocations within the LUPA Decision Area. The proposed Project would be in conformance with the BLM's CDCA Plan and the LUPA which requires operations within mineral lease areas to meet the performance standards of the 43 CFR 3590 regulations if it is determined the operations comply with 43 CFR 3590 and applicable CMAs.

Biological resource studies, including those addressed in this report, have been conducted and the Project will need to implement plant and wildlife mitigation as determined by the BLM through its project review and the NEPA process. Valley Salt will implement applicable desert tortoise protection measures on-site and along access roads. The operation's site has no vegetation to protect or salvage.

\*Land Use Consistency information referenced from the May 2018 Danby Dry Lake Sodium Lease No. CALA 0 139523 Mining and Reclamation Plan, prepared by Valley Salt, LLC.

# 4 Conclusions and Recommendations

# 4.1 Sensitive Biological Resources

No State- and/or federally-listed threatened or endangered species were observed on site during the field survey. The Project site consists of undeveloped open space adjacent existing mining operations, surrounded by open space. Situated within Danby Playa, the proposed 157-acre Project site and existing access road is entirely within unvegetated playa that does not contain habitat suitable for any of the sensitive species known or expected to occur within the general Project vicinity. However, the area surrounding Danby Playa and the Project site consists of a mix of creosote bush scrub and allscale scrub habitats that could potentially support several sensitive species, including the State- and federally-listed as threatened desert tortoise. Approximately 3.6 miles of the proposed old Sablon Road alignment and 2.6 miles of the proposed new South Road alignment are located within the entire Project site, including the proposed access road alternatives, wherever there was potentially suitable desert tortoise habitat present (i.e. creosote bush scrub and/or allscale scrub habitats).

## Desert Tortoise

The nearest documented desert tortoise occurrences are approximately 8.5 miles southwest of where the proposed new South Road alignment connects with SR-62 (1986) and approximately 16 miles east/northeast of where the old Sablon Road alignment connects with Cadiz Road (1987), respectively. These occurrences represent estimated desert tortoise population areas within the Mojave Desert, rather than specific point locations of desert tortoise individuals (CNDDB 2018).

The result of the protocol desert tortoise survey was that no desert tortoise individuals or sign including desert tortoise burrows, carcasses, scat, courtship rings or drinking depressions were detected within the survey area. Therefore, desert tortoise are considered absent from the Project site and proposed access roads at the time of survey. However, because there is suitable creosote bush scrub and allscale scrub habitat within the proposed access road alignments, and there are documented desert tortoise populations to the north, east and southwest of the Project area, desert tortoise movement or occupation could potentially occur within the proposed access road alignments in the future. Therefore, **the following precautionary measures are recommended to avoid potentially injuring or killing any desert tortoise that may wander on site during road grading activities within suitable desert tortoise habitat:** 

- Desert tortoise exclusion fence can be installed around the perimeter of the Project site within or immediately adjacent suitable desert tortoise habitat prior to commencement of mining activities within the expansion area; and/or
- A biological monitor should be present during initial clearing and grubbing activities within the proposed access road alignment(s), to ensure no tortoise are within the work area and prevent any potential Project-related impacts to desert tortoise during clearing and grubbing within areas of

#### suitable habitat.

Although the above-listed measures are recommended to avoid and/or minimize potential impacts to desert tortoise, it may not be possible to completely avoid impacting this species during future use of the proposed access road, where this road(s) would potentially cross through suitable desert tortoise habitat. Given that the proposed access road alignments are partially within suitable desert tortoise habitat and there are documented desert tortoise populations to the north, east and southwest of the Project area, there is a potential risk of desert tortoise being hit by vehicles and equipment using those access roads in the future. Therefore, an Incidental Take Permit, issued by the CDFW, pursuant Section 2081 of the CESA, as well as formal consultation with the USFWS through the BLM, is recommended for the grading and future use of either proposed access road alternative. Per the CDFW Incidental Take Permit Criteria:

"Section 2081 subdivision (b) of the Fish and Game Code allows CDFW to issue an incidental take permit for a species listed as candidate, threatened, or endangered only if specific criteria are met. These criteria are reiterated in Title 14 of the California Code of Regulations, Sections 783.4 subdivisions (a) and (b), and are as follows:

- 1. The authorized take is incidental to an otherwise lawful activity;
- 2. The impacts of the authorized take are **minimized and fully mitigated**;
- 3. The measures required to minimize and fully mitigate the impacts of the authorized take:
  - *i.* are **roughly proportional** in extent to the impact of the taking on the species,
  - ii. maintain the applicant's objectives to the greatest extent possible, and
  - *iii.* may be successfully implemented by the applicant;
- 4. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
- 5. Issuance of the permit will not jeopardize the continued existence of a CESA-listed species.

The terms and conditions of the permit will be determined by CDFW and must ensure that the issuance criteria in items 1 through 5 above are met."

According to protocol and standard practices, the results of the focused desert tortoise surveys will remain valid for the period of one year, or until June 2019, after which time, if the site has not been disturbed in the interim, another survey may be required to determine the persisting absence of desert tortoise on-site. Regardless of survey results and conclusions given herein, desert tortoise are protected by applicable State and/or federal laws, including but not exclusive to the CESA and Federal ESA. As such, if a desert tortoise is found on-site during work activities, all activities likely to affect the animal(s) should cease immediately and regulatory agencies should be contacted to determine appropriate management actions. Importantly, nothing given in this report, including any recommended avoidance, minimization and mitigation measures, is intended to authorize the incidental take of desert tortoise or any other listed species during CDFW (i.e., authorization under section 2081 of the FGC) and USFWS. Additionally, it should be noted that desert tortoise may be handled only by a qualified biologist who has been given authorization by the appropriate

agencies (i.e. USFWS and CDFW).

#### Nesting Birds

The Project site and surrounding area consists of creosote bush scrub and allscale scrub habitat that may be suitable to support nesting birds. As discussed, most birds are protected by the MBTA. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season, which is generally February 1<sup>st</sup> through August 31<sup>st</sup>. However, if all work cannot be conducted outside of nesting season, the following is recommended:

Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

# 4.2 Jurisdictional Waters

Danby Playa is an isolated playa feature, which receives runoff from the surrounding mountains and ephemeral drainages. All unevaporated surface flows from these surrounding drainages terminate at Danby Playa, which is completely cut off from and does not overflow into any other potentially jurisdictional features. Danby Playa and its tributaries, including Drainage 1, Drainage 2 and the large alluvial fan drainage system to the southwest, are intermittent, non-TNW, non-RPW features that do not have a significant nexus to a TNW. Therefore, Danby Playa and its tributaries would not be subject to the CWA under the jurisdictions of the USACE and RWQCB, respectively. However, these features would be subject to the FGC under the jurisdiction of the CDFW.

The jurisdictional permits associated with the Valley Salt's existing Danby Dry Lake Sodium Lease was not available during our literature review. Therefore, it is unknown whether existing and proposed salt mining activities within Danby Playa are covered under Valley Salt's existing Danby Dry Lake Sodium Lease (CALA 0 139523). Therefore, it is recommended that the existing lease permits be reviewed to determine what proposed Project activities may or may not be covered under the existing lease. Any proposed permanent or temporary impacts to jurisdictional features that would result from the Project, including the construction or improvement of the proposed access road alternatives, not covered under the existing lease, including the two proposed access road alternatives, would likely require a Streambed Alteration Agreement from the CDFW.

#### Streambed Alteration Agreement

The proposed 80-acre clay borrow site and proposed 77-acre Project disturbance area, as well as portions of the two proposed access road alternatives are within Danby Playa, which is a CDFW jurisdictional dry lakebed or playa feature (Figure 5a - 5c). Additionally, portions of the proposed access road alternatives intersect several ephemeral drainages, as well as a larger alluvial fan drainage system that would be considered CDFW jurisdictional streambed (Figure 5c). In total, the Project could potentially impact up to

approximately 176 acres of CDFW jurisdictional lake and streambed, including approximately 157 acres of impacts from the proposed clay borrow site and mining expansion areas, and 19.3 acres of impacts from the construction or improvement of the two proposed access road alternatives (Table 3). A FGC Section 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat. In addition to the formal application materials and fee (based on cost of the Project), a copy of the appropriate CEQA documentation must be included with the application.

## **5** Literature Cited

- American Ornithologists' Union. 1989. Thirty-seventh supplement to the American Ornithologists' Union Check-list of North American birds. Auk 106: 532-538.
- Bassett, A.M., D.H. Kupfer and F.C. Barstow. 1959. Core logs from Bristol, Cadiz and Danby Dry Lakes, San Bernardino County, California: USGS Bulletin 1045-D: 105.
- Brostoff, W., Holmquist, J., Schmidt-Gengenbach, J., & Zimba, P. 2010. Fairy, tadpole, and clam shrimps (Branchiopoda) in seasonally inundated clay pans in the western Mojave Desert and effect on primary producers. *Saline Systems*, 6, 11. <u>http://doi.org/10.1186/1746-1448-6-11</u>.
- Calflora: Information on California plants for education, research and conservation. [web application]. 2018. Berkeley, California: The Calflora Database [a non-profit organization]. Available: <u>http://www.calflora.org/</u>. (Accessed: June 25, 2018).
- California Department of Fish and Game (CDFG). 2010. A Review of Stream Processes and Forms in Dryland Watersheds. Prepared by Kris Vyverberg, Senior Engineering Geologist, Conservation Engineering. December 2010.
- California Native Plant Society (CNPS). 2018. Inventory of Rare and Endangered Plants of California. Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, California. Available at: <u>http://www.cnps.org/inventory</u> (Accessed: June 25, 2018).
- California Natural Diversity Data Base (CNDDB). 2018. Annotated record search for special animals, plants and natural communities. Natural Heritage Division, Sacramento, California. (Accessed: June 25, 2018).
- Environmental Laboratory. 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Miss.
- Hall, E.R. 1981. The Mammals of North America. John Wiley and Sons, New York. 2 Vol. 1181.
- Jepson Flora Project (eds.) 2018. Jepson eFlora, http://ucjeps.berkeley.edu/eflora/ (Accessed: June 25, 2018).
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Natural Resources Conservation Service (NRCS). 2018. Web Soil Survey. Map Unit Descriptions. San Bernardino County Area, California. Available at: <u>http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</u>. (Accessed: June 25, 2018).
- Sawyer, John O., Keeler-Wolf, Todd, and Evens, Julie M. 2009. A manual of California vegetation. Second Edition. California Native Plant Society, Sacramento, California, USA. 1,300 pages.
- Skinner, M.W. and B. M. Pavlik, eds. 1994. *Inventory of Rare and Endangered Vascular Plants of California*, 5<sup>th</sup> edition. California Native Plant Society, Sacramento, California.
- U.S. Army Corps of Engineers (USACE). 2001. USACE Minimum Standards for Acceptance of Preliminary Wetlands Delineations, November 30, 2001 (Minimum Standards).
- U.S. Army Corps of Engineers (USACE). 2007. Jurisdictional Determination Form Instructional Guidebook (JD Form Guidebook). May 30.
- U.S. Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation

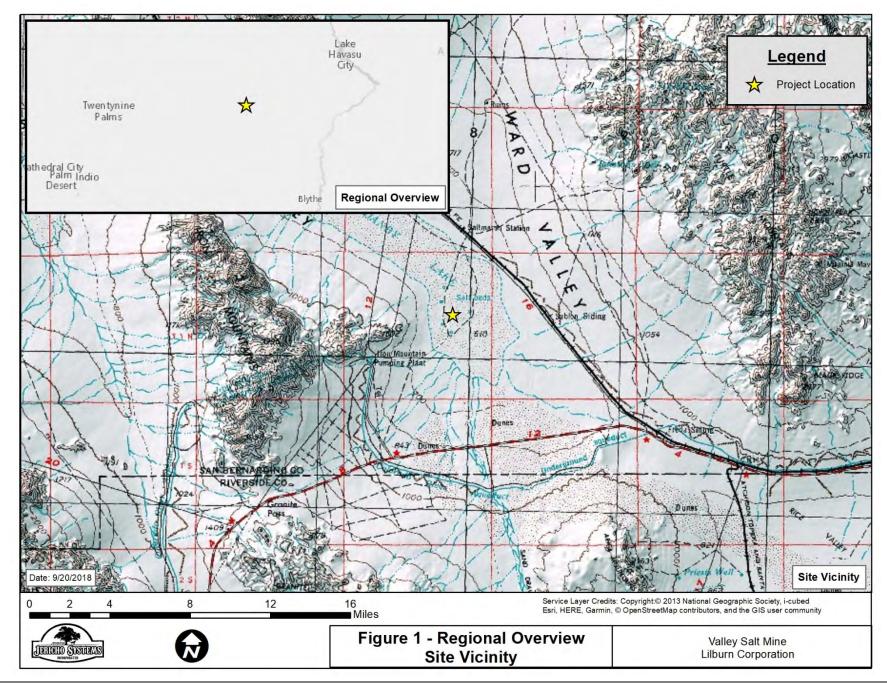
Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

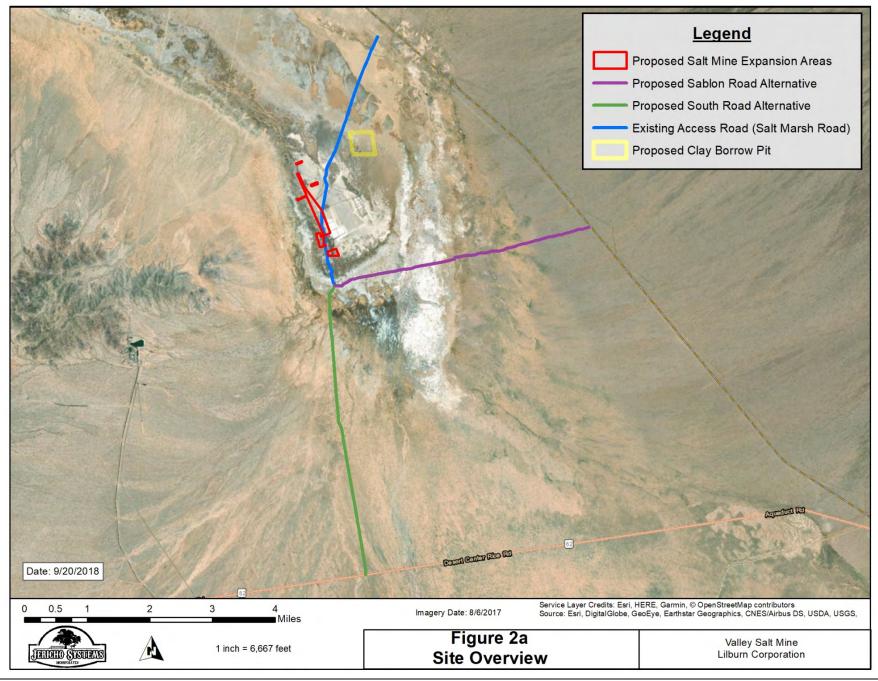
- U.S. Army Corps of Engineers (USACE). 2014. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (A Delineation Manual). August 2008.
- U.S. Bureau of Land Management (BLM). 1980. The California Desert Conservation Area Plan. U.S. Bureau of Land Management, Riverside, California. 173 pp.
- U.S. Bureau of Land Management (BLM) and California Department of Fish and Game (CDFG). 1988. A Sikes Act Management Plan for the Desert Tortoise Research Natural Area and Area of Critical Environmental Concern. U.S. Bureau of Land Management, Ridgecrest, California. 43 pp. + unpaginated appendices.
- U.S. Bureau of Land Management (BLM). 1989. Map produced by BLM for the California Desert Conservation Area, dated January 1989, showing desert tortoise Category I, 2, and 3 Habitats in California. Riverside, CA.
- U.S. Bureau of Land Management (BLM). 2005. Final Environmental Impact Report and Statement for the West Mojave Plan, a Habitat Conservation Plan and California Desert Conservation Area Plan Amendment. Moreno Valley, CA.
- U.S. Fish and Wildlife Service (USFWS). National Wetlands Inventory. Website: <u>http://wetlands.fws.gov</u>. (Accessed: June 25, 2018).
- U.S. Fish and Wildlife Service (USFWS). 1994. The desert tortoise (Mojave population) recovery plan. U.S. Fish and Wildlife Service, Region 1, Lead Region, Portland, Oregon. 73 pp. + appendices.
- U.S. Fish and Wildlife Service (USFWS). 2008. Field survey protocol for any nonfederal action that may occur within the range of the desert tortoise. Ventura, CA.
- U.S. Fish and Wildlife Service (USFWS). 2009. Desert Tortoise (Mojave Population) Field Manual: (*Gopherus agassizii*). Region 8, Sacramento, California.
- U.S. Fish and Wildlife Service (USFWS). 2010. Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats. Available at: <u>https://www.fws.gov/carlsbad/PalmSprings/DesertTortoise/DT%20Pre-</u> <u>Project%20Survey%20Protocol 2010%20Field%20Season.pdf</u>.
- U.S. Fish and Wildlife Service (USFWS). 2011. Revised recovery plan for the Mojave population of the desert tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California. 222 pp.
- U.S. Fish and Wildlife Service (USFWS). 2017. Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (*Gopherus agassizii*). Available at: <a href="https://www.fws.gov/nevada/desert">https://www.fws.gov/nevada/desert</a> tortoise/documents/manuals/Mojave%20Desert%20Tortoise <a href="https://www.fws.gov/nevada/desert">Pre-Project%20Desert%20Tortoise</a> Pre-Project%20Survey%20Protocol 2017.pdf.

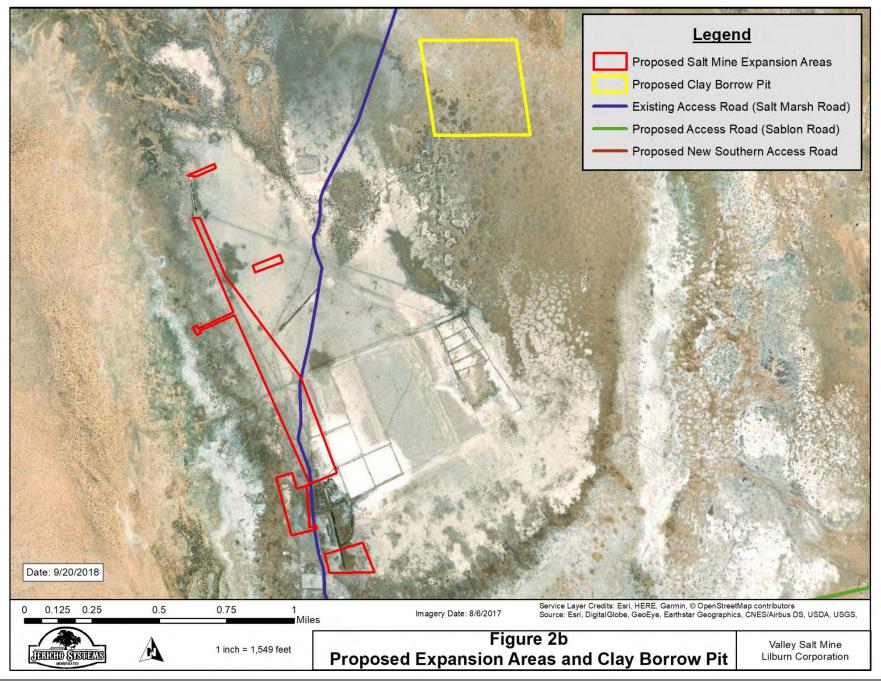
Valley Salt, LLC. 2018. Danby Dry Lake Sodium Lease No. CALA 0 139523 Mining and Reclamation Plan.

Western Regional Climate Center. Period of Record Monthly Climate Summary for Iron Mtn., California (044297). Available at: <u>https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9325</u>. (Accessed: June 25, 2018).

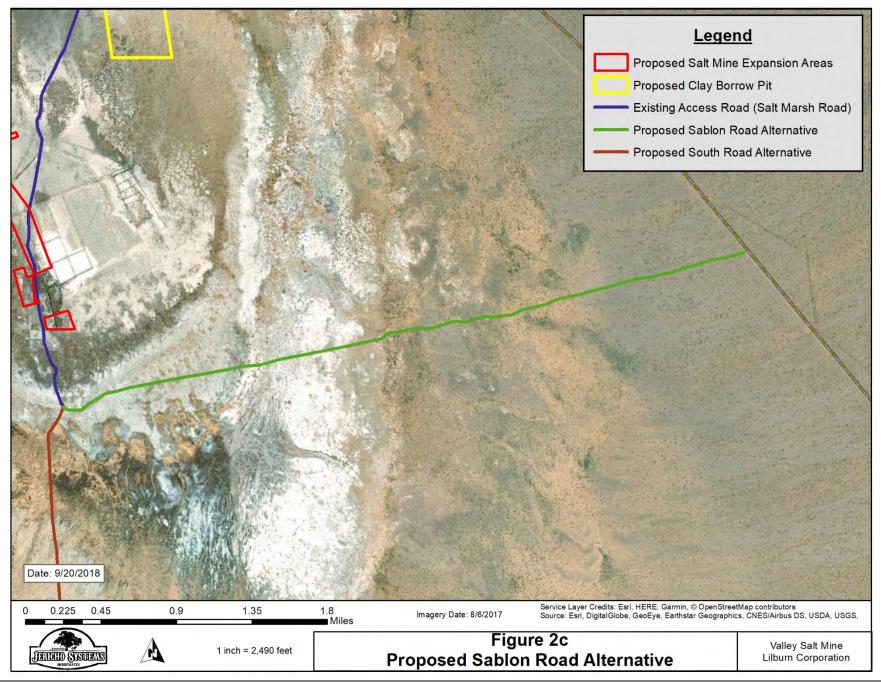
## Figures

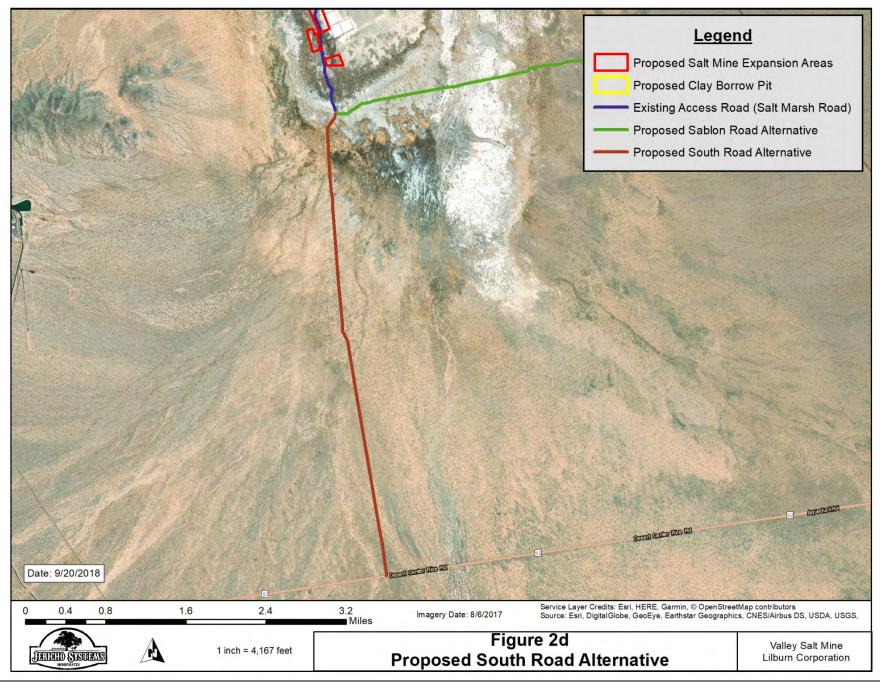




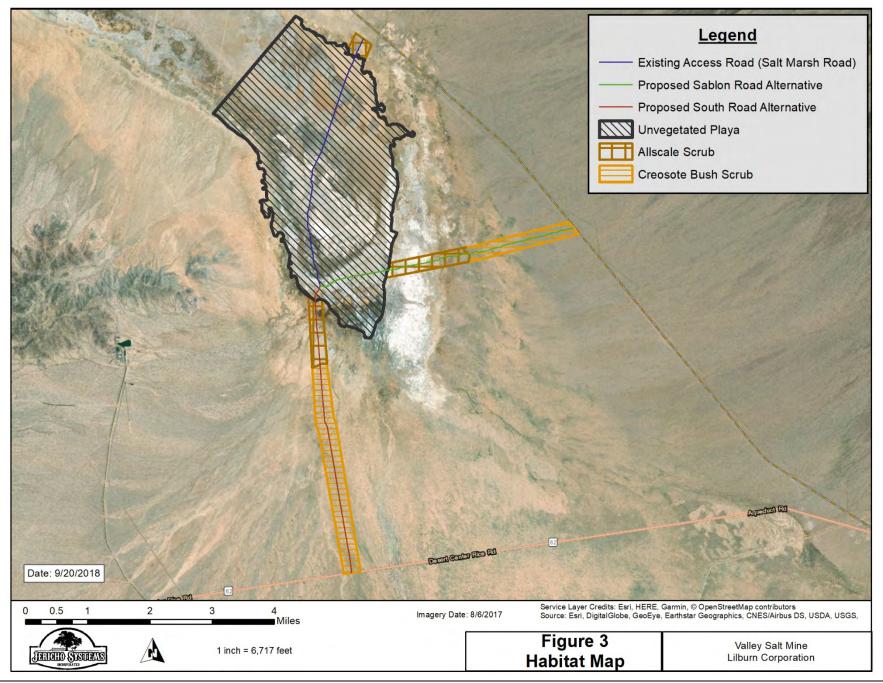


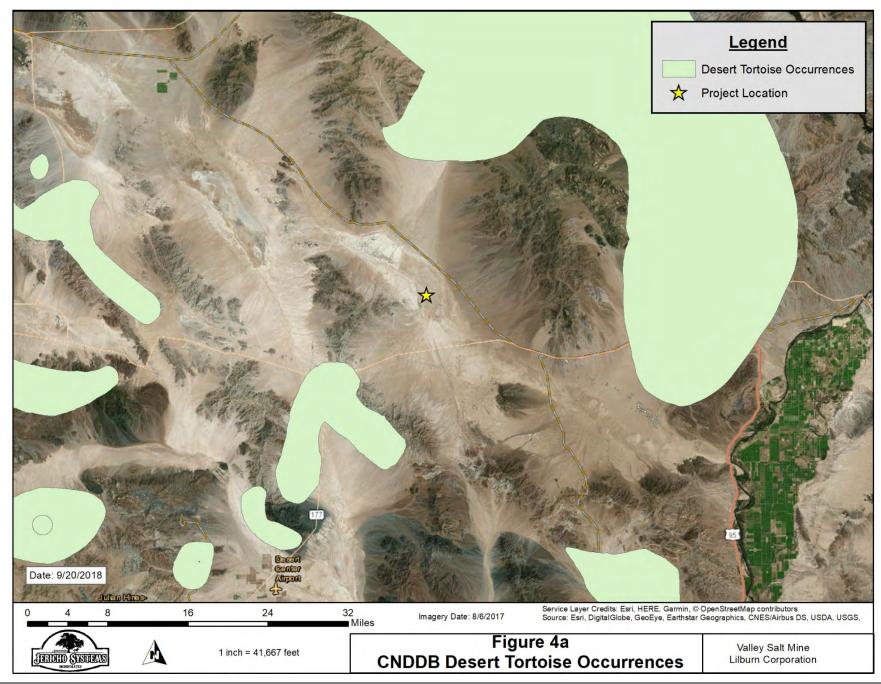
2018 Lilburn Corporation Valley Salt Mine Expansion Project Biological Resources Assessment – Figures



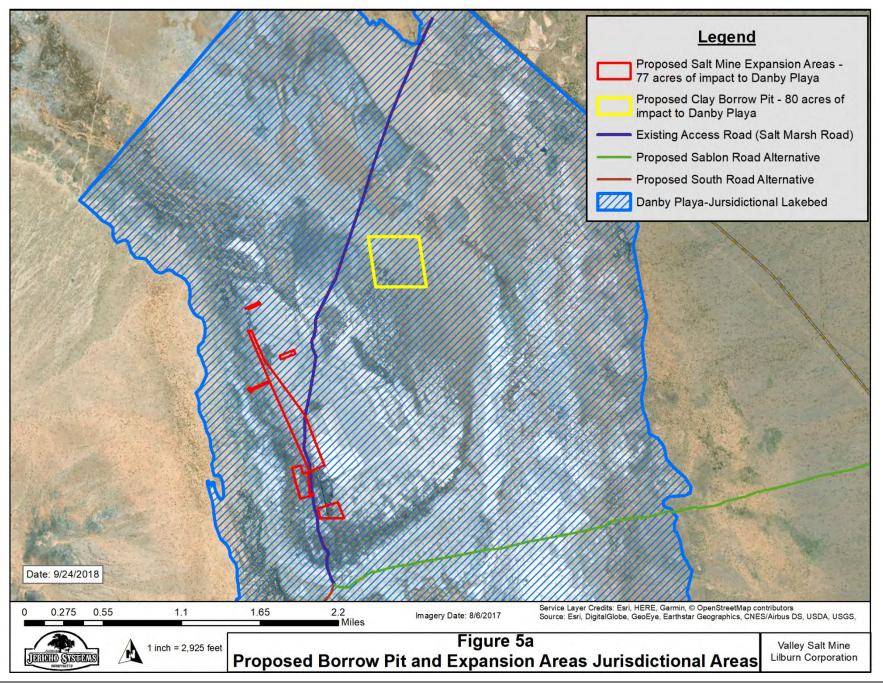


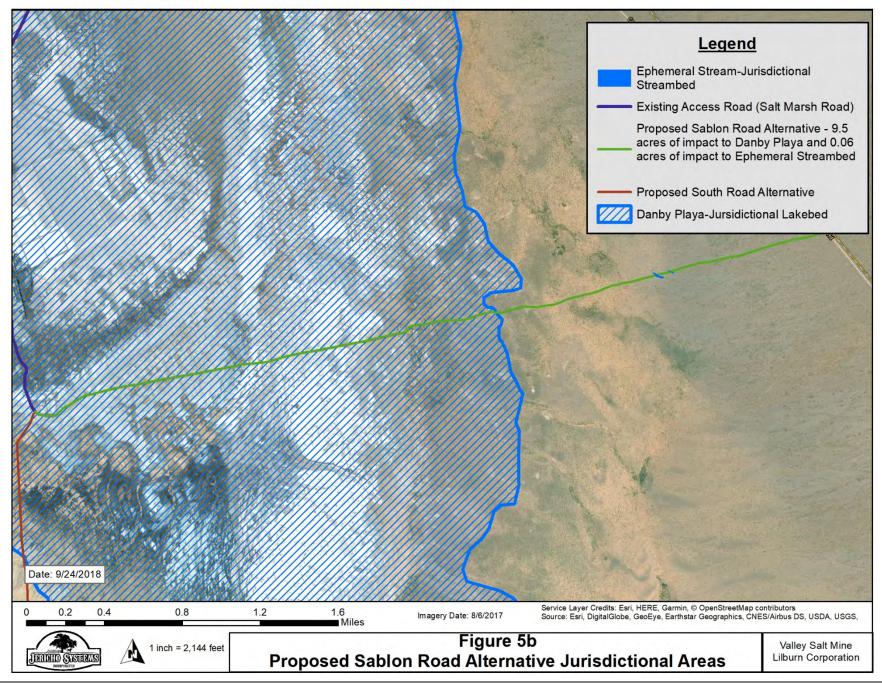
2018 Lilburn Corporation Valley Salt Mine Expansion Project Biological Resources Assessment – Figures

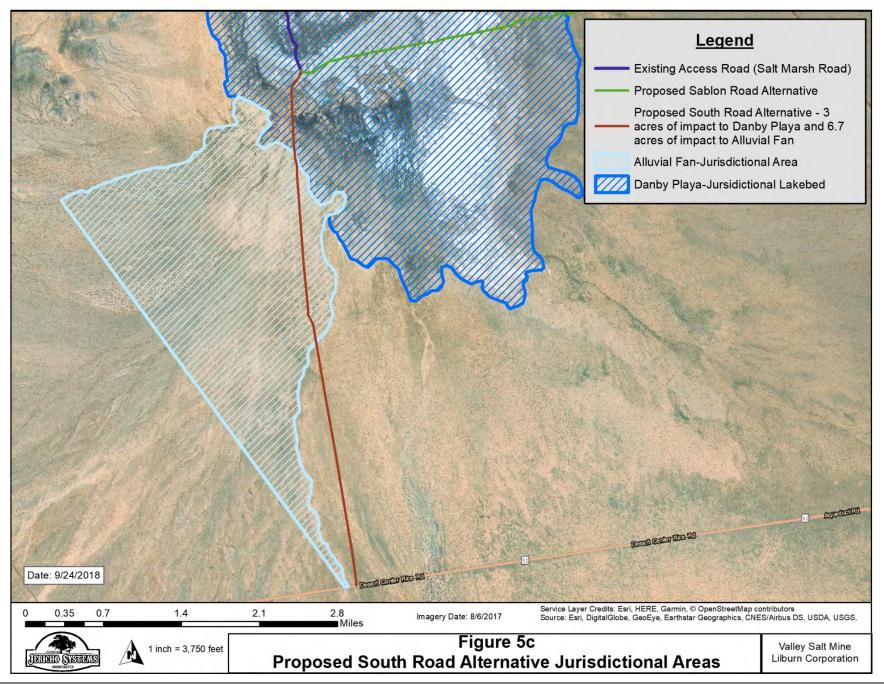




2018 Lilburn Corporation Valley Salt Mine Expansion Project Biological Resources Assessment – Figures







# Appendix A Species Potential to Occur

#### CNDDB Species and Habitats Documented Within the Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass and Arica Mountains USGS 7.5-minute Quadrangles

		Listing Status			
Scientific Name	Common Name	Federal/ State	Other Lists	Habitat	Occurrence Potential
Androstephium breviflorum	small-flowered androstephium	None/ None	G4; S2; CNPS: 2B.2	Mojavean desert scrub, desert dunes. Bajadas. One site known from sand dunes. 150-915 m.	There is some suitable habitat for this species within the proposed access road alignments. Occurrence potential within this portion of the project is <b>moderate</b> .
Astragalus insularis var. harwoodii	Harwood's milk-vetch	None/ None	G5T4; S2; CNPS: 2B.2	Desert dunes, Mojavean desert scrub. Open sandy flats and sandy or stony desert washes; mostly in creosote bush scrub 50-700 m.	There is some suitable habitat for this species within the proposed access road alignments. Occurrence potential within this portion of the project is <b>moderate</b> .
Corynorhinus townsendii	Townsend's big-eared bat	None/ None	G3G4; S2; CDFW: SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	There are no suitable roosting sites for this species within the project area. Occurrence potential is <b>low</b> .
Ditaxis claryana	glandular ditaxis	None/ None	G3G4; S2; CNPS: 2B.2	Mojavean desert scrub, Sonoran desert scrub. In dry washes and on rocky hillsides. Sandy soils. 0-465 m.	There is some suitable habitat for this species within the proposed access road alignments. Occurrence potential within this portion of the project is <b>moderate</b> .
Ditaxis serrata var. californica	California ditaxis	None/ None	G5T3T4; S2?; CNPS: 3.2	Sonoran desert scrub. On sandy washes and alluvial fans of the foothills and lower desert slopes. 30-1000 m.	There is some suitable habitat for this species within the proposed access road alignments. Occurrence potential within this portion of the project is <b>moderate</b> .
Eriastrum harwoodii	Harwood's eriastrum	None/ None	G2; S2; CNPS: 1B.2	Desert dunes. 75-720 m.	There is suitable habitat for this species within the proposed access road alignments and this species has been documented in the immediate project vicinity. Occurrence potential is <b>high</b> .
Falco mexicanus	prairie falcon	None/ None	G5; S4; CDFW: WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	There are no suitable nesting sites for this species within the project area. Occurrence potential is <b>low</b> .
		Threatened/		Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual	There is some marginally-suitable habitat for this species within and adjacent the proposed access road alignments. However, the result of focused desert tortoise surveys conducted within the project area, is that no desert tortoise sign or individuals were detected during survey. Furthermore, much of the project site consists of unvegetated playa/salt flats and sparsely-vegetated sand dunes, which would not be considered suitable for
Gopherus agassizii	desert tortoise	Threatened/ Threatened	G3; S2S3	Creosote bush habitat with large annual wildflower blooms preferred.	which would not be considered suitable for this species. Occurrence potential is <b>low</b> .

CNDDB Species and Habitats Documented Within the Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass and Arica Mountains USGS 7.5-minute Quadrangles

		Listing Status			
Scientific Name	Common Name	Federal/ State	Other Lists	Habitat	Occurrence Potential
					There is some suitable habitat for this species
			G3G4T3?;		within the proposed access road alignments.
Nemacaulis denudata var.			S2;	Coastal dunes, desert dunes, Sonoran	Occurrence potential within this portion of
gracilis	slender cottonheads	None/ None	CNPS: 2B.2	desert scrub. In dunes or sand50-400 m.	the project is <b>moderate</b> .
				Widely distributed from the White	
				Mountains in Mono County. to the	
				Chocolate Mountains in Imperial County.	There is no suitable habitat for this species
			G4T4; S3;	Open, rocky, steep areas with available	within the project area. Occurrence potential
Ovis canadensis nelsoni	desert bighorn sheep	None/ None	CDFW: FP	water and herbaceous forage.	is low.
				White fir-pinyon forest on desert peaks,	There is no suitable habitat for this species
			G5; S1;	5300-8100 ft elevation. Understory of	within the project area. Occurrence potential
Piranga flava	hepatic tanager	None/ None	CDFW: WL	xerophytic shrubs.	is <b>low</b> .

#### **CNDDB** Species and Habitats Documented Within the

#### Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass and Arica Mountains USGS 7.5-minute Quadrangles

Coding and Terms				
C = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of S	pecial Concern R = Rare			
tate Species of Special Concern: An administrative designation given to vertebrate species that appe continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird.	and Game code: "It is unlawful to take, possess or destroy any birds in the orders			
tate Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's textinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected spectheir take except for collecting these species for necessary scientific research and relocation of the species for ne	ccies may not be taken or possessed at any time and no licenses or permits may be issued for			
<ul> <li>Global Rankings (Species or Natural Community Level):</li> <li>G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fe</li> <li>G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations</li> <li>G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few pop</li> <li>G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to</li> <li>G5 = Secure – Common; widespread and abundant.</li> </ul>	(often 20 or fewer), steep declines, or other factors. ulations (often 80 or fewer), recent and widespread declines, or other factors.			
<b>Subspecies Level:</b> Taxa which are subspecies or varieties receive a taxon rank (T-rank) attac reflects the global situation of just the subspecies. For example: the Point Reyes mountain bear range i.e., <i>Aplodontia rufa</i> . The T-rank refers only to the global condition of ssp. <i>phaea</i> .				
<ul> <li>tate Ranking:</li> <li>S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 vulnerable to extirpation from the State.</li> <li>S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few extirpation from the State.</li> <li>S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations extirpation from the State.</li> <li>S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term con S5 = Secure – Common, widespread, and abundant in the State.</li> </ul>	v populations (often 20 or fewer), steep declines, or other factors making it very vulnerable (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable			
<ul> <li>California Rare Plant Rankings (CNPS List):</li> <li>1A = Plants presumed extirpated in California and either rare or extinct elsewhere.</li> <li>1B = Plants rare, threatened, or endangered in California and elsewhere.</li> <li>2A = Plants presumed extirpated in California, but common elsewhere.</li> <li>2B = Plants rare, threatened, or endangered in California, but more common elsewhere.</li> <li>3 = Plants about which more information is needed; a review list.</li> <li>4 = Plants of limited distribution; a watch list.</li> </ul>				
Threat Ranks: .1 = Seriously threatened in California (over 80% of occurrences threatened / high degr .2 = Moderately threatened in California (20-80% occurrences threatened / moderate d .3 = Not very threatened in California (less than 20% of occurrences threatened / low of	egree and immediacy of threat)			

# Appendix B Site Photographs

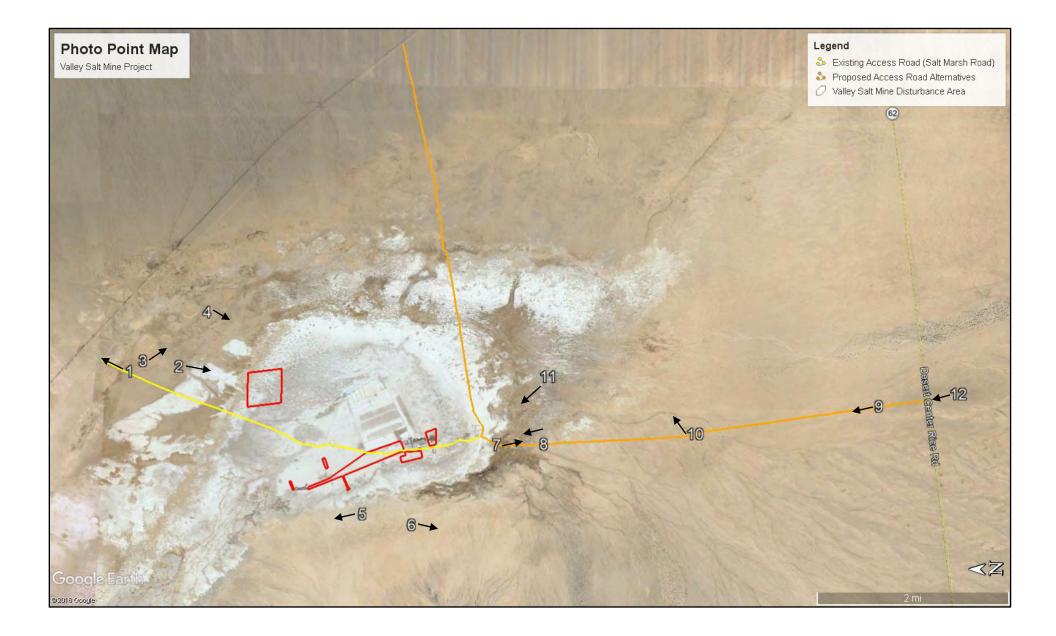






Photo 3. Edge of eastern shore of Danby Playa, where unvegetated playa transitions to allscale scrub.

Photo 4. Allscale scrub and aeolian sand dune habitat typical of the areas surrounding the eastern side of Danby Playa, including proposed old Sablon Road access road alternative.



Photo 5. Edge of western shore of Danby Playa, where unvegetated playa transitions to creosote bush scrub; adjacent the proposed Project site.

Photo 6. Creosote bush scrub and aeolian sand dune habitat typical of the areas surrounding the western side of Danby Playa, adjacent the Project site.

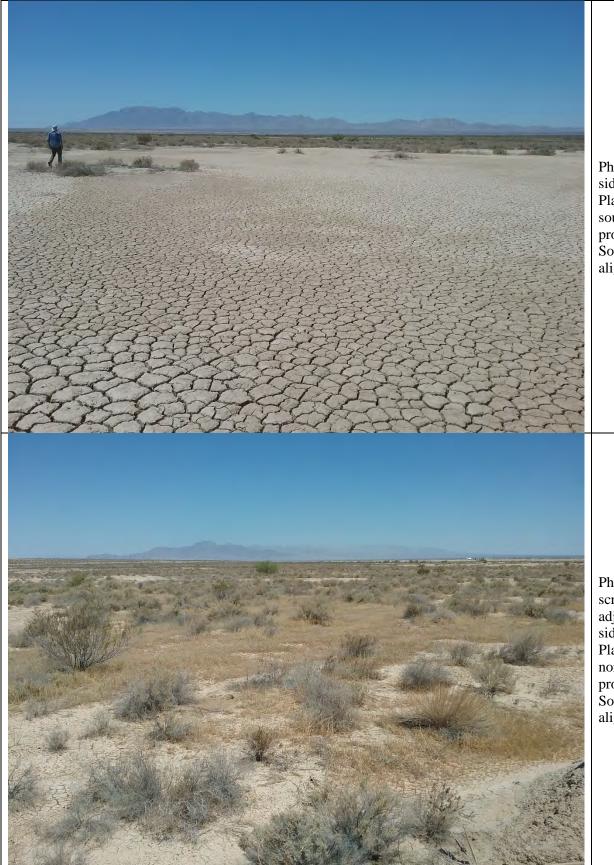


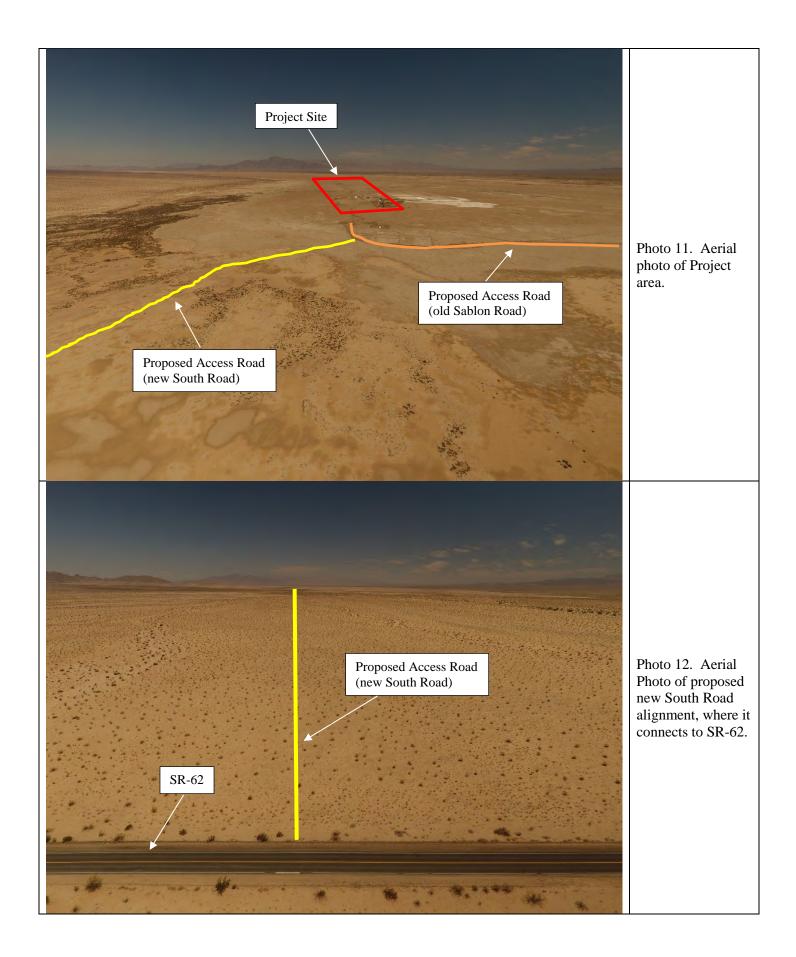
Photo 7. South side of Danby Playa, looking south along the proposed new South Road alignment.

Photo 8. Allscale scrub habitat adjacent the south side of Danby Playa, looking north along the proposed new South Road alignment.



Photo 9. Creosote bush scrub habitat north of SR-62, looking north along the proposed new South Road alignment.

Photo 10. Ephemeral wash with blue paloverde (*Parkinsonia florida*) present; along the ptoposed new South Road alignment, between Danby Playa and SR-62.



# Appendix C Plant Species Observed

Scientific Name	Common Name	Life Form	
Asteraceae	Aster Family		
Ambrosia dumosa	white bursage	shrub	
Ambrosia salsola	burrobush	shrub	
Baileya pauciradiata	Lax flower	annual herb	
Bebbia juncea	sweetbush	shrub	
Malacothrix glabrata	desert dandelion	annual herb	
Psathyrotes ramosissima	velvet turtleback	annual, perennial herb	
Stephanomeria pauciflora	wire lettuce	perennial herb	
Boraginaceae	Borage Family		
Amsinckia tessellata	bristly fiddleneck	annual herb	
<i>Cryptantha</i> sp.	forget me not	annual herb	
Tiquilia plicata	plicate coldenia	perennial herb	
Brassicaceae	Mustard Family		
Brassica tournefortii*	Saharan mustard*	annual herb	
Chenopodiaceae	Goosefoot Family		
Allenrolfea occidentalis	Iodine bush	shrub	
Atriplex canescens	fourwing saltbush	shrub	
Atriplex polycarpa	allscale saltbush	shrub	
Salsola tragus*	Russian thistle*	annual herb	
Suaeda nigra	bush seepweed	perennial herb	
Ephedraceae	Ephedra Family		
Ephedra trifurca	long leafed ephedra	tree, shrub	
Euphorbia polycarpa	smallseed sandmat	perennial herb	
Fabaceae	Pea Family		
Acmispon strigosus	strigose lotus	annual herb	
Astragalus sp.	milk vetch	annual herb	
Dalea mollis	silky dalea	perennial herb	

List of Plant Species Observed within the Sheerer Mine Expansion Site

Scientific Name	Common Name	Life Form	
Lupinus sp.	lupine	annual herb	
Parkinsonia florida	blue paloverde	tree	
Psorothamnus emoryi	indigo bush	shrub	
Psorothamnus spinosus	smoke tree	tree, shrub	
Senegalia greggii	catclaw	shrub	
Krameriaceae	Rhatany Family		
Krameria bicolor	white rhatany	shrub	
Nyctaginaceae	Four O'Clocks Family		
Abronia villosa	desert sand verbena	annual herb	
Onagraceae	Evening Primrose Family		
Oenothera deltoides	desert lantern	annual herb	
Poaceae	Grass Family		
Bouteloua aristidoides	needle grama	annual grass	
Hilaria rigida	big galleta	perennial grass	
Schismus sp.*	Mediterranean grass*	annual grass	
Polemoniaceae	Phlox Family		
Loeseliastrum matthewsii	desert calico	annual herb	
Polygonaceae	Buckwheat Family		
Eriogonum deflexum	flat topped buckwheat	annual herb	
Eriogonum maculatum	angle stemed buckwheat	annual herb	
Eriogonum thomasii	Thomas' buckwheat	annual herb	
Tamaricaceae	Tamarisk Family		
Tamarix ramosissima*	saltcedar*	tree, shrub	
Zygophyllaceae	Caltrop Family		

Scientific Name	Common Name	Life Form
Larrea tridentata	creosote bush	shrub
*Non notivo invesivo		•

\*Non-native, invasive

# Appendix D Regulatory Framework

### **Regulatory Framework**

#### Federal Endangered Species Act (ESA)

The U.S. Fish and Wildlife Service (USFWS) administers the federal ESA of 1973. The ESA provides a legal mechanism for listing species as either threatened or endangered, and a process of protection for those species listed. Section 9 of the ESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. "Take" can include adverse modification of habitats used by a threatened or endangered species during any portion of its life history. Under the regulations of the ESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act. Take authorization can be obtained under Section 7 or Section 10 of the act.

#### California Endangered Species Act (CESA)

The CDFW, formerly Fish and Game, administers the State CESA. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species soon, in the absence of special protection or management. And a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species applies to California native plants. Further, all raptors and their nests are protected under Section 3503.5 of the California Fish and Game Code (FGC). Species that are California fully protected include those protected by special legislation for various reasons, such as the California condor. Species of Special Concern (SSC) is an informal designation used by CDFW for some declining wildlife species that are not proposed for listing as threatened or endangered. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFW.

#### Migratory Bird Treaty Act (MBTA)

Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711). The MBTA provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA prohibits take of nearly all native birds. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all non-game birds that occur naturally in the State.

#### Clean Water Act (CWA)

The CWA is the principal federal law that governs pollution in the nation's lakes, rivers, and coastal waters. Originally enacted in 1972 as a series of amendments to the Federal Water Pollution Control Act of 1948, the Act was last amended in 1987. The overriding purpose of the CWA is to "restore and maintain the chemical, physical and biological integrity of the nation's waters." The statute employs a variety of regulatory and non-regulatory tools to eliminate the discharge of pollutants into the nation's waters and achieve water quality that is both "swimmable and fishable".

Under Section 404 of the CWA, the Corps has primary federal responsibility for administering regulations

that concern the discharge of dredged or fill material into WoUS (including wetlands). WoUS are defined as: "All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters" (Section 404 of the CWA; 33 CFR 328).

The limit of the Corps jurisdiction for non-tidal waters (including non-tidal perennial and intermittent watercourses and tributaries to such watercourses) in the absence of adjacent wetlands is defined by the ordinary high water mark (OHWM). The OHWM is defined as: "The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (Section 404 of the CWA; 33 CFR 328). Wetlands are defined as: "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Section 404 of the CWA; 33 CFR 328).

#### Porter-Cologne Water Quality Control Act (Porter-Cologne)

The Porter-Cologne Water Quality Control Act (Porter-Cologne) is the principal State law that governs water protection efforts in California. Porter-Cologne establishes the State Water Resources Control Board (SWRCB) and each of the nine Regional Water Quality Control Boards (RWQCBs) as the principal state agencies for coordinating and controlling water quality in California. The RWQCB's regulatory jurisdiction is pursuant to Section 401 of the Federal CWA. The RWQCB typically regulates discharges of dredged or fill material into WoUS. However, they also have regulatory authority over waste discharges into Waters of the State, which may be isolated, under Porter-Cologne. In the absence of a nexus with the Corps, the RWQCB requires the submittal of a Waste Discharge Requirement (WDR) application, which must include a copy of the Project Storm Water Pollution Prevention Plan (SWPPP) and a copy of the Project Water Quality Management Plan (WQMP), otherwise called a Standard Urban Stormwater Management Plan (SUSMP). The RWQCB's role is to ensure that disturbances in the stream channel do not cause water quality degradation.

#### California Fish and Game Code (FGC)

Sections 1600 to 1616 of the California FGC require any person, state, or local government agency or public utility to notify the CDFW before beginning any activity that will substantially modify a river, stream, or lake. If it is determined that the activity could substantially adversely impact an existing fish and wildlife resource, then a Lake or Streambed Alteration Agreement is required.

Like the Corps and RWQCB, the CDFW also regulates discharges of dredged or fill material. The regulatory jurisdiction of CDFW is much broader however, than Corps or RWQCB jurisdictions. CDFW regulates **all** activities that alter streams and lakes and their associated habitats. The CDFW, through provisions of the FGC Sections 1601-1603 is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks and at least an intermittent flow of water. The CDFW typically extends the limits of their jurisdiction laterally beyond the channel banks for streams that support riparian vegetation. In these situations, the outer edge of the riparian vegetation is generally used as the lateral extent of the stream and CDFW jurisdiction. CDFW regulates wetland areas only to the extent that those wetlands are a part of a river, stream, or lake as defined by CDFW.

# APPENDIX D CULTURAL RESOURCES REPORT (CONFIDENTIAL: SUBMITTED DIRECTLY TO THE BLM)

# APPENDIX E FINANCIAL ASSURANCE COST ESTIMATE FOR PROPOSED OPERATIONS FEBRUARY 2018

H-3809-1 – SURFACE MANAGEMENT HANDBOOK – (Public)

6-14

### Figure 6.2-1 - Reclamation Cost Estimate Summary Sheet

(1 of 2)

(See Attached Worksheets)

Earthwork/Recontouring	Labor	``````````````````````````````````````		, ,
Roads	Labor	Equipment	Material	Total
Drill Site(s)				24.000
Drill Hole Abandonment (wells)				24,000
Pits/Adits/Trenches/Pipe Removal				9,089
Process Ponds & Trenches				27,920
Heaps				
Dumps (Waste & Landfill)				
Tailings				
Structure & Building Areas				1
Storage & Equipment Areas				
Drainage Control				
Mobilization/Demobilization				7,075
Miscellaneous Supervision				2,527
Revegetation/Stabilization	Labor	Equipment	Material	Total
Roads				
Drill Site(s)				
Pits/Adits/Trenches				
Process Ponds				
Heaps				
Dumps (Waste & Landfill)				
Tailings				
Structure & Building Areas				
Storage & Equipment Areas				
Drainage Control				
Monitoring				
Miscellaneous				
Detoxification/Water Treatment/Waste Disposal	Labor	Equipment	Material	Total
Process Ponds/Sludge	12000	Equipment	ivialCilai	TUtai
Heaps				
Dumps (Waste & Landfill)				
Tailings				
Surplus Water Disposal				
Fluid Management				
Monitoring				
Miscellaneous			-	05.000
Structure, Equipment & Facility Removal				65,329
Hazardous Materials				
Mitigation				
Operation & Maintenance TOTAL				
Administrative Costs				Total
ED&C Plan				
Contingency				12,634
Contractor Profit				14,655
Liability Insurance				
Performance & Payment Bond				
BLM Contract Administration				34,278
BLM Indirect Cost				
Administrative TOTAL				
GRAND TOTAL			en e	\$197,507.00
	1	L	L	

**BLM HANDBOOK** 

# Valley Salt Danby Dry Lake Salt Lease Operations FACE Information – February 2018 (CALA 0139523)

## Pipelines (HDPE)

6-inch – 600 feet (300' buried; 300' near surface) 3-inch - 1,200 feet buried approx. 3' 2-inch – 800 feet buried approx. 3'

Total Pipeline Length – <u>2,600 feet</u>

Estimated cost to remove and dispose: 6" pipe \$2.75/ft; 2' or 3" pipe \$2.35/ft Trenching by backhoe with trencher est. at 100 feet per hour 26 hours (used 32 hours)

## **Concrete Pads**

Fuel/Used Oil Containment - 15' x 40' x 6" plus perimeter wall of 2' ht

Total concrete to be removed - 16 cubic yards plus concrete blocks

Buildings/Structures/Tanks

Cargo Containers – 2 @ 8'x20'Trailers (storage, employee, office) – 12' x 60' Office trailer - 8'x 28' x 10' (ht) Dorm Trailers (3)– 40' to 53' x 12' x 12' (ht) Tanks – 10,000-gallon fuel tank (not in use); portable water tank Truck scale – 70'

Plant Equipment (all portable)

Hopper Conveyors (15) Coarse and sand washers Vibrator screen Roll crusher Generators - 3 skid mounted and 3 trailer mounted Screen – 3 Jaw crusher Dryer drum Wet scrubber

Danby Dry Lake Site Info for FACE February 2018

# Mobile Equipment

Light set – 1 (trailer mounted) Drill rig – 1 (trailer mounted) Roller – 1 Forklift – 1 Water trucks – 2 Dump truck – 1 Loaders – 3 D6H Dozer – 1 CAT 330 Excavator – 1 Scraper – 1 CAT 740 Off-road haul trucks - 2

# Production Wells

In Service – 6 Out of Service/Monitoring – 2

Site data supplied by Curt Waisath, CEO Valley Salt

# **Background Information, Assumptions, and Estimates**

Equipment performance from Cat. Performance Handbook, 2015. Information below prepared by Lilburn Corporation.

## **Backfill Volumes**

Area	Dimensions	Backfill Volume (cubic yards)
Pond Berms	4.6 mi or 24,288' x 4' ht x 12 ' wide (ave) = 1,165,824 cubic feet / 27 cf per cubic yard =	43,180
Trenches	0.8 miles or 4,225' x 30' wide x 9' deep (ave) ' 1,140,750 cf or 42,250 cy	42,250
Totals		85,430

# D9 Dozer

D9 with universal blade capacity is 2,000 cy/hr with push distance of 50 feet. Job efficiency - 83% (50 min/hr); Operator rated at between ave. (0.75) and excellent (1.00) - 0.875; No slope (1), material is loose (1).

2,000 cy/hr x 0.83 x 0.875 = 1,450 cy/hr (adjusted D9 production)

Danby Dry Lake Site Info for FACE February 2018

# Pond Berm Assumptions

43,180 cy to push into pond areas Push road/berm material into pond areas. Average push distance is 50 feet.

43,180 cy / 1,450 cy/hr = 29.8 hours for dozer time (used 30 hours)

# Trench Backfill Assumptions

42,250 cy backfill into trenches Push excavated material and side berms into trenches. Average push distance is 50'.

42,250 cy / 1,450 cy/hr = 29.1 hours for dozer time (used 30 hours)

# Total D9 dozer time = 60 hours

## Dirt Roads and Plant Area to be Ripped

Approx. 5.25 miles of 16-foot dirt roads or 27,720 linear feet. Main Access Road approx. 4.35 miles with 26-foot width. Plant area (35.5 acres), portion of ponds backfilled with berms and backfilled trenches and various other sites estimated at total of 80 acres

# Grader Production

14' blade with effective width of 12'

Overlap – 2 feet per pass therefore effective pass width = 10 feet in width. Speed ranges from 1 – 6 mph. With loose material and flat surface est. 3 mph. At 3 mph = 15,840 linear feet/hr x 10-foot width and 0.83 operator efficiency / 43,560 sq. ft./acre = 3.6 ac/hr.

80 acres / 3.6 acres/hr = 22.2 hours (used 24 hours) for grader time

## <u>Roads</u>

Grader ripping at 1.5 mph (Cat. Performance Handbook)

<u>Main Access Road</u> approx. 4.35 miles with 26-foot width; 3 passes. 4.35 x 3 passes = 13.05 miles / 1.5 mph = approx. **9 hours for grader** 

<u>Single lane or 16-foot wide dirt roads</u>; approx. 4.75 miles, 2 passes. 5.25 miles x 2 passes / 1.5 mph = **7 hours for grader** 

# Total grader time = 40 hours

Danby Dry Lake Site Info for FACE February 2018

# FINANCIAL ASSURANCE ESTIMATES DANBY DRY LAKE SALT LEASE OPERATIONS

## I. PRIMARY RECLAMATION ACTIVITIES

Page 1

**Description of Task:** Backfilling of trenches with berms and excavted material; pushing pond berms/roads into the ponds; scarifying approx. 80 acres of compacted plant area and other areas; and scarifying compacted roads.

**Methods to be Used:** Dozers will push berms into the ponds (approx. 43,180 cy) and push berms and excavated material into trenches (approx. 42,250 cy); graders will scarify compacted plant site and other operations areas (total 80 acres). Roads will be broken up and scarified (approx. 5.25 miles of single lane dirt roads at 16-foot width) & 4.35 miles main access road at 26-foot width to Cadiz Road. See atttached map and information sheet.

### **Miscellaneous Information:**

 Backfill (cubic yards):
 85,430 cy
 Topsoil (cubic yards):
 Graded Acres:
 80

 Production Rate:
 1.
 1450 cy/hr (dozer)
 2.
 3.6 ac/hr (grader)
 3.
 1.5 mph for ripping roads (grader)

 Push Distance (feet):
 1.
 50'
 2.
 3.
 4.
 \_\_\_\_\_\_\_

A: Equipment - Elst an equipment required to complete identified task (typical)						
	Equipment (typical)	Quantity	\$/Hour	# of Hours	Cost (\$)	
1	CAT D9 Dozer	1	183.73	60	11,024	
2	Grader	1	67.41	40	2,696	
3	Water truck	1	36.46	60	2,188	
4		1			0	
5					0	
Total Equipment Cost for this Task						

A. Equipment - List all equipment required to complete identified task (typical)

<b>D. Labor</b> - List all labor categories to complete identified task.	B. Labor	- List all labor	r categories to	complete identified task.
--	----------	------------------	-----------------	---------------------------

	Labor Category	Quantity	\$/Hour	# of Hours	Cost (\$)	
1	Dozer operator	1	\$80.95	60	4,857	
2	Grader operator	1	\$80.95	40	3,238	
3	Truck driver	1	\$65.28	60	3,917	
4					0	
5					0	
Total Labor Cost for this Task						

С.	Materials -	List all	materials red	quired to co	omplete identifi	ed task	(include dis	sposal costs)	).

Item	Quantity	\$/Unit	Cost (\$)
1			0
2			0
3			0
4			0
5			0
Tota	Il Materials Cos	st for this Task	0

#### **D.** Direct Cost for this Task

Equipment Cost + Labor Cost + Materials Cost = <u>\$</u>27,920

## **I. PRIMARY RECLAMATION ACTIVITIES**

Description of Task: Remove 2,600 feet of Poly pipe; 2,300 ' buried. Clean up and disposal of any trash & debris; removal of concrete fuel containment pad and concrete blocks.

Methods to be Used: Backhoe to trench for pipe removal; breakup and remove concrete and blocks; and remove any remianining debris. Est. 4 trips to Parker landfill at approx. 55 miles one-way.

### **Miscellaneous Information:**

 Overburden (cubic yards):
 \_\_\_\_\_ NA\_\_\_ Acres:
 \_\_\_\_\_ NA\_\_\_

 Production Rate (cubic yards/hour):
 1. 100'/hr for trenching\_\_\_\_\_ 2.
 \_\_\_\_\_\_ 3.
 \_\_\_\_\_\_\_ 4.

 Haul Distance (feet): 1. <u>NA</u> 2. <u>3</u>. <u>4</u>.

Α.	A. Equipment - List all equipment required to complete identified task.							
	Equipment	Quantity	\$/Hour	# of Hours	Cost (\$)			
1	Backhoe (CAT 426 typ)	1	\$35.32	40	1,413			
2	6-wheel end-dump (12 ton)	1	\$42.84	16	685			
3					0			
4					0			
5					0			
Total Equipment Cost for this Task								

#### B. Labor - List all labor categories to complete identified task.

	Labor Category	Quantity	\$/Hour	# of Hours	Cost (\$)
1	Equipment operator	1	81	40	3,238
2	Truck driver	1	65	16	1,044
3	Laborers	2	60	16	1,908
4					0
5					0
Total Labor Cost for this Task					

#### C. Materials - List all materials required to complete identified task.

	Item	Quantity	\$/Unit	Cost (\$)			
1	Dump fees (loads) (est)	4	200	800			
2				0			
3				0			
4				0			
5				0			
	Total Materials Cost for this Task						

#### **D.** Direct Cost for this Task

Equipment Cost + Labor Cost + Materials Cost = \$ 9,089

Sources: Labor Surcharge & Equipment Rental Rates, Caltrans April 1, 2017 - March 31, 2018 General Prevailing Wage Determinations, California Director or Industrial Relations; updated on websire January 2018.

## **II. REVEGETATION**

Description of Task: The site is a barren dry lake bed with no topsoil or perennial plant life. No active revegetation is planned for the site.

### Methods to be Used: NA

A. Equipment - List all equipment required to complete identified tas	blete identified task.
---	------------------------

	Equipment	Quantity	\$/Hour	# of Hours	Cost (\$)		
1					0		
2					0		
3					0		
4					0		
5					0		
	Total Equipment Cost for this Task						

Total Equipment Cost for this Task

**B. Labor** - List all labor categories to complete identified task.

	Labor Category	Quantity	\$/Hour	# of Hours	Cost (\$)
1					0
2				•	0
3					0
4					0
Total Labor Cost for this Task					

Total Labor Cost for this Task

С.	Materials -	List all material	s required to com	plete identified task	(include disposal costs).

		Unit of			
	Item/Plant Species	Measure	# of Units	\$/Unit	Cost (\$)
1					0
2					0
3					0
4					0
5					\$ -
	\$-				

**D.** Direct Cost for this Task

Equipment Cost + Labor Cost + Materials Cost = \_\_\_\_\_

## **III. PLANT STRUCTURES AND EQUIPMENT REMOVAL**

Description of Task: Prepare plant equipment, tanks, and trailers for removal by trucks; load all off-road mobile equipment onto low bed trucks and remove from site; and remove approx. 2,600 feet of pipelines (HDPE). See attachment for plant equipment, trailers, and mobile quipment list.

### Methods to be Used:

	zquipine zist un equipine							
	Equipment	Quantity	\$/Hour	# of Hours	Cost (\$)			
1	Crane	1	99.49	40	3,980			
2	Low bed trucks	2	62.39	60	7,487			
3	Trucks	2	62.39	60	7,487			
4	Forklift (6 t)	1	50.74	40	2,030			
5					0			
6					0			

A. Equipment - List all equipment required to complete identified task.

Total Equipment Cost for this Task 20,983

**B.** Labor - List all labor categories to complete identified task.

Di Bubbi Dist un nucci cuegonos le comprete nuchimed non.						
	Labor Category	Quantity	\$/Hour	# of Hours	Cost (\$)	
1	Equip. Operators crane	1	80.95	40	3,238	
2	Truck drivers	4	65.28	60	15,667	
3	General laborers	3	59.74	60	10,753	
4	Supervisor	1	85.00	60	5,100	
5	Equip. operator - forklift	1	80.95	40	3,238	
	37,996					

C. Demolition - List all structures and equipment used to complete identified task.

		Type of			Unit Cost	Disposal	
	Structure/Equipment	Material	Amount	Units	Basis	Cost	Cost (\$)
1	concrete containment, blocks	included in	Task 1				0
2	Trailers	included in	A & B above				0
3							0
4	HDPE pipe removal**	6"	per foot	600	2.75		1,650
5	HDPE pipe removal**	2", 3"	per foot	2,000	2.35		4,700
Total Materials Cost for this Task						6,350	

# D. Direct Cost for this Task

Equipment Cost + Labor Cost + Demolition Cost = \$ 65,329

See attachment for list of all plant and mobile equipment. Pipe Removal costs from PF Distributors, San Bernardino, updated 2018 include equipment, labor and disposal.

## E. Surplus/Salvage Value

1. Total cost to dismantle/remove plant structures and				
equipment pursuant to the approved reclamation plan.	\$	65,329		
2. Net salvage value of the plant structures and equipment.	\$	-		
3. Subtract Line 2 from Line 1		\$65,329		
4. If Line 3 is greater than \$0, enter this amount on the total plant structures and equipment removal cost line				
under Section VIII (Summary of Costs). If Line 3 is less than \$0, enter \$0 on the appropriate line in Sec. VIII.				

## **IV. MISCELLANEOUS COSTS**

Examples of this type of cost include temporary storage of equipment and materials off-site, special one-time permits (I.e. transportation permits for extra wide or overweight loads, etc.), decommissioning a process mill (I.e. decontamination of equipment), or disposal of warehouse inventories.

	Item/Task	Quantity	\$/Unit	Cost (\$)
1	Well closure (100 feet deep)	8	3000	24,000
2				0
3				0
4				0
5				0
		Total Miscel	Janeous Costs	\$ 24,000

Total Miscellaneous Costs \$ 24,000

## V. MONITORING

	Monitoring Task	\$/Visit	# Visits/ Year	# of Monitoring Years	Cost (\$)
1	None				0
2					0
3					0
4					0
5					0
			Tota	1 Monitoring Costs	\$ -

Total Monitoring Costs 5 -

# VII. SUMMARY OF COSTS

.

Total of Primary Reclamation Activities		\$37,009
Revegetation		\$0.00
Total of all Plant Structures & Equipment Removal Costs		\$65,329
Total of all Miscellaneous Costs	\$24,000	
Total of all Monitoring Costs		\$0.00
	Total Direct Costs	\$126,338
Supervision - 5.6 %		\$7,075
Profit/Overhead - 11.6 %		\$14,655
Contingencies - 10 %		\$12,634
Mobilization - 2 %		\$2,527
	Total Indirect Costs	\$36,891
	Total Direct and Indirect Costs	\$163,229
Lead Agency Administrative Cost (21% of Direc BLM admin fee = 21%	\$34,278	
	Total Estimated Cost of Reclamation	\$197,507

Page 7

## References

California Department of Mines and Geology. Surface Mining and Reclamation Act. 2017

Caltrans, "Labor Surcharge and Equipment Rental Rates", (effective April 1, 20175 through March 31, 2018)

Caterpillar Performance Handbook, 31<sup>st</sup> Edition, 2000.

Pipe Removal costs from PF Distributors, San Bernardino, CA

State of California Department of Industrial Relations, "General Prevailing Wage Determination." December 2017 with updates

Valley Salt; Site inventory of Plant Facility and Mobile Equipment February 2018

Well Removal Costs; Cascade Drilling Rate Sheet 2017

# APPENDIX F CURRENT FINANCIAL ASSURANCE MECHANISM

California Mine ID No. <u>91-36-0XXX</u> Bond No. <u>1155195</u> Permit No. <u>AP20190002</u> Danby Dry Lake Sodium Lease / 2019M-000X Reclamation Bond Corporation Page 1 of 5

# DEPARTMENT OF CONSERVATION DIVISION OF MINE RECLAMATION

and

County of San Bernardino (Name of LEAD AGENCY)

# SURETY BOND (CORPORATION)

(Public Resources Code §2773.1)

Bond No. 1155195

## KNOW ALL PERSONS BY THESE PRESENTS, THAT THE UNDERSIGNED

	Valley Sait, LLC	
	(Name of Corporation - Permittee and Principal, whose address for service is:)	
	3230 E. Broadway Street C235, Phoenix, AZ 85040	
a corporation orga as Principal, and	(Street Address) (City) (State) (Zip) anized and existing under the laws of the State of Arizona Lexon Insurance Company	
	(Name of Surety Company, whose address for service is:)	
	10002 Shelbyville Rd Ste. 100, Louisville, KY 40223	
	(Street Address) (City) (State) (Zip)	
	Toxas	

organized and existing under the laws of the State of <u>Texas</u> and licensed to do business in the State of California, as Surety, are held and firmly bound unto <u>County of San Bernardino</u> and the Department of Conservation, Division of Mine, \*\*

THE CONDITION OF THE ABOVE OBLIGATION is such that:

penal sum of this bond.

Whereas, the above-named Principal has an approved permit, number <u>AP20190002</u> and/or claims a vested right, including an approved reclamation plan, number <u>2019M-000X</u>, to reclaim mined lands, as defined pursuant to the Surface Mining and Reclamation Act, Public Resources Code, Division 2, Chapter 9, §2710 <u>et seq.</u> (the Act), and its attendant regulations (California Code of Regulations, Title 14, §3500 <u>et seq.</u>); and,

Whereas, a demand has been made upon Principal for security under Public Resources Code §2773.1, to insure compliance with the Act; and this bond is executed and tendered in accordance therewith;

\*This bond replaces and supersedes the previously issued bond on April 5, 2018 with the same bond number.

\*\*and in the alternative the Department of the Interior

California Mine ID No.	91-36-0XXX	Reclamation Bond Corporation
Bond No.	1155195	Page 2 of 5
Permit No.	AP20190002	
Reclamation Plan Name/No.	Danby Dry Lake Sodium Lease / 2019M-000X	

Whereas, the Principal has chosen to file this performance bond as a guarantee that the reclamation of the mined lands disturbed during this surface mining operation will be completed as required by the Act and regulations, and as specified in the reclamation plan and any applicable permit as approved by <u>County of San Bernardino</u>; (Name of LEAD AGENCY)

Whereas, the Surety and their successors and assigns agree to guarantee the obligation and to indemnify <u>County of San Bernardino</u> and the Department of (Name of LEAD AGENCY)

Conservation, Division of Mine Reclamation from the failure of the Principal to complete the reclamation of the mined lands disturbed during the surface mining operation in conformity with the Act and regulations, and as specified in the reclamation plan and any applicable permit as approved by <u>County of San Bernardino</u>, subject to the penal sum of this bond;

Whereas, the surety, as part of the obligation secured by this bond, and in addition to the penal sum specified in this bond, agrees there shall be included costs and reasonable expenses and fees, including reasonable attorney fees, incurred by <u>County of San Bernardino</u> (Name of LEAD AGENCY)

or in the alternative, the Department of Conservation, Division of Mine Reclamation, in successfully enforcing such obligation against the surety, all to be taxed as costs and included in any judgment rendered;

Whereas, obligations guaranteed by this performance bond shall be in effect for the following described lands which are subject to the approved reclamation plan or increment upon which initial or succeeding operations by the principal will be conducted.

Danby Dry L					
	<u>(Insert legal</u>	description	n or Assessor's P	arcel No.)	

Now, if the Principal completes all reclamation requirements set forth in the Act, the regulations, and all conditions of the permit related to reclamation, including the reclamation plan, then this obligation shall be void; otherwise, it shall remain in full force and effect:

(a) beginning on the date of the approval of the reclamation plan and any applicable permit, or prior to commencement of disturbance of mined lands, and extending until all reclamation pursuant to the Act, the regulations, and all conditions of the permit related to reclamation, including the reclamation plan, has been completed to the satisfaction of <u>County of San Bernardino</u> (Name of LEAD AGENCY)

Division of Mine Reclamation; and,

(b) until the bond is released or replaced in accordance with the Act and its attendant regulations with the written concurrence of <u>County of San Bernardino</u> (Name of LEAD AGENCY)

and the Department of Conservation, Division of Mine Reclamation.

The failure of the Principal to fulfill mined land reclamation obligations specified by the Act, the regulations, and all conditions of the permit related to reclamation, including the reclamation plan, shall result in a forfeiture of this performance bond according to the procedures described in the Act.

\*This bond replaces and supersedes the previously issued bond on April 5, 2018 with the same bond number.

California Mine ID No.	91-36-0XXX
Bond No.	1155195
Permit No.	AP20190002
Parlamation Plan Name/No	Danby Dry Lake Sodium Lease / 2019

Reclamation Bond Corporation Page 3 of 5

Reclamation Plan Name/No. Danby Dry Lake Sodium Lease / 2019M-000X

The amount of the Surety's liability may only be reduced by the <u>County of San Bernardino</u> and the Department of Conservation, Division of (Name of LEAD AGENCY)

Mine Reclamation pursuant to the Act for lands covered by this bond which have been disturbed by the Principal. If the penal sum of this bond requires adjustment, it shall be by use of an Increase/Decrease Rider.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the reclamation plan and/or any applicable permit, or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the reclamation plan and/or any applicable permit or to the work or to the specifications. Surety further stipulates and agrees that the provisions of Section 2845 of the Civil Code are not a condition precedent to Surety's obligations hereunder and are hereby waived by surety.

The Surety will give notice of cancellation of the bond at least 120 days prior to such cancellation and prompt notice to the Principal,

County of San Bernardino \_\_\_\_\_, and the Department of Conservation, Division of Mine (Name of LEAD AGENCY)

Reclamation of any of the following: 1) any notice received or action filed alleging the insolvency or bankruptcy of the Surety, 2) any notice received alleging any violations or regulatory requirements which could result in suspension or revocation of the Surety's license to do business, 3) the Principal has failed to renew or pay associated premiums causing the bond to lapse.

In the event the Surety becomes unable to fulfill its obligations under the bond for any reason, notice shall be given immediately to the Principal, <u>County of San Bernardino</u> (Name of LEAD AGENCY)

and the Department of Conservation, Division of Mine Reclamation.

Upon the incapacity of the Surety by reason of bankruptcy, insolvency, or suspension or revocation of its license, the Principal shall be deemed to be without bond coverage in violation of the Act, and subject to enforcement actions described in the Act.

IN WITNESS THEREOF, the Principal and Surety have hereunto set their signatures and seals as of the dates set forth below.

Date: 7/33/19	Valley Salt, LLC (Corporation - Repnittee [Principal])
(Corporate Seal)	By: (Signature of Corporate Officer) EVALC REDEVESED
	Typed or Printed Name
	Title: DIRECTOR OF OPERATIONS

\*This bond replaces and supersedes the previously issued bond on April 5, 2018 with the same bond number.

California Mine ID No.	91-36-0XXX	Reclamation Bond Corporation
Bond No.	1155195	Page 4 of 5
Permit No.	AP20190002	
Reclamation Plan Name/No.	Danby Dry Lake Sodium Lease / 2019M-000X	

and the second second

I declare, under penalty of perjury, under the laws of the State of California, that I have executed the foregoing bond under an unrevoked Power of Attorney.

		Lexon Insurance	Company			
		(Surety Compa	iny)			
	By:	Barbare 1	)m			
	1.00	(Signature of Attorney-in-Fact for Surety)				
(Seal)		Barbara Dur	ncan			
		Typed or Printe	ed Name			
	Title:	Attorney-in-Fact fo	or Surety			
			T 1 22 2010			
Executed in	Louisville, KY	on	July 23, 2019	under		
the laws of the S	(City and State) State of California.		(Date)			

Where one signs by virtue of a Power of Attorney for a Surety Company, such fully executed Power of Attorney must be filed with this bond.

Please identify the agent acting on behalf of the Surety who will accept notices, papers, and other documents, if applicable.

Agent:	Ryan Britt	Title: Producer
Address:	2307 River Rd Ste. 200	
Phone Number:	502-238-1236	Email Address: rbritt@smithmanus.com

\*This bond replaces and supersedes the previously issued bond on April 5, 2018 with the same bond number.

California Mine ID No.	91-36-0XXX
Bond No.	1155195
Permit No.	AP20190002
Reclamation Plan Name/No.	Danby Dry Lake Sodium Lease / 2019M-000X

## COMPLETED NOTORIZED ACKNOWLEDGMENT OF CORPORATION – PERMITTEE [PRINCIPAL] [Attach loose notarial certificate]

**Reclamation Bond Corporation** 

Page 5 of 5

## COMPLETED NOTARIZED ACKNOWLEDGMENT OF SURETY [Attach loose notarial certificate]

ACKNOWLEDGMENT PRINCIPAL
A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.
On <u>3/5/19</u> before me, <u>60, 19</u> <u>60, 100</u> (insert name and title of the officer)
personally appeared <u>ERCERCERSEN</u> , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.

A notary public or other officer completing this certificate verifies only the identity of the indivi	
who signed the document to which this certific attached, and not the truthfulness, accuracy, o validity of that document.	idual cate is
State of Kentucky	
County of Jefferson )	
subscribed to the within instrument and acknow	vidence to be the person(s) whose name(s) is/are ledged to me that he/she/they executed the same i y his/her/their signature(s) on the instrument the
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	he laws of the State of California that the foregoing
WITNESS my hand and official seal.	
	•
Signature assect f. Neictle	(Seal)

and the second second

### POWER OF ATTORNEY

# Lexon Insurance Company

KNOW ALL MEN BY THESE PRESENTS, that LEXON INSURANCE COMPANY, a Texas Corporation, with its statutory home office in Austin, Texas, does hereby constitute and appoint: Brook T. Smith, Raymond M. Hundley, Jason D. Cromwell, James H. Martin, Barbara Duncan, Sandra L. Fusinetti, Mark A. Guidry, Jill Kemp, Lynnette Long, Amy Meredith, Deborah Neichter, Theresa Pickerrell, Sheryon Quinn, Beth Frymire, Leigh McCarthy, Michael Dix, Susan Ritter its true and lawful Attorney(s)-In-Fact to make, execute, seal and deliver for, and on its behalf as surety, any and all bonds, undertakings or other writings obligatory in nature of a bond.

This authority is made under and by the authority of a resolution which was passed by the Board of Directors of LEXON INSURANCE COMPANY on the 1st day of July, 2003 as follows:

Resolved, that the President of the Company is hereby authorized to appoint and empower any representative of the Company or other person or persons as Attorney-In-Fact to execute on behalf of the Company any bonds, undertakings, policies, contracts of indemnity or other writings obligatory in nature of a bond not to exceed \$10,000,000.00, Ten Million Dollars, which the Company might execute through its duly elected officers, and affix the seal of the Company thereto. Any said execution of such documents by an Attorney-In-Fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company. Any Attorney-In-Fact, so appointed, may be removed for good cause and the authority so granted may be revoked as specified in the Power of Attorney.

Resolved, that the signature of the President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Assistant Secretary, and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power or certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certificate so executed and sealed shall, with respect to any bond of undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS THEREOF. LEXON INSURANCE COMPANY has caused this instrument to be signed by its President, and its Corporate Seal to be affixed this 22nd day of June, 2018.

LEXON INSURANCE COMPANY



N L O

Brian Beggs

BY

President

#### ACKNOWLEDGEMENT

On this 22nd day of June, 2018, before me, personally came Brian Beggs to me known, who be duly sworn, did depose and say that he is the President of LEXON INSURANCE COMPANY, the corporation described in and which executed the above instrument; that he executed said instrument on behalf of the corporation by authority of his office under the By-laws of said corporation.



AMY TAYLOR Notary Public- State of Tennessee Davidson County My Commission Expires 5-9-2023

Amy Taylor Notary Public

#### CERTIFICATE

I, the undersigned, Assistant Secretary of LEXON INSURANCE COMPANY, A Texas Insurance Company, DO HEREBY CERTIFY that the original Power of Attorney of which the forgoing is a true and correct copy, is in full force and effect and has not been revoked and the resolutions as set forth are now in force. 3rd Day of \_\_\_

Signed and Seal at Mount Juliet, Tennessee this 6



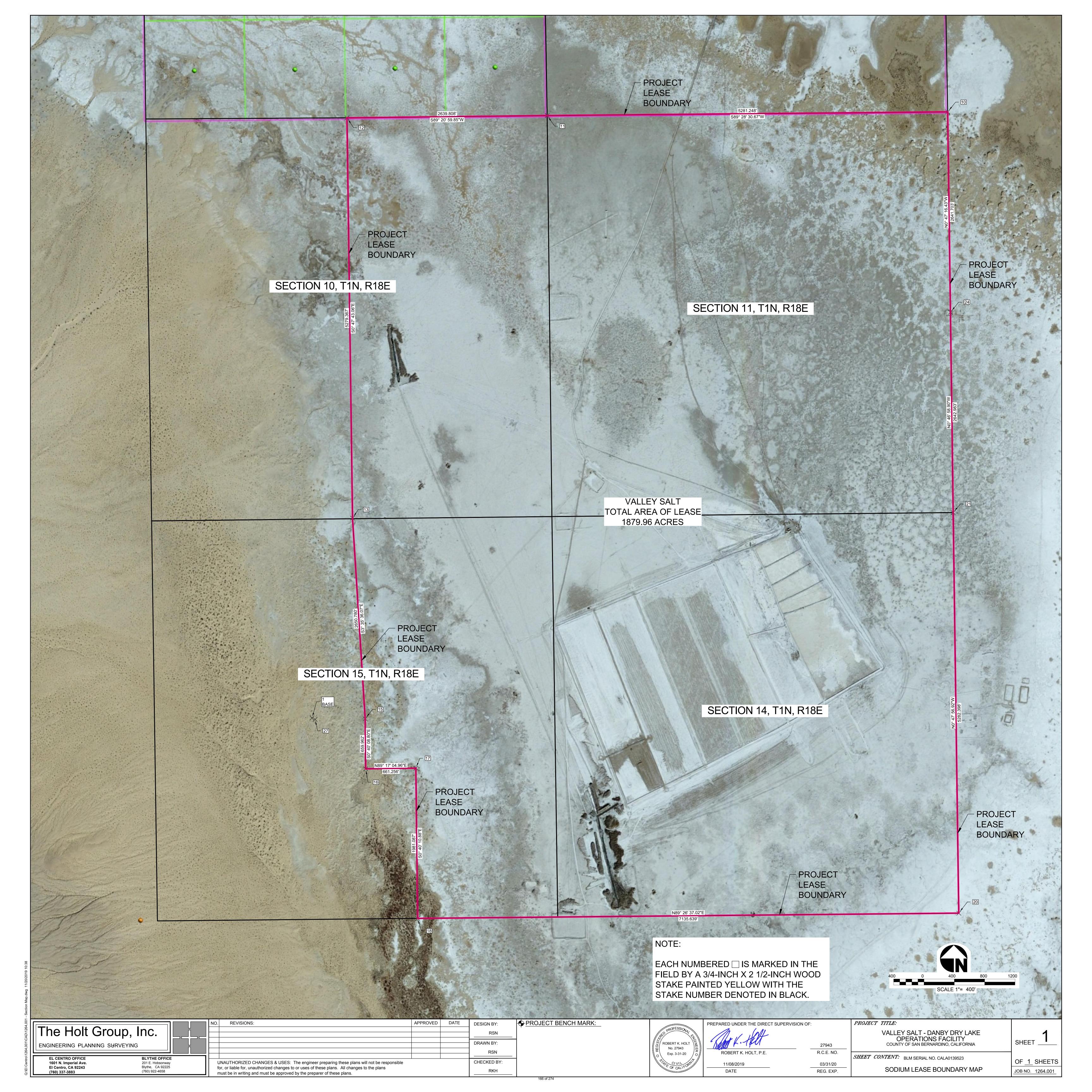
Andrew Smith

Assistant Secretary

"WARNING: Any person who knowingly and with intent to defraud any insurance company or other person, files and application for insurance of claim containing any materially false information, or conceals for the purpose of misleading, information concerning any fact material thereto, commits a fraudulent insurance act, which is a crime and subjects such person to criminal and civil penalties."

164 of 274

# APPENDIX G Valley Salt Sodium Lease Boundary Map Survey



# **EXHIBIT B**

# Initial Study/Mitigated Negative Declaration

# SAN BERNARDINO COUNTY INITIAL STUDY/MITIGATED NEGATIVE DECLARATION ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

## PROJECT LABEL:

APNs:	0646-041-08 (all), -09 (portion), -16 (portion), -17 (portion)	USGS Quad:	Danby Lake
Applicant:	Valley Salt, LLC	T, R, Section:	T1N, R18E, 10, 11, 14, 15
Location	Approximately 43 miles west of Parker, Arizona and 55 miles east of 29 Palms in southeastern San Bernardino County, California	Thomas Bros	Map E, San Bernardino and Riverside Counties (2013)
Project No:	PROJ-2020-00107	Community Plan:	N/A
Rep	Lilburn Corporation	LUC: Zone:	Resource/Land Management (RLM) Resource Conservation
Proposal:	Operation of a sodium or salt mine on 481 acres located entirely on BLM land for up to 51 years.	Overlays:	N/A

## **PROJECT CONTACT INFORMATION:**

Lead agency:	County of San Bernardino
	Land Use Services Department
	385 N. Arrowhead Avenue, 1 <sup>st</sup> Floor
	San Bernardino, CA 92415-0182

Contact person:	Reuben Arceo, Planner		
Phone No:	(909) 387-4387 Fax No:		(909) 387-3223
E-mail:	Reuben.Arceo@lu	s.sbcounty	.gov

## **PROJECT DESCRIPTION:**

## Summary

Valley Salt, LLC (Valley Salt) has submitted a Reclamation Plan for their Danby Dry Lake Sodium Lease (CALA 0 139523) mining and processing operations and reclamation on Bureau of Land Management (BLM) managed public lands in compliance with the California Surface Mining and Reclamation Act of 1975 (PRC Section 2710 et seq., "SMARA"). SMARA is implemented by the County of San Bernardino (County) through County Development Code Chapter 88.03. The County jurisdiction of the site is related to the Reclamation Plan, while the Bureau of Land Management (BLM) provides authorization for the operating and reclamation of the site.

The Danby Dry Lake lease area (Project Site) consists of 1,883 acres within the Danby Dry Lake. It is located approximately 43 miles west of Parker, Arizona and 55 miles east of 29 Palms in southeastern San Bernardino County, California (see Figure 1). The operations are located within

portions of Sections 10, 11, 14, and 15, Township 1 North, Range 18 East, San Bernardino Base and Meridian. The Project Site is located entirely on public lands under the management of the BLM through the Needles Field Office. Valley Salt has submitted a Mining and Reclamation Plan to the BLM Needles office per 43 CFR Parts 3590 – 3596 Solid Minerals (other than coal) Exploration and Mining Operations. The Project Site is leased from the Federal government under Sodium Lease (CALA 0 139523). The current 10-year lease is scheduled to expire on November 30, 2022. Valley Salt is requesting an operating life of <u>51</u> years; one year through the current expiration date and 50 years contingent on approval of five additional 10-year leases with the BLM. All disturbance will be within Federal lands leased by Valley Salt. Surrounding land uses consist of vacant Federal lands administered by the BLM within the eastern Mojave Desert.

Salt deposits of the Danby Playa have been known since the 1880s and have been mined off and on over the last century. Valley Salt obtained the current sodium lease number in 2009 and renewed it for 10 years in 2012 and is in process of renewing another 10-year lease. Numerous unimproved roads, evaporation ponds, trenches, and other historical workings exist onsite and adjacent to the lease area. Valley Salt conducted exploration in 2009 to determine potential brine production areas and has been conducting limited (unauthorized) sodium production activities over the past few years.

Valley Salt currently plans on utilizing a series of shallow pits, brine wells and ponds to produce salt from rock salt and solar evaporation of brines on approximately <u>481 acres</u> (mine site) within the lease area. The Project Site is currently zoned Resource Conservation within the land use category of Resource/Land Management (Countywide Policy Plan, November 2020). The site is accessed from State Route 62, 40 miles west from Parker, 10.5 miles northwest on Cadiz Road, and 1.5 miles to the project site on an unpaved road known as Salt Marsh Road (see Figure 2). The site is in the southern portion of Danby Dry Lake, a flat barren, sandy lake bed generally ranging from 600 to 615 feet above mean sea level (amsl).

## Rate of Production

Valley Salt is proposing to mine rock salt and evaporated salts at a start-up rate of approximately 50 tons/hour (tph), 500 tons/day (tpd) on 200 operating days per year, for a total of approximately **100,000 tons** per year (tpy). Depending on future product demand, Valley Salt is proposing to increase production to 120 tph, 1,200 tpd on 250 operating days per year, and 300,000 tpy. At the start-up rate and operating 200 days per year (10 hours/day), four days /week and with a truck capacity of 25 tons, approximately 20 trucks/day would transport material to markets; 2 trucks/hour. **At 300,000 tpy**, approximately 50 trucks/day would transport material to markets; 5 trucks/hour. Approximately 5 to up to 20 employees would work on-site, typically working 4 – 10-hour shifts, Monday through Thursday. As production increases, a second shift or additional day may be added and/or shipping may be conducted on additional days.

Valley Salt is proposing to mine the sodium resources utilizing solar evaportation ponds (solar salt) and excavation of rock salt. The Mining Plan is detailed on Figure 3. Table 1 lists the existing or start-up facilities and activities and the planned future facilities.

## Solar Salt

Evaporation ponds (approximately 10 to 20 acres each) will be constructed by pushing up and building berms out of native material (sand, dirt, and clay) around the ponds. The berms will be approximately 2 feet in height above grade and 2 feet below grade (for a total of 4 feet) and

approximately 15 feet wide at their base, 10 feet on its top with an access road on top, and with 2:1 slopes. The ponds will be lined with clay material within the pond excavation or brought

Start-Up and Proposed Mining Activities (approx. acres)			
Activities	Existing Start-Up (acres)	Planned (acres)	Total Acres
Evaporation Ponds	197 (not fully developed)	0	197
Shallow salt rock extraction pits	0	135 (includes existing 4 ac. of trenches)	135 (includes existing 4 ac. of trenches)
Trenches <sup>1</sup>	15 (4 ac. in NW to be reclaimed; 4 ac. in central area to be absorbed within new salt rock pits; 7 ac. to remain in plant area)	-(4) ac. (absorbed in salt rock pits)	11
Process Area with drying pads	41	22	63 (with trenches approx. 70 ac)
Roads, buffers, misc. areas	65	10 (5 acres to west to be reclaimed yr. 1)	75
Totals	318	163	481

# Table 1Valley Salt Danby Dry Lake Sodium LeaseStart-Up and Proposed Mining Activities (approx. acres)

Danby Dry Lake Reclamation Plan. Valley Salt June 2020.

Areas rounded to nearest whole acre.

1 - up to 110' wide (typ. 30'); excavated rock salt and native materials stockpiles on either side with protective berm; estimate up to 150-foot wide disturbance width. No new trenches are planned.

The ponds will be filled with brine from the existing trenches and production wells to a depth of approximately 12" to 24" to facilitate evaporation. Heavy equipment (dozers, loaders, excavators, dump trucks, belly scraper, etc.) will be used to construct the ponds.

Water wells will be drilled to access brine water to be pumped into the trench or directly into the ponds or used in the production process for washing of rock salt materials and dust control (adds moisture to material if needed). There are six existing operable wells; 3 to 4 in production as needed. The wells are approximately 100 feet deep with an 8-inch diameter perforated pipe. An additional seven wells are conceptually sited on the mine plan basically around the outside border of the ponds. The clay-lined ponds will be filled to a constant depth of 12" to 24" of brine. The sun and wind will evaporate the water and cause it to become more concentrated brine. Once the brine reaches 100% concentration it will be pumped out of the concentration pond and into a neighboring grow pond. Once in the grow pond, the water will remain there until evaporation occurs leaving solar salt that will be harvested with heavy equipment (scrapers, dozers, and loaders). Depending on the amount of moisture in the salt, some salt will be laid out onto drying pads consisting of 5 to 10 acres (size may vary) in the southwest corner of the mine site.

It is estimated that operations will use approximately 1,000 gallons per minute (gpm) of water (brine not fresh water) during production. Water will be drawn from the existing trenches but

mainly from the on-site brine production water wells. This water will also be used to wash the raw rock salt to remove the dirt and leave the sodium. No other substances or chemicals will be introduced into the raw minerals or water. No chemicals are used in the production process.

## Rock Salt

The expansion area north and west of the existing ponds will be excavated in shallow pits for the removal of rock salt. Rock salt typically ranges from 1-foot to 10 feet thick (typically 5 feet). The pits will be excavated to a depth of up to 10 feet or typically less depending on the thickness of the available rock salt. Side slopes will be less steep than 3H:1V. The rock salt pits will be extracted with heavy equipment and trucked to the processing area in the southwest portion of the site for crushing, screening, and washing as needed. Any overburden will be used for small safety berms around the pits as needed or simply backfilled behind the ongoing mining. Approximately 20% of the rock salt excavated is not usable for product and will be backfilled into the shallow pits to reduce slopes or used for roads or berms as needed. After completion and removal of rock salt from the shallow pits, they may be converted for use as solar evaporation ponds. As needed, the pits will be partially backfilled with available overburden, graded level, covered with a layer of clay and salts, and then filled with saline water for the production of evaporative salts.

## Salt Processing

The portable process or production plant consists of a typical series of crushers (2), screens (4), and conveyors and stackers (17 - 20; currently a smaller configuration is being used) to crush and size the salt product to desired sizes based on customer demands. The plant is currently powered by two 838 bhp generators and two small generators less than 50 bhp each power the residential trailers and other miscellaneous needs. Additional generators may be needed in the future and the BLM and County will be notified if additional units are brought on-site.

Raw rock salt is stockpiled on approx. 0.5 acres at the process plant feeder area. The production process of raw rock salt is first to screen it through a grizzly hopper sizing it to 4" minus sizes, and screening as much of the dirt and clay off the rock salt; then sending it through a jaw crusher to size it to  $\frac{3}{4}$ " minus. The material then runs through a coarse wash to knock off the big dirt pieces and then to a sand screw wash to clean it even more; and then through a final spray wash to rinse it for the last time. Brine water from the wells and existing trenches are used for the washing process and recycled back into the trenches and ponds. Most of the processed rock salt will go into large conical storage piles at the end of the radial stacker. The rock salt storage piles could be up to 50 feet high and cover approximately one acre depending on product demand. Some finer product is conveyed to and stored in storage structures made up of concrete block sides and polyethylene covers approximately 70 feet x 40 feet each.

Some of the processed rock salt at the end of the radial stacker as well as solar salt harvested from the ponds will be further processed by drying the salt in a rolling drum using ambient air only (no heated drum). After the salt is dried, it will be crushed in a roll crusher to size it smaller than <sup>3</sup>/<sub>4</sub>", then it will go through a final screen and placed into covered storage structures according to size specs.

The salt will be loaded by loaders onto commercial street-legal 25-ton haul trucks (typical) for transportation to the customers' location. Once the trucks traverse unpaved routes to be determined from the plant site to paved CA State Route 62 (SR-62), trucks will travel east to

US 95, then north to Las Vegas area or southeast to Phoenix area; or west to SR 177 to I-10 to customers in southern California.

## Air Quality and Dust

All stationary equipment and the generators will comply with Mojave Desert Air Quality Management District (MDAQMD) rules and regulations and all necessary permits will be obtained prior to operation. Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system" (Permit #B013098) and for two diesel powered generators rated at 838 brakehorse power each (bhp) (Permit #s B13412 a& B13413) and two small diesel generators to power the living quarters (<50 bhp). The crushing/screening/drying system is conditioned under its air quality permit to limit production to not exceed 300,000 tons/year.

Haul trucks and diesel heavy equipment will meet requirements of the California Air Resources Board's (CARB) off-road diesel vehicles regulations to reduce diesel pollutants. Operations are required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requires requirements for controlling fugitive dust). Water sprays and dust containment measures such as enclosures are required to control emissions. One to two water trucks will water spray the roads with brine and add salt gravel as needed to control dust. The salt water will act as a natural dust suppressant that is more effective than fresh water.

Most equipment will run on diesel fuel and electricity. Power will be produced by diesel fueled generators. Diesel fuel will be stored in a 10,000-gallon above-ground tank situated on an impervious concrete pad with 2-foot high catchment berms in case of a spill to contain the contents of the tank. The tank will be approximately 8 feet in diameter and 32 feet long (typical). A small portable gasoline tank will also be used onsite (approximately 240-gallon tank) along with 2-portable diesel double walled tanks. Fuel will be transferred to the site by tanker trucks. Equipment maintenance will be done onsite. Waste oil, lubricants and solvents will be removed from the site and disposed of at permitted facilities.

## Public Safety

The mining of the rock salt and harvesting of the solar evaporated salt does not produce any hazardous waste. Any overburden material consisting of clays, sands, or other native materials will be used to construct the 4-foot high berms between the solar ponds, other road maintenance as needed, and for protective berms along the open trenches. Any remaining waste (overburden or non-spec salt materials) will be backfilled into the pits, trenches and pond areas when no longer needed. At the completion of operations, natural materials (not hazardous waste) or overburden materials will be graded into the pits and ponds to safe grades.

Access roads to the site will be posted with signs informing the public of mine truck traffic and that they are entering a mining area with no trespassing allowed. Perimeter signs around the approved surface mine boundary shall be installed as shown on plan and shall read in English and Spanish "Active Mine Area, Keep Out" and "No Trespassing." The open trenches will be surrounded with protective berms of at least 4 feet in height and 8 feet at their base to limit access by the public and wildlife. The existing trenches to the northwest will be backfilled and reclaimed within the first year after project approval. Warning signs will be placed every 300 feet along the berm and on any access roads leading on-site and along open trenches. No other openings or exist are proposed.

## <u>Cleanup</u>

At the completion of mining activities, all equipment, wells, and structures will be removed within two years. Surface material in all compacted working areas, stockpile, and processing areas will be loosened by mechanical means. All debris will be removed and disposed at a permitted facility. The pits, ponds and trenches will be backfilled with their surrounding berm material and the area graded level to as close to existing elevations as possible with available material leaving no unsafe slopes so that the public and wildlife would not be injured if they were to traverse the area.

Upon final reclamation, all on-site wells will be closed or destroyed in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife. In addition, all underground or buried pipes and wiring will be removed and disposed of properly and any trenches will be back filled to grade.

## Surrounding Land Uses and Setting

The Project Site is surrounded by vacant, open desert lands. Metropolitan Water District of Southern California's (MWD) Iron Mtn. Pumping Station and Colorado River Aqueduct are located about 3.5 miles to the southwest. The BLM has prepared and approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the Desert Renewable Energy Conservation Plan (DRECP). The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC)
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area (defined as "These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas."

Note that the original Mine and Reclamation Plan (and the survey areas for the biological and cultural resources) included two optional alternative access routes to the east and south and a planned 80-acre clay borrow pit to the northeast of the ponds. These features have been eliminated from the current Mine and Reclamation Plan. A number of potential impacts to desert tortoise habitat and migratory birds were evaluated for these areas and the BLM and applicant determined to avoid these areas in the current project description. In addition, the potential new access roads to the east and south could affect the DRECP Chuckwalla-Chemehuevi Tortoise Linkage ACEC. In order to avoid mainly additional biological impacts, the current project stays within its BLM salt lease area in the dry lake bed and is within the DRECP designated "High Potential Mineral Area." (defined as "These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP

maps, recognized as probable future development areas for planning purposes and allowable use areas.")

Existing Land Use and Land Use Category (Countywide Policy Plan 2020)			
Location	Existing Land Use	Land Use Category	Zoning
Project Site	Undeveloped and Vacant	Resource/Land Management (RLM)	Resource Conservation (RC)
North	Undeveloped and Vacant	Resource/Land Management	Resource Conservation
South	Undeveloped and Vacant	Resource/Land Management	Resource Conservation
East	Undeveloped and Vacant	Resource/Land Management	Resource Conservation
West	Undeveloped and Vacant	Resource/Land Management	Resource Conservation

## Project Site Location, Existing Site Land Uses and Conditions

The Project Site is located in a remote vacant area of southeastern San Bernardino County, 55 miles east of Twentynine Palms, 50 miles northwest of Blythe, and 53 miles southwest of Needles. It consists almost entirely of undeveloped open space, occupying flat to gently-sloped terrain comprised of unvegetated dry lakebed (Danby Playa) surrounded by sparsely-vegetated sand dunes. Most of the Project Site is relatively undisturbed, with disturbances on site consisting primarily of the existing mining operations, which include ponds, trenches, unpaved access roads, temporary structures, equipment, and material stockpiles.

## ADDITIONAL APPROVAL POTENTIALLY EQUIRED BY OTHER PUBLIC AGENCIES

Federal: BLM Mine and Reclamation Plan43 CFR 3590 regulations

State of California: California Dept. of Fish and Wildlife 1602 Lafe Alteration Agreement (if applicable)

<u>County of San Bernardino</u>: Land Use Services Department-Building and Safety, Public Health-Environmental Health Services and Public Works.

Regional: Mojave Desert Air Quality Management District.

Local: None

## CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentially, etc.?

On January 15, 2021, the County of San Bernardino mailed notification pursuant to AB52 to the following tribes: Colorado River Indian Tribes, San Gabriel Band of Mission Indians, Twenty-Nine Palms Band of Mission Indians, Fort Mojave Indian Tribe, Morongo Band of Mission Indians, Soboba Band of Luiseno Indians, and San Manuel Band of Mission Indians. Requests for consultations were due to the County by February 15, 2021. The table below shows a summary of comments and responses.

Tribe	Comment Letter Received	Summary of Response	Conclusion
San Manuel Band of Mission Indians	February 15, 2021	Proposed Project is located outside of Serrano ancestral territory	No request for consultation.
Fort Mojave Indian Tribe (AhaMakav Cultural Society)	February 8, 2021	Requested consultation	Consultation ongoing

## AB 52 Consultation Danby Dry Lake Sodium Mine

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

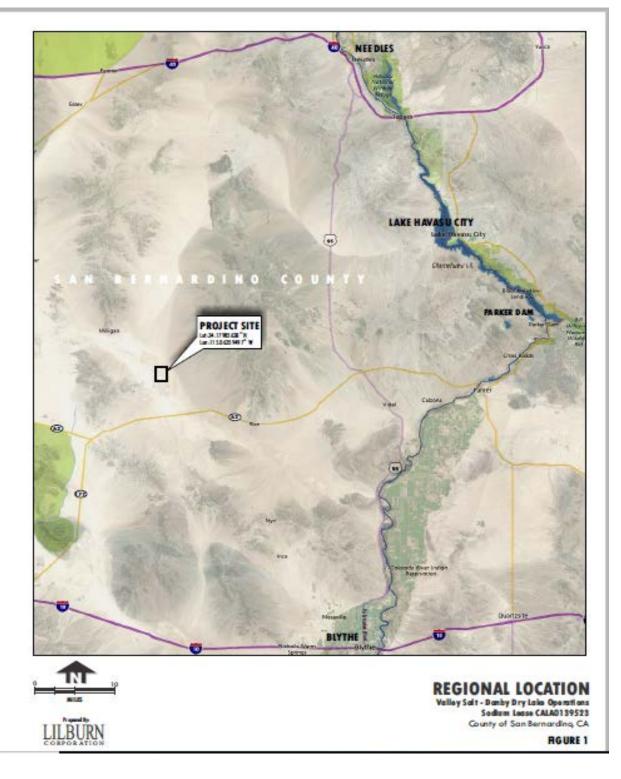


Figure 1 Regional Map

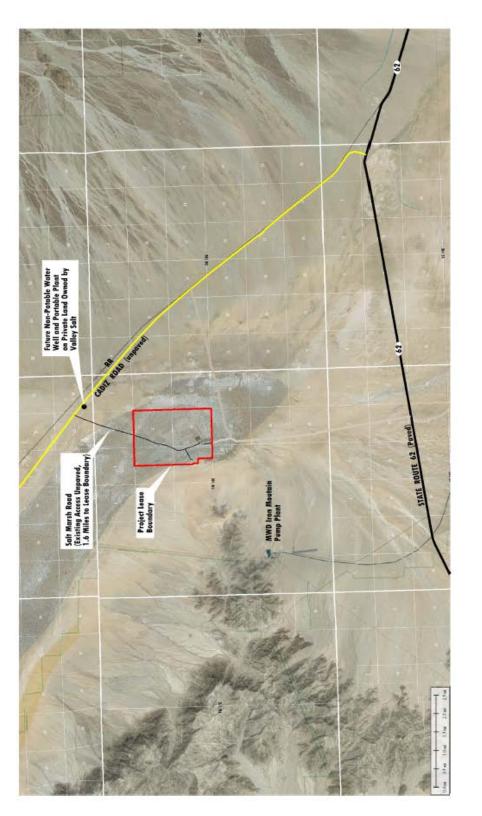
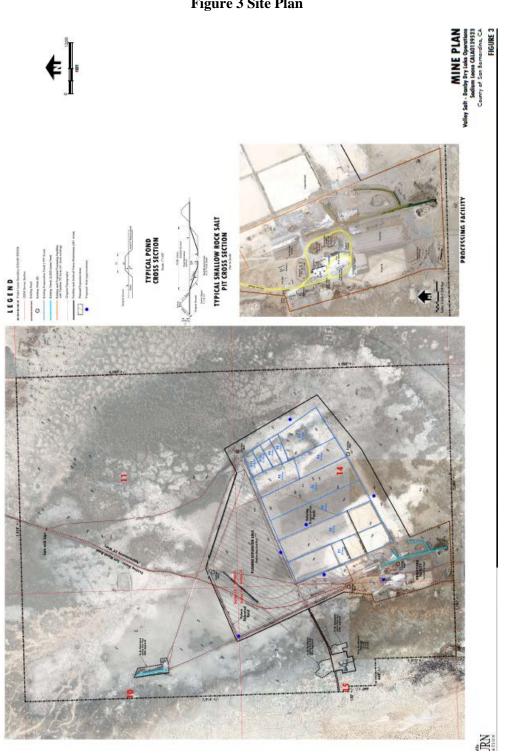


Figure 2 Vicinity Map



PROJECT VICINITY and ACCESS ROAD Valley Sat- Danly Dry Lake Operations Solumi Lease CUA01 39223 County of San Barnardina, CA FIGURE 2



## **EVALUATION FORMAT**

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based on its effect on 20 major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially	Less than Significant	Less than	No
Significant Impact	With Mitigation Incorporated	Significant	Impact

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

- 1. **No Impact**: No impacts are identified or anticipated, and no mitigation measures are required.
- 2. Less than Significant Impact: No significant adverse impacts are identified or anticipated, and no mitigation measures are required.
- 3. Less than Significant Impact with Mitigation Incorporated: Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List of mitigation measures)
- 4. **Potentially Significant Impact**: Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (List of the impacts requiring analysis within the EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

Aesthetics	Agriculture and Forestry Resources	<u>Air Quality</u>
Biological Resources	Cultural Resources	<u>Energy</u>
<u>Geology/Soils</u> <u>Hydrology/Water Quality</u>	<u>Greenhouse Gas</u> <u>Emissions</u> Land Use/Planning	<u>Hazards &amp; Hazardous</u> <u>Materials</u> Mineral Resources
<u>Noise</u>	Population/Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities/Service Systems	<u>Wildfire</u>	<u>Mandatory Findings of</u> Significance

**DETERMINATION:** Based on this initial evaluation, the following finding is made:

	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.
$\boxtimes$	Although the proposed project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared.
	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Reuben J. Arceo

Signature: (Reuben Arceo, Planner)

David Prusch

Signature: (David Prusch, Supervising Planner)

April 13, 2021 Date

April 13, 2021 Date

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
I.	<b>AESTHETICS</b> – Except as provided in Public I the project:	Resources	Code Section	on 21099,	would
a)	Have a substantial adverse effect on a scenic vista?			$\boxtimes$	
b)	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d)	Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?			$\square$	

**SUBSTANTIATION:** (Check if project is located within the view-shed of any Scenic Route listed in the Countywide Policy Plan):

San Bernardino Countywide Policy Plan 2020; San Bernardino Countywide Policy Plan EIR; San Bernardino County Development Code; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Have a substantial adverse effect on a scenic vista?

The eastern Mojave Desert region has numerous scenic vistas, including views across desert landscapes, toward mountains and ridgelines, and toward rock formations and outcroppings. There are no designated scenic vistas. The Project Site is surrounded by undeveloped and vacant land on all sides. The MWD Iron Mountain Pumping Station and Colorado River Aqueduct are located about 3.5 miles to the southwest and SR-62, a County Scenic Route and eligible State scenic highway is located 5 miles south.

Salt operations have been conducted on the lakebed for many decades and consist of flat drying ponds and just a few small structures that are unobservable from a distance. In addition, due to the remoteness of the area, most lands being under Federal land management, lack of public access to area, and no substantial changes in development

patterns, views across desert landscapes and toward topographic features will largely be unaffected.

The Project Site is zoned Resource Conservation (RC). Furthermore, the Proposed Project is the implementation of site reclamation which requires removal of all equipment and facilities and the backfilling of trenches and ponds to grade to blend with the surrounding areas. Therefore, the Proposed Project would not have a substantial adverse effect on a scenic vista and less than significant impacts are identified or anticipated. No mitigation measures are required.

# Less Than Significant Impact

b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project Site is located approximately five miles north of SR-62, a County designated scenic route and an Eligible State Scenic Highway but is not officially designated.<sup>1</sup> The project site is not visible from SR-62. The nearest Officially Designated State Scenic Highway is State Route 38, located approximately 95 miles west of the Project Site. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

# No Impact

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The Project Site is surrounded by vacant and undeveloped land. The mine site is not viewed by significant numbers of viewers or visible from any prominent viewpoints as the site is very remote. No residences or recreational areas are in the area. The operations would not be visible from SR-62. Visible impacts are limited to facilities on the site and the ponds. The eventual reclamation of the site will remove all equipment and facilities and fill the ponds to grade and the pits as feasible to blend with the surrounding areas. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

# Less Than Significant Impact

<sup>&</sup>lt;sup>1</sup> San Bernardino County. San Bernardino Countywide Policy Plan Draft EIR. Figure 5.1-1. Accessed February 1, 2021.

d) Create a new source of substantial light or glare, which will adversely affect day or nighttime views in the area?

The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area as any light sources shall comply with the requirements outlined by County Development Code Section 83.07.040, Glare and Outdoor Lighting – Mountain & Desert Regions. This includes fully shielding lights as required to preclude light pollution or light trespass on adjacent property, other property (directly or reflected), and members of the public on adjacent roads. With adherence to existing regulations, less than significant impacts are identified or anticipated, and no mitigation measures are required.

# Less Than Significant Impact

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

		Potentially	Less than	Less than	No
	Issues	Significant	Significant	Significant	Impact
		Impact	with		
			Mitigation		
			Incorporated		
<b>II</b> .	AGRICULTURE AND FORESTRY RESOU	RCES - In de	termining w	hether imp	acts to
	agricultural resources are significant environ	mental effect	s, lead ager	ncies may r	efer to
	the California Agricultural Land Evaluation ar	nd Site Assess	sment Mode	el (1997) pro	epared
	by the California Dept. of Conservation as an			· / ·	
	on agriculture and farmland. In determini			•	
	0	0			
	including timberland, are significant environ		· •	-	
	information compiled by the California De	partment of I	Forestry an	d Fire Pro	tection
	regarding the state's inventory of forest	land, includ	ing the Fo	orest and	Range
	Assessment Project and the Forest Legac	y Assessmer	nt project; a	and forest	carbon

measurement methodology provided in Forest Protocols adopted by the California Air

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
  b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)),

Resources Board. Would the project:

	$\boxtimes$
	$\boxtimes$

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

	timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?		
d)	Result in the loss of forest land or conversion of forest land to non-forest use?		$\boxtimes$
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?		$\boxtimes$

**SUBSTANTIATION:** (Check ] if project is located in the Important Farmlands Overlay):

Countywide Policy Plan; California Department of Conservation Farmland Mapping and Monitoring Program; San Bernardino County Agricultural Resources GIS Map; Submitted Project Materials

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The Department of Conservation's Farmland Mapping and Monitoring Program does not identify the Project Site as "Prime Farmland, Unique Farmland, or Farmland of Statewide Importance" in its California Important Farmland Finder (April 2019). No prime farmland, unique farmland, or farmland of statewide importance occurs at the Project Site or within the immediate vicinity.<sup>2</sup> The Proposed Project would not convert farmland to a non-agricultural use. No impacts are identified or are anticipated, and no mitigation measures are required.

# No Impact

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project Site is not under or adjacent to any lands under a Williamson Contract.<sup>34</sup> It has a current zoning of Resource Conservation. The Proposed Project would be consistent with the Countywide Plan and would not conflict with existing zoning for agricultural uses or a Williamson Contract. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

# No Impact

<sup>&</sup>lt;sup>2</sup> San Bernardino County. San Bernardino Countywide Plan Draft EIR. Figure 5.2-1 "Agricultural Resources." Accessed November 11, 2020.

<sup>&</sup>lt;sup>3</sup> San Bernardino County. San Bernardino Countywide Plan Draft EIR. Figure 5.2-1 "Agricultural Resources." Accessed November 6, 2020.

<sup>&</sup>lt;sup>4</sup> <u>https://www.arcgis.com/apps/webappviewer/index.html?id=fcb9bc427d2a4c5a981f97547a0e3688</u>. Accessed March 24, 2020.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Project Site is currently zoned Resource Conservation. Implementation of the Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned for Timberland Production. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

# No Impact

d) Result in the loss of forest land or conversion of forest land to non-forest use?

The Project Site is located on the barren Danby Dry Lake bed and does not support forest land. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

#### **No Impact**

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The Project Site is located on the barren Danby Dry Lake bed. Implementation of the Proposed Project would not result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

# No impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
111.	<b>AIR QUALITY -</b> Where available, the significant air quality management district or air pollution or make the following determinations. Would the provide the pollowing determination of t	ontrol distric			
a)	Conflict with or obstruct implementation of the applicable air quality plan?				
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an			$\boxtimes$	

Danby	Study PROJ-2020-00107 Dry Lake Sodium Mine )646-041-080 2021					
	applicable federal or state ambient air quality standard?					
c)	Expose sensitive receptors to substantial pollutant concentrations?				$\boxtimes$	
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?					
SU	SUBSTANTIATION: (Discuss conformity with the Mojave Desert Air Quality Management					

Plan, if applicable):

# Countywide Policy Plan; Submitted Project Materials

a) Conflict with or obstruct implementation of the applicable air quality plan?

The Project site is within the jurisdiction of the MDAQMD and is located in the Mojave Desert Air Basin (MDAB). The Air Quality Management Plan (AQMP) and attainment plans provide programs for obtaining attainment status for key monitored air pollution standards, based on existing and future air pollution emissions resulting from employment and residential growth projections. These plans are developed using input from various agencies' General Plans and other projections for population and employment growth. The MDAP is nonattainment for Federal and State  $PM_{10}$  and for State ozone. Equipment usage would result in emissions of  $PM_{10}$  and ozone precursors, including NO<sub>x</sub> and volatile organic compounds (VOC) or reactive organic compounds (ROG).

The MDAQMD has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project's emissions could pose a significant threat to air quality, the MDAQMD has published its Air Quality Rule Book. The proposed project is located in a remote location and will not increase population or urban development (growth). Operations and equipment will comply with these rules to limit exhaust and dust emissions. The exhaust air and dust emissions from operations and reclamation were evaluated and compared to the MDAQMD standards. Annual criteria emission increases are below the MDAQMD CEQA thresholds.

Therefore, the Proposed Project would not significantly increase local air emissions or cause urban or population growth and therefore would not conflict with or obstruct implementation of the plan. Therefore, less than significant impacts are identified or are anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?

The Proposed Project was screened for emission generation by Lilburn Corporation using the latest emission factors from the following sources:

- MDAQMD's "Emissions Inventory Guidance for Mineral Handling and Processing Industries" (April 2000);
- CARB EMFAC2017 Emission Rates;
- SCAQMD "Air Quality Handbook" as updated (2019);
- SCAQMD and the California Emissions Estimator Model (CalEEMOD) Off-Road Mobile Source Emissions Factors;
- EPA's AP-42 Section 13.2.2 unpaved roads (November 2006);
- SCAQMD Particulate Matter Emission Factors (July 2010); and
- CARB Carl Moyer Program Guidelines for In-Use Off-Road Diesel-Fueled Emissions (2017).

The criteria pollutants screened for included: reactive organic gases (ROG), nitrous oxides (NOx), carbon monoxide (CO), and particulates (PM10 and PM2.5), both exhaust and fugitive dust. Typical daily and annual operations were screened and emissions estimated for the equipment listed in Table 2.

#### **Stationary Emission Sources**

The rock salt is crushed and screened by a portable process or production plant consisting of a series of crushers (2), screens (4), and conveyors and stackers (up to 17 - 20) down to desired sizes based on customer demands. The plant is powered by a series of two 838 bhp generators and two small generators less than 50 bhp each power employee trailers and other miscellaneous needs.

All stationary equipment and the generators will comply with MDAQMD rules and regulations and all necessary permits will be obtained prior to operation. Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system" (Permit #B013098) and for two diesel powered generators rated at 838 bhp each (Permit #s B13412 & B13413) and two small diesel generators to power the living quarters (<50 bhp). The crushing/screening/drying system is conditioned under its air quality permit to limit production to not exceed 300,000 tons/year.

#### Mobile Equipment Exhaust Emissions

Mobile pollutant sources are regulated at the state level by CARB, not through the MDAQMD or local counties. Diesel truck exhaust has been the focus of recent studies. The CARB implements a comprehensive Diesel Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan reduced diesel PM emissions and the associated risk by 75 percent in 2010 and 85 percent or more by 2020.

The operations, the production rates, and hauling plans are listed below for the proposed project conditions:

• Salt Production – up to 300,000 tons/year; rock salt 200,000 tons/year; evaporative salt 100,000 tons/year (depending on demand).

- Hours of Operation 1 shift; 8- 10 hours/day, up to 250 days/year; equipment hours vary, depending on demand.
- Salt is transported by off-road 40-ton capacity haul trucks directly to the process plant 0.5 miles to southwest of quarry 250 days/year; up to 20 truck-trips/day.
- Portable plant with one crusher, two to three screens, and 10 20 conveyors (typical; plant configuration will vary); permitted through MDAQMD (PTO#B013098)
- Haul trucks and diesel equipment must meet requirements of CARB off-road diesel vehicles regulation and fleet averaging requirements to reduce diesel pollutants.

# **Fugitive Dust**

Fugitive dust is generated by other activities onsite including dozing, grading, loading, hauling, and dumping rock salt, and wind erosion of active mine and operations areas, and stockpiles. Dust equations in EPA AP-42, the MDAQMD Guidance Handbook, and/or the SCAQMD guidelines were utilized to estimate dust emissions which are included in Table 2. Existing dust control measures must be in compliance with MDAQMD Rules 401 (limit visible emissions); 402 (avoid nuisance emissions to people or businesses or property); and 403 (updated October 2020), which requires the owner/operator of a mining facility to implement Best Available Control Measures (BACM) to reduce PM<sub>10</sub> entrained in the ambient air and to meet air quality standards.

The dust control requirements for mining facilities are listed in Rule 403 (C)(8) and are required to be in place and operative with approval and periodic monitoring by MDAQMD and the operator ensuring that the standards are met. Rule 403 requires that the operator obtain and implement a District-approved Dust Control Plan which includes control measures to prevent, mitigate, or reduce fugitive dust. The principal dust control measures are the spreading of salt materials which is a natural dust palliative, and water spraying of roads, operational mine and plant quarry areas, and active overburden stockpiles as needed. Water trucks are available for use on-site and use the brine water from on-site wells and/or recycled water from the salt washing plants.

#### Air Quality Assessment

Table 2 summarizes the total emissions for the planned operations as compared to CEQA thresholds. As shown in Table 2, the total project emissions would not exceed MDAQMD thresholds, therefore, air quality impacts will be less than significant with implementation of MDAQMD rules and regulations.

#### Compliance with MDAQMD Regulation II and Rules 402 and 403

Although the Proposed Project does not exceed MDAQMD thresholds, the Applicant is required to comply with all applicable MDAQMD rules and regulations as the MDAB is in non-attainment status for ozone and suspended particulates (PM<sub>10</sub> and PM<sub>2.5</sub> (state)). The Proposed Project shall comply with Regulation II which requires the Applicant to obtain and maintain a Permit to Operate the proposed crush/screening plant and power generators. To limit dust production, the operator must comply with Rules 402 nuisance and 403 fugitive dust, which require the implementation of BACM for fugitive dust sources.

Estimated Annual Maximum Air Pollutant Emissions (tons/year)							
	ROG	NO <sub>x</sub>	СО	$PM_{10}$	PM <sub>2.5</sub>		
EMISSIONS SOURCES	Planned Operations (tons/year)	Planned Operations (tons/year)	Planned Operations (tons/year)	Planned Operations (tons/year)	Planned Operations (tons/year)		
Mobile Equip. and Off-road Trucks (Exhaust)	1.12	6.73	5.66	0.28	0.26		
Portable Generators	0.34	7.36	8.34	0.10	0.09		
Off -Site Haul Trucks & employee	0.05	0.98	0.32	0.02	0.02		
Processing Plant Fugitive Dust				0.24	0.05		
Fugitive Dust (onsite operations)				3.39	0.69		
Emission Totals (tons/year)	1.51	15.07	14.32	4.03	1.11		
MDAQMD CEQA Thresholds	25	25	100	15	15		
Significant	No	No	No	No	No		

Table 2
Danby Lake Salt Operations
Estimated Annual Maximum Air Pollutant Emissions (tons/year

Source: Air Quality and GHG Emission Tables and Estimates, Lilburn Corporation 2021

Exhaust emissions from vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces, would increase  $NO_X$  and  $PM_{10}$  levels in the area. Although the Proposed Project would not exceed MDAQMD thresholds during operations, the operator is required to implement the following conditions as required by MDAQMD:

- 1. All equipment used for mining and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.
- 2. The operator shall maintain and effectively utilize and schedule on-site equipment and on-site and off-site haul trucks in order to minimize exhaust emissions from truck idling.
- The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.
- 4. The salt processing plant shall annually renew permits to operate from the MDAQMD and be in compliance with such permits.

MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for all diesel fueled engines, trucks, and equipment with the statewide CARB Diesel Reduction Plan. These measures will be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines.

Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

c) Expose sensitive receptors to substantial pollutant concentrations?

The Proposed Project is located in a remote area of San Bernardino County with no residences or recreational areas in the vicinity. No sensitive receptors are located within the project vicinity. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

The Proposed Project is the mining and processing operations and reclamation of a sodium mine. The generation of objectionable odors is typically not associated with surface mining operations and there are no sensitive receptors within the project vicinity. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
IV.	<b>BIOLOGICAL RESOURCES -</b> Would the project	[.			
a)	Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California				

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

Department of Fish and Wildlife or US Fish and Wildlife Service?

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

ot .) al			
e or of			
es e			$\boxtimes$
d y		$\boxtimes$	

**SUBSTANTIATION:** (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ]):

Countywide Policy Plan; Submitted Project Materials; Biological Resources Assessment,

a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

A Biological Resources Assessment (BRA) and protocol-level desert tortoise (*Gopherus agassizii*) surveys was prepared for the Proposed Project by Jericho Systems, Inc. The purpose was to address potential effects of the Project to designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW [formerly California Department of Fish and Game]) and/or the California Native Plant Society (CNPS).

Note that the BRA survey included two optional alternative access routes to the east and south and a planned 80-acre clay borrow pit to the northeast of the ponds that have been eliminated from the current Mine and Reclamation Plan. A number of potential impacts to desert tortoise habitat and migratory birds were evaluated for these areas and the BLM and applicant determined to avoid these areas in the current project

description. In addition, the potential new access roads to the east and south could affect the DRECP Chuckwalla-Chemehuevi Tortoise Linkage ACEC. The current project stays within its BLM salt lease area and is within the DRECP designated "High Potential Mineral Area." (defined as "These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas.")

Data regarding biological resources on the Project Site were obtained through literature review and field investigations. Prior to performing the surveys, available databases and documentation relevant to the Project Site were reviewed for documented occurrences of sensitive species in the area. The Project Site including the proposed access road alternatives, is situated within the *Danby Lake, Sablon* and *East of Granite Pass* USGS 7.5-minute Series Quadrangles. The U.S. Fish and Wildlife Service (USFWS) threatened and endangered species occurrence data overlay and the most recent versions of the California Natural Diversity Database (CNDDB) and California Native Plant Society Electronic Inventory (CNPSEI) databases were searched for sensitive species data on the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads.

Danby Playa is an approximately 9-mile-long by 2.5-mile-wide (covering roughly 28 square miles) dry lake or playa that is situated in the Ward Valley between the Old Woman Mountains in the northwest, by the Iron Mountains in the southwest and by the Turtle Mountains in the northeast, in the eastern Mojave Desert. The Valley Salt lease area covers roughly 4.5 square miles on the southeast part of the Playa where it trends roughly north-south. The playa surface of Danby Playa is about 630 feet above mean sea level (amsl). Habitat within the Project site consists primarily of dry lakebed or playa (Danby Playa) surrounded by *Larrea tridentata* Shrubland Alliance (creosote bush scrub) and *Atriplex polycarpa* Shrubland Alliance (allscale scrub) habitats.

<u>Special Status Plants</u> – The site is devoid of vegetation and no sensitive plant species occur on-site.

<u>Special Status Wildlife</u> - The only State- and/or federally-listed wildlife species documented within the quads is the State- and federally-listed threatened desert tortoise. No State- and/or federally-listed threatened or endangered species were observed on-site during the field survey. The Project Site consists of undeveloped open space adjacent to existing mining operations, surrounded by open space. Situated within Danby Playa, the Project Site and existing access road are entirely within unvegetated playa that does not contain habitat suitable for any of the sensitive species known or expected to occur within the general vicinity.

Focused protocol-level desert tortoise surveys were conducted within the entire Project Site, wherever there was potentially suitable desert tortoise habitat present (i.e. creosote bush scrub and/or allscale scrub habitats). No desert tortoise individuals or signs were detected within the survey area during the protocol desert tortoise survey. Therefore, desert tortoise is considered absent from the Project Site. Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat.

The dry lake beds in the Mojave Desert are known to be potential habitat for several crustaceans. Fairy shrimp (Order Anostraca), tadpole shrimp (Order Notostraca), water fleas (Order Cladocera) and clam shrimp (Order Conchostraca) comprise the four living groups of crustaceans within the Branchiopoda class. Most branchiopods live in fresh or brackish (slightly salty) water and a few are found in marine habitats. Many are found exclusively in temporary ponds, where their eggs survive long periods of drought, and are often one of the dominant organisms inhabiting the flat, internally-drained, and generally low-elevation playas of the arid basins in the deserts of the southwestern United States (Brostoff et al 2010). Several members of these groups of crustaceans are considered sensitive by the resource agencies including eight species documented in the CNDDB that are State and/or federally-listed as threatened or endangered.

Per the CNDDB, there are no State- or federally listed sensitive branchiopod species documented within the *Danby Lake, Sablon, East of Granite Pass, East of Milligan, Iron Mountains, Granite Pass* and *Arica Mountains* quads. No focused fairy shrimp surveys were conducted. However, the nearest documented occurrence for a sensitive branchiopod species (vernal pool fairy shrimp [*Branchinecta lynchi*]) is approximately 120 miles west/southwest of the Project area (CNDDB 2018). No sensitive fairy shrimp or other sensitive branchiopod species have been documented within the regional vicinity of the Project. Therefore, the Project is not likely to impact any sensitive branchiopod species.

In addition, due to the unvegetated project site within the playa, there is no habitat for nesting birds.

#### Less Than Significant Impact

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Jericho Systems, Inc. conducted a Jurisdictional Delineation (JD) of the Project Site. The purpose of the JD was to determine the extent of State and federal jurisdictional waters within the Project Site potentially subject to regulation by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA), Regional Water Quality Control Board (RWQCB) under Section 401 of the CWA and Porter Cologne Water Quality Control Act, and CDFW under Section 1602 of the California Fish and Game Code (FGC), respectively. The JD included evaluation for the presence of riverine/riparian/wetland habitat and jurisdictional waters, i.e. Waters of the U.S. (WoUS) as regulated by the USACE and RWCQB, and/or jurisdictional streambed and associated riparian habitat as regulate by the CDFW.

There are no riparian habitats and no other sensitive natural communities located on the Project site. The Project Site is entirely within unvegetated dry lakebed. No amphibian species were observed or otherwise detected within the Project Site and none are expected to occur. Additionally, no sensitive fairy shrimp or other sensitive branchiopod

species, which are known to live in fresh or brackish water and marine habitats, were documented within the regional vicinity of the Project Site. The Proposed Project is not anticipated to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

# No Impact

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Jericho Systems, Inc. conducted a Jurisdictional Delineation (JD) of the Project Site as described above. Danby Dry Lake is an isolated playa feature, which receives runoff from the surrounding mountains and ephemeral drainages. All unevaporated surface flows from these surrounding drainages terminate at Danby Dry Lake, which is completely cut off from and does not overflow into any other potentially jurisdictional features. Danby Dry Lake and its tributaries are intermittent, non-traditional navigable waters (TNW), non-relatively permanent waters (RPW) features that do not have a significant nexus to a TNW. Therefore, Danby Dry Lake and its tributaries would not be subject to the CWA under the jurisdictions of the USACE and RWQCB, respectively. However, these features could be subject to the FGC Section 1602 Lake or Streambed Alteration Agreement (LSA) under the jurisdiction of the CDFW.

Any proposed permanent or temporary impacts to jurisdictional features that would result from the Proposed Project, would require an LSA notification and possibly an LSA from the CDFW. "*CDFW requires a LSA Agreement when a project activity may substantially adversely affect fish and wildlife resources*" (<u>https://wildlife.ca.gov/Conservation/Environmental-Review/LSA</u>). Based on the BRA and the lack of vegetation and wildlife within the project area, the project would not substantially adversely affect fish and wildlife resources.

To determine if the project is required to comply with Section 1602 LSA, the applicant shall notify CDFW per Mitigation Measure BIO-1 below.

#### Mitigation Measure BIO-1:

A notification shall be submitted to the CDFW to determine if regulatory permit will need to be obtained through the CDFW prior to initiating new mining within an area and appropriate protective measures implemented.

The following are general protective measures that may be required to be determined by the CDFW if applicable:

- Worker environmental awareness program;
- Demarcation of jurisdictional areas to prevent unnecessary impact;
- Avoiding impacts to undisturbed areas with flagging or temporary fencing;
- Implementation of BMPs to prevent erosion and sediment discharge;
- Invasive weed control; and

• Maintaining areas free of trash, debris, hazardous materials, and spills.

As such, with adherence to the requirements of the California FGC, less than significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

#### Less than Significant with Mitigation

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. The site is within the Chuckwalla-Chemehuevi Tortoise Linkage ACEC as defined by the DRECP to provide desert tortoise habitat connectivity between the Chuckwalla and Chemehuevi critical habitat areas. The Proposed Project site is located within the expansive Danby Dry Lake Bed devoid of vegetation that contains no desert tortoise habitat in which tortoises could move through. Therefore, the proposed project will have less than significant impacts and no mitigation is required.

#### Less Than Significant Impact

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project site is devoid of vegetation and there are no plants that would come under the protection of San Bernardino County Native Plant Protection policy (1989). There are no Joshua trees on-site. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?

The BLM has prepared and recently approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the CDCA Plan as part of the DRECP. The existing and surrounding BLM designations for the Project Site per the LUPA are the following:

- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC);
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area

In the LUPA, allowable uses and conservation and management actions are referred to as Conservation Management Actions (CMAs). The CMAs are organized by land use allocation. For the Project Site, there are specific CMAs for ACECs and ERMAs as well as area or LUPA-wide CMAs. LUPA-wide refers to CMAs that apply to activities on all types of land allocations within the LUPA Decision Area. The Proposed Project would be in conformance with the BLM's CDCA Plan and the LUPA which requires operations within mineral leases to meet the performance standards of the 43 CFR 3590 regulations.

The Project Site has no vegetation to protect or salvage and will not impact the tortoise linkage area as there is no tortoise habitat in the project area that could be utilized by tortoises. Therefore, proposed activities would be in compliance with the CDCA Plan and the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Less than significant impacts are identified or anticipated, and no mitigation measures are required.

# Less Than Significant Impact

Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
۷.	CULTURAL RESOURCES - Would the pro	ject:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?					
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		$\square$			
c)	Disturb any human remains, including those outside of formal cemeteries?		$\square$			
<b>SUBSTANTIATION:</b> (Check if the project is located in the Cultural ] or Paleontologic Resources overlays or cite results of cultural resource review):						

Countywide Policy Plan 2020; Class III Cultural Resources Inventory, CRM Tech, January 2019

a,b) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

CRM TECH performed a Class III Cultural Resources Inventory on the Area of Potential Effects (APE) for the proposed Valley Salt Danby Dry Lake Operations Project. The APE consists of vacant desert land around the existing salt mining facility and Salt Marsh Road. Note that Sablon Road and a proposed new route are no longer part of the proposed project as well as an 80-acre clay borrow pit to the northeast. The vertical extent of the APE below the ground surface will be limited to approximately 10 feet for rock salt pits.

The results of these research procedures indicate that three historic-period sites were previously identified as lying partially within or adjacent to the APE, as listed below:

- Site 36-010525 (CA-SBR-10525H), State Route 62 (5 miles south)
- Site 36-010646 (CA-SBR-10646H), Sablon siding on the Arizona and California Railway (3.5 miles east)
- Site 36-011583 (CA-SBR-11583H), Cadiz Road (Old Cadiz-Parker Road) (2.5 miles east)

During the field survey, the presence of Sites 36-010525 and 36-011583 were confirmed, but both were determined to be outside the APE in light of the nature of the proposed project activities and the potential for effects at these locations. No features or artifacts associated with Site 36-010646 were found in or near the APE, where it was reported in 2010 as having been destroyed by previous construction activities.

One of the existing dirt roads in the APE, Salt Marsh Road, traces its roots to the pre-1950s era, but the original road was largely abandoned in later years. Historical aerial photographs suggest that the current configuration of the road evidently postdates the beginning of large-scale salt-mining ii operations in the APE between 2014 and 2016. Today, this simple, nondescript dirt road demonstrates no distinctively historical character and has little potential for historic significance. Therefore, it requires no further study. No other cultural resources were encountered within or adjacent to the APE.

The Cultural Resources Inventory concludes that no "historic properties" have been identified within the APE. However, because of its location on the lakebed of Pliocene Danby Lake and within the Bristol-Danby Trough system, the subsurface sediments appear to be of moderate sensitivity for prehistoric archaeological deposits associated with resource procurement activities by the Native population living on finger ridges nearby. CRM TECH presents the following Mitigation Measure CR-1 to the BLM, the agency that manages the land use on-site:

#### Mitigation Measure CR-1:

- An archaeological monitoring program shall be implemented during earthmoving operations within the APE, including periodic "spot-checking" upon the commencement of ground disturbance and continuous onsite monitoring if deemed necessary by the project archaeologist in consultation with BLM.
- If cultural materials more than 50 years of age are discovered, they need to be field-recorded and evaluated. The monitor shall be prepared to recover artifacts quickly to avoid operational delays but must have the power to temporarily halt or divert equipment to allow for controlled archaeological recovery if a substantial cultural deposit is encountered.
- If needed, the archaeological monitoring program shall be designed and implemented in coordination with the Fort Mohave Indian Tribe.
- If found, collected artifacts shall be processed, catalogued, analyzed, and prepared for permanent curation in a repository with permanent retrievable storage that would allow for additional research in the future.
- If any, archaeological site records shall be prepared to document the cultural remains discovered during monitoring and submitted to the South Central Coastal Information Center for incorporation into the California Historical Resources Inventory.
- A report summarizing the methods and results of the monitoring program, including an itemized inventory and a detailed analysis of recovered artifacts, shall be prepared upon completion of any field and laboratory work. The report shall include an interpretation of the cultural activities represented by the artifacts and a discussion of the significance of all archaeological finds.
- The submittal of the report to the BLM, along with final curation of the recovered artifacts, will signify completion of the monitoring program and, barring unexpected findings of extraordinary significance, the mitigation of potential project impacts on cultural resources.

Under these conditions, CRM TECH recommends that the proposed project may proceed in compliance with the provisions of Section 106 of the National Historic Preservation Act. If during excavation any subsurface artifacts are discovered, all work shall stop within 100 feet of the area and the BLM Archaeologist, shall be notified and work shall not proceed in the area until the BLM gives a notice to proceed.

Mitigation Measure CR-1 is required as a condition of project approval to reduce these impacts to a level of less than significant:

#### Less than Significant with Mitigation

c) Disturb any human remains, including those outside of formal cemeteries?

Operational activities, particularly grading, could potentially disturb human remains interred outside of a formal cemetery. The Project Site is not located on or near a known cemetery. However, to insure adequate and compliant management of any buried remains that may be identified during project development, the following Mitigation Measure is required as a condition of project approval to reduce any potential impacts to a less than significant level.

#### Mitigation Measure CR-2:

If evidence of human remains is identified, the County Coroner will be contacted immediately and permitted to inspect the remains. The County of San Bernardino and the Project Applicant shall also be informed of the discovery. The Coroner will determine if the bones are historic/archaeological or a modern legal case. The Coroner will immediately contact the Native American Heritage Commission (NAHC) in the event that remains are determined to be human and of Native American origin, in accordance with California Public Resources Code Section § 5097.98.

All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code § 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA) 16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the State of California regardless if the remains are modern or archaeological.

With implementation of Mitigation Measure CR-2, the Proposed Project would not have a significant impact on human remains.

#### Less than Significant with Mitigation

Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
VI.	ENERGY – Would the project:				
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				$\boxtimes$

# SUBSTANTIATION: Submitted Project Materials

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration [EIA] 2018). California consumed 292,039 gigawatthours (GWh) of electricity and 2,110,829 million cubic feet of natural gas in 2017 (California Energy Commission [CEC] 2019; EIA 2018). In addition, Californians consume approximately 18.5 billion gallons of motor vehicle fuels per year (Federal Highway Administration 2019). The single largest end-use sector for energy consumption in California is transportation (39.8 percent), followed by industry (23.7 percent), commercial (18.9 percent), and residential (17.7 percent) (EIA 2018).

Most of California's electricity is generated in-state with approximately 30 percent imported from the Northwest and Southwest in 2017. In addition, approximately 30 percent of California's electricity supply comes from renewable energy sources such as wind, solar photovoltaic, geothermal, and biomass (CEC 2018). Adopted on September 10, 2018, SB 100 accelerates the State's Renewables Portfolio Standards Program by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California with 15.3 billion gallons sold in 2019 and is used by light-duty cars, pickup trucks, and sport utility vehicles (California Department of Tax and Fee Administration 2018). Diesel is the second most used fuel in California with 3.14 billion gallons sold in 2019 and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles (CEC 2020). Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including CO2 and NOX. The transportation sector is the single largest source of GHG emissions in California, accounting for 40 percent of all inventoried emissions in 2018 (California Air Resources Board [CARB] 2020).

Energy use would be primarily fuel consumption to operate heavy equipment, generators, and trucks during mining, loading, processing, and trucking operations. The expected energy consumption at maximum production from equipment, generators, and trucks, including truck trips to and from SR-62, will be approximately 250,000 gallons of diesel fuel per year and 4,170 gallons of gas. No electricity or natural gas consumption is used onsite or is proposed.

In comparison, County retail sales of diesel fuel was about 159 million gallons in 2019 with a state-wide total of taxable diesel fuel usage of over 3 billion gallons in 2019 (California Energy Commission 2019 Annual Report (CEC-A15; September 2020). The CEC estimates that retail sales account for about 47.2% of the total diesel sales; 52.8%

is non-retail sales. Therefore total diesel sales in the County are estimated to be around 337 million gallons/year and 6.6 billion gallons/year statewide.

Energy use would be typical of similar-sized long-term construction-type and mining projects in the region. In the interest of cost efficiency, operations are not anticipated to utilize fuel in a manner that is wasteful or unnecessary. In addition, all off-road and on-road equipment and trucks will meet fleet averaging requirements and compliance with MDAQMD rules and CARB's Off-Road Diesel Vehicle regulations. Therefore, project impacts would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and less than significant energy impacts would occur.

# Less Than Significant Impact

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The BLM has prepared and approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the CDCA Plan as part of the DRECP. The DRECP is a landscape-level plan that streamlines renewable energy development by designating specific areas for renewable energy projects while conserving unique and valuable desert ecosystems and providing outdoor recreation opportunities. Locations where renewable energy generation is an allowable use, incentivized, and could be streamlined for approval are defined as Development Focus Areas (DFAs). There are no DFAs within or adjacent to the Proposed Project area.

In addition, the Proposed Project would not require implementation of new or expanded electric power or natural gas facilities as it will not be using electricity, natural gas, or any other energy resources nor utilize substantial fuel volumes. Therefore, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. No impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
VII.	<b>GEOLOGY AND SOILS</b> - Would the project:				
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-			$\square$	

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

> Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

- ii. Strong seismic ground shaking?
- iii. Seismic-related ground failure, including liquefaction?
- iv. Landslides?

SUBSTANTIATION:

- b) Result in substantial soil erosion or the loss of topsoil?
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

(Check	if	project	is	located	in	the	Geologic	Hazards	Overlay
District):									

 $\bowtie$ 

Countywide Policy Plan 2020; Submitted Project Materials; Fault Activity Map of California, 2010; Class III Cultural Resources Inventory; Reclamation Plan for Danby Dry Lake Sodium Lease

- *a)* Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - *i)* Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on

 $\square$ 

 $\square$ 

 $\bowtie$ 

 $\square$ 

 $\square$ 

 $\square$ 

 $\square$ 

other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42

ii) Strong seismic ground shaking?

The Project Site is located in a remote vacant area of southeastern San Bernardino County in a part of California considered not to be seismically active. According to the Southern California Earthquake Data Center, the nearest fault to the Project Site is the Cleghorn Lake Fault, which is located approximately 40 miles west of the site. The Cleghorn Lake Fault is a right lateral fault about 12 miles in length with a most recent surface rupture in the Quaternary period. The Project Site is not located within an area designated by the Alquist-Priolo Special Studies Zone Act of 1972.<sup>5</sup> In addition, it is located in an area with relatively low earthquake shaking potential.<sup>6</sup> As such, less than significant impacts are identified or are anticipated, and no mitigation measures are required.

# Less Than Significant Impact

#### iii) Seismic-related ground failure, including liquefaction?

Liquefaction is a process in which cohesion-less, saturated, fine-grained sand and silt soils lose shear strength due to ground shaking and behave as fluid. Areas overlying groundwater within 30 to 50 feet of the surface are considered susceptible to liquefaction hazards. Ground failure associated with liquefaction can result in severe damage to structures. Within the desert region of San Bernardino County, liquefaction potential is high along the Mojave River (eastern Victorville to Barstow). Also of concern are areas adjacent to faults that form groundwater barriers such as local areas southwest of the Calico Fault near Barstow and the Lenwood and Lockhart Faults near Harper Lake. Areas along the Colorado River also pose a high liquefaction potential.<sup>7</sup> The Project Site is not located near those areas. Moreover, the Project Site is located in an area with relatively low earthquake shaking potential.<sup>8</sup> Therefore, less than significant impacts are identified or are anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

#### iv) Landslides?

Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes. The project area is a flat dry lakebed with no slopes. No substantial slopes are proposed for mining and the evaporation ponds. In addition, the Reclamation Plan states that the surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured

<sup>&</sup>lt;sup>5</sup> San Bernardino Countywide Plan Draft EIR. Geology and Soils. Figure 5.6-1 "Alquist-Priolo Fault Zones and County Fault Hazard Zones.

<sup>&</sup>lt;sup>6</sup> San Bernardino Countywide Plan Draft EIR. Geology and Soils. Figure 5.6-2 "Earthquake Shaking Potential."

<sup>&</sup>lt;sup>7</sup> San Bernardino Countywide Plan Draft EIR. Page 5.6-15. <u>http://countywideplan.com/wp-content/uploads/2019/06/Ch\_05-06-GEO.pdf</u>

<sup>&</sup>lt;sup>8</sup> San Bernardino Countywide Plan Draft EIR. Geology and Soils. Figure 5.6-2 "Earthquake Shaking Potential."

if they were to traverse the area. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

# No Impact

#### b) Result in substantial soil erosion or the loss of topsoil?

The Project Site is located within Danby Dry Lake, a dry lakebed. The lakebed is a relatively flat area with interior drainage and no off-site drainage. No significantly developed watercourses exists within the vicinity. The lake bed acts as one large settling basin. The site is not subject to erosion and naturally collects sediment. The lakebed is dry for most of the year, however, after periods of heavy rainfall, standing water may occur. Control of surface drainage and erosion for the operations area involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations;
- Diverting run-off from undisturbed areas around the active mining area as necessary;
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary; and
- Stabilizing disturbed areas through grading or water spraying to form a crust.

Erosion control measures along the access road and around the perimeter of stockpiled material will include construction of temporary diversion and collection of ditches, berms, and other measures individually or in combination as necessary. Drainage following reclamation will be identical to the natural drainage of the lakebed. No drainage facilities will be established or maintained after reclamation. Therefore, less than significant impacts are anticipated or are identified, and no mitigation measures are required.

#### Less Than Significant Impact

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?

The area is not conducive to landslides, earth flows, rock falls, or erosion. There will be remaining slopes in the trenches or ponds as these features will be filled to near original elevation. The site is composed of barren sands, clays, and salts with no native vegetation. As such, the proposed reclamation would not result in any unstable conditions at the Project Site. No significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils (shrink-swell) are fine-grained clay silts subject to swelling and contracting in relation to the amount of moisture present in the soil. Structures built on expansive soils may incur damage due to differential settlement of the soil as expansion and contraction takes place. A high shrink-swell potential indicates a hazard to structures built on or with material having this rating. Danby Dry Lake is covered by a layer of efflorescent salts that overlie a thick sequence of clays inter-bedded with thin, discontinuous layers of sand and salts. In some places the clays contain individual salt crystals or salt beds of unknown, but presumably limited, lateral extent. Upon completion of mining activities, the ponds and trenches will be backfilled, and all equipment and facilities will be removed from the site. After reclamation, no refuse or dangerous material and no public safety hazards will remain on-site. Proposed structures are not allowed to exceed 35 feet, which can minimize any hazards posed by expansive soils. Less than significant impacts are identified or are anticipated, and no mitigation measures are required.

# Less Than Significant Impact

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Septic tanks and/or alternative wastewater supply systems are proposed as part of the proposed project. Currently, waste is removed via a professional porta-john service. Future facilities will have a San Bernardino County will be conditioned to obtain and approved and permitted septic tank system located off the lakebed to the west dependent on soil testing to meet County requirements. If a septic system is not feasible, septic tanks and/or porta-john services will be utilized. Therefore, less than significant impacts are identified or are anticipated, and no mitigation measures are required.

# Less Than Significant Impact

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project Site is located in an area classified as having low to high paleontological sensitivity.<sup>9</sup> All projects involving ground disturbance in previously undisturbed areas mapped with low-to-high paleontological sensitivity will only require monitoring if construction activity will exceed the depth of the low sensitivity surficial sediments. The underlying sediments may have high paleontological sensitivity, and therefore work in those units might require paleontological monitoring. The following Mitigation Measure is recommended to insure adequate and compliant management of any resources that may be identified within the Project Site during operations:

# Mitigation Measure GEO-1:

<sup>&</sup>lt;sup>9</sup> San Bernardino Countywide Plan Draft EIR. Appendix F Paleontological Resources Report.

A Qualified Paleontologist meeting the standards of Society of Vertebrate Paleontology (SVP) shall initially conduct a desktop assessment of the paleontological sensitivity of the project area, including a review of higher resolution geologic mapping and updated museum records searches. The results of this assessment will be used to develop project-specific mitigation measures, such as the development of a paleontological resources monitoring and mitigation plan (PRMMP) for projects in high sensitivity sediments. This plan will address specifics of monitoring and mitigation to that project area and reclamation plan, and will take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and any changes to the regulatory framework. This PRMMP should usually meet the BLM standards (2009). When determining the depth at which the transition to high sensitivity occurs and monitoring becomes necessary, the Qualified Paleontologist should take into account: a) the most recent local geologic mapping, b) depths at which fossils have been found in the vicinity of the project area, as revealed by the museum records search, and c) geotechnical studies of the project area, if available.

Implementation of Mitigation Measure GEO-1 would ensure that less than significant impacts to paleontological resources occur.

# Less than Significant with Mitigation

Therefore, potential impacts can be reduced to less than significant level with implementation of the mitigation measure above.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
VIII.	GREENHOUSE GAS EMISSIONS - Would t	he project:			
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			$\boxtimes$	
b)	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				
SUBS	STANTIATION:				

# Countywide Policy Plan; Submitted Project Materials; Greenhouse Gas Emissions (GHG)

Reduction Plan (September 2011)

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

In September 2011, San Bernardino County adopted the Emissions Reduction Plan (GHG Plan), which outlines a strategy to use energy more efficiently, harness renewable energy to power buildings, enhance access to sustainable transportation modes, and recycle waste. The 2015 update of the GHG Emissions Development Review Process updates the language the performance standard bringing it up to date with current code, and improves upon the menu of options within the screening tables proportioning point values to more accurately account for expected GHG reductions and revised the descriptions of the energy efficiency related options to better describe the physical improvements that would be made in choosing that option. The GHG Plan has the following specific goals:

- Reduce emissions from activities over which the County has jurisdictional and operational control to 15% below 2007 levels by 2020, consistent with the target reductions of the AB 32 Scoping Plan.
- Provide estimated GHG reductions associated with the County's existing sustainability efforts and integrate the County's sustainability efforts into the discrete actions of the Emissions Reduction Plan.
- Provide a list of discrete actions that would reduce GHG emissions.
- Approve a GHG reduction plan that satisfies the requirements of Section 15183.5 of the CEQA Guidelines, so that compliance with the GHG reduction plan can be used in appropriate situations to determine the significance of a project's effects related to GHG emissions, thus providing streamlined CEQA analysis of future projects that are consistent with the approved GHG reduction plan.

However, specific requirements for mining projects to reduce emissions of GHGs have not been adopted and so the Amended Plan would not conflict with the County's Greenhouse Gas Reduction Plan.

GHG is inherently a cumulative issue, because no single project would be expected to result in a measurable change in global climate. The cumulative nature of GHG is considered by agencies in adopting significance thresholds and adopted significance thresholds represents levels at which a project is considered cumulatively significant.

The GHG emissions were calculated by Lilburn Corp. and compared to the MDAQMD's 100,000 MTCO<sub>2</sub>e screening threshold to determine if potentially significant to anticipated global warming. GHG emissions were estimated using the following models:

CARB - SCAQMD's Off-road Model - Mobile Source Emission Factors (<u>http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html</u>); Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks (CARB EMFAC 2017); and U.S. EPA Office of Transportation and Air Quality. These factors are state-wide factors and are appropriate for the Proposed Project.

Annual planned operational GHG emissions amount to approximately 3,339 MTCO<sub>2</sub>e, based on 300,000 tpy mined and exported off-site. Table 3 shows that GHG emissions associated with operation of the Proposed Project are not anticipated to exceed the quantitative significance CEQA thresholds of either 100,000 MTCO<sub>2</sub>e (MDAQMD threshold) or 10,000 MTCO<sub>2</sub>e (SCAQMD threshold for industrial sites). Therefore, the Proposed Project would not generate GHG emissions that may have a cumulative considerable or significant effect on the environment.

Table 3
Greenhouse Gases Annual Emissions (MTCO <sub>2</sub> e)
Planned Operations
Danby Lake Salt Operations

	Planned Operations			
Sources	CO <sub>2</sub>	CH₄		
On-site Diesel Equipment, Trucks, & Generators	2,832	3.8		
Off-site Trucks & Employee Trips	503	0.1		
Total Per Year	3,335	3.9		
Total MTCO <sub>2</sub> e	3,339			
MDAQMD GHG Screening Threshold (MTCO₂e)	100,000			
Exceeds Threshold?	N	0		
SCAQMD Industrial GHG Screening Thresholds (MTCO <sub>2</sub> e)	10,000			
SCAQMD Industrial GHG Screening Thresholds (MTCO <sub>2</sub> e)	N	0		

Source: Valley Salt – Lilburn Corp. 2021 CO<sub>2</sub>e factors: CH<sub>4</sub> x 28

Final reclamation activities are a one-time activity and are expected to be conducted on approximately 60 days as compared to operations on 250 days and one time only. Therefore, GHG for reclamation activities would be about 25% of the annual operations emissions and would be less than significant.

The state and local regulatory programs for GHG emissions and climate change are described above. There are no existing GHG plans, policies, or regulations that have been adopted by California Air Resources Board (CARB) or MDAQMD that would apply to project emissions. If CARB does develop performance standards, these performance standards would be implemented and adhered to, and there would be no conflict with any applicable plan, policy, or regulation; therefore, impacts would be less than significant, and no mitigation would be required.

#### Less Than Significant Impact

# Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
IX.	HAZARDS AND HAZARDOUS MATERIALS -	Would the	project:		
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				

f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		$\boxtimes$
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		$\boxtimes$

# SUBSTANTIATION:

Submitted Project Materials; EnviroStor Database; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The salt products are not hazardous and the transportation routes are designated truck routes and have minimal traffic volumes. Less than significant are expected and no mitigation measures are required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The mining of the rock salt and harvesting of the solar evaporated salt does not produce any hazardous waste with the exception of fuels and oils for mobile equipment and generators for the processing equipment. Scheduled equipment maintenance and minor or emergency repairs and re-fueling within maintenance sheds or with portable maintenance/fuel trucks will be conducted with appropriate safeguards. Any used oil generated at the mine site will be collected and transported for off-site recycling or disposal by approved methods and by properly trained and licensed personnel. The Hazardous Materials Division of the San Bernardino County Fire Department is designated as the Certified Unified Program Agency (CUPA) for the County to focus the management of specific environmental programs at the local government level. Valley Salt will prepare a Business Emergency/ Contingency Plan to include operations for the site. The Business Plan includes a hazardous materials inventory and Spill Prevention Control and Countermeasure Plan (SPCC) to ensure that on site materials are stored appropriately and contained in the event of uncontrolled release utilizing Best Management Practices (BMPs). Fuel storage specifications apply to all above ground fuel containers. The SPCC will be provided to the BLM prior to project start-up. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels and lubricants. The operator would

continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials during reclamation of the site. The site is located in a very remote area and no school facilities or proposed school facilities are located within onequarter mile radius of the Project Site. Therefore, no impacts or anticipated and no mitigation measures are required.

# No Impact

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Project Site was not found on the list of hazardous materials sites complied pursuant to Government Code Section 65962.5 by the California Department of Toxic Substances Control's EnviroStor data management system.<sup>10</sup> EnviroStor tracks cleanup, permitting, enforcement and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues. No hazardous materials sites are located within or in the immediate vicinity of the Project Site. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

# No Impact

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project Site is not within an airport safety review area or Airport Runaway Protection Zone.<sup>11</sup> The private airstrip located nearest to the Project Site is the Iron Mountain Pumping Plant Airport, which is located approximately 3.5 miles southwest of the site. The Project Site, however, is not within the approach/departure flight path of the private airstrip. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### **No Impact**

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The salt will be loaded by loaders onto over the road 24-ton haul trucks to be transported to the customers' location. Once the trucks traverse unpaved routes from the plant site via Cadiz Road to paved CA State Route 62 (SR-62), trucks will travel east to US 95, then north to Las Vegas area or south to Phoenix area; or west to SR-177 to I-10 to customers in southern California. SR-62 and US 95 are designated as evacuation routes.<sup>12</sup> Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project

<sup>&</sup>lt;sup>10</sup>California Department of Toxic Substances Control. EnviroStor. Accessed February 8, 2021.

 <sup>&</sup>lt;sup>11</sup> San Bernardino Countywide Plan Draft EIR. Hazards and Hazardous Materials. Figure 5.8-2 "Airport Safety Zones."

 <sup>12</sup> San Bernardino County Policy Plan. PP-2 Evacuation Routes.

 <u>https://www.arcgis.com/apps/webappviewer/index.html?id=f54aff8f279449b8a6591ed4a8b1198c</u>

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

> vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Implementation of operational activities would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### **No Impact**

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Project Site is not located within a High or Very High Fire Hazard Severity Zone.<sup>13</sup> Equipment and facilities are properly maintained; fire extinguishers are in or near each piece of equipment and or facility. There are no flammable trees, growth, etc. to cause damage to the property and environment. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Χ.	HYDROLOGY AND WATER QUALITY - Woul	d the proje	ect:		
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			$\boxtimes$	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	<ul> <li>result in substantial erosion or siltation on- or off-site;</li> </ul>			$\boxtimes$	

<sup>&</sup>lt;sup>13</sup> San Bernardino Countywide Plan Draft EIR. Hazards and Hazardous Materials. Figure 5.8-4 "Fire Severity and Growth Areas in the Valley and Mountain Regions."

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

- substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;
- iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of runoff; or
- iv. impede or redirect flood flows?
- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

# SUBSTANTIATION:

Countywide Policy Plan; Submitted Project Materials; Reclamation Plan for Danby Dry Lake Sodium Lease

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
- Conflict with or obstruct implementation of a water quality control plan or sustainablegroundwater management plan?

The Proposed Project is located in Danby Dry Lake, a dry lakebed. Danby Dry Lake is part of a large, northwest-trending structural trough that includes Bristol and Cadiz Dry Lakes. This trough is divided into three separate basins by northwest trending mountain ranges that project into the trough. Danby Dry Lake is the sump of a separate drainage basin, known as Ward Valley, that extends about 50 miles north of the lake, and has a drainage of about 1,000 square miles. The Valley Salt lease area covers roughly 4.5 miles on the southeast part of the dry lake where it trends roughly north-south.

The lakebed is a relatively flat area with interior drainage and no off-site drainage. No significantly developed watercourses exist within the vicinity. The lake bed acts as one large settling basin. The site is not subject to erosion and naturally collects sediment. The lakebed is dry for most of the year, however, after periods of heavy rainfall, standing water may occur. Control of surface drainage and erosion for the area involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations;
- Diverting run-off from undisturbed areas around the active mining area as necessary;
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary; and
- Stabilizing disturbed areas through grading or water spraying to form a crust.

 $\square$ 

 $\square$ 

 $\mathbf{X}$ 

 $\boxtimes$ 

Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

# Less Than Significant Impact

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

It is estimated that operations will require approximately 1,000 gallons of water (brine not fresh water) each minute (gpm) during production. Water will be drawn from the existing trenches but mainly from the on-site brine production water wells. This water will also be used to wash the raw rock salt to remove the dirt and leave the sodium. No other substances or chemicals will be introduced into the raw minerals or water. No chemicals are used in the production process. The water used in the production process will be returned into the ponds and trenches where the dirt will settle. That same water will be pumped out of the trench into the solar ponds to be evaporated by the natural sun and wind to grow solar salt. Fresh water is currently trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 1,000 gpd). In the future, Valley Salt plans on drilling a water well on a 20-acre parcel it owns about one mile northeast of the lease area just southeast of where the project access road meets with Cadiz Road. This water can be used for dust control, wash water and other non-potable uses. The Proposed Project is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Less than significant impacts are identified or anticipated, and no mitigation measures are required.

# Less Than Significant Impact

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - *i)* Result in substantial erosion or siltation on- or off-site;

Erosion is the wearing away of the ground surface as a result of the movement of wind or water, and siltation is the process by which water becomes dirty due to fine mineral particles in the water. The Project Site is not subject to erosion and naturally collects sediment. The lakebed is dry for most of the year, however, after periods of heavy rainfall, standing water may occur. Control of surface drainage and erosion for the operations area involves the following typical components:

- Limiting surface disturbance to the minimum area required for active operations;
- Diverting run-off from undisturbed areas around the active mining area as necessary;
- Using berms, ditches, sediment basins, and localized control and maintenance measures to intercept and control disturbed area drainage as necessary; and
- Stabilizing disturbed areas through grading or water spraying to form a crust.

Erosion control measures along the access road and around the perimeter of stockpiled material will include construction of temporary diversion and collection of ditches, berms, and other measures individually or in combination as necessary. Drainage following reclamation will be identical to the natural drainage of the lakebed. Furthermore, no new substances will be introduced into the raw minerals or water which will be drawn from trenches and wells for the proposed operations. No chemicals are used in the production process. The water used in the production process will be turned into the water trenches where the dirt will settle. As a result, less than significant impacts are anticipated or are identified, and no mitigation measures are required.

# Less Than Significant Impact

- *ii)* Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;
- iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of runoff; or
- *iv)* Impede or redirect flood flows?

The Project Site is not within a 100-Year Federal Emergency Management Agency (FEMA) flood zone, 100-year Department of Water Resources Awareness Zone, or a 500-year FEMA flood zone.<sup>14</sup> Danby Dry Lake is an isolated playa feature, which receives runoff from the surrounding mountains and ephemeral drainages. All unevaporated surface flows from these surrounding drainages terminate at Danby Dry Lake, which is completely cut off from and does not overflow into any other potentially jurisdictional features. The Project Applicant would limit surface disturbance to those areas required for reclamation. All surface and groundwaters drain to the interior of the basin or lake. Drainage following reclamation will be identical to the natural drainage of the lakebed. No drainage facilities will be established or maintained after reclamation. Therefore, less than significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Due to the inland distance from the Pacific Ocean and any other significant body of water, tsunamis and seiches are not potential hazards in the vicinity of the Project Site. The Project Site is neither located within a Federal Emergency Management Agency (FEMA) 100-year floodplain nor a 500-year floodplain.<sup>15</sup> Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

<sup>&</sup>lt;sup>14</sup> San Bernardino Countywide Plan Draft EIR. Hydrology and Water Quality. Figure 5.9-2 "Flood Hazard Zones in the Valley and Mountain Regions."

<sup>&</sup>lt;sup>15</sup> San Bernardino Countywide Plan Draft EIR. Hydrology and Water Quality. Figure 5.9-2 "Flood Hazard Zones in the Valley and Mountain Regions."

#### No Impact

# Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XI.	LAND USE AND PLANNING - Would the proje	ect:			
a)	Physically divide an established community?				$\boxtimes$
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				

# SUBSTANTIATION:

# Countywide Policy Plan; submitted Project Materials; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Physically divide an established community?

Salt deposits on the Danby Playa have been known since the 1880s and have been mined off and on over the last century. Valley Salt obtained the current sodium lease (CALA 0 139523) in 2009. The Project Site is located entirely on public lands under the management of the BLM through the Needles Field Office. Valley Salt has submitted a Mining and Reclamation Plan to the BLM Needles office per 43 CFR Parts 3590 – 3596 Solid Minerals (other than coal) Exploration and Mining Operations. Numerous dirt roads, evaporation ponds, trenches, and other historical workings exist onsite and adjacent to the lease area. Valley Salt conducted exploration in 2009 to determine potential brine production areas and has been conducting limited sodium production activities over the past few years.

The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility in an existing community or between a community and an outlying area. The site is located in a remote isolated desert area with no communities in the region. All disturbance will be within Federal lands leased by Valley Salt. Surrounding land uses consist of vacant Federal public lands administered by the BLM.

Therefore, no impacts to a local community are identified or anticipated, and no mitigation measures are required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project Site is in unincorporated San Bernardino County and has been used for salt production for over 120 years. No changes or amendments to land use, land use categories, or zoning are proposed; only the continuation of activities historically occurring on-site. The Countywide Plan Land Use Map shows that the project site is within Land Use Category Resource Land Management (RLM) and within Resource Conservation (RC)) zoning. The Proposed Project is consistent with the Countywide Policy Plan with the issuance of a Reclamation Plan.

The BLM has prepared and approved (September 2016) a comprehensive Land Use Plan Amendment (LUPA) to the California Desert Conservation Area (CDCA) Plan as part of the DRECP. The existing and surrounding BLM designations for the Danby Dry Lake sodium lease area per the LUPA are the following:

- Chuckwalla-Chemehuevi Tortoise Linkage Area of Critical Environmental Concern (ACEC)
- Ward Valley Extensive Recreation Management Area (ERMA); and
- LUPA-MIN-1: High Potential Mineral Area (defined as "These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas."

Per LUPA-MIN-1 above, the site is a high potential mineral area and has a BLM sodium lease to produce sodium from the BLM. Implementation of sodium extraction in this area is consistent with the DRECP with approval of a Mining and Reclamation Plan per 43 CFR Parts 3590 – 3596.

Therefore, the Proposed Project would not cause a significant environmental impact due to conflict with any land use plans or policies. No impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XII.	MINERAL RESOURCES - Would the project:				
a)	Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?				$\boxtimes$

Page 50 of 73

Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

**SUBSTANTIATION:** (Check if project is located within the Mineral Resource Zone Overlay):

 $\square$ 

 $\boxtimes$ 

Countywide Policy Plan; Submitted Project Materials; Mineral Land Classification; Reclamation Plan for Danby Dry Lake Sodium Lease

- a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The State's Guidelines for Classification and Designation of Mineral Lands help implement California Surface Mining and Reclamation Act of 1975 (SMARA) by providing the State Geologist with direction in carrying out mineral resource classification of lands in California that are threatened by uses that will be incompatible with or will preclude quarrying. In addition, these guidelines describe how the State Mining and Geology Board (SMGB) may elect to designate mineral-bearing areas of statewide or regional significance.

Classification is the process of identifying lands containing significant mineral deposits. The objective of classification and designation processes is to ensure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or of regional significance are available when needed. Classification is completed by the State Geologist in accordance with the SMGB's priority list, into Mineral Resource Zones (MRZ). Classification is based on geologic and economic factors without regard to existing land use and land ownership.

The California Department of Conservation Division of Mines and Geology has not mapped the site. The Project area has been used for salt production for over 120 years. Per LUPA-MIN-1 above, the BLM has defined the site as a high potential mineral area and has a BLM sodium lease to produce sodium from the BLM. The Proposed Project would supply sodium resources to the region. Thus, implementation of the Proposed Project would result in a beneficial effect regarding availability of mineral resource that is of value to the region and the residents of the state. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIII.	NOISE - Would the project result in:				
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b)	Generation of excessive groundborne vibration or groundborne noise levels?				$\square$
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?				

**SUBSTANTIATION:** (Check if the project is located in the Noise Hazard Overlay District or is subject to severe noise levels according to the Countywide Policy Plan Noise Element ]):

# Countywide Policy Plan; Submitted Project Materials; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise is produced from the on-site equipment, processing, and trucks; operations are required to conform to applicable noise control regulations as outlined in Section 83.01.080, Noise, of the San Bernardino County Development Code. There are no nearby noise sensitive land uses or development within the vicinity of the Project Site. Therefore, no significant impacts are identified or are anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

b) Generation of excessive groundborne vibration or groundborne noise levels?

As stated, the Project Site is in a remote undeveloped area consisting of open space with no nearby sensitive receptors. No blasting is planned. Groundborne vibration from typical operations is required to conform to applicable vibration control regulations as outlined in Section 83.01.090, Vibration, of the San Bernardino County Development Code. Therefore, with adherence to the Development Code, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?

The Project Site is not within an airport safety review area or Airport Runaway Protection Zone.<sup>16</sup> It is not located within the vicinity of a private airstrip that would expose people at the Project Site to excessive noise levels. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIV.	POPULATION AND HOUSING - Would the p	roject:			
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

#### SUBSTANTIATION:

Countywide Policy Plan; Submitted Project Material; Reclamation Plan for Danby Dry Lake Sodium Lease

<sup>&</sup>lt;sup>16</sup> San Bernardino Countywide Plan Draft EIR. Hazards and Hazardous Materials. Figure 5.8-2 "Airport Safety Zones."

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Approximately 5 to up to 20 employees would work on-site up to five days per week. Because of the remote location of the mine site, residences for the miners are required to house the miners when they are working at the mine. The nearest town is one and a half hours away in one direction. the Proposed Project would not induce unplanned population growth by creating a substantial number of new jobs. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

#### **No Impact**

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The proposed uses would not displace substantial numbers of existing housing units, or require the construction of replacement housing, as no housing units are proposed to be demolished for the Proposed Project. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

#### **No Impact**

Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XV.	PUBLIC SERVICES				
a)	Would the project result in substantial adverse provision of new or physically altered government altered governmental facilities, the construct environmental impacts, in order to maintain ac or other performance objectives for any of the p	ental facilitie tion of whi ceptable se	s, need for i ich could c ervice ratios	new or phy cause sigr	rsically hificant
	Fire Protection?				$\boxtimes$
	Police Protection?				$\boxtimes$
	Schools?				$\boxtimes$
	Parks?				$\boxtimes$
	Other Public Facilities?				$\square$

#### SUBSTANTIATION:

Countywide Policy Plan; Submitted Project Materials; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

#### Fire Protection?

The Project Site is located within a Federal Responsibility Area.<sup>17</sup> The federal government is responsible for providing fire protection for most nonurban areas in the County. Because the Project Site is located within the California Desert Conservation Area, the BLM has primary responsibility for fire suppression. Fire extinguishers are in or near each piece of equipment and or facility. The Project Site is also not located in a very high fire hazard severity zone. Therefore, the Proposed Project is not anticipated to result in the need for new or physically altered fire protection facilities. No impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

#### Police Protection?

The Project Site is located within the East Desert Region of the County. The County Sheriff 's Department serves the East Desert Region from its Morongo Basin Station at 63665 29 Palms Hwy in the Joshua Tree community planning area. Implementation of the Proposed Project would not require additional police facilities or services. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

#### Schools?

The Proposed Project would not create a direct demand for public school services as it does not include any type of residential use or other land use, or an increase in employment that may induce population growth. As such, the development would not generate any new school-aged children requiring public education. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

#### Parks?

The Proposed Project does not include any type of residential use or other land use or increase in employment that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity, in which there are none. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

<sup>&</sup>lt;sup>17</sup> San Bernardino Countywide Plan Draft EIR: Public Services. Figure 5.14-2 "Fire Responsibility Areas."

#### No Impact

#### Other Public Facilities?

The Proposed Project would not result in an increased residential population or a significant increase in the work force. Implementation of the Proposed Project would not adversely affect other public facilities or require the construction of new or modified facilities. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact		
XVI.	RECREATION						
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?						
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?						
SU	SUBSTANTIATION:						

Submitted Project Materials; Reclamation Plan for Danby Dry Lake Sodium Lease

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?

No residential use or other land use or substantial change in employment that may generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity is proposed. Accordingly, implementation of the Proposed Project would not result in the increased use or substantial physical deterioration of an existing neighborhood or regional park. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The Proposed Project does not include the construction or expansion of recreational facilities. No recreational facilities would be removed, and the addition of employees would not create the need for additional facilities. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

# Therefore, no adverse impacts are identified or anticipated, and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact				
XVII.	TRANSPORTATION – Would the project:								
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?								
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?			$\boxtimes$					
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?								
d)	Result in inadequate emergency access?								
SUE	SUBSTANTIATION:								

Countywide Policy Plan; Submitted Project Materials

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Project Site is located in a remote undeveloped area of southeastern San Bernardino County with minimal traffic, 55 miles east of Twentynine Palms, 50 miles northwest of Blythe, and 53 miles southwest of Needles. There are no planned bicycle

and pedestrian facilities for the area of the Project Site.<sup>18</sup> The Proposed Project is located within the Morongo Basin Transit Authority, however there are no proposed bus routes for the area.<sup>19</sup>

The trucks will travel on SR-62 east to US 95, then north to Las Vegas area or southeast to Phoenix area; or west to SR- 177 to I-10 to customers in southern California. These routes are designated major highways and truck routes.<sup>20</sup> Therefore, due to the remote area and lightly traveled highways in the eastern desert, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

Senate Bill 743 (SB 743), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (CEQA). In December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., Vehicle Miles Traveled [VMT]).

The Proposed Project is anticipated to produce approximately 50 off-site truck trips/day based on maximum production. Salt products are shipped to various markets on designated truck routes described above. The number of estimated trips based on 100 trio end and 10 hour work days is 10 AM peak hour trips and 10 PM peak hour trips. Pursuant to the County of San Bernardino's Transportation Impact Study Guidelines (July 9, 2019), additional traffic analysis is not necessary as the Project is anticipated to generate fewer than 100 peak hour trips. Additionally, traffic is minimal is this remote area of the eastern desert and the project provides salt products to meet market demand. Therefore, in accordance with CEQA Guidelines section 15064.3, subdivision (b), implementation of the Proposed Project would allow the local need for industrial material to be met while producing a minimal number of vehicles miles traveled. Less than significant impacts are identified or are anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Proposed Project does not involve any road development or design features that could substantially increase hazards due to a geometric design feature or incompatible uses. As stated, the site is located in a remote undeveloped area with minimal traffic. access to the project site is limited to employees and authorized personnel. Therefore,

<sup>&</sup>lt;sup>18</sup> San Bernardino Countywide Plan Draft EIR. Transportation and Traffic. Figure 5.16-11 "Future Bicycle Facilities-East Desert Region."

<sup>&</sup>lt;sup>19</sup> San Bernardino Countywide Plan Draft EIR. Transportation and Traffic. Figure 5.16-7 "Future Transit Routes-East Desert Region."

<sup>&</sup>lt;sup>20</sup> San Bernardino County Policy Plan. TM-5 Goods Movement Network. <u>https://www.arcgis.com/apps/webappviewer/index.html?id=7b6f66759d3844efbfa15d16f738519a</u>

the Proposed Project would not substantially increase hazards due to a design feature or incompatible uses. No impacts are identified or are anticipated, and no mitigation measures are required.

#### **No Impact**

d) Result in inadequate emergency access?

Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity due to its remote location and minimal traffic in area. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### **No Impact**

Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

XVIII.       TRIBAL CULTURAL RESOURCES         a)       Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: <ul> <li>i)</li> <li>Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</li> <li>ii)</li> <li>A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource to a California Native American tribe?</li> </ul>	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact		
<ul> <li>resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: <ul> <li>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</li> <li>ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a</li> </ul> </li> </ul>	XVIII. TRIBAL CULTURAL RESOURCES						
<ul> <li>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</li> <li>ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a</li> </ul>	resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and						
its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a	<ul> <li>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in</li> </ul>		$\square$				
	its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a						

Class III Cultural Resources Inventory, CRM Tech, January 2019, Tribal Consultation; AB52 Consultation

 a) i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or;

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

California Assembly Bill 52 (AB52) was approved by Governor Brown on September 25, 2014. AB52 specifies that CEQA projects with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment. As such, the bill requires lead agency consultation with California Native American tribes traditionally and culturally affiliated with the geographic area of a proposed project, if the tribe requested to the lead agency, in writing, to be informed of proposed projects in that geographic area. The legislation further requires that the tribe-requested consultation be completed prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

On August 31, 2018, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Following the NAHC's recommendations and previously established consultation protocol, CRM TECH further contacted a total of 13 tribal representatives in the region, both in writing and by telephone, for additional information on potential Native American cultural resources in or near the Area of Potential Effect (APE).

The NAHC reported that the Sacred Lands File identified no Native American cultural resources within the APE but recommended that local Native American groups be contacted for further information. For that purpose, the NAHC provided a list of potential contacts in the region. Upon receiving the NAHC's reply, CRM TECH sent written requests for comments to seven of the nine tribal organizations on the referral list. In consultation with Christopher Dalu, BLM Archaeologist, CRM TECH did not contact the Big Pine Paiute Tribe of the Owens Valley or the Kern Valley Indian Community because their areas of primary interest lie far from the project location. For some of the other seven tribes, the designated spokes persons on cultural resources issues were contacted in addition to the tribal political leaders recommended by the NAHC. In all, 13 tribal representatives were consulted, as listed below:

- Matthew Leivas, Director of the Chemehuevi Cultural Center, Chemehuevi Reservation;
- Charles Wood, Chairperson, Chemehuevi Reservation
- Brian Etsitty, Acting Tribal Historic Preservation Officer, Colorado River Indian Tribes;
- Dennis Patch, Chairperson, Colorado River Indian Tribes;
- Linda Otero, Director of the AhaMaKav Cultural Society, Fort Mojave Indian Tribe;

- Tim Williams, Chairperson, Fort Mojave Indian Tribe;
- Travis Armstrong, Tribal Historic Preservation Officer, Morongo Band of Mission Indians;
- Robert Martin, Chairperson, Morongo Band of Mission Indians;
- Lee Clauss, Cultural Resources Director, San Manuel Band of Mission Indians;
- Lynn Valbuena, Chairperson, San Manuel Band of Mission Indians;
- Mark Cochrane, Chairperson, Serrano Nation of Indians;
- Anthony Madrigal, Jr., Tribal Historic Preservation Officer, Twenty-Nine Palms Band of Mission Indians;
- Darrell Mike, Chairperson, Twenty-Nine Palms Band of Mission Indians.

The written requests for comments were sent to the tribal representatives on September 19, 2018, and follow-up telephone solicitations were carried out on October 5-12, 2018. Five of the tribes have responded to the inquiry either in writing or by telephone. Among them, the San Manuel Band of Mission Indians stated that the APE was outside the tribe's ancestral territory and declined further consultation regarding this undertaking. The Chemehuevi Indian Tribe expressed concerns over potential cultural sensitivity of the APE based on the knowledge that the lakebed was once occupied by the Chemehuevi people, but did not identify any specific locations or areas of concerns.

The Twenty-Nine Palms Band found the APE to be culturally sensitive but professed no knowledge of any properties of Native American cultural significance in the vicinity. The Tribe requested to review the *Class III Cultural Resources Inventory* report upon completion in preparation for the government-to-government consultation. The Morongo Band and the Serrano Nation also requested copies of the report for tribal review. The Serrano Nation requested to be notified if any Native American cultural resources were discovered in the APE. The Morongo Band further requested Native American monitoring of all ground-disturbing activities associated with undertaking. According to CEQA guidelines, this outreach does not constitute formal Assembly Bill (AB) 52 consultation.

The County, serving as the Lead Agency, is responsible for conducting governmentto-government consultation with local tribes as requested per AB52. The County initiated consultation on January 15, 2020. Tribal letter public notice mailers were sent to the following tribes:

- Soboba Band of Luiseno Indians
- Fort Mojave Indian Tribe
- San Manuel Band of Mission Indians
- Colorado River Indian Tribes
- San Gabriel Band of Mission Indians
- Twenty-Nine Palms Band of Mission Indians,

Morongo Band of Mission Indians

In an email dated January 15, 2021, the San Manuel Band of Mission Indians (SMBMI) confirmed that the Proposed Project is located outside of Serrano ancestral territory. Therefore, SMBMI will not be requesting to receive consulting party status with the lead agency or to participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

On a letter dated February 8, 2021, the Fort Mojave Indian Tribe confirmed that the proposed project site is located within Mojave ancestral land. As the Tribe is requesting for more information about the Proposed Project, consultation is still ongoing. Mitigation Measure TRC-1, as a supplement to Mitigation Measure CR-1, should be implemented to preserve and protect the Mojave ancestral cultural landscape.

Tribes' requests for additional project information, coordination, or consultation with the Lead Agency, and/or Native American monitoring, shall be acknowledged through implementation of appropriate Conditions of Approval, at the County's discretion. On April 2, 2021 Linda Otero Director AhaMakav Cultural Society Fort Mohave Tribe was transmitted the draft Danby Lake initial study before the IS/MND was circulated for the 30 day comment and review with the State Clearinghouse and the Class III Cultural Resources Inventory Report prepared by CRM Tech dated 1/15/2019 for review and comment.

#### Mitigation Measure TRC-1:

If archaeological resources are encountered during project operations by the archaeological monitoring required by Mitigation Measure CR-1 or by on-site personnel, the Fort Mohave Indian Tribe (AhaMakav Cultural Society) shall be informed of the discovery.

#### Less than Significant with Mitigation

# Less than significant impacts are anticipated with implementation of the applicable Mitigation Measure.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XIX.	UTILITIES AND SERVICE SYSTEMS - Would	ld the proje	ect:		
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b)	Have sufficient water supplies available to serve the Project and reasonably			$\boxtimes$	

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
	foreseeable future development during normal, dry and multiple dry years?				
c)	Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?				
d)	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				

#### SUBSTANTIATION:

Countywide Policy Plan; Submitted Project Materials; California Energy Commission Energy Report

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project site is located in a remote area with no utility or energy services and will not require the relocation or construction of new storm water drainage facilities. Therefore, the Proposed Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. No impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

It is estimated that operations will use approximately 1,000 gallons of brine water per minute (gpm) during production. Water will be drawn from the existing trenches but mainly from the on-site brine production water wells. This water will also be used to

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

wash the raw rock salt to remove the dirt and leave the sodium. The water used in the production process will be returned into the trenches where the dirt will settle. That same water will be pumped out of the trench into the solar ponds to be evaporated by the natural sun and wind to grow solar salt. Fresh water is currently trucked in from the Palo Verde Irrigation District as needed for domestic uses and equipment washing (approx. 1,000 gpd). In the future, Valley Salt plans on drilling a water well on a 20-acre parcel it owns about one mile northeast of the lease area just southeast of where the project access road meets with Cadiz Road. This water can be used for dust control, wash water and other non-potable uses. Water supplies would be sufficient to serve the Proposed Project. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

All human waste is removed via a professional porta-john service and future facilities will have a San Bernardino County approved and permitted septic tank system. The Proposed Project would not require sewer collection or treatment services and therefore no off-site discharge of treated wastewater would occur. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Comply with federal, state, and local management and reduction statutes and e)

The Proposed Project would not result in a significant volume of solid waste generation as the proposed mining and processing activities are not typically associated with the production of refuse. Minimal refuse produced by employees on-site shall be disposed into approved trash bins and removed by the operator or a commercial vendor as necessary. Therefore, no impacts are identified, and no mitigation measures are required.

#### No Impact

Therefore, less than significant adverse impacts are identified or anticipated, and no mitigation measures are required.

Issues	Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact
		Incorporated		

XX.	WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?			$\boxtimes$		
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire?					
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?					
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				$\boxtimes$	
SUBS	TANTIATION:					
<b>^</b>		$\sim \sim $				

# *County of San Bernardino Countywide Policy Plan 2020; Submitted Project Materials; Reclamation Plan*

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Equipment and facilities are properly maintained and have fire extinguishers in or near each piece of equipment and or facility. There are no flammable trees, growth, etc. to cause damage to the property and environment. The salt will be loaded by loaders onto 24-ton haul trucks to be transported to the customers' location. Once the trucks traverse unpaved routes from the plant site via Cadiz Road to paved CA State Route 62 (SR-62), trucks will travel east to US 95; or west to SR-177 to I-10 to customers in southern California. SR-62 and US 95 are designated as evacuation routes.<sup>21</sup> The minor daily truck traffic would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Implementation of reclamation activities would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Therefore, less than significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

<sup>&</sup>lt;sup>21</sup> San Bernardino County Policy Plan. PP-2 Evacuation Routes. <u>https://www.arcgis.com/apps/webappviewer/index.html?id=f54aff8f279449b8a6591ed4a8b1198c</u>

#### Less Than Significant Impact

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire?

The Project Site is not located within a Very High Fire Hazard Severity Zone.<sup>22</sup> Vegetation is very sparse onsite to barren on the dry lake bed with no risk of exacerbating wildfires. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### **No Impact**

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The Proposed Project will not require the construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, the Proposed Project is not anticipated to require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary ongoing impacts to the environment. No impacts are identified or are anticipated, and no mitigation measures are required.

#### No Impact

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The Project Site is not located in an area likely to become unstable as a result of onor off-site landslide, or within a 100-year and 500-year floodplain, dam inundation area, or fire hazard severity zone.<sup>23</sup> Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

#### No Impact

Page 66 of 73

<sup>&</sup>lt;sup>22</sup> San Bernardino Countywide Plan Draft EIR. Hazards and Hazardous Materials. Figure 5.8-4 "Fire Severity and Growth Areas in the Valley and Mountain Regions."

<sup>&</sup>lt;sup>23</sup> County of San Bernardino. Policy Plan web maps: HZ-2, HZ-4, HZ-3, and HZ-5.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XXI.	MANDATORY FINDINGS OF SIGNIFICANCE:				
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c)	Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?			$\square$	

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The results of the Initial Study show that there are potentially significant impacts to Biological and Cultural / Paleontological Resources. These impacts will be reduced to less than significant levels after incorporation of mitigation measures and compliance with existing rules and regulations. The Class III Cultural Resources Inventory prepared for the Proposed Project concludes that no "historic properties" have been identified within the APE, but the subsurface sediments within the vertical APE appear to be moderate in sensitivity for prehistoric archaeological remains in buried deposits. In addition, the Fort Mojave Indian Tribe have confirmed that the Proposed Project is located within the Mojave ancestral lands. Therefore, Mitigation Measures CR-1 and TRC-1 shall be implemented to ensure that the Proposed Project does not eliminate important examples of major periods of California history and prehistory.

Therefore, the Proposed Project will not substantially degrade the quality of the environment and impacts to habitat, wildlife populations, plant and animal communities, rare and endangered species, or important examples of the major periods of California history or prehistory; no additional mitigation is warranted.

#### Less than Significant with Mitigation

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Cumulative impacts are defined as two or more individual affects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

- (a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.
- (b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

The Project Site is in unincorporated San Bernardino County and has been used for salt production for over 120 years. No changes or amendments to land use, land use categories, or zoning are proposed; only the continuation of activities historically occurring on-site. The Proposed Project is consistent with the Countywide Policy Plan with the issuance of a Reclamation Plan. Per LUPA-MIN-1 above, the site is a high potential mineral area and has a BLM sodium lease to produce sodium from the BLM. Implementation of sodium extraction in this area is consistent with the DRECP with approval of a Mining and Reclamation Plan per 43 CFR Parts 3590 – 3596.

As evaluated herein, impacts associated with the Proposed Project would not be considered individually adverse or unfavorable with mitigation. Therefore, with obtainment of a Reclamation Plan and implementation of existing rules and regulations and the mitigation measures included in this document, no cumulative considerable impacts are identified or anticipated.

#### Less than Significant with Mitigation

c) Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?

The project site is located in a remote, vacant, undeveloped area in the eastern Mojave Desert. All potential impacts have been thoroughly evaluated and have been deemed to be neither individually significant nor cumulatively considerable with mitigation in terms of any adverse effects upon the region, the local community, or its inhabitants. The proposed project will be required to meet the conditions of approval, rules and regulations, and mitigation measures for the project to be implemented. It is anticipated that all such conditions of approval, rules and regulations, and mitigation measures will further ensure that no potential for significant adverse impacts will be introduced by ongoing and planned mining and reclamation activities as allowed by the project approval. Less than significant adverse impacts are identified or anticipated, and no mitigation measures are required.

#### Less Than Significant Impact

Therefore, potentially significant impacts are identified or anticipated, and mitigation measures are required to reduce impacts to less than significant.

#### XXII.MITIGATION MEASURES

(Any mitigation measures, which are not 'self-monitoring', shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval)

V. CULTURAL RESOURCES

CRM TECH performed a Class III Cultural Resources Inventory on the Area of Potential Effects (APE) for the proposed Valley Salt Danby Dry Lake Operations Project. The APE consists of vacant desert land around the existing salt mining facility and Salt Marsh Road. Note that Sablon Road and a proposed new route are no longer part of the proposed project as well as an 80-acre clay borrow pit to the northeast. The vertical extent of the APE below the ground surface will be limited to approximately 10 feet for rock salt pits.

The results of these research procedures indicate that three historic-period sites were previously identified as lying partially within or adjacent to the APE, as listed below:

• Site 36-010525 (CA-SBR-10525H), State Route 62 (5 miles south)

• Site 36-010646 (CA-SBR-10646H), Sablon siding on the Arizona and California Railway (3.5 miles east)

• Site 36-011583 (CA-SBR-11583H), Cadiz Road (Old Cadiz-Parker Road) (2.5 miles east)

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

During the field survey, the presence of Sites 36-010525 and 36-011583 were confirmed, but both were determined to be outside the APE in light of the nature of the proposed project activities and the potential for effects at these locations. No features or artifacts associated with Site 36-010646 were found in or near the APE, where it was reported in 2010 as having been destroyed by previous construction activities.

One of the existing dirt roads in the APE, Salt Marsh Road, traces its roots to the pre-1950s era, but the original road was largely abandoned in later years. Historical aerial photographs suggest that the current configuration of the road evidently postdates the beginning of large-scale salt-mining ii operations in the APE between 2014 and 2016. Today, this simple, nondescript dirt road demonstrates no distinctively historical character and has little potential for historic significance. Therefore, it requires no further study. No other cultural resources were encountered within or adjacent to the APE.

The Cultural Resources Inventory concludes that no "historic properties" have been identified within the APE. However, because of its location on the lakebed of Pliocene Danby Lake and within the Bristol-Danby Trough system, the subsurface sediments appear to be of moderate sensitivity for prehistoric archaeological deposits associated with resource procurement activities by the Native population living on finger ridges nearby. CRM TECH presents the following Mitigation Measure CR-1 to the BLM, the agency that manages the land use on-site:

#### Mitigation Measure CR-1:

• An archaeological monitoring program shall be implemented during earth-moving operations within the APE, including periodic "spot-checking" upon the commencement of ground disturbance and continuous onsite monitoring if deemed necessary by the project archaeologist in consultation with BLM.

• If cultural materials more than 50 years of age are discovered, they need to be fieldrecorded and evaluated. The monitor shall be prepared to recover artifacts quickly to avoid operational delays but must have the power to temporarily halt or divert equipment to allow for controlled archaeological recovery if a substantial cultural deposit is encountered.

• If needed, the archaeological monitoring program shall be designed and implemented in coordination with the Fort Mohave Indian Tribe.

• If found, collected artifacts shall be processed, catalogued, analyzed, and prepared for permanent curation in a repository with permanent retrievable storage that would allow for additional research in the future.

• If any, archaeological site records shall be prepared to document the cultural remains discovered during monitoring and submitted to the South Central Coastal Information Center for incorporation into the California Historical Resources Inventory.

• A report summarizing the methods and results of the monitoring program, including an itemized inventory and a detailed analysis of recovered artifacts, shall be prepared upon completion of any field and laboratory work. The report shall include an interpretation of Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

the cultural activities represented by the artifacts and a discussion of the significance of all archaeological finds.

• The submittal of the report to the BLM, along with final curation of the recovered artifacts, will signify completion of the monitoring program and, barring unexpected findings of extraordinary significance, the mitigation of potential project impacts on cultural resources.

Under these conditions, CRM TECH recommends that the proposed project may proceed in compliance with the provisions of Section 106 of the National Historic Preservation Act. If during excavation any subsurface artifacts are discovered, all work shall stop within 100 feet of the area and the BLM Archaeologist, shall be notified and work shall not proceed in the area until the BLM gives a notice to proceed.

Mitigation Measure CR-1 is required as a condition of project approval to reduce these impacts to a level of less than significant:

Disturb any human remains, including those outside of formal cemeteries?

Operational activities, particularly grading, could potentially disturb human remains interred outside of a formal cemetery. The Project Site is not located on or near a known cemetery. However, to insure adequate and compliant management of any buried remains that may be identified during project development, the following Mitigation Measure is required as a condition of project approval to reduce any potential impacts to a less than significant level.

#### Mitigation Measure CR-2:

If evidence of human remains is identified, the County Coroner will be contacted immediately and permitted to inspect the remains. The County of San Bernardino and the Project Applicant shall also be informed of the discovery. The Coroner will determine if the bones are historic/archaeological or a modern legal case. The Coroner will immediately contact the Native American Heritage Commission (NAHC) in the event that remains are determined to be human and of Native American origin, in accordance with California Public Resources Code Section § 5097.98.

All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code § 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA) 16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the State of California regardless if the remains are modern or archaeological.

With implementation of Mitigation Measure CR-2, the Proposed Project would not have a significant impact on human remains.

#### VII. GEOLOGY AND SOILS

#### **Mitigation Measure GEO-1**

A Qualified Paleontologist meeting the standards of Society of Vertebrate Paleontology (SVP) shall initially conduct a desktop assessment of the paleontological sensitivity of the project area, including a review of higher resolution geologic mapping and updated museum records searches. The results of this assessment will be used to develop project-specific mitigation measures, such as the development of a paleontological resources monitoring and mitigation plan (PRMMP) for projects in high sensitivity sediments. This plan will address specifics of monitoring and mitigation to that project area and reclamation plan, and will take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and any changes to the regulatory framework. This PRMMP should usually meet the BLM standards (2009). When determining the depth at which the transition to high sensitivity occurs and monitoring becomes necessary, the Qualified Paleontologist should take into account: a) the most recent local geologic mapping, b) depths at which fossils have been found in the vicinity of the project area, as revealed by the museum records search, and c) geotechnical studies of the project area, if available.

Implementation of Mitigation Measure GEO-1 would ensure that less than significant impacts to paleontological resources occur.

#### XVIII. TRIBAL CULTURAL RESOURCES

#### Mitigation Measure TRC-1:

If archaeological resources are encountered during project operations by the archaeological monitoring required by Mitigation Measure CR-1 or by on-site personnel, the Fort Mohave Indian Tribe (AhaMakav Cultural Society) shall be informed of the discovery.

Initial Study PROJ-2020-00107 Danby Dry Lake Sodium Mine APN: 0646-041-080 March 2021

#### **GENERAL REFERENCES**

- California Department of Conservation, California Important Farmland Finder. Accessed 1/28/2020 from <u>https://maps.conservation.ca.gov/DLRP/CIFF/</u>
- California Department of Toxic Substances Control, EnviroStor Database. Accessed January 31, 2021.
- County of San Bernardino, Countywide Policy Plan. Approved October 27, 2020, Adopted November 27, 2020. <u>http://countywideplan.com/wp-</u> <u>content/uploads/2020/08/CWP\_PolicyPlan\_PubHrngDraft\_HardCopy\_2020\_July.pdf</u>
- County of San Bernardino, Countywide Policy Plan Draft EIR. Prepared June 2019. http://countywideplan.com/wp-content/uploads/2019/06/Ch\_000\_TITLE-PAGE.pdf
- California Department of Conversation. Fault Activity Map of California (2010). <u>http://maps.conservation.ca.gov/cgs/fam</u>. Accessed January 30, 2021.

#### PROJECT-SPECIFIC REFERENCES

- CRM TECH. Class III Cultural Resources Inventory for Valley Salt Danby Dry Lake Operations Project. January 15, 2019.
- Jericho Systems, Inc. Biological Resources Assessment for the Valley Salt Mine Danby Dry Lake Expansion Project. September 2018.
- Lilburn Corporation. Air Quality and GHG Emission Tables and Estimates. March 2021.
- Valley Salt, LLC and Lilburn Corporation. *Reclamation Plan for Danby Dry Lake Sodium Lease*. July 2020.

# **EXHIBIT C**

**Comment Letter** 



Protecting and restoring natural ecosystems and imperiled species through science, education, policy, and environmental law

submitted via email

May 24, 2021

Reuben J. Arceo, Contract Planner County of San Bernardino Land Use Services Department - Planning Division 385 North Arrowhead Avenue, First Floor San Bernardino, CA 92415-0187 reuben.arceo@lus.sbcounty.gov

RE: Comments on Initial Study/Mitigated Negative Declaration for Valley Salt Mine Danby Lake, Project No. PROJ-2020-00107

Dear Mr. Arceo,

These comments are submitted on behalf of the Center for Biological Diversity ("Center") regarding the Initial Study/Mitigated Negative Declaration for Valley Salt Mine Danby Lake, Project No. PROJ-2020-00107. While we recognize that the project is within an area identified by BLM for minerals, the proposed project will negatively affect the BLMdesignated Area of Critical Environmental Concern (Chuckwalla to Chemehuevi Desert Tortoise Linkage ACEC) and the Ward Valley Extensive Recreational Management Area (ERMA) designated under the Desert Renewable Energy Conservation Plan. The IS/MND also the increased truck traffic and potential water use could also negatively affect the health and quality of life issues in the nearby affected communities. Therefore, the CEQA environmental review for the Project is inadequate and fails to comply with the requirements of the statute. For the reasons detailed below, we urge approval of the Project be denied, or at the very least substantial revisions to the MND to better analyze, mitigate or avoid the Project's potentially significant environmental impacts.

The Center is a non-profit, public interest environmental organization dedicated to the protection of native species and their habitats and local sustainability and quality of life through science, policy, and environmental law. The Center has over 1.7 million members and online activists throughout California and the United States. The Center has worked for many years to protect imperiled plants and wildlife, open space, air and water quality, and overall quality of life for people in San Bernardino County.

## Chuckwalla to Chemehuevi Desert Tortoise Linkage ACEC

The establishment of the Chuckwalla to Chemehuevi Desert Tortoise Linkage ACEC by the DRECP is to:

"protect an area of highest value desert tortoise habitat in northeastern Riverside County (2009 USGS Desert Tortoise Habitat model). It would provide critical desert tortoise habitat connectivity between the two major desert tortoise populations identified in the Colorado

Arizona California Colorado Florida N. Carolina Nevada New Mexico New York Oregon Washington, D.C. La Paz, Mexico

Desert (i.e., the Chuckwalla and Chemehuevi critical habitat units) and Joshua Tree National Park. The area contains several bighorn sheep demes and corridors (demes in the Granite, Palen, Coxcomb and Iron mountains). The area also contains the Rice Valley dunes and sand transport corridor and core habitat for the Mojave fringe-toed lizard, a BLM Sensitive Species and a California Department of Fish and Game Species of Special Concern."

DRECP at Appendix L. ACEC Part 5-2.

Furthermore, the DRECP states the Goals and Objectives for this ACEC are to: Protect biological and cultural resources. Protect visual landscape. Maintain desert tortoise habitat connectivity between the Chuckwalla and Chemehuevi ACECs. Bighorn Sheep management goals and objectives are described in Section 2.3.1 in the NECO Plan. DRECP at Appendix L. ACEC Part 5-2

Specific Objectives for this ACEC include:

"Objective: Prevent excessive ground water withdrawal that would potentially threatened dune/ playa dependent vegetation. Management Action: Allow no activities that would create a water basin deficit/ decline.

Management Actions: Playas, dunes, and sensitive vegetation types outside of LWC would be avoidance areas for transmission ROWs and exclusion areas for all other types of ROWs.

Recommend withdrawal of the ACEC from locatable mineral entry

No-surface occupancy leasable minerals"<sup>1</sup> DRECP at Appendix L. ACEC Part 5-2

Because the project lies within the DRECP's Linkage ACEC, "**The 0.1% disturbance cap applies to critical tortoise linkages...**" which also includes existing disturbance. DRECP at Appendix L. ACEC Part 5-2

The MND focuses strictly on connectivity for desert tortoise, apparently based on the name of the connectivity ACEC (Desert Tortoise Connectivity ACEC), but in fact, the wildlife connectivity is for many more sensitive species than the desert tortoise as identified above. Additionally, other resource issues objectives and management actions also apply in the ACEC and on the proposed project site.

A revised document needs to analyze potential impacts to the full range of resources that would be affected by the proposed project including the suite of species that use the area for crucial connectivity particularly as climate change progresses into the future, the protection groundwater resources, protection of the playa, and the appropriateness of developing minerals in this area.

<sup>&</sup>lt;sup>1</sup> Salt is included in the list of leasable minerals by the BLM <u>https://www.blm.gov/programs/energy-and-minerals/mining-and-minerals/nonenergy-leasable-materials</u>

### Ward Valley ERMA

The IS/MND fails to adequately analyze the impact to the Ward Valley ERMA based on the following management:

"Objective: Area would be managed within the Eastern Riverside Extensive Recreation Management Area (ERMA). Provide dispersed opportunities focused on enjoyment of the ACEC qualities."

DRECP at Appendix L. ACEC Part 5-2

The DRECP Section addressing the Ward Valley ERMA identifies the following:

"Activities: Camping, Hiking, Photography, Star Gazing, Walking for Pleasure, Picnicking, Nature Studies

**Experiences:** Historical and Geological Discovery and time spent with family and friends.

#### **Benefits:**

*Personal:* Solitude from the busy urban life in a stress-free environment. *Community/Social:* An increase in tourism and revenue for the local economy. Provide ownership in the history of the area.

*Environmental:* Protect the visual resource by designing facilities which blend naturally into the harsh landscape."

DRECP at Appendix L SRMA-ERMA Part 41

A revised CEQA document needs to analyze potential impacts to these values which are the basis for which the ERMA was established.

#### **Cultural Resources and Surveys**

Prehistoric villages often occurred around the edges of lakes that are now dry - like Danby Dry Lake. AB52 added provisions to CEQA about Tribal consultations and consideration of project impacts to Tribal Cultural Resources that include considering mitigation and alternatives that may be proposed by the Tribal representative. While the IS/MND indicates that consultation with the Fort Mojave Indian Tribe (AhaMakav Cultural Society) is ongoing (at pg. 8), it currently proposes two mitigation measures (at pgs. 31-32). The Archaeological Monitoring Program inappropriately appears optional in Mitigation Measure CR-1, and it is unclear if the Fort Mojave Indian Tribe (AhaMakav Cultural Society) provisions have been included in the IS/MND since consultation is ongoing. Greater transparency about the cultural consultation process needs to be included.

#### **DRECP** Groundwater Compliance

In order to comply with the DRECP's requirement to "Allow no activities that would create a water basin deficit/ decline" (see above), the County must first establish a groundwater baseline for the proposed project. Then it must require a ground water monitoring and management plan which will protect the baseline water basin level through ongoing regular monitoring in order to

detect declines in the water basin. Clear triggers to decrease (or eliminate if necessary) groundwater pumping if groundwater declines are detected is essential.

# Traffic

The IS/MND anticipates producing approximately 50 off-site truck trips/day based on maximum production but does not estimate the number of employee or equipment/supply delivery trips would occur. The IS/MND does identify that "The trucks will travel on SR-62 east to US 95, then north to Las Vegas area or southeast to Phoenix area; or west to SR- 177 to I-10 to customers in southern California". We agree that the level of traffic around the proposed project site are lightly traveled currently, however, the increase in production and off-site travel will increase traffic on these state and federal highways, all of which traverse environmentally vulnerable populations. The IS/MND fails to quantify and analyze the impact of the increased truck trips as well as include the employee and delivery trips.

## **SMARA** Implementation

The County should permit the project for 10 years, not 51 years, to align with BLM's 10-year lease. This would allow the County the opportunity to revisit and update the terms of the reclamation requirements, based on the fact that changes will occur over the next 50 years.

Thank you for the opportunity to submit these comments. Please feel free to contact me with any questions at the contact information below. Please include me on all notices associated with this proposed project.

Sincerely,

Ileene Anderson Senior Scientist Center for Biological Diversity <u>ianderson@biologicaldiversity.org</u> 323-490-0223

cc: Mike Ahrens, BLM <u>BLM\_CA\_Web\_NE@blm.gov</u> Brian Croft, USFWS <u>Brian\_Croft@fws.gov</u> Ali Aghili, CDFW <u>ali.aghili@wildlife.ca.gov</u>

# **EXHIBIT D**

# **Responses to Comments**



August 9, 2021

Reuben J. Arceo, Contract Planner County of San Bernardino Land Use Services Dept. – Planning 385 North Arrowhead Ave. First Floor San Bernardino, CA 92415-0187 <u>Reuben.arceo@lus.sbcounty.gov</u>

# Subject: Response to Comment Dated May 24, 2021 from CBD on Initial Study/Mitigated Negative Declaration for "Bristol Dry Lake Mine" (PROJ-2020-00107)

Dear Mr. Arceo:

This letter includes responses by Valley Salt's / Lilburn Corporation to the comment letter received from the Center for Biological Diversity (CBD) dated May 24, 2021, concerning the for "Bristol Dry Lake Mine Reclamation Plan" which was submitted in December 2020 to San Bernardino County. We have copied CBD's comments followed by our responses.

### Comment #1

Chuckwalla to Chemehuevi Desert Tortoise Linkage ACEC

The establishment of the Chuckwalla to Chemehuevi Desert Tortoise Linkage ACEC by the DRECP is to:

"protect an area of highest value desert tortoise habitat in northeastern Riverside County (2009 USGS Desert Tortoise Habitat model). It would provide critical desert tortoise habitat connectivity between the two major desert tortoise populations identified in the Colorado Desert (i.e., the Chuckwalla and Chemehuevi critical habitat units) and Joshua Tree National Park. The area contains several bighorn sheep demes and corridors (demes in the Granite, Palen, Coxcomb and Iron mountains). The area also contains the Rice Valley dunes and sand transport corridor and core habitat for the Mojave fringe-toed lizard, a BLM Sensitive Species and a California Department of Fish and Game Species of Special Concern."

DRECP at Appendix L. ACEC Part 5-2.

Furthermore, the DRECP states the Goals and Objectives for this ACEC are to:

Protect biological and cultural resources. Protect visual landscape. Maintain desert tortoise habitat connectivity between the Chuckwalla and Chemehuevi ACECs. Bighorn Sheep management goals and objectives are described in Section 2.3.1 in the NECO Plan.

DRECP at Appendix L. ACEC Part 5-2

Specific Objectives for this ACEC include:

"Objective: Prevent excessive ground water withdrawal that would potentially threatened dune/ playa dependent vegetation. Management Action: Allow no activities that would create a water basin deficit/ decline.

Management Actions: Playas, dunes, and sensitive vegetation types outside of LWC would be avoidance areas for transmission ROWs and exclusion areas for all other types of ROWs.

*Recommend withdrawal of the ACEC from locatable mineral entry* 

*No-surface occupancy leasable minerals*"1

DRECP at Appendix L. ACEC Part 5-2

Because the project lies within the DRECP's Linkage ACEC, "The 0.1% disturbance cap applies to critical tortoise linkages..." which also includes existing disturbance.

DRECP at Appendix L. ACEC Part 5-2

The MND focuses strictly on connectivity for desert tortoise, apparently based on the name of the connectivity ACEC (Desert Tortoise Connectivity ACEC), but in fact, the wildlife connectivity is for many more sensitive species than the desert tortoise as identified above. Additionally, other resource issues objectives and management actions also apply in the ACEC and on the proposed project site.

A revised document needs to analyze potential impacts to the full range of resources that would be affected by the proposed project including the suite of species that use the area for crucial connectivity particularly as climate change progresses into the future, the protection groundwater resources, protection of the playa, and the appropriateness of developing minerals in this area.

#### **Response to Comment #1**:

Valley Salt submitted a Reclamation Plan for their Danby Dry Lake Sodium Lease (CALA 0 139523) mining and processing operations and reclamation on Bureau of Land Management (BLM) managed public lands in compliance with the California Surface Mining and Reclamation Act of 1975 (PRC Sections 2710 et seq.) (SMARA). SMARA is implemented by the County through County Development Code Chapter 88.03.

The County's jurisdiction of the site is related to the Reclamation Plan while the BLM reviews and approves, denies, or requests revisions to the operations and reclamation of the site. Since the project site is entirely on public federal lands managed by the BLM, the BLM has final land



use authority for the review, design, and approval of the Proposed Project under 43 CFR 3590 particularly Subparts 3592 through 3596 and its relationship with the DRECP as well as review under the National Environmental Policy Act (NEPA). The Proposed Project cannot be operated without a Record of Decision from the BLM. Potential impacts and/or consistency with the BLM regulations, NEPA, and the DRECP as listed in the above comment are solely under the jurisdiction of the BLM.

The IS/MND does provide information on the potential impacts to wildlife and the Chuckwalla-Chemehuevi Tortoise Linkage ACEC. From page 6 of the IS/MND: "Note that the original Mine and Reclamation Plan (and the survey areas for the biological and cultural resources) included two optional alternative access routes to the east and south and a planned 80-acre clay borrow pit to the northeast of the ponds. These features have been eliminated from the current Mine and Reclamation Plan. A number of potential impacts to desert tortoise habitat and migratory birds were evaluated for these areas and the BLM and applicant determined to avoid these areas in the current project description. In addition, the potential new access roads to the east and south could affect the DRECP Chuckwalla-Chemehuevi Tortoise Linkage ACEC. In order to avoid mainly additional biological impacts, the current project stays within its BLM salt lease area in the dry lake bed and is within the DRECP designated "High Potential Mineral Area." (defined as "*These areas have been identified as mineral lands having existing and/or historic mining activity and a reasonable probability of future mineral resource development. These identified areas will be designated as mineral land polygons on DRECP maps, recognized as probable future development areas for planning purposes and allowable use areas.*")"

The BLM lease area is within the dry lake bed which does not include desert tortoise habitat or due to its size and lack of vegetation, does not provide a link or corridor for the movement of desert tortoise.

## Comment #2

Ward Valley ERMA

The IS/MND fails to adequately analyze the impact to the Ward Valley ERMA based on the following management:

"Objective: Area would be managed within the Eastern Riverside Extensive Recreation Management Area (ERMA). Provide dispersed opportunities focused on enjoyment of the ACEC qualities."

DRECP at Appendix L. ACEC Part 5-2

The DRECP Section addressing the Ward Valley ERMA identifies the following:

"Activities: Camping, Hiking, Photography, Star Gazing, Walking for Pleasure, Picnicking, Nature Studies Experiences: Historical and Geological Discovery and time spent with family and friends.



> Benefits: Personal: Solitude from the busy urban life in a stress-free environment. Community/Social: An increase in tourism and revenue for the local economy. Provide ownership in the history of the area. Environmental: Protect the visual resource by designing facilities which blend naturally into the harsh landscape."

### DRECP at Appendix L SRMA-ERMA Part 41

A revised CEQA document needs to analyze potential impacts to these values which are the basis for which the ERMA was established.

#### **Response to Comment #2:**

As stated above, the County's jurisdiction is related to the Reclamation Plan while the BLM reviews and approves, denies, or requests revisions to the operations and reclamation of the site. The BLM has final land use authority for the review, design, and approval of the Proposed Project under 43 CFR 3590 particularly Subparts 3592 through 3596 and its relationship with the DRECP. The Proposed Project cannot be operated without a Record of Decision from the BLM. Potential impacts and/or consistency with the BLM regulations and the DRECP are solely under the jurisdiction of the BLM.

#### Comment #3

#### Cultural Resources and Surveys

Prehistoric villages often occurred around the edges of lakes that are now dry - like Danby Dry Lake. AB52 added provisions to CEQA about Tribal consultations and consideration of project impacts to Tribal Cultural Resources that include considering mitigation and alternatives that may be proposed by the Tribal representative. While the IS/MND indicates that consultation with the Fort Mojave Indian Tribe (AhaMakav Cultural Society) is ongoing (at pg. 8), it currently proposes two mitigation measures (at pgs. 31-32). The Archaeological Monitoring Program inappropriately appears optional in Mitigation Measure CR-1, and it is unclear if the Fort Mojave Indian Tribe (AhaMakav Cultural Society) provisions have been included in the IS/MND since consultation is ongoing. Greater transparency about the cultural consultation process needs to be included.

#### **Response to Comment #3**:

A Cultural Report was prepared by CRM Tech in January 2019 and was submitted for review to the BLM with a corresponding Area of Potential Effect (APE). The BLM will make the final determinations on potential cultural resource impacts and mitigation measures upon their review and compliance with NEPA. As stated under Response #1 above, the County jurisdiction of the site is related to the Reclamation Plan while the BLM reviews and approves, denies, or requests revisions to the operations and reclamation of the site. Potential impacts and/or consistency with



the BLM regulations, cultural resources assessment, and the DRECP are solely under the jurisdiction of the BLM.

## Comment #4:

### DRECP Groundwater Compliance

In order to comply with the DRECP's requirement to "Allow no activities that would create a water basin deficit/ decline" (see above), the County must first establish a groundwater baseline for the proposed project. Then it must require a ground water monitoring and management plan which will protect the baseline water basin level through ongoing regular monitoring in order to 4 detect declines in the water basin. Clear triggers to decrease (or eliminate if necessary) groundwater pumping if groundwater declines are detected is essential.

#### **Response to Comment #4:**

As stated above, the County jurisdiction of the site is related to the Reclamation Plan while the BLM reviews and approves, denies, or requests revisions to the operations and reclamation of the site. Since the project site is entirely on public federal lands managed by the BLM, the BLM has final land use authority for the review, design, and approval of the Proposed Project under 43 CFR 3590 particularly Subparts 3592 through 3596 and its relationship with the DRECP. The Proposed Project cannot be operated without a Record of Decision from the BLM. Potential impacts and/or consistency with the BLM regulations and the DRECP as listed in the above comment are solely under the jurisdiction of the BLM.

Reclamation of the site requires the return of the site it near its natural conditions with any trenches and ponds filled and all buildings and equipment removed. There would be no impacts to ground water from reclamation of the site.

#### Comment #5:

Traffic

The IS/MND anticipates producing approximately 50 off-site truck trips/day based on maximum production but does not estimate the number of employee or equipment/supply delivery trips would occur. The IS/MND does identify that "The trucks will travel on SR-62 east to US 95, then north to Las Vegas area or southeast to Phoenix area; or west to SR-177 to I-10 to customers in southern California". We agree that the level of traffic around the proposed project site are lightly traveled currently, however, the increase in production and off-site travel will increase traffic on these state and federal highways, all of which traverse environmentally vulnerable populations. The IS/MND fails to quantify and analyze the impact of the increased truck trips as well as include the employee and delivery trips.

#### **Response to Comment #5:**



The Proposed project is the approval of a Reclamation Plan and does not include operational activities. Since the project site is entirely on public federal lands managed by the BLM, the BLM has final land use authority for the review, design, and approval of the Proposed Project under 43 CFR 3590 particularly Subparts 3592 through 3596 and its relationship with the DRECP. The Proposed Project cannot be operated without a Record of Decision from the BLM. Potential impacts and/or consistency with the BLM regulations and the DRECP as listed in the above comment are solely under the jurisdiction of the BLM.

### Comment #6:

### SMARA Implementation

The County should permit the project for 10 years, not 51 years, to align with BLM's 10-year lease. This would allow the County the opportunity to revisit and update the terms of the reclamation requirements, based on the fact that changes will occur over the next 50 years.

#### **Response #6:**

The County's jurisdiction is related to the Reclamation Plan while the BLM reviews and approves, denies, or requests revisions to the operations and reclamation of the site. BLM Records of Decision for Mine and Reclamation Plan do not have expiration dates. Therefore, the County is reviewing the approval of a 50-year reclamation plan as requested by the Applicant. Any time operations are terminated or closed permanently, the conditions of the Reclamation Plan must be implemented. In addition, the County conducts annual site inspections and requires the Applicant to file a Reclamation Bond in an appropriate amount to reclaim the site in accordance with the Reclamation Plan. This Financial Assurance Bond is reviewed and updated annually by the County.

If you have any further questions and wish to discuss our responses, please email or call me.

Thank you,

Minter R Deur

For Frank Amendola Lilburn Corporation (O) 909-890-1818 <u>frank@lilburncorp.com</u> <u>marty@lilburncorp.com</u>



# **EXHIBIT E**

Findings

#### DANBY DRY LAKE SODIUM LEASE

Mining/Reclamation Plan 2021M-02 Valley Salt, LLC

#### Findings: Mining/Reclamation Plan No. 2021M-02

These Findings are for Mining/Reclamation Plan No. 2021M-02 for the reclamation of Valley Salt, LLC's Sodium Lease Mining Operation. The Danby Dry Lake Lease area (Project Site) consists of 1,883 acres within the dry lakebed. The mine site is located approximately 43 miles west of Parker Arizona and 55 miles east of Twentynine Palms in southeastern San Bernardino County. The mine operation will be entirely on public lands administered by the BLM Needles Field Office. The current 10-year lease with the Federal government is scheduled to expire on November 30, 2022 and Valley Salt, LLC is in process of renewing another 10-year lease. Valley Salt, LLC is requesting approval to operate until November 30, 2070, contingent on approval of five additional 10-year leases with BLM. Salt deposits of the Danby Dry Lake playa have been mined since the early 1880s and mined off and on throughout the last century.

Pursuant to Development Code Section 88.03.060(k)(2), the following findings must be made in the affirmative in order to approve the Project's mining Reclamation Plan:

# 1. THE RECLAMATION PLAN COMPLIES WITH THE CALIFORNIA SURFACE MINING AND RECLAMATION ACT (SMARA) (PUBLIC RESOURCES CODE SECTIONS 2772-2773) AND ANY OTHER APPLICABLE PROVISIONS.

The Danby Lake Sodium Lease Reclamation Plan (Mining/Reclamation Plan 2021-02) was reviewed and conditioned for compliance with SMARA. It has also been reviewed and accepted by the California Department of Conservation, Division of Mine Reclamation.

#### 2. THE RECLAMATION PLAN COMPLIES WITH APPLICABLE REQUIREMENTS OF STATE MINING REGULATIONS (CALIFORNIA CODE OF REGULATIONS SECTIONS 3500-3505 AND 3700-3713).

Mining/Reclamation Plan 2021M-02 and potential end use of lands disturbed and reclaimed in compliance with the Plan, as conditioned, complies with all applicable requirements of state mining regulations and are consistent with the Development Code and the Countywide Plan. No additional resource plans or elements apply.

#### 3. THE RECLAMATION PLAN AND POTENTIAL END USE OF LANDS RECLAIMED IN COMPLIANCE WITH THE PLAN ARE CONSISTENT WITH THIS CHAPTER AND THE COUNTY WIDE PLAN AND ANY APPLICABLE RESOURCE PLAN OR ELEMENT.

The implementation of Mining/Reclamation Plan 2021M-02 and potential end use of lands disturbed and reclaimed in compliance with the Plan, as conditioned, are consistent with the Development Code and the Countywide Plan. The Project Site is in unincorporated San Bernardino County and has been used for salt production for over 120 years. No changes or amendments to land use, land use categories, or zoning are proposed; only the continuation of activities historically occurring on-site. The Countywide Plan Land Use Map shows that the project site is within Land Use Category Resource Land Management (RLM) and within Resource Conservation (RC)) zoning. The Proposed Project is consistent with the Countywide

#### 4. THE RECLAMATION PLAN HAS BEEN REVIEWED IN COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) AND THE COUNTY'S ENVIRONMENTAL REVIEW GUIDELINES, AND ALL SIGNIFICANT ADVERSE IMPACTS FROM RECLAMATION OF THE SURFACE MINING OPERATIONS ARE MITIGATED BELOW A LEVEL OF SIGNIFICANCE OR TO THE MAXIMUM EXTENT FEASIBLE.

A Mitigated Negative Declaration was prepared in compliance with CEQA, and all Mitigated Measures have been incorporated into Mining/Reclamation Plan 2021M-02 and Conditions of Approval. Although the Project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the Project have been made by or agreed to by the applicant and all environmental factors potentially affected by the Project can be mitigated below a level of significant with implementation of the mitigation measures.

#### 5. THE LAND AND/OR RESOURCES, SUCH AS WATER, WILL BE RECLAIMED TO A CONDITION THAT IS COMPATIBLE WITH, AND BLENDS IN WITH, THE SURROUNDING NATURAL ENVIRONMENT, TOPOGRAPHY, AND OTHER RESOURCES, OR SUITABLE OFF-SITE DEVELOPMENT WILL COMPENSATE FOR RELATED DISTURBANCE TO RESOURCES VALUES.

Affected lands will be reclaimed to a condition compatible with, and blending with, the surrounding natural environment, topography, and other open space resources as identified in Mining/Reclamation Plan 2021M-02. Financial Assurances and annual mine inspections pursuant to SMARA will take place to ensure that this occurs. Groundwater resources will also be monitored and mitigated should related disturbance to this resource occur.

#### 6. THE RECLAMATION PLAN WILL RECLAIM THE MINED LANDS TO A USABLE CONDITION WHICH IS READILY ADAPTABLE FOR ALTERNATIVE LAND USES CONSISTENT WITH THE COUNTY WIDE PLAN AND APPLICABLE RESOURCE PLAN.

Mining/Reclamation Plan 2021M-02, as conditioned, along with annual mine inspections pursuant to SMARA, will ensure reclamation of the mined lands return to a usable condition that is readily adaptable for alternative land uses consistent with Resource Conservation and Open Space.

7. A WRITTEN RESPONSE TO THE STATE DEPARTMENT OF CONSERVATION HAS BEEN PREPARED, DESCRIBING THE DISPOSITION OF MAJOR ISSUES RAISED BY THAT DEPARTMENT. WHERE THE COUNTY'S POSITION IS AT VARIANCE WITH THE RECOMMENDATIONS AND OBJECTIONS RAISED BY THE STATE DEPARTMENT OF CONSERVATION, THE RESPONSE SHALL ADDRESS, IN DETAIL, WHY SPECIFIC COMMENTS AND SUGGESTIONS WERE NOT ACCEPTED.

The County sent a written response, dated July 1 2021, to the California Department of Conservation, Division of Mine Reclamation (DMR) in response to its April 10, 2019 comments after review of the proposed Danby Dry Lake Sodium Lease Reclamation Plan. Staff provided a detailed response to each comment, along with the required 30-day notification of intent to recommend approval of the Project at a Planning Commission hearing scheduled for September 23, 2021. Each concern expressed by DMR has been addressed and/or incorporated into the revised Plan.

Danby Dry Lake Sodium Lease Project No. PROJ-2020-00107 Mining/Reclamation Plan 2021M-02 Planning Commission: September 23, 2021

#### ENVIRONMENTAL FINDINGS:

The environmental findings, in accordance with Section 85.03.040 of the San Bernardino County Development Code, are as follows:

Pursuant to provisions of the California Environmental Quality Act (CEQA) and the San Bernardino County Environmental Review guidelines, an initial study has been prepared for the Project in compliance with CEQA. Pursuant to the initial study, the above referenced Project has been determined to not have a significant adverse impact on the environment with the implementation of all the required mitigation measures, which have been incorporated into the Project's conditions of approval. A Mitigated Negative Declaration (MND) will be adopted and a Notice of Determination (NOD) will be filed as part with the San Bernardino County Clerk's office. The MND represents the independent judgment and analysis of the County acting as lead agency for the Project.

# **EXHIBIT F**

**Conditions of Approval** 

# **CONDITIONS OF APPROVAL**

#### DANBY DRY LAKE SODIUM LEASE

Mining Reclamation Plan 2021M-02 Valley Salt, LLC

#### GENERAL REQUIREMENTS

#### Conditions of Operation and Procedures

## LAND USE SERVICES DEPARTMENT – Planning Division (909) 387-8311

- 1. <u>Project Description:</u> Mining Reclamation Plan for the Danby Dry Lake Sodium Lease Operation on 481 acres located on lands administered by BLM.
- 2. <u>Project Location:</u> Approximately 43 miles west of Parker, Arizona and 55 miles east of Twentynine Palms in southeastern San Bernardino County, California.
- 3. <u>Effective Dates:</u> The Mining Reclamation Plan approval (Project Number PROJ-2020-00107) for Mining Reclamation Plan 2021M-02 shall be effective until November 30, 2072, and Reclamation completion on November 30, 2074. At the conclusion of mining activities, the site will be reclaimed to vacant open space and support wildlife habitat.
- 4. <u>Reclamation Plan Recordation:</u> Pursuant to Public Resources Code Section 2772.7, Planning will prepare a "Notice of Reclamation Plan Approval" on a form to be approved by the County Recorder's Office. The operator shall be responsible for review costs and recording fees.
- 5. <u>Revisions/Amendments:</u> Any alteration or expansion of these facilities or increase in the developed area of the site from that shown on the final approved Reclamation Plan will require submission of an additional application for review and approval. If mining reclamation procedures change from those outlined in the Valley Salt Danby Dry Lake Sodium Lease Reclamation Plan prepared by Lilburn Corporation, dated July 2020, the applicant/operator shall file an amendment and secure approval before such changes can be made effective.
- 6. <u>Continuous Effect/Revocation:</u> All conditions of the Valley Salt, LLC Mining Reclamation Plan 2021M-02 are continuing conditions. Failure of the applicant/operator to comply with any or all of said conditions at any time could result in the notice of a public hearing before the Planning Commission to consider revoking the Mining CUP. If revocation is confirmed, the Planning Commission may provide for a reasonable period of time amortize any lawful existing uses and require the commencement of reclamation in accordance with approved Reclamation Plan 2021M-02.
- 7. <u>Written Notification:</u> The Land Use Services Department shall be notified in writing, within 30 days, regarding any:
  - A. Change in operating procedures, or inactive periods of operation for one (1) year or more.

- B. Changes of Company ownership, address, or telephone number during the life of the Mining CUP and Reclamation Plan.
- C. Changes to provisions in lease agreements or real property having any effect on the approved Mining and Reclamation Plan.
- 8. <u>Mining Reclamation Plan:</u> The approved Mining Reclamation Plan 2021M-02 and these corresponding Conditions of Approval shall be kept at the site at all times during active operations and be presented to the inspector upon request.
- <u>CA Mine ID:</u> The applicant/operator shall obtain a California Mine Identification number from the California Department of Conservation within 30 days of approval pursuant to Public Resources Code, Section 2207 and California Code of Regulations, Section 3697 and pay all associated fees to the State.
- 10. Interim Management Plan: The applicant shall implement measures to stabilize and secure the site during periods of inactivity as per the approved Mining and Reclamation Plan. An Interim Management Plan (IMP) as required by SMARA, Public Resources Code Section 2770(h)(1) shall be submitted to Planning for review and approval within 90 days of the mining operation becoming idle.
- 11. <u>Additional Permits:</u> The applicant/operator shall ascertain and comply with requirements of all County, State, and Federal agencies as may be applicable to the Project. These include, but are not limited to the following: San Bernardino County Departments of Land Use Services, Public Health Environmental Health Services, and Public Works; Mojave Desert Air Quality Management District; Colorado River Basin Regional Water Quality Control Board; Mojave Desert Resource Conservation District, State Fire Marshal, Caltrans District 8, California Department of Fish and Wildlife Region 6, State Mining and Geology Board, California Department of Conservation Division of Mine Reclamation, California Occupational Safety and Health Administration, California Highway Patrol, Bureau of Land Management, and the Mine Safety and Health Administration.
- 12. <u>Indemnification:</u> In compliance with San Bernardino County Code (SBCC) Section 81.01.070, the applicant shall agree, to defend, indemnify, and hold harmless the County or its "indemnitees" (herein collectively the County's elected officials, appointed officials (including Planning Commissioners), Zoning Administrator, agents, officers, employees, volunteers, advisory agencies or committees, appeal boards or legislative body) from any claim, action, or proceeding against the County or its indemnitees to attack, set aside, void, or annul an approval of the County by an indemnitee concerning a map or permit or any other action relating to or arising out of County approval, including the acts, errors or omissions of any person and for any costs or expenses incurred by the indemnitees on account of any claim, except where such indemnification is prohibited by law. In the alternative, the applicant may agree to relinquish such approval.

Any Condition of Approval imposed in compliance with the County Development Code or County General Plan shall include a requirement that the County acts reasonably to promptly notify the applicant of any claim, action, or proceeding and that the County cooperates fully in the defense. The applicant shall reimburse the County and its indemnitees for all expenses resulting from such actions, including any court costs and attorney fees, which the County or its indemnitees may be required by a court to pay as a result of such action. The County may, at its sole discretion, participate at its own expense in the defense of any such action, but such participation shall not relieve the applicant of their obligations under this condition to reimburse the County or its indemnitees for all such expenses.

This indemnification provision shall apply regardless of the existence or degree of fault of indemnitees. The applicant's indemnification obligation applies to the indemnitees' "passive" negligence but does not apply to the indemnitees' "sole" or "active" negligence or "willful misconduct" within the meaning of Civil Code Section 2782.

14. <u>Financial Assurances:</u> The applicant/operator shall maintain an acceptable form of Financial Assurance for Mining Reclamation Plan 2021M-02. Financial Assurance mechanisms shall identify the County of San Bernardino and the California Department of Conservation as the beneficiaries.

The Financial Assurance shall be calculated based on a cost estimate submitted by the applicant/operator and approved by the County and the California Department of Conservation, Division of Mine Reclamation for the approved reclamation procedures. Within 30 days following the mine site inspection, a Financial Assurance Cost Estimate shall be provided to the Land Use Services Department. The assurance amount shall be reviewed and, if necessary, adjusted to account for new lands disturbed by surface mining operations, inflation and reclamation of lands accomplished in accordance with the approved Mining Reclamation Plan 2021M-02.

The Financial Assurance is not established to replace the applicant's/operator's responsibility for reclamation, but to assure adequate funding to complete reclamation per the Mining Reclamation Plan 2021M-02 and Conditions of Approval. Should the applicant/operator fail to perform or operate within all of the requirements of the approved Mine Reclamation Plan, the County or Department of Conservation will follow the procedures outlined in Sections 2773.1 and 2774.1 of SMARA regarding the encashment of the assurance and applicable administrative penalties, to bring the applicant/operator into compliance. The requirements for the assurance will terminate when reclamation of the site has been completed in compliance with the approved Mine Reclamation Plan and accepted by the County and the California Department of Conservation, Division of Mine Reclamation pursuant to California Code of Regulations (CCR), Section 3805.5.

15. <u>SMARA and State Regulations:</u> The provisions of the California Surface Mining and Reclamation Act of 1975 ("SMARA", Public Resources Code Section 2710 et seq.), Public Resources Code Section 2207, and the regulations implementing SMARA ("State

Regulations", California Code of Regulations Section 3500 et seq.) are made a part of the approval. In the event that the State amends SMARA to the extent it adds to or conflicts with the Conditions of Approval, State law shall prevail.

- 16. <u>Annual Reporting and Inspection:</u> The applicant/operator shall provide a Mining Operation Annual Report to the California Department of Conservation and to Land Use Services Department on a date established by the California Department of Conservation, using forms furnished by the State Mining and Geology Board. The County is required to conduct an inspection of the surface mining operation by a qualified person within intervals of no more than 12 months to determine if the operation is in compliance with the approved Conditions of Approval, Reclamation Plan, and SMARA statutes and regulations. The County is required to notify the California Department of Conservation upon completion of the inspection that the inspection has been conducted and provide a statement regarding the status of compliance of the operation within 90 days after completion of the inspection. The operator of the mining operation is responsible for filing an application with the County to request an inspection and shall be responsible for paying the County's costs in conducting the mine site inspection.
- 17. <u>"Applicant/Operator"</u>: Requirements extend to the property owner and any person, lessee, tenant or sub-tenant, operator, individual, firm, association, corporation, organization, Limited Liability Company or partnership, or any city, county, district, or the state or any department or agency thereof for any disturbance or improvements to the mined lands. The applicant/operator may include an agent or other interested party, and any heir or successor in interest in the project land use by sale or by lease of all or of a portion of the mine site including land use within any or all of the mine structures or areas on the mine site.
- 18. <u>Project Account:</u> As determined necessary on a case-by-case basis, the applicant/operator shall deposit funds with the County necessary to compensate staff time and expenses for review of compliance monitoring reports and site inspections. The project account number for this Mining operation is **PROJ-2020-00107**. This is an actual cost project with a deposit account to which hourly charges are assessed by various county agency staff, including but not limited to: Land Use Services, Public Works, and County Counsel. Upon notice, the applicant shall deposit additional funds to maintain or return the account to a positive balance. The applicant/operator is responsible for all expenses charged to this account.

## Definitions

- 19. <u>Minerals</u>: Include any naturally occurring chemical element or compound, or groups of elements and compounds, formed from organic and inorganic processes. Clay, sand, gravel, rock, decomposed granite, salts, alumina, silica, alkali, topsoil or growth medium, organic humus and gems represent the aggregate of different minerals.
- 20. <u>Produced Minerals</u>: Produced Minerals as defined in CCR §3501 includes all minerals sold, given or otherwise moved off the site of the operation, as defined in the approved reclamation plan. Recycled products (e.g. broken concrete, bricks, asphaltic concrete, etc.) or stockpiles of

mineral products that remain on the site are not produced minerals for purposes of CCR §3695(b).

- 21. <u>Construction and Demolition (C&D)</u>: Materials left onsite shall be deemed as waste material produced in the process of site clearing activities, construction, renovation, or demolition of structures of all types to include roads and bridges. Waste materials include, but is not limited to concrete, asphalt, wood, metals, gypsum wallboard and brick. The Financial Assurance Cost Estimate shall include costs to remove C&D materials to an approved offsite facility that is permitted to receive such materials.
- 22. <u>Exploration or Prospecting:</u> Includes the activities in search for minerals by geological, geophysical, geochemical or other techniques, including, but not limited to, sampling, assaying, drilling, or any surface or underground works needed to determine the type, extent, or quantity of minerals present.
- 23. <u>Surface Mining Operations:</u> Surface mining operations include all, or any part of, the process involved in the mining of minerals on mined lands, borrow pitting, segregation and stockpiling of mined materials (and recovery of the same).
- 24. <u>Ownership</u>: The person(s) involved in the ownership of the property include all persons having interest in the ownership of the surface and subsurface property, including mineral rights. If the applicant/operator is not the recorded owner(s) of the property must submit a signed statement by the property and mineral rights owner(s) authorizing the Applicant to act on their behalf.
- 25. <u>Operator:</u> The Operator includes the Applicant and any person who is engaged in surface mining operations, and others contracted to conduct operations on his or her behalf, except a person who is engaged in surface mining operations as an employee with wages as his or her sole involvement and compensation.
- 26. <u>Operations:</u> Surface mining operations include all, or any part of, the process involved in the mining of minerals on mined lands, borrow pitting, segregation and stockpiling of mined materials (and recovery of same).
- 27. "<u>Mined Lands":</u> Include the surface, subsurface, and groundwater of an area in which surface mining operations will be, are being, or have been conducted, including private ways and roads appurtenant to any such area, land excavations, workings, mining waste, and areas in which structures, facilities, equipment, machines, tools, or other materials or property which result from, or are used in, surface mining operations are located.
- 28. <u>Aggregate Removal:</u> The applicant shall not sell or otherwise move off the mine site any sand, gravel, or other produced minerals to a public agency unless the operator certifies, under penalty of perjury, that the mining operation is identified in the AB 3098 List published pursuant to PRC Section 2717(b).

Valley Salt, LLC - Danby Dry Lake Operations Mining Reclamation Plan 2021M-02 PROJ-2020-00107, APN: 0646-041-08

#### **Ongoing Requirements**

29. <u>Human Remains/Funeral Objects:</u> If human remains or funeral objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100foot buffer of the find) shall cease and the County Corner shall be contacted pursuant to State Health and Safety Code Section 7050.5 and that code enforced for the duration of the project.

If the remains are thought to be Native American, the coroner will notify the NAHC, which will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will also contact Gary Jones, Caltrans District 8 Native American Coordinator at (909) 383-7505 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC Section 5097.98 are to be followed as applicable.

30. <u>Native American Cultural Resources:</u> In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period.

#### LAND USE SERVICES DEPARTMENT – Land Development– Drainage (909) 387-8311

- 31. <u>Tributary Drainage:</u> Adequate provisions should be made to intercept and conduct the tributary offsite on site drainage flows around and through the site in a manner, which will not adversely affect adjacent or downstream properties at the time the site is developed.
- 32. <u>Natural Drainage:</u> The natural drainage courses traversing the site shall not be occupied or obstructed.

#### COUNTY FIRE DEPARTMENT – Community Safety Division (760) 995-8190

- 33. <u>Jurisdiction</u>: The above referenced project is under the jurisdiction of the San Bernardino County Fire Department herein ("Fire Department"). Prior to any construction occurring on any parcel, the developer shall contact the Fire Department for verification of current fire protection requirements. All new construction shall comply with the current Uniform Fire Code requirements and all applicable statutes, codes, ordinances and standards of the Fire Department.
- 34. <u>Access</u>: The development shall have a minimum of one point of vehicular access for fire/emergency equipment access and for evacuation routes. The primary access route shall comply with the minimum requirements for fire protection and/or emergency response with applicable local ordinances, codes, and/or fire protection standards.

# PRIOR TO NEW LAND DISTURBANCE AND THROUGHOUT THE PROJECT THE FOLLOWING SHALL BE COMPLETED

#### LAND USE SERVICES DEPARTMENT – Building and Safety Division (909) 387-8311

- 35. <u>Structures</u>. Obtain permits for all structures located on site and all work done without a building permit.
- 36. <u>Demolition Permit</u> Required Before Grading Obtain a demolition permit for any building/s or structures to be demolished. Underground structures must be broken in, back-filled and inspected before covering
- 37. <u>Construction Plans</u>. Any building, sign, or structure to be added to, altered (including change of occupancy/use), constructed, or located on site, will require professionally prepared plans based on the most current adopted County and California Building Codes, submitted for review and approval by the Building and Safety Division
- 38. A Temporary Structures (TS) permit for non-residential structures for use as office, retail, meeting, assembly, wholesale, manufacturing, and/ or storage space will be required. A Temporary Use Permit (PTUP) for the proposed structure by the Planning Division must be approved prior to the TS Permit approval. A TS permit is renewed annually and is only valid for a maximum of five (5) years.
- 39. <u>Wall Plans</u>. Submit plans and obtain separate building permits for any required retaining walls.

#### LAND USE SERVICES DEPARTMENT – Planning Division (909) 387-8311

40. Mitigation Measure CR-1 (Cultural Resources)

An archaeological monitoring program shall be implemented during earth-moving operations within the APE, including periodic "spot-checking" upon the commencement of ground disturbance and continuous onsite monitoring if deemed necessary by the project archaeologist in consultation with BLM.

If cultural materials more than 50 years of age are discovered, they need to be field- recorded and evaluated. The monitor shall be prepared to recover artifacts quickly to avoid operational delays but must have the power to temporarily halt or divert equipment to allow for controlled archaeological recovery if a substantial cultural deposit is encountered.

If needed, the archaeological monitoring program shall be designed and implemented in coordination with the Fort Mohave Indian Tribe.

If found, collected artifacts shall be processed, catalogued, analyzed, and prepared for permanent curation in a repository with permanent retrievable storage that would allow for additional research in the future.

If any, archaeological site records shall be prepared to document the cultural remains discovered during monitoring and submitted to the South Central Coastal Information Center for incorporation into the California Historical Resources Inventory.

A report summarizing the methods and results of the monitoring program, including cts, shall be prepared upon laboratory work. The report shall include an interpretation of cultural activities represented by the artifacts and a discussion of the significance of all archaeological finds.

The submittal of the report to the BLM, along with final curation of the recovered artifacts, will signify completion of the monitoring program and, barring unexpected findings of extraordinary significance, the mitigation of potential project impacts on cultural resources.

Under these conditions, CRM TECH recommends that the proposed project may proceed in compliance with the provisions of Section 106 of the National Historic Preservation Act. If during excavation any subsurface artifacts are discovered, all work shall stop within 100 feet of the area and the BLM Archaeologist, shall be notified and work shall not proceed in the area until the BLM gives a notice to proceed.

41. <u>Mitigation Measure CR-1 (Cultural Resources)</u> is required as a condition of project approval to reduce these impacts to a level of less than significant:

Disturb any human remains, including those outside of formal cemeteries? Operational activities, particularly grading, could potentially disturb human remains interred outside of a formal cemetery. The Project Site is not located on or near a known cemetery. However, to insure adequate and compliant management of any buried remains that may be identified during project development, the following Mitigation Measure is required as a condition of project approval to reduce any potential impacts to a less than significant level.

## 42. Mitigation Measure CR-2:

If evidence of human remains is identified, the County Coroner will be contacted immediately and permitted to inspect the remains. The County of San Bernardino and the Project Applicant shall also be informed of the discovery. The Coroner will determine if the bones are historic/archaeological or a modern legal case. The Coroner will immediately contact the Native American Heritage Commission (NAHC) in the event that remains are determined to be human and of Native American origin, in accordance with California Public Resources Code Section § 5097.98.

All discovered human remains shall be treated with respect and dignity. California state law (California Health & Safety Code § 7050.5) and federal law and regulations ([Archaeological Resources Protection Act (ARPA) 16 USC 470 & 43 CFR 7], [Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10] and [Public Lands, Interior 43 CFR 8365.1-7]) require a defined protocol if human remains are discovered in the State of California regardless if the remains are modern or archaeological

With implementation of Mitigation Measures the project would not have significant impact on human remains.

#### 43. Mitigation Measure GEO-1 (Geology and Soils)

A Qualified Paleontologist meeting the standards of Society of Vertebrate Paleontology (SVP) shall initially conduct a desktop assessment of the paleontological sensitivity of the project area, including a review of higher resolution geologic mapping and updated museum records searches. The

results of this assessment will be used to develop project- specific mitigation measures, such as the development of a paleontological resources monitoring and mitigation plan (PRMMP) for projects in high sensitivity sediments. This plan will address specifics of monitoring and mitigation to that project area and reclamation plan, and will take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and any changes to the regulatory

framework. This PRMMP should usually meet the BLM standards (2009). When determining the depth at which the transition to high sensitivity occurs and monitoring becomes necessary, the Qualified Paleontologist should take into account: a) the most recent local geologic mapping, b) depths at which fossils have been found in the vicinity of the project area, as revealed by the museum records search, and c) geotechnical studies of the project area, if available.

*Implementation of Mitigation Measure GEO-1 would ensure that less than significant impacts to paleontological resources occur.* 

#### 44. <u>Mitigation Measure TRC-1 (Tribal Cultural Resources)</u>

If archaeological resources are encountered during project operations by the archaeological monitoring required by Mitigation Measure CR-1 or by on-site personnel, the Fort Mohave Indian Tribe (AhaMakav Cultural Society shall be informed of the discovery.

#### 45. <u>Mitigation Measure BIO-1: (Biology Resources)</u>

A notification shall be submitted to the CDFW to determine if regulatory permit will need to be obtained through the CDFW prior to initiating new mining within an area and appropriate protective measures implemented.

The following are general protective measures that may be required to be determined by the CDFW:

- Worker environmental awareness program;
- Demarcation of jurisdictional areas to prevent unnecessary impact;
- Avoiding impacts to undisturbed areas with flagging or temporary fencing;

Valley Salt, LLC - Danby Dry Lake Operations Mining Reclamation Plan 2021M-02 PROJ-2020-00107, APN: 0646-041-08

- Implementation of BMPs to prevent erosion and sediment discharge;
- Maintaining areas free of trash, debris, hazardous materials, and spills.

#### PRIOR TO ISSUANCE OF BUILDING PERMITS

The Following Shall Be Completed:

#### COUNTY FIRE DEPARTMENT – Hazardous Materials 386-8401

46. <u>Underground storage tank</u> (UST) systems storing hazardous substances in the County of San Bernardino shall conform to standards issued by the San Bernardino County Fire Protection District. Written approval shall be obtained from this Department prior to the installation of any new UST system(s) and/or modifications to an existing UST system. Plans for underground storage tank systems shall be reviewed and approved by Office of the Fire Marshal, Hazardous Materials Division. For additional information please contact (909) 386-8401.

## **ONGOING MINING OPERATIONAL CONDITIONS**

#### COUNTY FIRE DEPARTMENT – Hazardous Materials 386-8401

- 47. <u>Hazardous Material Permit</u> A business or facility that handles hazardous materials in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time or generates any amount of hazardous waste shall obtain hazardous material permits from this department. Prior to occupancy the business operator shall apply for permits (Hazardous Material Permit, Hazardous Waste Permit, Aboveground Storage Tank Permit, Underground Storage Tank Permit) or apply for exemption from permitting requirements.
- 48. <u>Petroleum products</u> A businesses or facilities handling greater than 1320 gallons of petroleum products in aboveground storage tanks (shell capacity) shall prepare and implement a Spill Prevention, Control, and Countermeasures Plan (SPCC) in accordance with 40 CFR 1 112.3 and CHSC 25270.4.5(a). The SPCC plan shall be maintained on site.
- 49. <u>Hazardous materials business plan.</u> Prior to Occupancy an application for one or more of these permits shall occur by submitting a hazardous materials business plan using the California Environmental Reporting System (CERS) http://cers.calepa.ca.gov/

## LAND USE SERVICES – Planning Division (909) 387-8311

Valley Salt, LLC - Danby Dry Lake Operations Mining Reclamation Plan 2021M-02 PROJ-2020-00107, APN: 0646-041-08

# **General Operations**

- 50. <u>Dust Control Plan</u>: The applicant/operator is responsible for meeting all air quality requirements, including, securing an approved Dust Control Plan pursuant to SBCC Chapter 88.02 and Section 88.02.040 and approved by the Mojave Desert Air Quality Management District (MDAQMD). Once approved, the Plan shall be submitted to and kept on file with the Land Use Services Department. The Plan shall, at minimum, include the following aspects:
  - a. Truck traffic will be limited to 20 MPH on all site roads;
  - b. All clearing, grading, earth moving, and excavation activities will cease during period of winds greater than 25 miles per hour (averaged over one hour), or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property, and in conformance with Mojave Desert Air Quality Management District (MDAQMD) regulations;
  - c. All roads, driveways, and mining areas not covered with gravel or treated with protective soil amendments, shall be kept wetted while being used; and,
  - d. The applicant/operator shall ensure that any portion of the site to be disturbed shall be moisture conditioned prior to the onset of earth-moving activities.
  - e. The Dust Control Plan should identify an individual responsible for dust mitigation and this individual's name and contact telephone number shall be clearly posted on a project boundary sign visible to the public for feedback purposes.
- 51. <u>Best Management Practices (BMP's)</u>: The operator shall implement the BMP's procedures. BMP provisions shall include the following:
  - b. Good House Keeping Dust minimization, waste spills, discharges.
  - c. Preventive Maintenance Minimize spills, and onsite leaks, prompt maintenance.
  - d. Spill and Leak Preventive Response In place spill procedures and controls.
  - e. Material Handling and Waste Mgmt. Waste covering, storm water diversion practices, waste clean ups.
  - f. Implement Erosion and Sediment Controls Sediment and Erosion Stabilization.
  - g. Employee Training Program- BMP Training.
  - h. Exposure Minimization Storm resistant shelters to prevent contact of storm water with mining materials.
  - i. Storm Water Containment & Discharge Reduction BMP's that divert, reuse, contain or reduce volume of storm water runoff.
- 52. <u>Stationary Equipment</u>. Generators will comply with Mojave Desert Air Quality Management District (MDAQMD) rules and regulations and all necessary permits will be obtained prior to operation. Currently, Valley Salt has obtained permits for the "salt crushing, screening, and drying system" (Permit #B013098) and for two diesel powered generators rated at 838 brakehorse power each (Permit #s B13412 a& B13413) and two small diesel generators to power the living quarters (<50 bhp). The crushing/screening/drying system is conditioned under its air quality permit to limit production to not exceed 300,000 tons/year.

- 53. <u>Haul trucks and Diesel heavy.</u> Equipment will meet requirements of the California Air Resources Board's (CARB) off-road diesel vehicles regulations to reduce diesel pollutants. Operations are required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requires requirements for controlling fugitive dust). Water sprays and dust containment measures such as enclosures are required to control emissions. One to two water trucks will water spray the roads with brine and add salt gravel as needed to control dust. The salt water will act as a natural dust suppressant that is more effective than fresh water.
- 54. <u>Refuse</u>. All refuse will be kept in closed containers and removed from the site to permitted facilities by a contracted hauler as needed. No trash will be allowed to collect on the site.
- 55. <u>Noise Level:</u> Should an acoustical study be required, and the results of such study indicate operations do not comply with the County Standards under SBCC Section 83.01.080; the Planning Director may require modification of such operations. Mitigation measures may include:
  - a. Restriction of activities to certain times of the day.
  - b. Restriction on the location of activities to certain times of the day.
  - c. Mitigation agreed to by aggrieved party(ies).
- 56. <u>Designated Haul Roads:</u> Haul roads shall be limited to those designated on the Mine Plan.
- 57. <u>Sign Maintenance:</u> The applicant/operator shall regularly review the adequacy of directional signs, safety signs, and/or other onsite signs. Care should be taken to ensure that signs do not become blocked by vegetation or become illegible from dirt or deterioration. As new phases are developed, additional signs may be needed. In evaluating the adequacy of signs, they should be considered from the viewpoint of a first-time visitor on the property, such as a vendor or a contractor.
- 58. <u>Company Identification</u>: The applicant shall ensure that haul truck contractors provide Company identification signs on all company owned and operated haulage trucks used on public roads. The signs shall be located on both sides and the rear of each truck. The information contained on the sign shall include:

	<u>On the rear of the truck</u> :	On the side of the truck:	
Α.	How am I driving?	Α.	Company name
В.	Truck number	В.	Truck number

C. Company phone number C. Company phone number

The signing shall be printed in a minimum of 3" high lettering. The applicant shall have a person or an answering machine available during operating hours to answer the phone that corresponds to the phone number on the truck. The persons answering the phone number shall be instructed as to how to take the calls, how to affect a solution, and be responsible for returning a call to the complainant with results of investigation. The applicant shall keep a log of all calls received and shall include documentation of response and/or resolution of complaints. The log shall be made available to the County upon request.

- 59. <u>Onsite Lighting:</u> The area of illumination from any onsite lighting shall comply with SBCC Section 83.07.040 Glare and Outdoor Lighting. Light pollution shall be minimized and confined within the site boundaries to limit impacts to surrounding properties. The glare from any luminous source, including onsite lighting shall not exceed one-half (0.5) foot-candle at property line. Onsite lighting shall be fully shielded, diffused, or directed in a manner to avoid glare directed at adjacent properties, roadways or any light spill into any wildland areas surrounding the site that might affect nocturnal animals. No light shall project onto adjacent roadways in a manner that interferes with on-coming traffic. All lighting shall be limited to that necessary for maintenance activities, security and safety purposes. All signs proposed by this project shall only be lit by steady, stationary, shielded light directed at the sign.
- 60. <u>Site Maintenance</u>: The applicant/operator shall maintain the premises in a neat and orderly manner at all times. All refuse generated at the premises shall at all times be stored in approved containers and shall be placed in a manner so that visual or other impacts and environmental public health nuisances are minimized. All refuse <u>not</u> containing garbage shall be removed from the premises at least <u>one</u> time per week, or as often as necessary to minimize public health nuisances. Refuse containing garbage shall be removed from the premises at least <u>two</u> times per week, or as often as necessary to minimize public health nuisances, by a permitted hauler to an approved solid waste facility. For information, call DEHS/LEA at (800) 442-2283.

## **Environmental Protection**

61. <u>Chemical Spills/Leakage:</u> All chemical spills or leakage of petroleum products during mining or reclamation activities shall be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste shall be collected and disposed of at an appropriately licensed disposal or treatment facility.

In the event of any soil contamination onsite, the applicant/operator shall remove any soils that become chemically contaminated to a County approved disposal site so as to preclude any chemical leaching into the local ground water supply over time.

- 62. <u>Equipment Emission Reduction and Idling:</u> The mine operator shall maintain and operate construction equipment so as to minimize exhaust emissions. During mining, trucks and vehicles in loading and unloading queues shall have their engines turned off when not in use, to reduce vehicle emissions.
- 63. <u>Vehicle Maintenance</u>: The mine operator shall ensure that all equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. Vehicle maintenance,

servicing, and fueling will be accomplished onsite by a mobile maintenance truck and Best Management Practices shall be implemented. All used fluids will be removed from the equipment and from the site following standard regulations. No used fluids will be stored onsite.

- 64. <u>Fuel Sources:</u> The mine operator shall ensure onsite mobile equipment, including lighting, is powered by alternative fuel sources (i.e., methanol, natural gas, propane, or butane) as feasible. Commercial power shall be used when feasible.
- 65. <u>Exhaust Control Measures</u>: The operator shall comply with all existing and future EPA (Clean Air Non-road Diesel Rule-May 2004), CARB and MDAQMD regulations related to diesel-fueled trucks and equipment, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

Operation of all off-road and on-road diesel vehicles/equipment shall comply with the County Diesel Exhaust Control Measures (SBCC, Section 83.01.040 (c)) including but not limited to:

- a. Equipment/vehicles shall not be left idling for period in excess of five minutes;
- b. Engines shall be maintained in good working order to reduce emissions;
- c. Onsite electrical power connections shall be made available where feasible;
- d. Ultra low-sulfur diesel fuel shall be utilized;
- e. Electric and gasoline powered equipment shall substitute for diesel powered equipment where feasible;
- f. Signs shall be posted requiring all vehicle drivers and equipment operators to turn off engines when not in use;
- g. In addition, all on-road diesel trucks shall not idle more than five minutes per truck trip or per day on the Project site.
- 66. <u>Trackout and Spills:</u> The mine operator shall take actions sufficient to prevent project-related trackout onto paved surfaces and cover loaded haul vehicles while operating on publicly maintained paved surfaces. The mine operator shall immediately clean-up project-related trackout or spills on publicly maintained paved surfaces.

## Reclamation

67. <u>Reclamation Time Schedule:</u> Reclamation will be conducted concurrently and completed within two years after the termination of mining operations. Final reclamation will include the removal of all equipment, structures, tanks and debris from the site, backfilling of pits, ponds and

trenches with bermed material, reclaiming access roads, and closure of all wells per applicable state and local laws.

- 68. <u>Barriers/Signage:</u> Safety barriers and signage per MSHA requirements shall be maintained around the mined slopes.
- 69. <u>Grading</u>. When pits, ponds, roads, and other disturbed areas are no longer being mined or planned to be utilized in the future, pits and trenches will be backfilled with the surrounding overburden and protective berms. The surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to traverse the area. All pond berms will be flattened, and the material will be evenly spread across the site. In addition, any small exploration trenches within the lease area will be backfilled and graded as close as possible to the existing grade with available material.
- <u>Stockpiles:</u> Stockpile heights shall be maintained at no higher than 35' during the life of the project. Should the project go into idle status, the product stockpiles shall be stabilized or removed as a condition of an Interim Management Plan (IMP) as required by SMARA, Section 2770(h)(1).
- 71. <u>Stability Monitoring:</u> Monitoring shall be implemented to assure that unnecessary hazards are not created with the active or final mining development. A qualified independent California Certified Professional Civil Engineer and/or Engineering Geologist shall complete a stability assessment for areas deemed necessary by the County inspector. The analysis shall identify and mitigate for hazards.
- 72. <u>Revegetation</u> The site and surrounding areas are generally devoid of vegetation; therefore, the site will not require revegetation per approved Mining Reclamation Plan 2021M-02.

## PUBLIC HEALTH – Environmental Health Services (DEHS) (800) 442-2283

- 73. <u>Noise Operations:</u> Noise levels shall be maintained at or below County Standards, SBCC Section 83.01.080.
- 74. <u>Refuse:</u> Refuse generated at the premises shall at all times be stored in approved containers and shall be placed in a manner so that visual, or other impacts, and environmental public health nuisances are minimized and complies with the SBCC, Section 33.0803 et seq. For information, please call DEHS/Local Enforcement Agency (LEA) at (800) 442-2283.
- 75. <u>Solid Waste Removal:</u> No landfilling of wastes shall occur onsite. In the event that refuse is stored onsite, all refuse not containing garbage shall be removed from the premises at least 1 time, and refuse containing garbage shall be removed from the premises at least **2** times per

week, to an approved solid waste facility in conformance with SBCC Section 33.0803 et seq. For information, please call DEHS/LEA at (800) 442-2283.

- 76. <u>Portable Toilets:</u> An adequate number of portable toilets shall be provided and maintained so as not to create a public nuisance and shall be maintained by a DEHS permitted pumper. Portable unit shall provide hand washing capacity. Units shall be serviced at least weekly while in use. Submit a copy of the service contract from an approved pumper to DEHS. For information, call DEHS/Wastewater Section at (800) 442-2283.
- 77. <u>Ponding Water:</u> Applicant/Operator shall manage ponding water to avoid vector breeding, e.g., mosquitoes, midges, and gnats.

# PRIOR TO FINAL CLOSURE The Following Conditions Shall Be Met:

# LAND USE SERVICES – Planning Division (909) 387-8311

- 78. Equipment: At the completion of mining activities, all equipment, wells, and structures will be removed within one year. Surface material in all compacted working areas, stockpile, and processing areas will be loosened by mechanical means. All debris will be removed and disposed at a permitted facility. The pits, ponds and trenches will be backfilled with their surrounding berm material and the area graded level to as close to existing elevations as possible with available material.
- 79. <u>Shallow pits.</u> Remaining trenches will be backfilled with the surrounding overburden and protective berm. The surface will be graded to a safe grade close to the original grade leaving no unsafe slope so that the public and wildlife would not be injured if they were to traverse the area. No side slopes will be steeper than 3H:1V. All pond berms will be flattened, and the material will be evenly spread
- 80. <u>Wells</u>. Upon final reclamation, all on-site well will be closed or destroyed in accordance with the California Department of Water Resources Bulletin 74-91 as revised in 1988 or the latest revision and with the San Bernardino County Department of Environmental Health (DEHS) regulations to the satisfaction of the authorized BLM officer. The wells will be closed in such a manner that will no longer be a hazard to the health and safety of people and wildlife. In addition, all underground or buried pipes and wiring will be removed and disposed of properly and any trenches will be back filled to grade.
- 81. <u>Buried pipes</u>. All remaining underground or buried pipes and wiring will be removed and disposed of properly and any trenches will be back filled to grade.
- 82. <u>Access and Haul Roads:</u> All access and haul roads onsite, not identified as retained for postoperation uses, shall be reclaimed at the conclusion of ground-disturbing activities.

- 83. <u>Site Re-Contouring.</u> The applicant/operator shall re-contour the site at the conclusion of operations (platforms, stockpiles, settling ponds, etc.). The site should resemble natural landforms where possible.
- 84. <u>Drainage.</u> All surface and ground waters drain to the interior of the basin or lake. Drainage following reclamation will be identical to the natural drainage of the lakebed. No drainage facilities will be established or maintained after reclamation.
- 85. <u>Final Map</u>. As portions of the site are reclaimed, they shall be identified on a map. The final map shall be provided to County Planning Division for review and approval.
- 86. <u>Reclamation Completion:</u> Following reclamation verification and release of Financial Assurances pursuant to CCR Section 3805.5, Planning will prepare a "Notice of Reclamation Plan Completion" on a form to be approved by the County Recorder's Office. The operator shall pay any and all review and recording fees.
- 87. <u>Public Safety</u>. After reclamation, no refuse or dangerous material and no public safety hazards will remain onsite. The ponds and pits will be partially backfilled with available material, and all equipment and facilities will be removed from the site. Access roads to the site may be reclaimed at the direction of the BLM.

# CONCLUSION OF CONDITIONS