

**INITIAL STUDY
FOR THE
PANAMINT VALLEY LIMESTONE –
CONDITIONAL USE PERMIT
APN: 0485-031-12**

Lead Agency:

County of San Bernardino
Land Use Services Department
385 N. Arrowhead Avenue, 1st Floor
San Bernardino, California 92415-0182

Applicant:

Panamint Valley Limestone, Inc.
82532 Second Street
Trona, California 93562

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March 2020

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**SAN BERNARDINO COUNTY
INITIAL STUDY 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 California Environmental Quality Act (CEQA) Guidelines.

PROJECT LABEL

APNs:	0485-031-12	USGS Quad:	Trona West, CA
Applicant:	Panamint Valley Limestone, Inc. 82532 Second Street Trona, CA 93562	T, R, Section:	T25S, R43E 7
Location:	Approximately 0.87 miles west of the intersection of Trona Road and Athol Street, in Trona.	Thomas Bros:	
Project No:	P201800477	Community Plan:	N/A
Rep:	Larry Trowsdale	LUZD:	IR (Regional Industrial)
Proposal:	Conditional Use Permit to establish a Lime Processing Plant on approximately 62 acres, with a major variance for a 167-foot high stack that exceeds the 75-foot high height limit and 50% additional height permitted for towers in Industrial Land Use Districts.	Overlays:	FEMA Flood Zone X-Unshaded; Mojave Ground Squirrel and Desert Tortoise

PROJECT CONTACT INFORMATION

Lead Agency: County of San Bernardino
Land Use Services Department
385 N. Arrowhead Avenue, 1st Floor
San Bernardino, CA 92415-0182

Contact person: Larry Trowsdale
Phone No: (760) 384-8172
E-mail: Larry.Trowsdale@pvllime.com

PROJECT DESCRIPTION

Existing Site Conditions

The proposed project site is located in the Desert Region of San Bernardino County, in the northwesternmost region of the County. More specifically, the proposed project is located in the unincorporated community of Trona in Searles Valley, California. Kern County is located to the west, as is the nearest major City—Ridgecrest, while Inyo County is located to the north of the project site, and Death Valley is located northeast of the project site. The community of Trona can be accessed via Trona Road/Highway 178, which ultimately connects to Highway 395 south and west of the project site, and Nadeau Trail/Highway 190 north of the project site. Figures 1 and 2 provide a regional and local context, respectively, of the project location.

The project site consists of a brownfield parcel approximately 62-acres in size that formerly served as a boiler ash disposal landfill. The site is oriented on a diagonal axis (northeast/southwest) because it is located directly adjacent to a floodway at the base of the nearby Argus Mountain Range. The site ranges in elevation from 1,823 ft above mean sea level at its highest point at the northwestern border to 1,750 ft above mean sea level at its lowest point at the northeastern border. Additionally, the project site contains a large below grade depression in the center of the site that was previously intended to serve as space for additional ash disposal. The project site also contains a large mound of dirt that is located above grade in the northeastern corner of the site. The mound of dirt will be excavated to serve as the site’s stormwater retention basin, and the excavated material will be used to balance the site by filling in the aforementioned below grade depression.

The San Bernardino County General Plan Land Use Zoning classification is Regional Industrial (IR). The Land uses bordering the project site are outlined in Table 1 below:

**Table 1
 EXISTING LAND USE AND LAND USE ZONING DISTRICTS**

Location	Existing Land Use	Land Use Zoning District
Project Site	Brownfield site: Vacant/Former boiler ash disposal landfill	Regional Industrial (IR)
North	Floodway	Floodway (FW)
South	Searles Valley Minerals	Regional Industrial (IR)
East	Immediately adjacent: Vacant Land & a Cemetery	Immediately adjacent: Regional Industrial (IR); In the general vicinity: Multiple Residential (RM), & Single Residential (RS)
West	Searles Valley Minerals	Immediately adjacent: Regional Industrial (IR) & Floodway (FW); In the general vicinity: Resource Conservation (RC)

The Searles Valley as a whole is one of the richest deposits of minerals in the world and home to Searles Valley Minerals (SVM) that runs three large industrial chemical plants. SVM also owns and operates a coal-fired power plant and railroad that serve the plant operations in Searles Valley.

Project Overview

Panamint Valley Limestone, Inc. (PVL or Applicant) proposes construction of an industrial lime production plant (PVL Lime Plant) on a 61-acre brownfield site on Parcel 0485-031-12 near the community of Trona in Searles Valley, California. The current San Bernardino County General Plan Land Use Zoning classification is Regional Industrial (IR). The County utilizes an integrated one-map system with both General Plan and Zoning classifications to ensure consistency between the two land use regulations. This designation is appropriate for the proposed activity. The proposed project site is adjacent to similar industrial mineral operation owned and operated by SVM.

Limestone feedstock will be quarried and crushed at PVL’s limestone quarry in Inyo County, approximately 29 miles north of the proposed PVL Lime Plant. On average, 819 tons per day of limestone will be delivered by 25-ton trucks from the quarry to the proposed PVL Lime Plant. This equates to about 33 round trips per day on the area’s circulation system.

Lime products are manufactured by heating natural limestone in a high temperature kiln. This has the effect of converting the limestone into high value lime products. Most of the lime product produced at the PVL Lime Plant will be quicklime. A small amount of water will be introduced into about 20% of the quicklime to produce

hydrated lime. Fine limestone not introduced into the kiln will be sold as a separate product but represents a very small portion of the output.

The PVL Lime Plant outputs, which consists of quicklime, hydrated lime, and a very low volume of limestone fines will be delivered to customers throughout the southwestern United States by 25-ton trucks. On average, about 550 tons of product will be shipped out each day, which will add another 22 truck round trips to the area circulation system. PVL will produce approximately 200,000 tons of lime products per year, all of which will be shipped by 25-ton capacity trucks 7-days a week. The customer base is large and diverse with the focus being on Southern California, but some shipments will go to neighboring states. It is not possible to designate exact customer locations in advance of operations of the PVL Lime Plant.

Project Related Trip Generation

The Trip Table (Table 2) below summarizes the projected roadway trip traffic. The figures provided count each leg of a round trip, e.g., one employee would make two trips traveling to and from work, and one product delivery truck would arrive empty and leave full of PVL lime product for one round trip. The County of San Bernardino factors employee and truck trips as follows: each employee vehicle trip will account for one (1) trip on the roadway, while the 25-ton truck trips will each count for three (3) trips on the roadways. The trips generated by the PVL Lime Plant are shown in Table 2 below. There will be no waste products generated for removal from the site.

**Table 2
 PVL VEHICLE TRAFFIC - TRIP GENERATION REPORT**

Purpose	Weekday Day Shift	Weekday Night Shift	Weekend Day Shift	Weekend Night Shift	Total Vehicle Traffic per Weekday	Total Vehicle Traffic per Weekend day	Total Vehicle Traffic per Week	Total Vehicle Traffic Daily Avg.
Employee Vehicles	18	4	4	4	22	8	126	18.0
Limestone Trucks to Kiln	91.7	0	0	0	91.7	0	458.6	65.5
Lime to Market	50	9	8	0	59	8	311	44.4
TOTAL TRAFFIC	159.7	13	12	4	172.7	16	895.6	127.9

Note: Table shows trips in and out.

Project Hours of Operation & Employee Count

The PVL Lime Plant will operate 24 hours per day, 7 days per week. Feedstock and product shipping will mostly occur on weekdays during daytime hours. The employee count will vary as follows: 9 employees for each weekday daytime shift, 2 employees for each weekday nighttime shift, and 2 per each weekend day and weekend night shift. Weekday employees will work as long as 12-hour shifts up to 5 days per week. The maximum number of employees on site will be 9 persons, which will occur between 8:00 AM and 5:00 PM each weekday. During the remaining hours of the week, there will usually only be 2 employees on site at a time. The employee traffic is depicted in Table 2 above.

Site Access

All ingress and egress traffic will travel to and from the PVL Lime Plant gate along Athol Street, which is located approximately 5,200 feet to the east where Athol terminates at Trona Road. The portion of Athol Street, extending approximately 4,200 feet west of Trona Road, is a publicly maintained paved roadway. The balance of the roadway extending up to the subject property and that traverses private property is also paved and has been recorded as dedicated to the County, and will be maintained by the Applicant (PVL).

Incoming limestone trucks will travel from PVL's quarry to the north. All lime product trucks will proceed south from the Athol Street/Trona Road intersection to markets in Southern California and in the southwestern United States. Employee personnel vehicles will predominantly come from Trona and Ridgecrest to the south, though a few may come from a community located on the SR-178 north of Trona. The traffic routes are shown on Figure 3. This route is the only public road available to PVL; all other means by which to access the project are owned by SVM.

Site Plan

The PVL Lime Plant site plan is as follows, as shown on Figure 4 and Figure 5, depicts the site plan split into zones to aid in the following description:

In the Southeast (SE) Zone of the site, where the main gate and second gate are located, the site will develop a 20,744 square foot (SF) main office building, which will also contain a lab and a control room. The Lime Plant will be developed just west of the main office building. The Lime Plant will be connected to the vertical kiln by conveyors, and the vertical kiln building will contain a stack location within it. A second set of conveyors will transfer materials from the vertical kiln (located in the SE Zone) to a screen/transfer tower (located in the Southwest [SW] Zone) and then to a crusher building (located in the SW Zone) that will contain a material bin and a truck dump. A 500,000-gallon water tank will also be located within the SE Zone. In the SW Zone, two 10,000-ton backup stockpiles will be developed. In the Northwest (NW) Zone, a solar power generation array and battery back-up system may be developed. A stormwater basin will be developed in the NE Zone of the project site and drainage on site will be directed towards this stormwater basin. Pavement allowing truck access will be developed around the perimeter within the project site.

Parking

Parking will be provided near the office structure at the entrance of the PVL Lime Plant. The project will include automotive stalls, 5 of which will be handicapped stalls, and 20 haul truck parking stalls.

Infrastructure

The project site will develop a stormwater basin to collect on-site runoff, thereby preventing any stormwater discharge from leaving the site.

Figures 6-8 show the various utility alignments. The project will be served by Southern California Edison (SCE) through new underground powerline connections that will originate at Athol Street and Argus Avenue and proceed to the PVL plant by way of Athol Street. SCE has agreed to develop the new underground powerline connection.

Pacific Gas & Electric Company (PG&E) will provide natural gas to the project. PG&E has agreed to construct a gas line west of the project site that will connect the project site to an existing natural gas line located at First Street north of Trona Road. The pipeline will extend from PG&E's Trona valve station located at Wingate and F Street in the community of Argus. The route will go west on F Street to First Street and then north on First and an extension of First Street until it intersects the San Bernardino County Flood Control berm where it will turn northeast until it reaches the corner of the PVL site. At that corner, the gas line will enter PVL site. The route selected for the gas line that will serve the project will lie outside of the property owned or used by SVM and will have no impact on SVM operations.

PVL is seeking water service from Searles Domestic Water Company (SDWC). SDWC will provide potable water service to the project through a new connection within Athol Street that will connect to an existing connection at Athol Street and Argus Avenue. Although PVL has requested that SDWC provide water sufficient to meet all of its water needs, it has drilled an on-site well to provide water for its process water needs. PVL will need to install a treatment system to treat the water from the on-site well to potable or near potable quality. An on-site septic system will be used for sanitary wastewater disposal.

At this time, it is assumed that each entity will be responsible for installation of their respective utility lines. The installation of the above utilities, which will ensure that project site is connected to each utility system, is included in this environmental analysis.

Application with the County

Various portions of the proposed facility will exceed the 75-foot maximum height requirement allowed in the IR District. The tallest structure will be the 167-foot-high stack. The height of this stack is necessary due to the height of the equipment required to process lime. There are two similar stacks at nearby industrial plants, of similar or greater height (SVM's 190-foot stack, and ACE's 250-foot stack). Structures such as cooling towers or smokestacks required for allowed industrial processes may exceed the specified height requirement by 50 percent. However, this increased structure height would only achieve 112.5 feet. Since the additional 54.5 feet would exceed the 30% permitted to be processed as a minor variance, the proposed height would be subject to a major variance. The 75-foot-height requirement is also exceeded for the vertical kiln (165 feet high) and truck loading bins (120 feet high). PVL has applied for a major variance. Elevations depicting the proposed structures are shown on Figure 9.

Proposed Construction Process

Groundbreaking for grading of the proposed project site is anticipated to occur within the second half of 2020. PVL plans to begin construction in the second half of 2020, which is expected to continue through the first half of 2022, after which PVL plans to begin the commercial operation. Delivery of construction supplies will be accomplished using trucks during normal working hours. The preliminary estimate is that the material on site will be used to balance the site; therefore, the project quantity of cut and fill would net zero.

Construction will require an estimated maximum of 48 employees on site per day. The daily truck trips required during construction is anticipated to be between 0 and 50 trucks per day depending on the type of activities occurring on site. The estimated average number of truck trips per day required is 27 truck trips per day at peak. The equipment anticipated to be required to complete construction of the proposed project is as follows (although the exact construction equipment required is unknown at this time):

Site Work	Building Construction
Scrapers	Cranes
Excavators	Scissor Lifts
Backhoe Loaders	Industrial Forklifts
Graders	Boom Forklifts
Dozers	Air Compressors
Loaders	Manlift Booms
Track Loaders	Concrete Trucks
Soil Compactors	Concrete Pump Trucks
Vibratory Compactors	Generators
Water Trucks	Welders
Dump Trucks	

As the project site previously served as a boiler ash disposal landfill, the project will require excavation and contour grading that will likely disturb existing ash cover. The buried ash serves as an excellent base material for the proposed construction and activity. There is an existing depression in the ash contour that will be filled by moving ash and/or soil from higher elevations into the depression. This will have the desirable effect of creating a more uniform top surface elevation. The disturbance of the existing cover will be temporary. The cover will be restored in areas not covered by facilities, foundations, and roadways. Once such pushing or scraping operations are completed, any exposed ash will be covered to meet the previously permitted standards as described in the Ash Site Closure Plan (provided as Appendix A). Except where improvements are made or grading for drainage is required, the existing cover will remain intact. The temporary disturbance of the placed ash has a potential to result in non-hazardous dust emissions, which will be minimized through the application of water during grading and construction activities.

Project Site Location, Existing Site Land Uses and Conditions (include site photos)

The site is currently vacant and is a brownfield site formerly used as a boiler ash disposal landfill.



Exhibit 1: View looking east at the site



Exhibit 2: View looking north at the site

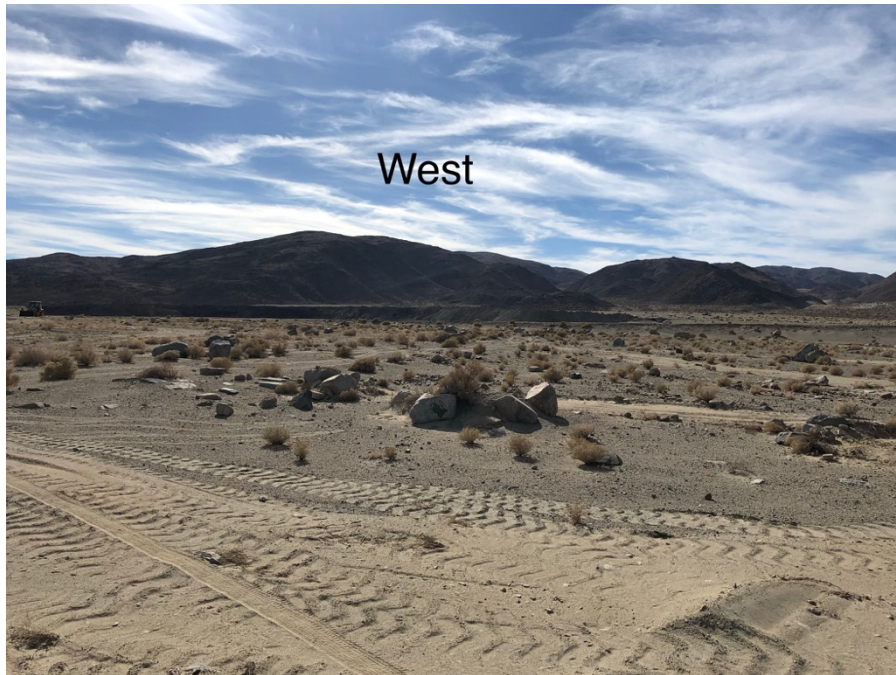


Exhibit 3: View looking west at the site



Exhibit 4: View looking south at the site

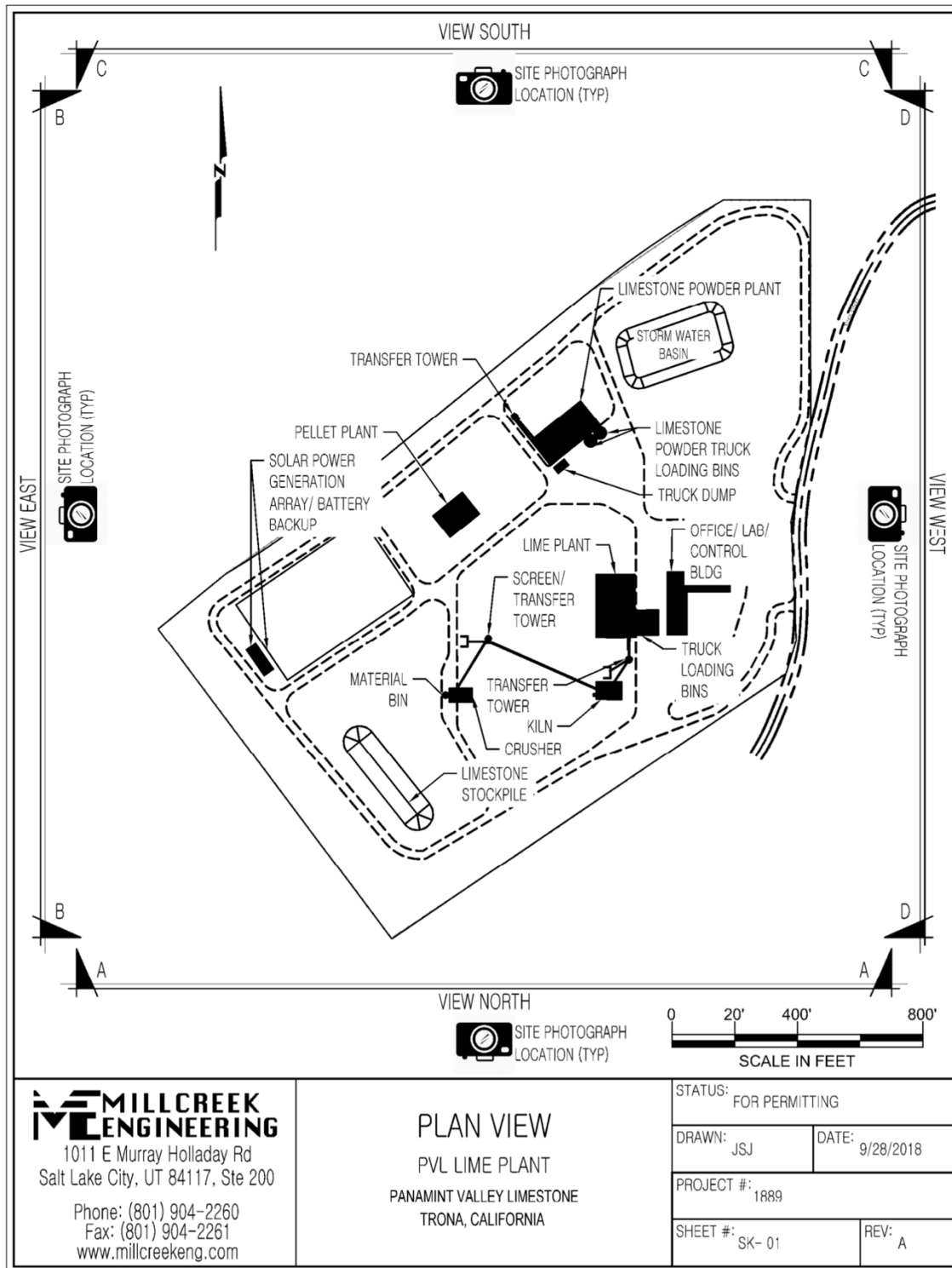


Exhibit 5: Plan View—Legend for Exhibits 1-4



Exhibit 6: Northwest portion of the project site looking to the Southeast of the project site.



Exhibit 7: PVL Lime Plant location – Looking northeast from the center of the Southwest side of the project site - view of open Cell #5 showing disposed boiler ash



Exhibit 8: PVL Lime Plant location – Looking south/southwest from the most southern point of the project site - comparison of vegetation density inside (foreground) and outside (background across fence) of proposed site.

ADDITIONAL APPROVALS THAT MAY BE REQUIRED BY OTHER PUBLIC AGENCIES

(Example: permits, financing approvals or participation agreements.)

- Mojave Desert Air Quality Management District: Authorities to Construct
- Regional Water Quality Control Board, Region 6: WDRs for retention pond
- Regional Water Quality Control Board, Region 6: Approval to alter ash disposal site cap
- Regional Water Quality Control Board, Region 6: 401 certification
- US Army Corps of Engineers: 404 permit
- San Bernardino County Fire Department: Project Approval
- San Bernardino County Environmental Health Service: Project Approval
- California Department of Fish and Wildlife: Incidental Take Permit
- California Department of Fish and Wildlife: Lake and Streambed Alteration Agreement

SUMMARY OF CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES

Four Tribes have requested consultation under AB 52 from County of San Bernardino that are historically affiliated with Searles Valley: the Fort Mojave Indian Tribe, the Colorado River Indian Tribe, the Morongo Band of Mission Indians, and the Twenty-Nine Palms Band of Mission Indians. These Tribes were contacted to initiate the AB-52 process on August 2, 2019 to notify the tribes of the proposed project through mailed letters. During the 30-day consultation period that concluded on September 2, 2019, responses were received from two tribes: the Twenty-Nine Palms Band of Mission Indians and the Morongo Band of Mission Indians. The Twenty-Nine Palms Band of Mission Indians requested that a cultural resources report be completed for this Project. The Morongo Band of Mission Indians responded on August 7, 2019 that they had no additional information to provide regarding this Project and did not request to consult. A consultation time was set up with Twenty-Nine Palms Band of Mission Indians for October 16, 2019, but no response was received. No further input has been provided by the Twenty-Nine Palms Band of Mission Indians or

any other Tribe consulted as part of the AB 52 Consultation process. Therefore, this stage of consultation has concluded, but copies of this document will be available for further review and comment by the Tribes.

EVALUATION FORMAT

This Initial Study is prepared in compliance with the California Environmental Quality Act, Public Resources Code section 21000, et seq. (CEQA) 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 CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based on its effect on 18 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 Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant	No 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

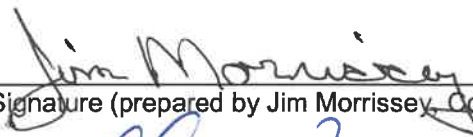
The environmental factors checked below will be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology / Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Mat |
| <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

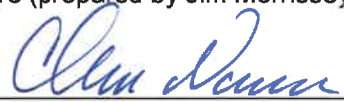
DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.


 Signature (prepared by Jim Morrissey, Contract Planner)

3/16/20
 Date


 Signature (Chris Warrick, Supervising Planner)
 Land Use Services Department/Planning Division

3/16/2020
 Date

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I. AESTHETICS

SUBSTANTIATION:

(Check if project is located within the view-shed of any Scenic Route listed in the General Plan)

- a) *Less Than Significant With Mitigation Incorporated* – Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. The proposed PVL Lime Plant site is located on a site that previously served as a boiler ash disposal landfill that is designated for industrial use. As such, a review of the project site determined that there are no scenic vistas located internally within the area proposed for the development of the PVL Lime Plant, especially given the historical use of the project site. The project site is located in an industrial, developed area with industrial uses to the south and east, and with BLM land that segues into the Argus Mountain Range located generally to the north and west. Land immediately to the west is owned by Searles Valley Minerals Operations. The viewshed within the area bound by Trona Road, Athol Street, Robert Road, and First Street is dominated by industrial operations, including the SVM plant. The proposed PVL Lime Plant would be located within this viewshed area and would create an industrial development similar to that which surrounds the project site. A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The project is situated in the Searles Valley, which is located between the Argus Mountain Range and the southern part of the Panamint Mountain Range and northern part of the Slate Mountain Range. As stated above, views in the general vicinity of the proposed project are dominated by industrial operations. Furthermore, the County General Plan and General Plan EIR do not identify the Trona area as containing scenic vistas. The proposed project site is zoned for industrial use, and the proposed project would develop an industrial use. Though the project requires a variance because the project exceeds the maximum height restrictions for the Regional Industrial zone classification, the features that would exceed this restriction would be tall, but not wide, and will not substantially obstruct the mountain vista from nearby onlookers. In addition, several existing stacks located off-site exceed this proposed height. In order to minimize impacts from the PVL Lime Plant structures that exceed 75 ft height limit set forth in the San Bernardino County Regional Industrial Zoning Development Standards, the project shall implement the following mitigation measure, which would ensure that the PVL Lime Plant development blends in with the mountainous viewshed to the north:

AES-1 The Applicant shall paint structures exceeding the 75 feet height limit—as set forth in the San Bernardino County Regional Industrial Zoning Development Standards—a similar color to the surrounding mountains (specifically, the Argus Mountain Range to the general north of the PVL Lime Plant site).

The effort required to connect utilities (natural gas, water, and electricity) to the proposed PVL Lime Plant site is anticipated to be carried out by each individual utility company (PG&E, SDWC, and SCE). However, for the purposes of this CEQA analysis, the installation of these utilities will be analyzed. The water pipeline is anticipated to be constructed below ground within Athol Street, the natural gas pipeline is proposed to be constructed within an alignment that aligns with First Street and connects to the site to the west, and the electrical line will be installed through the development of underground lines along Athol Street. Given that all utilities will be developed below ground, installation of these utilities will not have an impact on a scenic vista and will not impact the aesthetics.

As the only impact to aesthetics is the height of the project facilities, for which PVL has applied for a variance, and the width of the facilities will not substantially obstruct the mountain vista from nearby onlookers, the project will have a less than significant potential to have a substantial adverse effect on a scenic vista with implementation of the above mitigation measure.

- b) *No Impact* – The project site does not contain any scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway corridor. The project site is vacant and previously served as a boiler ash disposal landfill. As such, no scenic resources are located on site, given the historical development. Much of the site has been heavily impacted from the former boiler ash disposal activities. Limited revegetation (Photo 1) has occurred on most of the landfill area in the four years since the previous owner ceased operations on the boiler ash disposal landfill, with the exception of a portion of the site that still contains exposed ash (SW Zone & a small portion of the SE Zone). According to Caltrans, the proposed project is not located within a state scenic highway and the County of San Bernardino does not identify any locally important scenic roadways. No scenic resources exist within the proposed utility installation alignment within Athol Street or aligned with and within a portion of First Street due to the disturbance from off-road vehicles within the vacant land in which the natural gas pipeline alignment will be installed. Therefore, the proposed project cannot affect any scenic resources within a state scenic highway corridor. Based on the site condition and immediate surroundings, the project site itself does not contain any significant scenic resources. Therefore, no damage to a scenic resource will occur and any impacts under this issue are considered less than significant.
- c) *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under issue I(a) above. The County of San Bernardino General Plan has designated the project site for Regional Industrial use; a use of this type is allowed within this land use designation and zoning classification. However, the project does require a major variance due to the height limit that several of the proposed PVL Lime Plant structures would exceed. Given the industrial nature of the area, the proposed project would be considered to be located in an urbanized setting within a rural part of the County of San Bernardino. The County of San Bernardino Development code does not have any applicable zoning development standards pertaining to scenic quality. As stated under issue I(a) above, the proposed project requires a major variance, which would be mitigated through mitigation measure **AES-1** above, which would ensure that the structures that would exceed the County Standard height limit would blend in with the surrounding environment. However, industrial development surrounds the project site to the east, south, and west. As such, development of the PVL Lime Plant is anticipated to correspond with the surrounding industrial uses. Therefore, with the implementation of mitigation, development of the proposed PVL Lime Plant at the proposed location within the community of Trona would not substantially degrade the existing visual character or quality of public views of the site and its surroundings.

- d) *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under issue I(a) above. Implementation of the proposed project will create new sources of light during the operational phases of the Project. However, the proposed utility alignment will not require a permanent source of light once installed. Light and glare from interior and exterior building lighting, safety and security lighting, and vehicular traffic accessing the site will occur once the PVL Lime Plant is in operation. The San Bernardino County Development Code requires new projects to adhere to the provisions of the Chapter 83.07.040 Glare and Outdoor Lighting – Mountain and Desert Region. While the proposed project will generate a new source of lighting, it will occur within an industrial area and no residences exist within approximately 2,100 feet from the facility. As such, it is not anticipated that the PVL Lime Plant will generate a substantial new source of glare or light adversely affecting day or nighttime views in the project area. Furthermore, compliance with the provisions outlined in San Bernardino County Development Code 83.07.040 Glare and Outdoor Lighting – Mountain and Desert Regions is a mandatory requirement for all new construction with which a project must comply. However, because the PVL Lime Plant will operate 24 hours a day, 7 days a week, the following mitigation measure will ensure that the proposed project will comply with the San Bernardino County Development Code and minimize light and glare impacts to the surrounding community:

AES-2 Prior to approval of the Final Design, an analysis of potential glare from sunlight or exterior lighting that may impact vehicles traveling on adjacent roadways shall be submitted to the City for review and approval. This analysis shall demonstrate that due to building orientation or exterior treatment, no significant glare may be caused that could negatively impact drivers on the local roadways or impact adjacent land uses. If potential glare impacts are identified, the building orientation, use of non-glare reflective materials or other design solutions acceptable to the County of San Bernardino shall be implemented to eliminate glare impacts.

With implementation of this mitigation measure and compliance with the County Development Code, potential light and glare impacts associated with the proposed Project will be reduced to a less than significant level.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Will the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

II. AGRICULTURE AND FORESTRY RESOURCES

SUBSTANTIATION: (Check if project is located in the Important Farmlands Overlay)

- a) *No Impact* – The proposed project will occur within the boundaries of the former boiler ash disposal landfill, which does not contain any agricultural uses. Neither the project footprint nor the surrounding area are designated for agricultural use; no agricultural activities exist in the project area; and there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, no prime farmland, unique farmland, or farmland of state importance exists within the vicinity of the proposed project (Figure II-1). No adverse impact to any agricultural resources would occur from implementing the proposed project. No mitigation is required.

- b) *No Impact* – There are no agricultural uses currently within the boundaries of the project site or adjacent to the project site. The project site is zoned and designated for Regional Industrial use within the County of San Bernardino General Plan Land Use Zoning Designation Map. Therefore, no potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area. No mitigation is required.
- c) *No Impact* – Please refer to issues a) and b) above. The project site was previously utilized for industrial purposes and neither the land use zoning designation supports forest land or timberland uses or designations. No potential exists for a conflict between the proposed project and forest/timberland zoning. No mitigation is required.
- d) *No Impact* – There are no forest lands within the project area, because the project area is identified as a brownfield site that formerly served as a boiler ash disposal landfill. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.
- e) *No Impact* – The project site and surrounding area do not support either agricultural or forestry uses, because the project site and environs are not designated for such uses and the remains of previous uses have adversely affected the ability of the land to support agricultural uses. As such, implementation of the proposed project would not cause or result in the conversion of Farmland or forest land to alternative use. There is no farmland or forest land located in the vicinity of the project site. No adverse impact would occur. No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Will the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

III. AIR Quality

SUBSTANTIATION: (Discuss conformity with the South Coast Air Quality Management Plan, if applicable)
 The following information utilized in this section was obtained from the technical study “Air Quality/Greenhouse Gas Study, Panamint Valley Limestone, Lime Kiln and Processes” prepared by Paul Ervin of Biostream Inc. and Tom Snowden and Richard Wilson of WZI updated on January 18, 2020, and provided as Appendix 1 to this document. The CalEEMod emissions calculations are also provided as part of Appendix 1.

Background

Air Quality Standards

Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards and California Ambient Air Quality Standards currently in effect are shown in Table III-1. Because the State of California established its Ambient Air Quality Standards several years before the establishment of the national standards, and because of unique air quality problems introduced by the State’s restrictive dispersion meteorology, there are differences between state and national clean air standards. Sources and health effects of various pollutants are shown in Table III-2.

Of the standards shown in Table III-1, those for ozone and particulate matter (PM-10) are exceeded at times in the Mojave Desert Air Basin. They are called “non-attainment pollutants.” Because of the variations in both the regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

**Table III-1
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
Respirable Particulate Matter (PM-10) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		–		
Fine Particulate Matter (PM-2.5) ⁹	24 Hour	–	–	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		–	–	
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)	Same as Primary Standard	
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) ¹¹	–	
Lead ^{8,12,13}	30-Day Average	1.5 µg/m ³	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m ³ (for certain areas) ¹²	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

Footnotes

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM-10, PM-2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

- 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM-10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$, is equal to or less than one. For PM-2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
- 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- 4 Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Control Board (CARB) to give equivalent results at or near the level of the air quality standard may be used.
- 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- 9 On December 14, 2012, the national PM-2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM-2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM-10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- 11 On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
- 12 The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- 14 In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

**Table III-2
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS**

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	<ul style="list-style-type: none"> • Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter. 	<ul style="list-style-type: none"> • Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> • Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions. 	<ul style="list-style-type: none"> • Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O ₃)	<ul style="list-style-type: none"> • Atmospheric reaction of organic gases with nitrogen oxides in sunlight. 	<ul style="list-style-type: none"> • Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	<ul style="list-style-type: none"> • Contaminated soil. 	<ul style="list-style-type: none"> • Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> • Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions. 	<ul style="list-style-type: none"> • Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> • Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NO_x, sulfur oxides, and organics. 	<ul style="list-style-type: none"> • Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> • Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes. 	<ul style="list-style-type: none"> • Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Significance Thresholds

Any project is significant if it triggers or exceeds the most appropriate evaluation criteria. The District will clarify upon request which threshold is most appropriate for a given project. The following four emission criteria have been established, with the emissions comparison (criteria number 1) generally being sufficient to determine significance: (1) Generates total emissions (direct and indirect) in excess of the thresholds given in Table III-3; (2) Generates a violation of any ambient air quality standard when added to the local background; (3) Does not conform with the applicable attainment or maintenance plan(s); (4) Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value.

**Table III-3
 SIGNIFICANT EMISSIONS THRESHOLDS
 MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT**

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO ₂ e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO _x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO _x)	25	137
Particulate Matter (PM-10)	15	82
Particulate Matter (PM-2.5)	12	65
Hydrogen Sulfide (H ₂ S)	10	54
Lead (Pb)	.6	3

Source: Mojave Desert Air Quality Management District (MDAQMD)

Impacts from Construction

PVL will retain an Engineering, Procurement, and Construction (EPC) firm to manage the construction responsibilities of the PVL Lime Plant. Additionally, PVL Lime will monitor, and review all construction activities to mitigate any violations of air quality standards. During construction PVL will coordinate with the Construction Manager on a daily basis to minimize impacts.

The Air Quality Analysis also includes emissions calculations for the construction of the project’s off-site components, including the following:

1. A water conveyance pipeline that will be approximately 3,730 feet in length
2. An underground electric conduit that will be approximately 3,730 feet in length
3. A natural gas pipeline that will be approximately 7,900 feet in length.

Additionally, in order to ensure the industrial water supply required to operate the PVL Lime Plant, PVL drilled a well on site, which has been included in both the operational and construction emissions analyses based on an estimated 5 days of drilling with two vehicles on site (one drill rig, one employee vehicle).

Construction Plan

Construction characteristics used to analyze air quality impacts are as follows:

Phase Name, Duration, Equipment, Quantity, and Trips

Construction of the project site includes the following activities:

1. Site Preparation: Earth work (60 working days) mobilize equipment, grading and scraping and lime pit/utilities excavation.
2. Roads and Drive ways: Temporary road surface preparation, all asphalt (28 working days).
3. Concrete work:
 - Lime plant concrete – 75 days;
 - Powder plant concrete – 40 days;
 - Office, lab & control room concrete – 20 days
 - Solar sta. concrete - 12 days; and,
 - Misc. concrete – 75 days
4. Mechanical work:
 - Lime plant steel erection – 80 days;
 - Powder plant steel erection – 20 days;
 - Building construction (includes construction of all habitable buildings on site)– 100 days;
 - Mechanical equipment placement – 100 days; and,
 - Piping – 90 days

Impacts from Operations

The Air Quality emissions were modeled using the following assumption: the PVL Lime Plant will operate 24 hour per day, seven days a week, 365 days per year.

All plant operations will be monitored and staffed continuously while the PVL Lime Plant is running. The process will be controlled by a computer system that will monitor and collect process data on a continuous basis. Process monitoring and data collection will also be available for management review via on line monitoring system 24 hours per day.

As required by the Mojave Desert Air Quality Management District (MDAQMD), PVL will install, operate and maintain any continuous emissions monitoring as required by regulation, including emissions from combustion and other sources.

The operational process will consist of:

1. **Limestone Sizing/Screening** – This will consist of conveying raw limestone through a vibrating screen system that will separate out “under sized” material and only allow “accepts” to enter the calcining process.

This system will have a feed hopper, three conveyors, a silo, vibrating screen, and a storage bunker for maintaining culled undersized material that will be sold as a separate product.
2. **Vertical Kiln** – This system will consist of kiln feed conveyors, discharge conveyors, and roller crusher. The kiln will be fired on natural gas and will operate at a heat input of 56 mmbtu/hr. Exhaust from the kiln will be directed through a fabric filter and the combustion process will be controlled by an automated system.
3. **Lime cooling and classifying** – As the calcined lime leaves the kiln it will pass through an air stream provided by the kiln blower system. This air will be the cooling medium for the hot lime.
4. **Hydrated Lime process** – This system will take the calcined lime and inject water into a portion of the material to hydrate it. It will have a silo, several vibratory and pneumatic conveyors, water injection system, slaking and screening equipment.

All conveyors will be enclosed and equipped with dust pick up and collection points throughout the plant. These systems will be discharged through approved filters in order to mitigate particulate matter emissions

- 5. Shipping and Receiving** –Raw limestone material will be shipped to the site daily where it will be stored in stockpiles on the ground prior to feeding into the system. Finished lime product will be handled in silo systems and loaded out as either: (1) quick lime, (2) hydrated lime, or (3) bulk bag and retail bagging of lime products.

Estimated truck trips and origin/destination of trips- (819 tons per day throughput) =

- Approximately 33 truckloads of material (at 25 tons per load) will travel 29 miles (one way) from the quarry to the plant.
- Approximately 22 truckloads of finished product will leave the site daily to market.
- Two stock piles will be used to deliver rock to the kiln at any time. Limestone rock will be hauled to the PVL Lime Plant and stock piled Monday through Friday. When no trucks are hauling lime from the quarry (Saturdays and Sundays), stock piles will be used to feed the plant with automated belt conveyors and an under pile reclaimer. The piles will be maintained at 10,000 tons each to have some reserve just in case the limestone quarry is down for repairs. These stock piles will give the proposed project 24 days of material on-site. This rock will be sized from 1” to 3.5”. This size rock is used for dust control in other applications. These piles will not generate any dust from being stored.

Production Well

As stated under the construction emissions discussion above, PVL drilled an on-site well to ensure an operational water supply. The operational emissions analysis presented below incorporates the emissions a 50 gallon per minute well pump will generate.

Mobile Equipment

The PVL Lime Plant operations and maintenance will require the following mobile equipment on a daily basis.

- 2-300 hp diesel wheel loaders – CARB Tier IV approved emissions controls.
 - 2-50 hp diesel fork lifts CARB - Tier IV approved emissions controls
 - Diesel powered Emergency Generator 500kW - CARB approved emissions controls
- a) *Less Than Significant Impact* – Projects such as the proposed PVL Lime Plant do not directly relate to the Air Quality Management Plan in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use are the primary yardsticks by which impact significance of planned growth is determined. Based on the analysis in Section XI (Land Use and Planning), the project requires a Conditional Use Permit (CUP) with a major variance, due to the height of the stack, to develop the PVL Lime Plant on the project site. With approval of the CUP and Major Variance applications, the PVL Lime Plant project will be fully consistent with the General Plan Land Use Zoning designation for the project site. Thus, the proposed project is consistent with regional planning forecasts maintained by the Southern California Association of Governments (SCAG) regional plans. Air quality impact significance for the proposed project has been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.
- b) *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions

include fugitive dust from construction activities (i.e., site prep, demolition, grading, and exhaust emission) at the proposed Project site. Long-term emissions generated by future operation of the proposed project primarily include limestone sizing, screening, limestone calcining via vertical kiln, lime cooling and classifying, hydrated lime process, shipping preparation-bagging, palletizing, bulk load out energy consumption, employee/visitor truck trips and any fugitive dust that might be generated by the PVL Lime Plant.

Construction Emissions

Utilizing the parameters set in the section above, construction activities will contribute the following emissions to the overall air quality inventory. CalEEMod was utilized to calculate emissions for this project, which is considered an acceptable means to determine air quality and greenhouse gas (GHG) emissions within the MDAQMD.

**Table III-4
 CONSTRUCTION ACTIVITY MAXIMUM EMISSIONS RATE (TONS PER YEAR) – MITIGATED**

	VOC	NOx	CO	SO ₂	PM-10	PM-2.5
Annual Emissions (tons per year)	1.75	12.91	13.18	0.04	2.30	0.87
Daily Emissions (pounds per day)	9.6	70.7	72.2	0.2	12.6	4.8
Thresholds (Annual)	25	25	100	25	15	12
Thresholds (Daily)	137	137	548	137	82	65
Exceeds Thresholds?	NO	NO	NO	NO	NO	NO

Source: CalEEMod Appendices

**Table III-5
 TOTAL CONSTRUCTION ACTIVITY MAXIMUM EMISSIONS (TONS) – MITIGATED
 2019-2020**

	VOC	NOx	CO	SO ₂	PM-10	PM-2.5
Annual Emissions (tons 2020-2021)	3.50	25.82	26.35	0.08	4.59	1.74

Source: CalEEMod Appendices

As with daily emissions, annual construction related emissions are well below their respective CEQA significance thresholds. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant even if the phases are under simultaneous construction. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures be used as required by the MDAQMD Rule 403. Therefore, the following mitigation measure shall be implemented.

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- **Apply soil stabilizers as necessary to inactive areas.**
- **Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.**
- **Stabilize previously disturbed areas if subsequent construction is delayed.**
- **Apply water to disturbed surfaces and haul roads 3 times/day.**

- **Replace ground cover in disturbed areas quickly.**
- **Reduce speeds on unpaved roads to less than 15 mph.**
- **Trenches shall be left exposed for as short a time as possible.**
- **Identify proper compaction for backfilled soils in construction specifications.**

AIR-2 The following signage shall be erected no later than the commencement of construction: A minimum 48 inch high by 96 inch wide sign containing the following shall be located within 50 feet of each project site entrance, meeting the specified minimum height text, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, identifying a responsible official for the site and local or toll free number that is accessible 24 hours per day:

**“[Site Name] {four-inch text}
 [Project Name/Project Number] {four-inch text}
 IF YOU SEE DUST COMING FROM {four-inch text}
 THIS PROJECT CALL: {six-inch text}
 [Contact Name], PHONE NUMBER {six-inch text}
 If you do not receive a response, Please Call {three-inch text}
 The MDAQMD at 1-800-635-4617 {three-inch text}”**

Operational Emissions

Utilizing the parameters set in the section above, operational activities will contribute the following emissions to the overall air quality inventory.

**Table III-6
 OPERATIONAL ACTIVITY MAXIMUM EMISSIONS (TONS PER YEAR) – MITIGATED**

	VOC	NOx	CO	SO ₂	PM-10	PM-2.5
Annual Emissions (tons per year)	2.96	18.74	6.92	0.17	13.37	5.99
Daily Emissions (pounds per day)	16.8	111.8	38.4	0.9	80.8	12.1
Thresholds (Annual)	25	25	100	25	15	12
Thresholds (Daily)	137	137	548	137	82	65
Exceeds Thresholds?	NO	NO	NO	NO	NO	NO

Source: CalEEMod Appendices

As identified in Table III-6 (above), no criteria pollutant from this project will exceed any significant thresholds (either daily or annual) as prescribed in the MDAQMD regulations.

General Area Impacts

Because this will be the only lime manufacturing project in California, one of the greatest benefits will be the elimination of leakage (emission impacts from outside sources) due to manufacturing all of this product within the state boundaries.

Per California Air Resources Board:

“Emissions Leakage Risk: Introducing an environmental regulation in one jurisdiction can cause production costs and prices in that jurisdiction to increase relative to costs in jurisdictions that do not introduce comparable regulations. This can precipitate a shift in demand away from goods produced

in the implementing jurisdiction toward goods produced elsewhere. As a result, the reduction in production and emissions in the implementing jurisdiction is offset by increased production and emissions elsewhere. The offsetting increase in emissions is called emissions leakage. AB 32 directs CARB to design all GHG regulations to minimize leakage to the extent feasible (HSC § 38562(B)(8)).”

As an example, most lime is being imported into California. There are 18 active lime plants west of the Rocky Mountains, and of those, 11 are captive facilities where the lime is used in-house for sugar production. Seven of the plants are commercial operations and would be within PVL’s sphere of influence. Four of those seven plants are lime manufacturers with the most influence in the California lime markets.

One of these facilities, which is located closest to the Southern California markets, would be in direct contact with markets in Southern California and indirect contacts with other markets throughout the State of California. It is anticipated that output from the PVL Lime Plant will also be used within most of the same market regions.

The emission profile for the plant closest to the PVL Lime Plant shows greater emissions in several areas where the PVL project reflects a lower carbon impact and less transportation impact than the older technologies utilizing high carbon fuels and transportation. This result is mainly due to PVL utilizing utility grade natural gas as the fuel for the kiln operations (versus coal and pet coke). In addition, the PVL Lime Plant will maintain an overall lower emissions profile for the same amount of material processed and shipped. By locating this plant within California, PVL will be reducing overall emissions in the state in the following manner:

**Table III-7
 COMPARISON OF PVL LIME PLANT TO NEAREST COMPETITOR**

Lime Plant Component	PVL Lime Plant	Nearest Competitor
Fuel Supply	Utility grade natural gas	Coal and/or Petroleum coke
Transportation (Raw Product)	Shorter distance—conversion to electric or hydrogen vehicles (future).	Longer distance—diesel powered trucks.

However, the following mitigation measure shall be implemented to minimize operational emissions impacts:

- AIR-3** *During project operations a 4,000-gallon water truck shall be available on-site at all times for dust control.*
- AIR-4** *As they become available and financially feasible, the Applicant shall consider replacing bulk delivery trucks with hydrogen or electric trucks/tractors.*
- AIR-5** *Wind breaks and/or fencing shall be developed in areas that are susceptible to high wind induced dusting.*
- AIR-6** *Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation.*
- AIR-7** *All material transported off-site with dust blow off potential shall be sufficiently watered or securely covered to prevent excessive amounts of dust being generated.*

- AIR-8** *The Applicant shall use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. If the site contains exposed sand or fines deposits (and if the project would expose such soils through earthmoving), water application or chemical stabilization will be required to eliminate visible dust/sand from sand/fines deposits.*
- AIR-9** *The Applicant shall formulate a high wind response plan that addresses enhanced dust control if winds are forecast to exceed 25-mph in any upcoming 24-hour period.*
- AIR-10** *Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the Mojave Desert Air Quality Management District.*

With the implementation of the above mitigation measures, dust control prevention for the PVL Lime Plant project will be effective. Mitigation measures **AIR-1**, **AIR-2**, **AIR-4**, **AIR-5**, **AIR-7**, and **AIR-8** through **AIR-10** address fugitive dust. Fugitive dust contributes to particulate matter emissions. With the enhanced dust control mitigation measures listed above, construction and operational air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant even if the phases are under simultaneous construction. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires use of Best Available Control Measures, as required by the MDAQMD Rule 403, which have been included as enforceable mitigation in the measures listed above.

Lime plants may be subject to emissions standards reflecting the application of Maximum Achievable Control Technology, which is a control mechanism to minimize hazardous air pollutants in the form of particulate matter to reduce the impact from fuel and contaminated raw material listed under the National Emission Standards for Hazardous Air Pollutants. Two factors mitigate the potential for hazardous emissions from the project. First, the Applicant will use utility grade natural gas certified by PG&E as non-hazardous. By precluding traditional fuels (coal and pet-coke), the Applicant will eliminate the potential for contamination from heavy metals such as mercury, lead, and zinc. Second, the Applicant will use a sole source of limestone input under its strict control. There will be no potential for contamination from outside sources of raw material. The limestone will be composited, sampled, and tested to confirm no existence of hazardous levels of toxic contaminants above the CCR Title 22-17 threshold limits. As outlined in the Air Quality Impact Assessment and within the analysis contained herein, the Applicant will maintain low emissions rates—well below the MDAQMD thresholds—by the use of modern fabric material filters with some of the lowest breakthrough rates in the industry.

AIR-4 is intended to minimize diesel particulate matter. The technology is not currently available, nor is it financially feasible to commit to hydrogen/electric trucks and tractors. However, the Applicant is committed to minimizing emissions and will utilize clean air vehicles when they become financially feasible. Mitigation measure **AIR-6** also addresses truck-related emissions, and is intended to minimize diesel particulate matter. The mitigation measures will be enforced by MDAQMD inspections and written documentation that these mitigation measures are being enforced by the Applicant.

Conclusion

Based on the data presented above, neither construction nor operational emissions would result in exceedance of significance thresholds for any criteria pollutants. With the mitigation provided above,

emissions impacts have been minimized to the greatest extent feasible resulting in a less than significant impact.

- c) *Less Than Significant With Mitigation Incorporated* – The proposed project would generate minimal construction and operation related emissions. The proposed project would not emit hazardous or toxic emissions that would create an excess cancer risk of more than 10 in one million or a non-cancerous health index of more than 1.0. Due to the rural location of this project, there are no medical facilities in close proximity. The closest residence to the project is about 2,100 ft from the PVL Lime Plant site, while the closest school – Trona Elementary School – is about 2,570 ft from the site. With the implementation of mitigation measures **AIR-1** through **AIR-10** outlined under issue III(b), implementation of the PVL Lime Plant development project is anticipated to have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.
- d) *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The Project does not propose any such uses or activities that would result in potentially significant operational source odor impacts. Lime is not a mineral that would cause odor impacts when processed. The proposed project includes office and administration for the PVL Lime Plant, as well as the PVL Lime Plant operations. There are no sensitive receptors located within 1,000 feet of the proposed project, and the proposed project use is not of the type that would result in other emissions impacts that would affect a substantial number of people. The closest residence is 2,100 ft from the PVL site location, while the closest school to the PVL site is Trona Elementary School, which is about 2,570 ft from the project site. Furthermore, the town of Trona is home to a population of about 1,500 persons, as such there is not a substantial population that the proposed project could impact, particularly given the various other existing industrial operations within the small community. Therefore, impacts under this issue are considered less than significant. No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES: Will the project:				
a) Have a substantial adverse effect, 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. BIOLOGICAL RESOURCES

SUBSTANTIATION: (Check if project is located in the Biological Overlay or contains habitat for any species listed in the California Natural Diversity Database

General Site Conditions

PVL proposes to construct and operate a lime production plant on a site near Trona, California. The project will be constructed on a 61.65 acre abandoned ash landfill. A potential for three new utilities will be constructed to serve the project, a natural gas pipeline, a water distribution pipeline, and an electrical distribution line. The Biological Analysis provided as Appendix 2 includes an analysis of the various utility installation alignments proposed. PG&E, SDWC, and SCE utility lines will be installed within Athol Street to connect to the proposed project.

This biological analysis combines the results of a multi-agency database review, a field survey conducted in May of 2018 and prior biological studies within and adjacent to the project area reported in 1988, 2012, and 2013.

The 61.6-acre former ash landfill is a heavily impacted industrial, non-hazardous waste site and the probability of encountering any sensitive species is very low.

Approximately 2,200 feet of the natural gas pipeline route lies in moderately disturbed native Allscale Shrubland Alliance. Within this area there is the potential to encounter Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*). This species ranked as “4.3” by the California Native Plant Society is “of limited distribution in California” and is considered “not very endangered” by the California Native Plant Society. It is not a state or federally listed species.

One bird species, Le Conte’s thrasher (*Toxostoma lecontei*) has a moderate probability of occurrence. It is a species of special concern in California.

Potential habitat also exists for the California threatened Mohave ground squirrel (*Xerospermophilus mohavensis*; MGS). However, no suitable burrows for MGS were observed in the current survey and MGS were not detected during protocol trapping surveys conducted about 1,000 feet east of the gas pipeline route in 2013. This suggests that the probability of occurrence for MGS is low.

No evidence of sensitive species was observed along the route of the utilities along Athol Street. It will be located immediately adjacent to an existing paved road and the potential for sensitive species occurrence is considered very low.

The Biological Survey conducted on May 15, 2018 by Mr. Gilbert Goodlett concluded that no species or signs thereof were evident; Mr. Gilbert Goodlett surveyed for species identified by the California Natural Diversity Database (CNDDDB), California Native Plant Society Database, and United States Fish & Wildlife Service (USFWS) Threatened & Endangered Animals List. The surveys previously conducted by AECOM were included in the Biological Analysis to compare with the current survey and confirm the results. However, based on comments provided by the California Department of Fish and Wildlife (CDFW), the Project will require species-specific preconstruction surveys for burrowing owl, desert tortoise, desert kit fox, Mohave ground squirrel (MGS), American badger, and Borrego milk-vetch.

- a) *Less Than Significant With Mitigation Incorporated* – Implementation of the project does not have a potential for a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The PVL Lime Plant site is a former ash landfill. As such, it is heavily impacted and the probability of locating any sensitive species is very low based on the results of current and prior surveys. A previous biological survey performed in 2012, documented in Appendix 2, concluded that: “This area [the PVL Lime Plant site] has been used for boiler ash disposal and does not support natural desert habitat. It is not suitable for occupancy by the MGS.” As stated above, no evidence of sensitive species was observed along the route of the utilities along Athol Street. However, potential habitat may exist for the California threatened MGS within the natural gas pipeline alignment. Thus, for purposes of this analysis, it is assumed that temporary ground disturbance within the natural gas pipeline alignment may have a potential to adversely impact MGS, a State listed Threatened species. As such, the following mitigation measures shall be implemented to prevent any impacts to MGS:

BIO-1 *Where avoidance of the adjacent habitat is not feasible, the following actions shall be implemented. For the temporary loss of the presumed occupied MGS habitat, the Applicant shall provide compensation for temporary loss of habitat and individual MGS in the following manner: (1) the Applicant shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; (2) the Applicant shall offset*

the loss of the temporarily disturbed habitat by purchase of acceptable MGS habitat at a 1:1 ratio; and (3) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur until the Applicant obtains an ITP. Note that the final compensation package contained in the permit may differ from the above compensation package, but the Applicant finds that this compensation package shall at a minimum meet the requirements of this measure.

Alternatively, the Applicant may perform a protocol MGS presence/absence survey consistent with CDFW Guidelines prior to initiating construction and should it be determined that the adjacent habitat is not occupied by MGS, the above mitigation measure need not be implemented.

As indicated in above, within the same natural gas pipeline area there is the potential to encounter Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*). This species is of limited distribution in California and is not very endangered according to the California Native Plant Society. It is not a state or federally listed species; however, it is recommended to be surveyed in the pre-construction phase of the project, and avoided during construction. The biologist, Mr. Gilbert Goodlett, determined that a preconstruction survey for Borrego milk-vetch should be conducted not only due to the CNDDDB records search for the project, but also due to the survey he conducted in May of 2018. The following mitigation measure shall be implemented to avoid this species, should they be located within habitat that will be disturbed adjacent to the natural gas pipeline alignment.

BIO-2 Prior to construction, the Applicant shall conduct a plant survey for the Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*). This survey shall be conducted by a qualified professional biologist familiar with this species. If these plants are identified within the temporary project area of impact, the botanists shall relocate these plants to adjacent comparable habitat that will not be disturbed.

Regarding the Le Conte's thrasher, mitigation measure **BIO-9** protects these birds during the nesting season and for the thrasher. However, given the large footprint of the project area, that the footprint includes a very small undisturbed area with native vegetation, and that the current survey of the project area did not include species-specific protocols, mitigation to address the potential for burrowing owl is warranted, and shall be implemented as identified below:

BIO-3 In compliance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) the project proponent shall ensure that a pre-construction burrowing owl survey is conducted a maximum of 30 days prior to construction activities. A qualified biologist shall conduct the survey to determine if there are any active burrowing owl burrows within or adjacent to (within 300 feet) the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to CDFW for approval, outlining procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow (per CDFW 2012), depending on the time of year and level of

disturbance near the site in accordance with guidelines specified by the CDFW.

According to the AECOM report from 2012 (Provided as Appendix 2b), no nesting habitat for the golden eagle occurs within the proposed Project area, but suitable nesting habitat may occur within the Argus and Slate Mountain Ranges (located approximately 0.5 mile west of the Project and 9.5 miles east of the Project, respectively), and eagles are known to forage over large areas, e.g., up to 10 miles from their nests. The activity around the industrial plants and off-road, vehicle activity immediately adjacent to foraging habitat are likely to discourage golden eagle from foraging extensively within the proposed Project boundary, and potential use of the site is considered low. However, given the amount of time that has elapsed between the AECOM survey of the project in 2012, and the present, mitigation to ensure that further study is completed is provided below:

BIO-4 Although no golden eagle nests were observed during the survey of the project footprint, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in the USFWS Interim Golden Eagle Inventory and Monitoring Protocols; and other Recommendations (Pagel et al. 2010). This requires two aerial flights of the project boundary within a 10-mile radius of the project site are required to occur between March and May, at least 30 days apart, to assess golden eagle presence. An eagle take permit is not required.

Should any habitat suitable for the golden eagle be impacted, the Applicant shall provide compensation for temporary loss of habitat in the following manner: (1) the Applicant shall offset the loss of the temporarily disturbed habitat by purchase of acceptable golden eagle habitat at a 1:1 ratio; and (2) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the USFWS.

The above mitigation measure will ensure that impacts to this species will be less than significant.

Additionally, given the large size of the project area, the site includes a very small undisturbed area with native vegetation, and the current survey of the project area did not include species-specific protocols, mitigation is warranted to address the potential for desert tortoise. As such, the following mitigation measure is hereby incorporated:

BIO-5 Although no desert tortoises were detected during the site surveys, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in Chapter 6 of the US Fish and Wildlife Service Desert Tortoise (Mojave Population) Field Manual. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.

Based on recommendation by CDFW, a floristic based assessment of special status plants and natural communities should be conducted prior to construction of the proposed project. As such, the following mitigation measure is hereby incorporated:

BIO-6 *Prior to the construction of the following phases of the Project—1. Construction of the Lime Plant and 2. Construction of the Natural Gas Pipeline—the entity responsible for the construction thereof (Phase 1. Panamint Valley Lime, Phase 2. PG&E) shall conduct a floristic based assessment of special status plants and natural communities that adheres to the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. If it is determined that special status plants and/or natural communities may be impacted from the Project specific avoidance, minimization, and mitigation measures will be developed and implemented. The Biological Resources Assessments generated shall be deemed adequate for three years following the date of the field assessment(s). After this time period an updated biological field assessment(s) will be required.*

Based on the disturbed condition of the roadway within which the remaining phases will be installed, the survey conducted in May of 2018 is acceptable to address any impacts to special status plants and natural communities along Athol Street. Based on CDFW recommendation, preconstruction surveys for desert kit fox and American Badger should be conducted prior to construction of the proposed project. As such, the following mitigation measures is hereby incorporated:

BIO-7 *Prior to the construction of the proposed project, preconstruction surveys for desert kit fox and American badger pursuant to the corresponding approved CDFW protocols, as determined by a qualified biologist.*

- *Desert kit fox is a protected species and may not be taken at any time pursuant to Title 14 of the California Code of Regulations Section 460.*
- *American badger is a Species of Special Concern.*
- *Should either species be found on or adjacent to the Project area, the Applicant shall require the preparation of either/both a desert kit fox or/and American badger mitigation and monitoring plan.*
- *Desert Kit fox breeding season is January to the end of May. If a natal burrow is located on the Project site, a qualified biologist shall determine appropriate buffers and maintain connectivity to adjacent habitat. No Project activities or vegetation removal may occur within the buffer or habitat connectivity zone.*

Therefore, with implementation of the above mitigation, there is a less than significant potential for implementation of this project to have a significant adverse effect on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

- b) *Less Than Significant With Mitigation Incorporated* – Implementation of the proposed project has a potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Though the project footprint contains suitable habitat for several sensitive species, it does not contain any known riparian habitat or any other sensitive natural community identified by any agency. The project site itself consists of highly disturbed sandy ground, with scattered vegetation and evidence of dumping use, while the vegetation observed on-site includes allscale (*Atriplex polycarpa*), desert holly (*Atriplex hymenelytra*), and shadscale (*Atriplex confertifolia*). The project site has been subject to historic human disturbance and ongoing human use. However, given the large size of the project area, the site includes a very small undisturbed area with native vegetation, and the current survey of the

project area did not include floristic based assessment of special status plants and natural communities, a floristic based assessment of special status plants and natural communities should be conducted prior to construction of the proposed project. This requirement is addressed in Mitigation Measure **BIO-6**, above.

Based on the field review, the biologist's delineation identified 4 potential blue line streams crossing the natural gas pipeline route. Searles Valley is internally drained, and therefore, there are no outlets, and as such USFWS and the United States Army Corps of Engineers (Corps) have no jurisdiction over these drainage features. All hydrogeomorphic features on site, however, may meet the criteria of streambed waters as per Section 1600 of the Fish and Game Code administered by the CDFW. Thus, though there is no riparian or wetland habitat within these natural gas pipeline routes, the channels may fall within CDFW jurisdiction. Therefore, the following mitigation measure will be implemented.

BIO-8 *The Applicant and/or PG&E shall submit a Lake and Streambed Alteration Notification (SAA) to CDFW. If CDFW finds that the channel in the natural gas pipeline alignment is jurisdictional, the Applicant and/or PG&E shall process and obtain the SAA. No ground disturbance within potential jurisdictional areas shall occur until the Applicant and/or PG&E obtains an SAA. Note that the final compensation package contained in the permit shall be implemented by the Applicant and/or PG&E.*

Based on the field survey conducted by EnviroPlus Consulting, Inc. and the information contained in Appendix 2a, with implementation of mitigation measure **BIO-6** and **BIO-8**, significant impacts to riparian habitat or other sensitive communities are not anticipated to occur as a result of implementation of the proposed project.

- c) *No Impact* – According to the data gathered by EnviroPlus Consulting, Inc. in Appendix 2, no federally protected wetlands occur within the project footprint. Therefore, implementation of the proposed project will have no potential to impact any federally protected wetlands through direct removal, filling, hydrological interruption, or other means. No mitigation is required.
- d) *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the Project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. Once constructed, the natural gas pipeline and water conveyance pipeline will be located below ground, and therefore will have no potential to interfere with a wildlife corridor. However, the State does protect all migratory and nesting native birds. No impacts to nesting or migratory birds have been identified in Appendix 2 that would be located within the PVL Lime Plant site or the Athol Street utility corridor. However, several bird species were identified as potentially occurring in the project area. Thus, the project area may include locations that function as nesting locations for native birds. To prevent interfering with native bird nesting, and to comply with Fish and Game Code 3503, the following mitigation measure shall be implemented:

BIO-9 *The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, a qualified biologist shall be retained by the Applicant, and shall be on site during the nesting season period identified above to monitor all active nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist shall also monitor the habitat within a 50-foot perimeter of the project footprint. Active bird nests MUST be avoided during the nesting season. If an active*

nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.

This project includes the development and utilization of a stormwater retention basin to collect stormwater runoff. The water collected in the stormwater retention basin is not anticipated to contain high levels of salinity. Furthermore, the preliminary drainage study concluded that, based on 24-hour rainfall depth and runoff coefficient, the area required for a retention basin will be 0.66 acres. The proposed basin will completely drain within the time period required by the County, which will minimize the potential for migratory birds to utilize the stormwater retention basin for extended periods given the minimal average rainfall experienced year-round in this portion of the County.

With implementation of the above measures, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to less than significant impact.

- e) *Less Than Significant Impact* – Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues IV(a-d). Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant.
- f) *No Impact* – Please refer to the discussion under response IV(a) above. The Biological Resources Analysis provided as Appendix 2 concluded that the project is not located in an area within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and implementation of the project will therefore not result in a significant impact to any such plans. No further mitigation is necessary.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES: Will the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

V. CULTURAL RESOURCES

SUBSTANTIATION: (Check if project is located in the or Paleontological Resources overlays or cite results of cultural resource review) The information utilized in this section of the Initial Study was obtained from the following technical study: "Phase I Historical/Archaeological Resources Survey: Industrial Lime Production Plant Project, near the Community of Trona, San Bernardino County, California" prepared by CRM TECH dated April 2, 2019 (Appendix 3).

Summary of the Finding

The purpose of the study is to provide the County with the necessary information and analysis to determine whether the project would cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out a systematic field survey of the entire project area. The results of the records search indicate that an isolated lithic flake of prehistoric origin was recorded in the project area in 1989 and was subsequently designated 36-063304 in the California Historical Resources Inventory. During the field survey, however, the artifact could not be located.

Isolates like 36-063304, or localities with fewer than three artifacts, by definition do not qualify as archaeological sites due to the lack of contextual integrity and the resulting inability to yield important data. As such, they do not constitute potential "historical resources" and require no further consideration. In conclusion, no potential "historical resources" were encountered within or adjacent to the project area throughout the course of the study.

No further cultural resources investigation is recommended for the proposed project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

a&b) *Less Than Significant With Mitigation Incorporated* – CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Per the above discussion and definition, as well as the information contained in Appendix 3, no historical or archaeological sites or isolates were located within the Project boundaries during the field review of the project area. Thus, none of them requires further consideration during this study.

In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the Project:

- No historical resources within or adjacent to the Project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the Project as currently proposed will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

However, if buried cultural materials are inadvertently discovered during any earth-moving operations associated with the Project, the following mitigation measure shall be implemented:

CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an on-site inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the on-site archaeological professional, who is acceptable to the County and retained by the applicant. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

With the above contingency mitigation incorporated, the potential for impact to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

- c) *Less Than Significant Impact* – As noted in the discussion above, no available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner’s Office receive notification if human remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts and no further mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. ENERGY

SUBSTANTIATION:

a&b) *Less Than Significant With Mitigation Incorporated* – During construction, the proposed project will utilize construction equipment that is CARB approved, minimizing emissions generated and electricity required to the extent feasible (as outlined under Section III, Air Quality, above). As stated in Section III, Air Quality, the construction of the proposed PVL Lime Plant would require mitigation measures to minimize emissions impacts from construction equipment use. These mitigation measures also apply to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. These measures would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency.

Additionally, the plant operations and maintenance will require the following mobile equipment on a daily basis, which are CARB approved and thus are energy efficient.

- 2-300 hp diesel wheel loaders – CARB Tier IV approved emissions controls.
- 2-50 hp diesel fork lifts CARB - Tier IV approved emissions controls
- Diesel powered Emergency Generator 500kW - CARB approved emissions controls

California Code of Regulations Title 24, Part 6, California’s Energy Efficiency Standards for Residential and Nonresidential Buildings, was established in 1978 in response to a legislative mandate to reduce California’s energy consumption. New standards were adopted by the Commission in 2008 as mandated by Assembly Bill 970 to reduce California’s electricity demand. The proposed project is required to include energy efficient equipment to minimize energy impacts. Furthermore, the proposed project may install a solar array that would account for about 15% of the PVL Lime Plant’s overall energy requirements, if the installation of solar is feasible for PVL. PVL has indicated that they intend to pursue solar, but the cost of installation versus the benefit to the project’s energy supply may render the installation of solar at this project site infeasible. Should PVL install solar, PVL would install a solar/battery generation facility with a maximum 2,000 kW capacity. A battery backup system will broaden the curve during which solar energy will be available to cover the SCE peak demand period from 4:00 PM to 9:00 PM. Should PVL install a solar array, PVL would demonstrate further that the facility would not consume energy resources in a wasteful or inefficient manner. During operation most of the electricity will be consumed by electric motors for activities like conveying, sizing, and pollution control devices. A small amount will be used for site and building lighting. The total electricity requirement will vary during a 24-hour period from 1,000 to 1,200 kW, 360 days per year. During the five days allocated to maintenance, the electric load will be lower. SCE

will be the primary provider for electricity. According to SCE's website¹, SCE is committed to delivering power reliably and to meet demand. SCE is expanding and upgrading transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE would have ample power supply to serve the project without the need for additional electrical capacity.

The proposed project is anticipated to utilize natural gas as part of the process in which lime is transformed into a consumer product. The lime process is an intense user of thermal energy which will be provided by natural gas. The near constant gas demand will be 56 MMBTU/hr. PG&E will supply the natural gas. As stated under Section VIII, Greenhouse Gas, the proposed use of natural gas to process lime at the PVL Lime Plant is considered to be a positive alternative to the use of coal or petroleum coke, which produce greater contributions to GHG emissions than natural gas does. As such, the use of natural gas in support of the PVL Lime Plant operations would not be a wasteful, inefficient, or unnecessary use of resources, and the overall PVL Lime Plant operations would apply with applicable Federal, State, and local plans for renewable energy or energy efficiency. Impacts under this issue are less than significant with implementation of the mitigation measures identified in Section III, Air Quality, above.

¹ <https://www.sce.com/about-us/reliability/meeting-demand>

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS: 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-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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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-site or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VII. GEOLOGY AND SOILS

SUBSTANTIATION: (Check if project is located in the Geologic Hazards Overlay District) The following information has been abstracted from the “Geotechnical Investigation, Proposed Lime Plant, Ace Ash Landfill, Athol Street and Roberts Road, Trona, California” dated August 14, 2018, prepared by Krazan & Associates, Inc. and updated February 25, 2019. These reports are provided as Appendix 4a and 4b, respectively.

a) i) Ground Rupture

Less Than Significant Impact – The project site is located within the community of Trona within the northwestern most portion of the County of San Bernardino. California as a whole is a seismically active state, though the proposed project site is not located on a fault or within a fault zone. According

to the United States Geological Survey (USGS) U.S. Quaternary Faults Map² (Figure VII-1), the project is located near the Garlock fault zone (south), Wilson Canyon fault (northwest), Panamint Valley fault zone (east), and Tank Canyon fault (east). Each fault is located at a distance of about 5 miles from the project or more. According to Figure VII-2, the site is not located within an area mapped for a geological risk as a result of not being located within an Alquist-Priolo fault zone. Based on the project site's distance from the nearest fault zone, the risk for ground rupture at the site location is low; therefore, it is not likely that future employees of the PVL Lime Plant will be subject to seismic hazards from rupture of a known earthquake fault. Therefore, any impacts under this issue are considered less than significant; no mitigation is required.

ii) Strong Seismic Ground Shaking

Less Than Significant Impact – As stated in the discussion above, several faults run through the area surrounding the proposed project, and as with much of southern California, the proposed structures will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future, though the proposed project is not in close proximity to an Alquist-Priolo fault zone. As stated above, the project is located near the Garlock fault zone (south), Wilson Canyon fault (northwest), Panamint Valley fault zone (east), and Tank Canyon fault (east). Each fault is located at a distance of about 5 miles from the project or more. As a result, and like all other development projects in the County, the proposed project will be required to comply with all applicable seismic design standards contained in the 2016 California Building Code (CBC), including Section 1613 Earthquake Loads. The CBC provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented in the Geotechnical Investigation (Page 15) are based on the soil profile and the proximity of known faults with respect to the subject site. The Project will comply with the CBC, which will ensure that structural integrity will be maintained in the event of an earthquake. Therefore, impacts associated with strong ground shaking will be less than significant without mitigation.

iii) Seismic-Related Ground Failure Including Liquefaction

Less Than Significant With Mitigation Incorporated – According to the San Bernardino County Land Use Plan General Plan Geologic Hazard Overlays map provided as Figure VII-3, the project site does not contain land with any liquefaction susceptibility. Furthermore, according to the Groundwater Availability and Impact Analysis Memo (Appendix 5b), the hydrograph indicates an increase in groundwater levels (groundwater was rising) starting in 1992 through approximately 1994, when depth to groundwater ranged from 262 feet below ground surface (BGS) to 268 feet BGS. From 1994 until 2009 depth to groundwater increased from approximately 262 feet BGS to 267 feet BGS. Since about 2010, groundwater levels have been relatively stable. The groundwater is at such a depth that liquefaction potential at this site is minimal. However, the Geotechnical Investigation provided as Appendix 4a and the Updated Geotechnical Investigation provided as Appendix 4b concluded that the fly ash or fly ash slurry located within the site may result in foundations supported on this material settling up to a foot. As stated in this report, the Applicant does not intend to support structures on foundations extending through this material. The following mitigation measure shall be implemented to ensure that the recommendations outlined in the Geotechnical Investigation are enforced:

GEO-1 Based upon the findings contained in the Geotechnical Investigation and Geotechnical Investigation Update (Appendix 4a and 4b of this document), all of the recommended design and construction measures identified in Appendix 4a (listed under “Conclusions and Recommendations,” pages 5-16) and the site preparation summary identified in Appendix 4b (pages 3-7) shall be implemented by the Applicant. Implementation of these specific measures will

² <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>

address all of the identified geotechnical constraints identified at project site, including soil stability of future project-related structures.

Therefore, with implementation of the above mitigation measure, it is anticipated that the proposed project will have a less than significant potential to be susceptible to seismic-related ground failure, including liquefaction.

iv) Landslides

No Impact – The project area is relatively flat, sloping slightly from north to south. No hills or other significant topographic features exist on the project sites. According to the San Bernardino County General Plan, General Land Use Plan with Geologic Overlays (Figure VII-3), the project is not located in an area that is susceptible to landslides. No potential events have been identified that would result in adverse effects from landslides or that would cause landslides that could expose people or structures to such an event as a result of project implementation. No impacts are anticipated and no mitigation is required.

- b) *Less Than Significant With Mitigation Incorporated* – Due to the disturbed nature of the project site as a result of the site's previous use as an boiler ash disposal landfill, as well as they type of project being proposed, a potential for soil erosion, loss of topsoil, and/or placing structures on unstable soils is generally considered less than significant. The project site is vacant with minimal non-native vegetation coverage. County grading standards, best management practices and the Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan are required to control the potential significant erosion hazards. The finished elevation of the project site is approximately 15 feet above the top of the adjacent floodway / levee, which is about 20 feet above adjacent grade. As such, runoff originating outside the project site cannot enter the project site due to existing site grading. It is anticipated that the required excavation and fill required to balance the site will not result in excess cut or fill. During project construction when soils are exposed, temporary soil erosion could occur, which could be exacerbated by rainfall. Project grading would be managed through the preparation and implementation of a SWPPP, and will be required to implement BMPs to achieve concurrent water quality controls after construction is completed and the PVL Lime Plant is in operation. The following mitigation measures or equivalent BMPs shall be implemented to address these issues:

GEO-2 *Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. If covering is not feasible, then measures such as the use of straw bales or sand bags, shall be placed around the stored material and used to capture and hold eroded material on the project site for future cleanup.*

GEO-3 *All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the PVL Lime Plant is being constructed.*

With implementation of the above mitigation measures, implementation of the SWPPP and associated BMPs, any impacts under this issue are considered less than significant.

- c) *Less Than Significant With Mitigation Incorporated* – Refer to the discussion under VI(a) above. Potential instability associated with slope stability and liquefaction related to the project was determined to be less than significant, as outlined under discussion a(iii) and a(iv) above. The potential for shrinkage or subsidence at the site was determined to be limited by the data compiled in Appendix 4. The San Bernardino County Hydrology Manual states that the soils at the project site

are Hydrologic Soil Group “D”, which is an indication of poor infiltration. Furthermore, the Geotechnical Investigation states that the surface soils at the site have a loose consistency, and they are highly disturbed with low strength characteristics and are highly compressible when saturated. The Geotechnical Investigation concludes that the surface soils should be recompacted, which should stabilize the surface soils for development. Mitigation Measure **GEO-1** below will ensure that all recommendations outlined in the Geotechnical Investigation are implemented. The Geotechnical Investigation recommends that fill material should be compacted to a minimum of 90 percent of maximum density based on ASTM Test Method D1557. Additionally, the fly ash or fly ash slurry material that underlain the site have varying strength characteristics and the Geotechnical Investigation recommends that the foundations for structures should not be constructed on this material. The Mitigation Measure **GEO-1** shall be implemented to ensure that the recommendations outlined in the Geotechnical Investigation are enforced. Therefore, with the implementation of the above mitigation measure, impacts under this issue are considered less than significant.

- d) *Less Than Significant With Mitigation Incorporated* – According to the Geotechnical Investigation, the upper soils consisted of approximately 6 to 12 inches of very loose silty sand or fly ash slurry fill. These soils are distributed, have low strength characteristic and are highly compressible. Expansive soils are generally of a clay type soil, not a sandy soil such as the Manet series soils that underlay the project site. Thus, based on the absence of clay-type soils on site, the proposed project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. However, a Geotechnical Investigation (Appendix 4) has been prepared for the project and in order to ensure that the structures and paving on site are constructed on stable soils, Mitigation Measure **GEO-1** above shall be implemented to ensure than any impacts under this issue are less than significant.
- e) *Less Than Significant With Mitigation Incorporation* – The Project area and surrounding development do not have access to a municipal wastewater system and require the use of individual on-site septic systems. As previously noted, the proposed project is supported by stable soils. Based on the nearly exclusive use of septic tanks or other alternative wastewater disposal systems within the area (no municipal wastewater collection or treatment systems exist), the soils are capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater. The Geotechnical Report provided as Appendix 4 to this Initial Study performed a percolation test in accordance with the “Manual Septic Tank Practice,” which indicated that the soils tested at approximately 4 to 8 feet have moderate absorption characteristics. The Geotechnical Report concluded that recommended design and construction measures should be implemented to minimize impacts. As such, implementation of mitigation measure **GEO-1** will ensure that the installation of the septic tank will occur within stable soils. Furthermore, the Project will be required to comply with the 2007 California Plumbing Code (Part 5, Title 24, California Code of Regulations), which sets parameters for private sewage disposal. Thus, with compliance of applicable California Code and implementation of mitigation measure **GEO-1**, any impacts under this issue are considered less than significant.
- f) *Less Than Significant With Mitigation Incorporated* – The potential for discovering paleontological resources during development of the Project is considered highly unlikely based on the fact that the site has been previously engineered and disturbed at depth. No unique geologic features are known or suspected to occur on or beneath the sites. However, because these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities, the following measure shall be implemented:

GEO-4 *Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an on-site inspection shall be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the on-site paleontological professional, who is acceptable to the*

County and retained by the applicant. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the CEQA Guidelines.

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduced to a less than significant level. No additional mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VIII. GREENHOUSE GAS EMISSIONS

SUBSTANTIATION: The following information utilized in this section was obtained from the technical study “Air Quality/Greenhouse Gas Study, Panamint Valley Limestone, Lime Kiln and Processes” prepared by Paul Ervin of Biostream Inc. and Tom Snowden of WZI, updated on January 18, 2020, and provided as Appendix 1 to this document.

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. An individual project like the Project evaluated in this GHG Analysis cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC.

In December September 2011, the County of San Bernardino adopted the "Greenhouse Gas Emissions Reduction Plan" (“GHG Plan”). The purpose of the GHG Plan is to reduce the County's internal and external GHG emissions by 15 percent below current (2011) levels by year 2020 in consistency with State climate change goals pursuant to AB32. The GHG Plan has been designed in accordance with Section 15183.5 of the State CEQA Guidelines which provides for streamline review of climate change issues related to development projects when found consistent with an applicable greenhouse gas emissions reduction plan.

Section 5.6 of the GHG Plan identifies the procedures for reviewing development projects for consistency with the GHG Plan. The GHG Plan includes a two-tiered development review procedure to determine if a project could result in a significant impact related to greenhouse gas emissions or otherwise comply with the GHG Plan pursuant to Section 15183.5 of the State CEQA Guidelines. The initial screening procedure is to determine if a project will emit 3,000 metric tons of carbon dioxide equivalent (MTCO₂E) per year or more. Projects that do not exceed this threshold require no further climate change analysis but are required to implement mandatory reducing measures in the project's conditions of approval.

Projects exceeding this threshold must meet a minimum 31 percent emissions reduction in order to garner a less than significant determination. This can be met by either (1) achieving 100 points from a menu of mitigation options provided in the GHG Plan or (2) quantifying proposed reduction measures. Projects failing to meet the 31 percent reduction threshold would have a potentially significant impact related to climate change and greenhouse gas emissions.

Significance Thresholds

California has several laws regulating greenhouse gases, including Assembly Bill (AB) 32, Senate Bill (SB) 1368, SB 32, Executive Order (EO) S-03-05, EO S-20-06, EO S-01-07, and B-30-15.

AB 32, known as the California Global Warming Solutions Act of 2006 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship," mandating the quantification and reduction of GHGs. It has had, and will continue to have, wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reduction requirements, are the short time frames within which it must be implemented. Major components of AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

In 2016, SB 32 required further reduction of GHG targets, requiring CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions to reduce statewide greenhouse gas emissions to at least 40% of 1990 levels by the end of 2030. AB 32 also required CARB to develop a Scoping Plan. The Scoping Plan is an iterative document that describes the State's strategies for meeting the GHG emission reduction targets set by AB 32 and SB 32.

The Scoping Plan relies on CARB's cap-and-trade program to reach the GHG emissions reduction targets of AB 32 and SB 32. The cap-and-trade regulations were implemented in 2011, and set the 2013 emissions year as the first compliance year. The cap-and-trade program imposes enforceable GHG emission caps for covered facilities. By setting a firm, statewide emissions limit and an enforceable compliance obligation on individual emissions sources, the cap-and-trade program ensures that individual emissions sources are consistent with the declining statewide emission limit.

In response to the requirements of SB 97, the State Natural Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010 and have since been updated.

A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Guidelines were recently amended to state that "In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable."

The project will be a covered source under the cap-and-trade program and as such will have an enforceable compliance obligation to procure allowances consistent with the overall declining cap on emissions.

In addition, MDAQMD has required additional GHG emission mitigation as part of its authority under the Clean Air Act.

a&b) *Less Than Significant With Mitigation Incorporated* – The MDAQMD sets a quantitative significance threshold for Greenhouse Gases below which a project is considered less than significant. CalEEMod was utilized to calculate emissions for this project, which is considered an acceptable means to determine Air Quality and GHG emissions within the MDAQMD.

**Table VIII-1
 CONSTRUCTION EMISSIONS**

MDAQMD Threshold (Tons CO ₂ e/yr)	Project Impacts (Tons CO ₂ e/yr)	Significant Impact?
100,000	3,953	NO

**Table VIII-2
 TOTAL ESTIMATED CONSTRUCTION EMISSIONS (2019-2020)**

MDAQMD Threshold (Tons CO ₂ e/yr)	Project Impacts (Tons CO ₂ e) 2019-2020	Significant Impact?
100,000	7,905	NO

**Table VIII-3
 OPERATIONAL EMISSIONS**

MDAQMD Threshold (Tons CO ₂ e/yr)	Project Impacts (Tons CO ₂ e/yr) (tons)	Significant Impact?
100,000	159,132.7	YES Requires Mitigation

**Table VIII-4
 TOTAL EMISSIONS INCLUSIVE OF CONSTRUCTION & OPERATION
 CONSTRUCTION EMISSIONS ARE AMORTIZED¹**

MDAQMD Threshold (Tons CO ₂ e/yr)	Project Impacts (Tons CO ₂ e/yr) (tons)	Significant Impact?
100,000	CONSTRUCTION: 263.5 ¹ OPERATION: 159,132.7	YES Requires Mitigation
	TOTAL: 159,396.2	

¹ Amortization of construction emissions assumes the emissions will disperse over a period of 30 years.

As shown in the Tables above, the project is well below the MDAQMD emissions threshold for construction related GHG emissions. However, the proposed project operations are above the MDAQMD emissions threshold for operations related GHG emissions. In order to mitigate the combined exceedance, PVL intends to offset the emissions by purchasing 60,000 tons of permanent CO₂ emission reduction credits, which will be valid in perpetuity (i.e. for the life of the project). With these credits, emissions will be reduced below the 100,000-ton threshold, resulting in less than significant impacts.

GHG-1 *The Applicant shall acquire 60,000 tons of permanent CO₂ emission reduction credits, or the equivalent thereof equal to an offset of 60,000 tons of CO₂ per year. The emission reduction credits shall be obtained from a trusted source*

that must be approved by the MDAQMD staff. A copy of the certification shall be provided to the MDAQMD and County upon receipt. The emission reduction credits must be purchased prior to operations of the PVL Lime Plant.

The project has three main sources of GHG emissions: limestone calcination, stationary source combustion, and vehicular transportation emissions. The GHG emissions will exceed the threshold for the California AB-32 cap-and-trade program, making the facility a mandatory cap-and-trade entity. The facility will comply with this adopted policy or regulation for the reduction of GHG emissions.

CARB has confirmed that the PVL Lime Plant Project will be subject to and must comply with the Cap-and-Trade program and the Mandatory Reporting Regulation, which will collectively ensure that the Projects emissions are within the statewide program limitations adopted pursuant to AB 32 and SB 32.

The CEQA guidelines provide discretion to lead agencies in exercising expert judgment in setting a GHG significance threshold. In addition to evaluating consistency with programmatic goals in setting a GHG significance threshold, Section 15064.4 of the Guidelines also contemplate the incremental contribution of GHG emissions. Based on conversations with CARB, the benefit of developing the PVL Lime Plant project outweigh the project's impacts as a new source contributing to regional greenhouse gas emissions. This is because the project is located within the State in which many of the PVL Lime Plant's customers will be served. There are 18 active Lime plants West of the Rocky Mountains, and of those, 11 are captive facilities where the lime is used in house for Sugar production. Seven of the plants are commercial operations and would be within PVL's sphere of influence.³ Four of the above plants are Lime manufacturers with the most influence in the California lime markets. One of these facilities is located closest to the Southern California markets and would be in direct contact with markets in that area and indirectly with other markets within the State of California. It is believed that output from the PVL plant will also be used within most of the same market regions.

The majority of all lime that comes into California would use the Las Vegas to Kramer Junction corridor and as shown in Table VIII-5, by intersecting this route from Trona, there would be a significant reduction in overall vehicle emissions. This "leakage" is what CARB has expressed interest in reducing. The data shown in Table VIII-5 utilizes the Las Vegas to Kramer Junction corridor because this is the route the majority of Lime suppliers would use to transport lime on the west coast. Very little (if any lime of this grade) comes in from other routes of entry into California. Lhoist was selected as a target location because they are the largest and closest supplier east of the proposed PVL Lime Plant, making them the logical choice with which to compare reductions in transportation emissions from a plant in California versus a plant east of California, with the intent that a majority of PVL would serve a majority of the customer base in California once in operation.

As previously stated, there are no lime plants located within California, and as such the reduction in transportation that would occur as a result of the PVL Lime Plant's proximity to its customer base is substantial, such that the proposed project's operational emissions profile—related to truck trips only—would net 71% reduction from business-as-usual, and 2.3 metric ton quantitative reduction in CO₂e from reducing the vehicle miles travelled to transport lime products to customers.

³ USGS Mineral Industries Survey at <http://www.lime.org> or by calling (703) 243-5463

**Table VIII-5
 EMISSIONS REDUCTION CALCULATION: IN STATE (PVL) VS OUT OF STATE (LHOIST)**

	Vehicle Type	Quantity	Tons/ Load	Round-Trip Distance (mi)	Ton per Mile	CO ₂ (g/ton /mi)	CH ₄ (g/ton /mi)	N ₂ O (g/ton/ mi)	CO ₂	CH ₄	N ₂ O	
Trona, CA To Kramer Junction, CA	Heavy Duty Diesel Vehicle	44.4	25	62	124	1,430	0.015	0.0048	157,460	1.65	0.53	grams /day
Lhoist, Las Vegas, NV to Kramer Junction, CA				214	428				543,492	5.70	1.82	
Assumptions: 1. Identical conditions (equipment, loads, traffic, etc.)									6.56	0.00007	2.20 E-05	Kg/hr
Notes: * Ton-mile calculation reflects tonnage transported and returned empty									22.65	0.00024	7.60 E-05	
									1.39	2.51 E-05	8.04 E-06	MT/yr
									8.27	8.67 E-05	2.77 E-05	
									Comparative Percent Reduction: 71.03%			

The emission profile for the closest plant—which happens to be the plant with the most influence—indicates that there are several areas where the PVL project reflects a lower carbon, and less transportation impacts when compared to the nearby Lime Plants, which utilize older technologies utilizing high carbon fuels and require greater transportation to reach their respective markets.

In addition to the reductions shown in Table VIII-3 and stated above, there are several other features that reduce overall emissions on a plant/plant comparison basis.

1. The Kiln will use utility grade natural gas. Out of state lime producers use either coal or petroleum coke, which produce greater contributions to GHG emissions than natural gas does.
2. The Kiln technology is a “state of the art” vertical dual chamber versus rotary type.
3. The plant will convert all its raw material hauling fleet to zero emissions technology (Tesla, Hydrogen, etc.) making for additional reductions as the technology becomes available and cost effective. (These reductions weren’t included in the AQ/GHG Report).
4. The use of certified emission reduction credits where needed.

Based on the reduced emissions that would result from implementing the mitigation measure identified above, development of the PVL Lime Plant would result in less than significant impacts related to greenhouse gas emissions.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HAZARDS AND HAZARDOUS MATERIALS

SUBSTANTIATION:

a&b) *Less Than Significant Impact* – During construction, there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people and the environment. All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. Compliance with state and local regulations will minimize the potential for accidental exposure of persons to hazardous materials.

The proposed project consists of the development of a lime plant, which will convert lime into quicklime. Quicklime is not a hazardous material. According to the National Lime Association⁴, lime is widely used to treat hazardous wastes. Lime stabilizes most metals by converting them to more

⁴ <https://www.lime.org/lime-basics/uses-of-lime/enviromental/hazardous-wastes/>

chemically stable forms that are less likely to leach. In addition, lime can react with soils to solidify materials inhibiting the leaching of hazardous constituents and also neutralizes acidic materials within such constituents. Quicklime is an alkaline material that is reactive in the presence of moisture, and as such, must be handled properly by employees of PVL. As such, the Applicant is required to comply with the US Department of Labor Occupational Safety and Health Administration procedures for exposure to and handling of chemicals⁵ through use of the Material Safety Data Sheet⁶. As stated under Issue 3, Air Quality, the Project may be subject to emissions standards reflecting the application of Maximum Achievable Control Technology. The Applicant will use utility grade natural gas that has been certified by PG&E as non-hazardous. By precluding traditional fuels (coal and pet-coke), the Applicant will eliminate the potential for contamination from heavy metals such as mercury, lead, and zinc. Second, the Applicant will use a sole source of limestone input under its strict control and as such, there will be no potential for contamination from outside sources of raw material. The limestone will be composited, sampled, and tested to confirm no existence of hazardous levels of toxic contaminants above the CCR Title 22-17 threshold limits. As outlined in the Air Quality Impact Analysis of this and as discussed herein, the Applicant will use modern fabric material filters with some of the lowest breakthrough rates in the industry. With compliance to Federal, State, and local regulations regarding the handling of lime and lime byproducts, and with the above mitigation measure, the Project would not create a significant hazard to the public or the environment either through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts are considered less than significant with implementation of standard best management practices (BMPs) and no mitigation is required.

- c) *No Impact* – The project site is located greater than one-quarter mile from any public school. The nearest public schools, Trona High School and Trona Elementary School, are located adjacent to one another along Trona Road just south of the intersection of Athol Street and Trona Road (more than one half of a mile from the Project site). Based on this information, implementation of the Project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No adverse impacts are anticipated. No additional mitigation is required.
- d) *Less Than Significant Impact* – The project site previously served as a boiler ash landfill. The site is not located on a list of hazardous materials sites that are currently under remediation. According to the California State Water Resources Control Board's GeoTracker website (consistent with Government Code Section 65962.5), which provides information regarding Leaking Underground Storage Tanks (LUST), there are no active LUST sites located at the project site, though there are two LUST cleanup sites (one open case, and one closed case) located about 1,000 feet from the nearest point within the project site, and there are also three Waste Discharge Requirements (WDRs), which includes sites that operate under WDRs issued by the State Water Resources Control Board or a Regional Water Quality Control Board. WDRs address non-designated waste discharges that are typically applied to land (refer to Figures IX-1 through IX-6). These sites have no potential to create a hazard that would affect the operations of the proposed Project. Therefore, the proposed construction and operation of the site as the PVL Lime Plant will not create a significant hazard to the population or to the environment from their implementation. Impacts under this issue are considered less than significant and no mitigation is required.
- e) *No Impact* – According to a review of Google Maps (1/22/19) the Project site is not located within two miles of an airport or private airstrip. The closest airport is the Trona Airport located approximately 4 miles northeast of the project site at 15490 Trona Airport Rd, Trona, CA 93562. Therefore, construction and operation of the project at this location would not result in a safety hazard for people

⁵ <https://www.osha.gov/chemicaldata/chemResult.html?RecNo=203>

⁶ https://www.lime.org/documents/lime_basics/fact-safety_precautions.pdf

residing or working in the project area as a result of proximity to a public airport or private airstrip. No impacts are anticipated and no mitigation is required.

- f) *Less Than Significant With Mitigation Incorporated* – The proposed project is located along Athol Street within the community of Trona in the County of San Bernardino. Athol Street connects with Trona Road to the northeast and also connects to Plant Access Road to the south/southwest. The project will occur mostly within the boundaries of the PVL Lime Plant site; however, construction to install the utilities that will connect to the project site will occur within Athol Street and within a corridor aligned with First Street to the southwest of the project site. In order to prevent any impacts to emergency access to the project site and surrounding area due to construction within and adjacent to Athol Street, a congestion management plan shall be implemented through mitigation identified under Section XVII, the Transportation/Traffic Section of this document. Mitigation to address any potential traffic disruption and emergency access during construction is included in this section. Therefore, the potential for the development of the Project to physically interfere with any adopted emergency response plans or evacuation plans is considered a less than significant impact with mitigation incorporated. No further mitigation is required.
- g) *No Impact* – According to the San Bernardino County Land Use Plan General Plan Hazard Overlays Map, the proposed project is not located within a Fire Safety Overlay District. The proposed project is located just south of a floodway, and is in an industrial area with very little fuel load in the surrounding area that could be susceptible to wildfires. Additionally, the surrounding mountains are rocky, with little vegetation that would serve as fuel load. Therefore, because the proposed project is located outside of the area identified as a high fire hazard zone within the County's General Plan, the proposed project will have no potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. No mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) result in substantial erosion or siltation on-site or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

X. HYDROLOGY AND WATER QUALITY

SUBSTANTIATION: The following information utilized in this section was obtained from: (1) the technical study “Preliminary Hydrology and Hydraulics Study, PVL Lime Plant” prepared by AECOM, dated June 20, 2018, and provided as Appendix 5a to this document, and (2) “Ground Water (Hydrologic) Technical Memorandum Report to Support San Bernardino Conditional Use Permit Related to Adequate Service Certification Water and Sewer (Form W2) – PVL Lime Plant APN: 0485-031-12” prepared by Luhdorff & Scalmanini Consulting Engineers, dated July 3, 2019, and provided as Appendix 5b to this document.

- a) *Less Than Significant Impact* – The proposed project is located within a developed area within the California Regional Water Quality Control Board (RWQCB), Lahontan Region. The PVL Lime Plant site was previously a boiler ash disposal landfill, and as such has been highly disturbed from previous activities at the site. For a developed area, the only three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; stormwater runoff; and potential discharges of pollutants, such as accidental spills. The project will not generate municipal wastewater, since no municipal wastewater systems exist within the project footprint. Due

to the rural nature of the community of Trona, the project will dispose of domestic sewage produced on site of the PVL Lime Plant through use of an on-site septic tank. The installation of this new septic tank will not violate any water quality standards or waste discharge requirements because the project will comply with the San Bernardino County Department of Public Health's standards for alternative wastewater disposal⁷. Compliance with County standards regarding sewage disposal is considered sufficient to prevent any significant impacts from occurring as a result of project implementation.

To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a SWPPP to control potential sources of water pollution that could violate any standards or discharge requirements during construction. A Water Quality Management Plan is not required for this area because it is beyond the MS4 boundary. In the short term, construction activities will have some potential to affect the quality of stormwater discharged from the project footprint. Land disturbance activities could result in erosion and sedimentation immediately adjacent to the project sites. Spills or leaks of petroleum products used by construction equipment could also potentially affect the quality of surface water. However, as stated under Hazards and Hazardous Materials, during operations, the products of the PVL Lime Plant operations are often used to prevent groundwater contamination, and as such, the ongoing processing of lime at the site is not anticipated to result in groundwater contamination.

The project will be required to obtain a general construction National Pollutant Discharge Elimination System (NPDES) stormwater discharge permit prior to the start of construction. Obtaining coverage under the General Construction NPDES permit requires the preparation and implementation of a SWPPP, which would specify the BMPs that the project would be required to implement during construction activities to ensure that all potential water pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Compliance with the terms and conditions of the NPDES and the SWPPP is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities. Because the project site consists of impervious surfaces, the project has identified on-site drainage that will direct runoff to the on-site retention pond that will be developed as part of the project.

Finally, the proposed brownfield project site was previously used as a boiler ash landfill for the ACE power plant, subject to Waste Discharge Requirements (WDRs) as directed by the RWQCB. RWQCB Order Number R6V-2004-0008 includes a determination that the boiler ash disposed at the facility is "inert." California Code of Regulations, title 27, section 20230(a) defines inert waste as "that subset of solid waste that does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste." RWQCB Board Order No. R6V-2017-0004 noted that "samples collected from the ash waste since 1997 further support the inert designation" and concluded that: "The waste that has been discharged to the Facility does not pose a threat to water quality," and, therefore rescinded the WDRs. "(RWQCB Board Order No. R6V-2017-0004, Rescission of WDR Board Order No. 6-00-92 provided as Appendix 5d). Based on comments received from the Lahonton RWQCB (refer to the Comment Letter provided as Appendix 5e), the landfill waste on the project site does not pose a threat to water quality with the proposed modifications to the parcel.

As such, with implementation of these mandatory plans and their BMPs, and compliance with any WDRs, the development of the PVL Lime Plant will not cause a violation of any water quality standards or WDRs. Impacts under this issue are considered less than significant and no mitigation is required.

- b) *Less Than Significant Impact with Mitigation Incorporated* - Implementation of the proposed project will require 2.1 acre-feet per year (AFY) of potable water for domestic uses (i.e., for use in drinking

⁷ <http://wp.sbcounty.gov/dph/programs/ehs/wastewater/>

fountains, bathrooms, and eye wash stations, etc.), and 39.9 AFY for its operational uses. The project is located within SDWC's service area and PVL asked SDWC to provide water sufficient to meet all of its domestic and operational needs. SDWC refused, and that issue is being addressed through a complaint proceeding pending before the California Public Utilities Commission. To ensure a water supply for the project, PVL drilled an on-site well that will provide water sufficient to meet the needs of the project, but the water will have to be cleaned to potable or near-potable quality for all operational uses. This environmental review addresses the impacts of PVL using its on-site well and receiving water from SDWC.

SDWC purchases water from SVM (SDWC is a wholly owned subsidiary of SVM), pursuant to a 30-year Water Purchase Agreement entered in 2015. The Water Purchase Agreement provides that "SVM agrees to sell SDWC up to 200,000,000 gallons per year [approximately 613.78 AFY] of SVM's surplus water produced from its various wells." However, SDWC reports that the amount of water it purchases each year from SVM varies, depending on demands within SDWC. SDWC reports that in 2018, it purchased 197 AF from SVM. Between 2010 and 2014, SDWC reports it purchased an average of 226 AFY, as reported by SDWC in their annual report. This water is pumped from the Indian Wells Valley Groundwater Basin (IWVGB) and conveyed approximately 30 miles by pipeline to the Searles Valley for potable residential and commercial uses in Trona. PVL's on-site well draws water from the Searles Valley Groundwater Basin.

Potable (Domestic) Water

For potable or domestic water needs, PVL intends to obtain an estimated 1.3 gallons per minute (GPM) or 2.1 AFY of potable water from SDWC. The proposed project domestic water demands are approximately 0.9% of the total groundwater produced from the IWVGB that is delivered to SDWC. As such, the small domestic water demands of the project would be less than significant with the implementation of the following mitigation measure designed to minimize the impact to the IWVGB, which is currently experiencing overdraft conditions, thereby stressing the importance of water conservation.

HYD-1 PVL shall offer Searles Domestic Water Company/Searles Valley Minerals funds to replace existing domestic water equipment (low flush toilets, repair of water leaks, high efficiency faucets, etc.) of its customers to offset 2.1-acre feet of existing potable water demand.

Industrial (Process) Water

PVL has constructed a groundwater well on the project site to supply the 39.9 AFY of water for the process demands. The on-site well is able to provide an estimated 30 gpm of water that will be treated to meet process water quality requirements. To assess the extent and degree of groundwater drawdown in response to project extraction at 30 gpm, a drawdown analysis was conducted (Appendix 5b). The impact analysis is based on continuous pumping rate of 30 gpm (approximately 49 AFY) on a 24-hour per day schedule for a 20-year period. DWR estimated that the groundwater storage capacity of the Searles Valley Groundwater Basin is approximately 2,140,000 AF (DWR, 2004). The test pumping rate of 49 AFY (approximately 10 AFY more than the project's process water needs) represents less than 0.003 percent of the Searles Valley Groundwater Basin storage capacity. As detailed in Appendix 5b, the continuous extraction of water through the new well operation will cause a cone of depression around the well with the highest amount of groundwater drawdown at the new well's location and less impact at distances farther from the well. At the distance of 2,000 ft, the groundwater table will be lowered by 0.5 ft after 20 years of nonstop pumping of the new well. This drop of the water table occurs only in response to this well's operation while the current condition of the water table is the superposition (contribution) of all drawdowns due to all other pumping wells active in the area. At 2,000 ft away from the new well, the groundwater table starts to drop after 10 hours of pumping the new well and the drawdown after 20 years at the same location

is less than 0.5 ft. The results of this analysis indicate the drawdown of water table at the radius of approximately one mile from the well, after 20 years of continuous pumping at 30 gpm, is less than 6 inches. This is shown graphically on Exhibit X-1 below.

Exhibit X-1
DRAWDOWN(S) INFLUENCE OF THE NEW WELL AT THE RADIUS OF 5,000 FT AFTER 20 YEARS



The Groundwater Availability and Impact Analysis provided as Appendix 5b concluded that sufficient groundwater supplies exist in the Searles Valley Groundwater Basin and are quantified as being at least 7,000 AF/year (inflow) flowing beneath the project site. The analysis conducted estimated that the proposed project would utilize approximately 25% more than the 39.9 AFY of water needed for operational purposes. Even at this higher rate, the anticipated groundwater production represents substantially less than 1% of the total amount of groundwater flowing into the Searles Valley Groundwater Basin. The analysis confirmed that pumping of up to 49 AFY from the local aquifer could be maintained by groundwater inflow. Operating the project's on-site well will also have minimal impacts on nearby industrial wells. The predicted drawdown after 20 years of continuous pumping (assuming no recharge) is less than 6 inches at a radius of 5,000 feet. As a comparison, groundwater levels fluctuate seasonally more than 6 inches in this area, as indicated by the Groundwater Availability and Impact Analysis provided as Appendix 5b. Thus, the volume of groundwater proposed for use in support of PVL's operations is not forecast to cause a substantial decrease in groundwater supplies in the Searles Valley Groundwater Basin. Further with the capture of the runoff from the project site and delivery to the on-site detention basin, this project will not substantially impede groundwater recharge or impede sustainable groundwater management in the project area. As such, obtaining water sufficient to meet the project's operational water demands from the on-site well will not cause a significant adverse impact on the Searles Valley Groundwater Basin.

Should SDWC issue a will serve letter to PVL for the project's operational water needs, the 39.9 AFY of water needed would represent a miniscule increase (0.14%) in the average annual volume pumped from the IWVGB, which is about 27,740 AFY.

The State has identified the IWVGB as in "critical overdraft." Based on the recently adopted Sustainable Groundwater Management Plan for the IWVGB, it is anticipated over the course of the next 20 years, many, if not all, groundwater producers in the IWVGB, including SVM, will be required to reduce their production of groundwater to eliminate the condition of critical overdraft no later than 2040. As such, should PVL obtain its process water needs from the IWVGB, mitigation measures **HYD-1 through HYD-3** address and minimize the potentially significant impacts to the IWVGB that may result to a level of less than significant.

- c) i. Result in substantial erosion or siltation on-site or offsite?

Less Than Significant Impact – The proposed project is not anticipated to significantly change the volume of flows downstream of the project site, and would not be anticipated to change the amount of surface water in any water body in an amount that could initiate a new cycle of erosion or sedimentation downstream of the project site. The on-site drainage system will capture the incremental increase in runoff from the project site associated with project development. Runoff will be retained on the project site within the retention pond located at the eastern end of the project site. This system will be designed to intercept the peak 100-year flow rate from the project site or otherwise be retained on site and discharged, consistent with San Bernardino County requirements (Appendix 5a, Hydrology). The downstream drainage system will not be altered and due to on-site drainage improvements, the potential for downstream erosion or sedimentation will be controlled to a less than significant impact level.

- c) ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or offsite?

Less Than Significant Impact – The proposed project will alter the existing drainage courses or patterns on-site but will maintain the existing offsite downstream drainage system through control of future discharges from the site, which would prevent flooding on-site or offsite from occurring. The proposed on-site drainage improvements include the installation of a retention pond that will capture all runoff from the site. The site will be designed to direct on-site runoff to the retention pond. This system has been designed to intercept the peak 100-year flow rate from the project site. Thus, the implementation of on-site drainage improvements and applicable requirements will ensure that drainage and stormwater will not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Impacts under this issue are considered less than significant with no mitigation required.

- c) iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact – The proposed project will alter and control on-site drainage, improving the existing offsite downstream drainage system, thereby preventing the project from exceeding the capacity of existing or planned stormwater drainage systems and from providing substantial additional sources of polluted runoff. The site will be designed to direct on-site runoff to the retention pond. This system has been designed to intercept the peak 100-year flow rate from the project site. Thus, the implementation of on-site drainage improvements and applicable requirements will ensure that that drainage and stormwater will not create or contribute runoff that would exceed the capacity of existing or planned offsite stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts under this issue are considered less than significant with no mitigation required.

c) iv. Impede or redirect flood flows?

Less Than Significant Impact – According to the Hydrology Report provided as Appendix 5a, the existing levee is sufficient to divert the 100-year, 24-hour flow from Rockcrusher Canyon west of the project site. As a result, that portion of the project classified as Zone “D” is unlikely to experience a flood hazard. As shown on the Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) #06071C0075H provided as Figure X-1, the project site is partially located within Zone A, which represents an area that can be flooded by the 1% annual chance storm (100-year) and partially within Zone X, which represents an area with a 0.2% annual chance storm (500-year). Zone D represents areas of undetermined flood hazard. As previously stated, the existing levee is sufficient to divert the 100-year, 24-hour flow from Rockcrusher Canyon west of the project site. Furthermore, development of this site is not anticipated to redirect or impede flood flow at the project site, particularly given that drainage on site will be directed to the stormwater retention basin, which will be capable of intercepting the peak 100-year flow rate from the project site. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

d) *Less Than Significant Impact* – As stated under issue IX(g-h), the proposed project is located adjacent to the Rockcrusher Canyon. According to the Hydrology Report provided as Appendix 5a, the existing levee is sufficient to divert the 100-year, 24-hour flow from Rockcrusher Canyon west of the project site. There are no dams upstream from the project site, and as such, dam inundation is not anticipated to occur at the project site. The project is located more than 135 miles from the Pacific Ocean, therefore, there is no potential for tsunami to occur within the project area. Additionally, though the Searles Lake is located near the project site, Searles Lake is generally a dry lakebed and therefore seiche is not of concern at the project site. As such, given that the levee located adjacent to the project site is sufficient to divert the 100-year, 24-hr flow, and that the project will develop a stormwater retention pond that has been designed to intercept the peak 100-year flow rate from the project site, the proposed project is not anticipated to release pollutants due to project inundation. Therefore, impacts under this issue are considered less than significant and no mitigation is required.

e) *Less Than Significant With Mitigation Incorporated* – The Searles Valley Groundwater Basin, from which PVL's on-site well will draw water, is not identified as a medium or high-priority basin by DWR and is therefore, not required by the Sustainable Groundwater Management Act (SGMA) to prepare a Groundwater Sustainability Plan (GSP). As such, groundwater production from the Searles Valley Groundwater Basin will not have any impact on a sustainable groundwater management plan and no mitigation is required.

The IWVGB, from which SDWC obtains water for distribution in Trona, is identified as a high-priority basin under SGMA. Accordingly, the Indian Wells Valley Groundwater Authority (IWVGA) prepared a GSP for the IWVGB, dated January 2020, provided as Appendix 5c. The GSP provides, in part, that there is a need to reduce overall groundwater production from the IWVGB and the IWVGA is exploring alternative water supplies to replace the historical reliance on groundwater from the IWVGB. The IWVGA also seeks to encourage conservation plans, noting in particular previously adopted conservation measures to mitigate the conditions of overdraft in the IWVGB. The GSP proposes coordination with domestic and municipal groundwater producers to develop additional voluntary and rebate-based conservation efforts for domestic uses, and suggests promoting additional conservation efforts for industrial uses. The GSP provides that IWVGA will “coordinate with SVM, to investigate the potential for and feasibility of conservation in the industrial water uses of SVM,” and “[i]f SVM’s use of recycled and/or brackish water is determined to be feasible, the IWVGA will construct new facilities for production and conveyance of recycled and/or brackish water to SVM, as well as all necessary retrofits to SVM’s existing potable water facilities. The IWVGA will also coordinate with Searles Valley Minerals Inc. to investigate the potential for and feasibility of accepting recycled water for use in Searles Valley Minerals’ industrial water uses.” This plan has just been recently adopted and as such, many of the implementing actions have not been established. In the

event that PVL obtains water sufficient to meet its process water needs from SDWC and the IWVGB, the following mitigation measure shall be implemented:

HYD-2 *Should the Applicant obtain process water (39.9 AFY) from SDWC, and if recycled water becomes available at the project site, the Applicant shall connect to this system and utilize recycled water for landscape irrigation, and any other feasible uses of recycled water on the project site.*

HYD-3 *Should the Applicant obtain process water (39.9 AFY) from SDWC, once IWVGA has identified basin-wide conservation measures, the Applicant shall implement business practices that are consistent with these conservation measures and consistent with facility operational requirements, thereby ensuring that this project contributes to basin-wide water conservation. The applicant shall inform the County upon adoption of basin-wide measures and the actions they have undertaken to be consistent with these measures.*

The analysis of total water consumption and effects indicates that the proposed project's total water demand for domestic and operational needs will be less than significant, with implementation of mitigation measures to the extent the project obtains process water from the IWVGB through SDWC.

Furthermore, the proposed project is required to comply with the Water Quality Standards outlined in the Basin Plan for the Lahonton RWQCB. By controlling water quality during construction and operations through implementation of short-term SWPPP and drainage study design requirements at the site, as well as implementation of Mitigation Measures **HYD-2** through **HYD-3** (in the event process water is provided by SDWC), the project will have a less than significant potential to conflict with the applicable Groundwater Sustainability Plan.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XI. LAND USE AND PLANNING

SUBSTANTIATION:

- a) *Less Than Significant Impact* – The proposed project consists of one parcel of land, designated and zoned for Regional Industrial (IR) use by San Bernardino County. The surrounding uses in three directions are Industrial related, while the use to the north is a Floodway beyond which is land designated for Resource Conservation (RC) use. Given that the surrounding area consists primarily of industrial land uses, and the entirety of the proposed project site was previously used as an boiler ash disposal landfill that is currently vacant, development of the site as the PVL Lime Plant is not anticipated to physically divide an established community. Impacts under this issue are considered less than significant and no mitigation is required.

- b) *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under XI(a) above. The proposed project site is zoned for industrial use, and the proposed project would develop an industrial use. However, the proposed project requires a major variance because the project exceeds the maximum height restrictions for the Regional Industrial zone classification. The proposed features that would exceed this restriction would be tall, but not wide, emissions stack and the County General Plan and General Plan EIR do not identify the Trona area as containing scenic resources. However, in order to prevent environmental impacts to the surrounding scenery, the project shall implement mitigation measure **AES-1**, which would ensure that the PVL Lime Plant development blends in with the mountainous viewshed to the north. Therefore, since the County is considering the major variance at this project site, and since the proposed use is similar to the surrounding industrial development, it is not anticipated that the proposed project would 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. No further mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES: Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XII. MINERAL RESOURCES

SUBSTANTIATION: (Check if project is located within the Mineral Resource Zone Overlay)

a) *No Impact* – The proposed project is located on a site which formerly contained a boiler ash disposal landfill, and as such, does not contain important minerals resources. Furthermore, the proposed project involves the development of a lime processing plant (the PVL Lime Plant), which in and of itself will allow the site to generate product from mineral resources driven in from an existing nearby limestone mine. The mine and mining activities are not a part of the project. Therefore, the development of the site is not anticipated to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts are anticipated and no mitigation is required.

b) *No Impact* – The County of San Bernardino states the following in regards to mineral resource goals:

In areas containing valuable mineral resources, establish and implement conditions, criteria, and standards that are designed to protect the access to, and economic use of, these resources, provided that the mineral extraction does not result in significant adverse environmental effects and that open space uses have been considered for the area once mining operations cease.

The County’s General Plan indicates that mining and processing of mineral resources is valuable to the County so long as a significant environmental effect does not occur. The proposed PVL Lime Plant would not result in a significant impact under any of the Initial Study Checklist Topics, provided mitigation measures are implemented. As state above, the proposed project site does not contain any known mineral resources as it previously served as a boiler ash disposal landfill. The proposed project would bring in limestone from a mining operation nearby and process it into lime products. As such, the development of the proposed PVL Lime Plant at the proposed site would not result in the loss of any available locally important resource recovery site delineated on a local general plan, specific plan or other land use plan, as no such delineations of this site are known. No impacts under this issue are anticipated and no mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	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 a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIII. NOISE

SUBSTANTIATION: (Check if project is located in the Noise Hazard Overlay District or is subject to severe noise levels according to the General Plan Noise Element)

Background

Noise is generally described as unwanted sound. The proposed PVL Lime Plant will be an industrial lime production plant. Lime products are manufactured by heating natural limestone in a high temperature kiln. This has the effect of converting the limestone into high value lime products. The project includes construction of the PVL Lime Plant and installation of utilities (to be performed by the utility provider) within and adjacent to Athol Street in order to provide utility infrastructure to the project. The proposed project is located in a highly industrial area with very few residential uses in the immediate vicinity. The nearest sensitive residential receptor to the utility installation alignment (along Athol Street) is more than 950 feet from the alignment at any point in which construction will occur. The nearest sensitive residential receptor to the PVL Lime Plant site is more than 2,220 feet from any point within the site. The nearest sensitive residential receptor to the proposed natural gas pipeline is adjacent to the alignment or within 50 feet of the proposed natural gas pipeline at various points along First Street.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called “A-weighting,” written as “dBA.”

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit of measure is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA (A-weighted decibel) increment be added to quiet time noise levels. The State of California has established guidelines for acceptable

community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

- a) *Less Than Significant With Mitigation Incorporated* – Though proposed project site is located in a rural area, the background noise is moderate to high because of the industrial operations surrounding the proposed project, including the SVM operation, which is just southeast of the project site. Roadway noise in the vicinity of the PVL Lime Plant site is minimal, and roadway traffic along Athol Street is minimal. The main source of roadway noise in the vicinity of the proposed project is along Trona Road, which is the main roadway that provides access to Trona and Searles Valley. Background noise is anticipated to be at or lower than the San Bernardino Development Code noise standard for Industrial uses (70 dBA 24 hours a day). The proposed project site previously served as a boiler ash disposal landfill, which would have contributed noise to the setting in which the site is located.

Short Term Construction Noise

Short-term construction noise impacts associated with the proposed project will occur in phases as the project site is developed. The earth-moving sources are the noisiest type of equipment typically ranging from 82 to 85 dB at 50 feet from the source. Temporary construction noise is exempt from the County Noise Performance Standards between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays. The proposed project would be constructed in compliance with the County's Noise Performance Standards, and therefore construction of the project would be less than significant. However, to minimize the noise generated on the site to the extent feasible, the following mitigation measures shall be implemented:

- NOI-1** *All construction vehicles and fixed or mobile equipment shall be equipped with properly operating and maintained mufflers.*
- NOI-2** *All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.*
- NOI-3** *No construction activities shall occur during the hours of 7 PM through 7 AM, Monday through Friday, and 5 PM to 9 AM Saturdays; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.*
- NOI-4** *Equipment not in use for five minutes shall be shut off.*
- NOI-5** *Equipment shall be maintained and operated such that loads are secured from rattling or banging.*
- NOI-6** *Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.*
- NOI-7** *The County will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will*

be accomplished by random field inspections by applicant personnel during construction activities with copies of the report filed with the County Planning Department. The Report shall be filed with the County within a 72 hour period.

NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, for example near the north- or south-west corners of the project site.

Long-Term Operational Noise

During operation of the proposed project, noise generated from the PVL Lime Plant will be greater than that which exists at the former boiler ash disposal landfill at present. The proposed project will operate 24 hours a day, though it is anticipated that the proposed project will not exceed the Industrial Noise Standards, particularly given the great distance at which the nearest sensitive receptor is located. Noise attenuates at a rate of approximately 6 to 7 decibels per doubling of distance, and much like construction noise, equipment required to operate the PVL Lime Plant will generate some noise, anticipated to range from approximately 75 dBA to 85 dBA at 50 feet from the source. Given the distance from the nearest residence to the area in which the PVL Lime Plant operations will occur, the noise environment at the nearest resident will be well within the levels deemed acceptable by the County of San Bernardino. According to the County of San Bernardino Development Code, the maximum acceptable stationary noise level at Residential land uses between the hours of 7 a.m. and 10 p.m. is 55 dBA, and 45 dBA between the hours of 10 p.m. and 7 a.m. Additionally, the San Bernardino County Development Code has standards for adjacent mobile noise sources: Interior 45 (day-night average sound level (Ldn) dBA and Exterior 60 Ldn dBA. The proposed project is anticipated to generate noise in the evenings, and during the daytime, but as previously stated, it is anticipated that the nearest sensitive receptor will not experience noise disturbance at a level greater than the standards outlined in the San Bernardino County Development Code. Therefore, through the implementation of the mitigation measures identified above, neither operation or construction of the proposed project would violate noise standards outlined in the San Bernardino County Development Code. Impacts under this issue are considered less than significant with mitigation incorporated.

- b) *Less Than Significant Impact* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (VdB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The background vibration-velocity level in residential areas (from ongoing activities in a residential area such as cars driving by, etc.) is generally 50 VdB, while the groundborne vibration directly adjacent to an industrial facility requiring movement of heavy machinery might be greater. Groundborne vibration is normally perceptible to humans at approximately 65 VdB, while 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible. Construction activity can result in varying degrees of groundborne vibration, but is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, hydraulic loaders, etc. generates little or no ground vibration. The San Bernardino County Development Code offers minimal guidance on Vibration. San Bernardino County Development Code 83.01.090 provides guidance regarding how vibration should be measured and offers the following Standard:

(a) Vibration standard. No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths (0.2) inches per second measured at or beyond the lot line.

Construction is exempt from vibration regulations during the hours of 7 AM and 7 PM. As such, vibration related to construction activities will be less than significant because the project will limit construction to these hours. Operational vibration is anticipated to be less than significant given that there are no large pieces of heavy machinery that would operate at or near the property line. Therefore, any vibration generated within the site is not anticipated to be felt beyond the lot line. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.

- c) No Impact – According to a review of Google Maps (1/22/19) the Project site is not located within 2 miles of an airport or private airstrip. The closest airport is the Trona Airport located approximately 4 miles northeast of the project site at 15490 Trona Airport Rd, Trona, CA 93562. Given that the proposed project is not located within an airport land use plan and the property's distance to the nearest airport, construction and operation of the project is not anticipated to result in exposure of people working or residing in the area to excessive noise levels. As such, no impacts are anticipated and no mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XIV. POPULATION AND HOUSING

SUBSTANTIATION:

- a) *Less Than Significant Impact* – The proposed PVL Lime Plant is anticipated to employ about 30 persons once in operation and require a temporary construction work force of approximately 48 persons. It is unknown whether the new employees will be drawn from the general area or will bring new residents to the project area, but it is anticipated that many of the employees will reside in Trona, which is an unincorporated area in San Bernardino County. According to SCAG, the total population within unincorporated San Bernardino County was 309,759 persons in 2016⁸, or 14.5% of the overall County population of 2,139,570. According to the County of San Bernardino General Plan, the population within the County is anticipated to grow to 2,830,000 by 2020⁹, which can be translated to an approximate unincorporated population of 410,350 (0.145 x 2,830,000 = 410,350) by 2020. Therefore, the proposed project would create a potential for 30 more opportunities for employment, which is only an increase in population of 0.0073% if each of the 30 new workers are new residents to unincorporated San Bernardino County. Given that the County General Plan indicates that the planned population is anticipated to grow by 100,591 from the 2016 population, the potential increase in residents is well within the planned population growth within unincorporated San Bernardino County. Additionally, it is not anticipated that the project would result in indirect growth within the area as development of the PVL Lime Plant would not create additional infrastructure beyond that which is required to connect the project to utilities. The proposed project is not such that indirect population growth would occur, particularly given the minimal population that exists within the Trona area and the existing industrial mining operations that provide employment opportunities. Thus, based on the type of project (industrial lime processing plant) and the small increment of potential additional population generated by project implementation, the proposed project will not induce substantial population growth either directly or indirectly.
- b) *No Impact* – There are no residences within the project site, as the project site is vacant and previously served as a boiler ash disposal landfill. No persons currently reside on the site or within the utility corridors and therefore, implementation of the proposed project will not displace substantial numbers of existing housing, or persons necessitating the construction of replacement housing elsewhere. Thus, no impacts will occur and no mitigation is required.

⁸ <https://www.scag.ca.gov/Documents/UnIncAreaSanBernardinoCounty.pdf>

⁹ <http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf>

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES: Will 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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XV. PUBLIC SERVICES

SUBSTANTIATION:

- a) *Less Than Significant Impact* – The San Bernardino County Fire Department (SBCFD) provides fire protection and emergency medical services for the community of Trona. The proposed project is located within a rural area with a very small population (under 2,000 persons live in the community of Trona). The nearest fire station to the proposed project is San Bernardino County Fire Station #57, located at 83732 Trona Road, located approximately 0.5 mile east of the project site at Athol Street and Trona Road. The PVL Lime Plant has minimal potential for random fire events during operations, but will be served by fire equipment at Station #57 that is available to combat a fire that should one occur during operation of the PVL Lime Plant. It would take less than 3 minutes for SBCFD to reach the site from Station #57. Based on the above information, the proposed project does not pose a significant fire hazard, nor is the proposed project forecast to cause a significant demand for fire protection services. The County will require standard building construction techniques for the new structures to minimize fire hazard, and standard conditions will be imposed to ensure adequate fire flow at the new facilities. These requirements are considered adequate measures to prevent any significant impacts. Thus, no mitigation is required.
- b) *Less Than Significant Impact* – The community of Trona receives police services through the San Bernardino County Sheriff’s Department. The Department enforces local, state, and federal laws; performs investigations and makes arrests; administers emergency medical treatment; and responds to County emergencies. The Barstow Patrol Station, located at 13215 Market St, Trona, manages the Trona substation, which is about 0.5 mile south / southwest of the proposed project site. The corporal and two patrol deputies assigned to this "resident post" handle calls in the many small desert communities in the northwest corner of San Bernardino County. Sheriff’s Volunteers from the Trona Citizens on Patrol assist the deputies. According to the San Bernardino County Sheriff website,¹⁰, because of the remote area, the deputies often work with other agencies (including but not limited to the California Highway Patrol, Ridgecrest Police Department, Kern County Sheriff’s Office, Inyo County Sheriff’s Office, CDFW, U.S. Bureau of Land Management (BLM), China Lake Police Department, California Department of Corrections, and the U.S. National Park Service from Death

¹⁰ <http://wp.sbcounty.gov/sheriff/patrol-stations/barstowtrona/>

Valley) to successfully handle the many tasks needed to keep the area safe. The proposed project will not include the kind of uses or activities that would likely attract criminal activity, except for random trespass and/or theft; however, any random trespass is unlikely given that the facility will be fenced to control access and the type of activities proposed would not typically attract criminal activities. Therefore, due to the proposed use of the project site, implementation of the proposed project would not substantially increase the demand for law enforcement services beyond that already existing at the project site.

- c) *Less Than Significant Impact* – The proposed project is anticipated to employ a maximum of 30 persons. The project is not anticipated to generate any new direct demand for the area schools. The proposed project may place additional demand on school facilities, but such demand would be indirect and speculative. The Trona area is served by the Trona Joint Unified School District. The closest residence to the proposed project is about 2,100 ft from the PVL Lime Plant site boundary, while the closest school –Trona Elementary School & Trona High School– is about 2,570 ft from the site boundary. The State of California requires a portion of the cost of construction of public schools to be paid through a fee collected on residential, commercial, and industrial developments. The development impact fee mitigation program of the Trona Joint Unified School District adequately provides for mitigating the impacts of the proposed project in accordance with current state law. Since this is a mandatory requirement, no further mitigation measures are required to reduce school impacts caused by the proposed project to a less than significant level.
- d) *Less Than Significant Impact* – The proposed project will not directly add to the existing demand on local recreational facilities. The project will develop a lime processing plant which will result in the creation of approximately 30 new jobs. The project is not anticipated to generate any new direct demand for parks within the County, as this project would have a minimal potential to induce population growth within the County. Other than sports facilities located at area schools, which are open to the public when not in use by the schools, there are no parks within the community of Trona. The project will contribute to the County’s General Fund through payment of property and sales tax, which is considered sufficient to offset any impacts to parks that result from implementing the project. Additionally, the project will contribute property and sales taxes to the general fund to offset the minimal potential for increased demand for park and recreation services within the County that may result from implementation of the proposed project. Thus, the proposed project will have a less than significant impact to parks and recreation facilities.
- e) *Less Than Significant Impact* – Other public facilities include library and general municipal services. Since the project will not directly induce substantial population growth, it is not forecast that the use of such facilities will substantially increase as a result of the proposed project. The project will contribute to the County’s General Fund through payment of property and sales tax, which is considered sufficient to offset any impacts to other public facilities as a result of implementing the project. Thus, any impacts under this issue are considered less than significant and no mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION:				
a) Will the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVI. RECREATION

SUBSTANTIATION:

- a) *Less Than Significant Impact* – As addressed in the discussion under XIV above, the proposed project does not include a use that would substantially induce population growth. As stated in the discussion under Population and Housing, the project would create approximately 30 jobs at the new PVL Lime Plant; however, it is unknown what portion of the employees will be new residents. The proposed project will contribute to the County’s General Fund through payment of property and sales tax. Given that the proposed PVL Lime Plant would not induce substantial population growth, and the availability of open space and BLM land for recreational use in the surrounding area, the project is not anticipated to result in a substantial increase in the use of existing park and recreation facilities. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.

- b) *No Impact* – The previous use at the proposed project site was a boiler ash disposal landfill, which did not include any recreational facilities. The proposed PVL Lime Plant will not require the development or expansion of recreational facilities. Therefore, the proposed project is not anticipated to cause an adverse physical effect on the environment as a result of construction or expansion of recreational facilities.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XVII. TRANSPORTATION

SUBSTANTIATION:

- a) *Less Than Significant Impact* – The proposed project is located within the community of Trona within San Bernardino County. The proposed project is located along Athol Street, and will include utility connections that would be installed within: Athol Street, a corridor that aligns with First Street southwest of the proposed project, and a portion of First Street. The San Bernardino County Transportation Authority 2016 Congestion Management Program¹¹ indicates the Level of Service (LOS) of SR-178 from County Line to a Culvert at 35.645711^o, 117.522009^o East Bound and West Bound are operating at a LOS of “B” for both AM and PM peak hours. The County of San Bernardino considers a LOS of “E” to be unacceptable.

Construction activity will require an average of about 27 trips per day for a period of about 350 working days, though the amount will vary between 0 to 50 truck trips per day depending on the type of activities occurring on site. The average daily traffic during operation of the proposed project would be about 127 trips per day, this includes employee vehicle trips, lime stone trucks trips to kiln, and lime truck trips to market. The construction traffic is considered minimal and not anticipated to lower the LOS levels within this roadway segment or surrounding segments to an unacceptable level. Given that the proposed project would utilize Trona Road and SR-178 as a primary route to and from the project site while in operation, it is not anticipated that the addition of 127 trips per day along this highway would result in a decrease in LOS to an unacceptable LOS. It is anticipated that the acceptable levels of service of these roadways will be maintained with implementation of the proposed project. Therefore, implementation of the project has a less than significant potential to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. No mitigation is required.

- b) *Less Than Significant Impact* – The proposed project involves the development of a lime plant in the community of Trona, which is part of the County of San Bernardino. The San Bernardino County has not yet developed a threshold for vehicle miles travelled. However, the proposed project has demonstrated throughout this environmental document that the development of the proposed PVL Lime Plant within the state of California would reduce overall vehicle miles travelled required to take lime products to market. The PVL Lime Plant outputs, which consists of quicklime, hydrated lime, and a very low volume of limestone fines will be delivered to customers throughout the southwestern United States by 25-ton trucks. The customer base is large and diverse with the focus being on Southern

¹¹ <http://www.gosbcta.com/sbcta/plans-projects/CMP/CMP16-Complete-061416.pdf>

California, but some shipments will go to neighboring states. Given that there are currently no lime plants within the state of California, the development of a lime plant within the state to serve customers within the state who are currently receiving lime product from outside of the state, would result in less vehicle miles travelled to deliver the lime outputs to in-state customers. Therefore, development of the PVL Lime Plant is not anticipated to result in significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.

- c) *Less Than Significant With Mitigation Incorporated* – The proposed project is located along Athol Street, which is a local roadway that intersects with Trona Road, the major roadway through Searles Valley. The project will temporarily alter the existing roadway (Athol Street and First Street) during construction of the proposed utility connections required to operate the proposed project. However, this alteration will not create any hazards due to design features of incompatible uses. In the short term, construction of the utilities within Athol Street and First Street has the potential to disrupt traffic. To mitigate the potential impacts to traffic flow, the following mitigation measure shall be implemented:

TRAN-1 The construction contractor will provide adequate traffic management resources, as determined by San Bernardino County. The County shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standards, to provide adequate traffic control and safety during excavation activities. At a minimum, this plan shall include the following:

- a) ***Methods to minimize the amount of time spent on construction activities;***
- b) ***Methods to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes;***
- c) ***Methods to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure adequate traffic flow;***
- d) ***Identification of alternative routes, if necessary, that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and***
- e) ***Identification of methods or procedures to ensure that at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.***

TRAN-2 The County shall require that all disturbances to public roadways maintained by the County be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable Caltrans or County standard design requirements.

Upon implementation of a construction traffic management plan, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any hazards or incompatible uses in existing roadways are anticipated because once the utilities are constructed, the roadway will be returned to its original condition, or better. Operation of the proposed Lime Plant would be similar to the surrounding uses, and the design of the project would not create any hazards to surrounding roadways. Thus, any impacts are considered less than significant with implementation of mitigation. No additional mitigation is required.

- d) *Less Than Significant With Mitigation Incorporated* – The proposed project consists of activities that will take place along Athol Street and First Street in the community of Trona. Trucks travelling to and from the project site would utilize Trona Road/SR-178 to access the site by way of Athol Street. Access to the site is adequate and the nearest emergency response station is located just east of the project site at Trona Road and Athol Street. Additionally, according to the San Bernardino General Plan, no known emergency access plans or routes or emergency response or evacuation plans will be affected by this project in the short- or long-term. With implementation of mitigation measures **TRAN-1** and **TRAN-2**, the adequate emergency access along Athol Street and First Street will be maintained. Because of the lack of adverse impacts on local circulation, no potential for significant impacts on emergency access are forecast to occur during construction or operation. No further mitigation is required.

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES: Will the project:				
a) Would the project cause a substantial change in the significance of tribal cultural resources, 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 the California Native American Tribe, and that is?				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XVIII. TRIBAL CULTURAL RESOURCES

SUBSTANTIATION: 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. Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

A Tribal Resource is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape;
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in

subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

- a)j-ii *Less Than Significant With Mitigation Incorporated* – The project site is located within the community of Trona, which is part of San Bernardino County. The County has been contacted pursuant to Public Resources Code section 21080.3.1 by the following California Native American tribes that are traditionally and culturally affiliated with the County of San Bernardino: Fort Mojave Indian Tribe, Colorado River Indian Tribe, Morongo Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The AB 52 consultation letters were sent out to the above tribes on August 2, 2019. During the 30-day consultation period that concluded on September 2, 2018, two tribes submitted responses: the Twenty-Nine Palms Band of Mission Indians and the Morongo Band of Mission Indians. The Morongo Band of Mission Indians responded on August 7, 2019 that they had no additional information to provide regarding this project and did not request to consult. The Twenty-Nine Palms Band of Mission Indians responded on August 13, 2019, requesting a copy of the cultural report. The letter stated that the Twenty Palms Band of Mission Indians Tribal Historic Preservation Office is not aware of any tribal resources in the area, though the Tribe may provide further recommendations based on their review of the Cultural Resources Study. E-mail correspondence with the Tribe establishing a meeting time to discuss the Project on October 16, 2019 did not receive a response. No further mitigation beyond mitigation measure **CUL-1** is required to minimize impacts to Tribal Cultural Resources. Impacts under these issues are considered less than significant with the implementation of mitigation.

CUL-1 *Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an on-site inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the on-site archaeological professional, who is acceptable to the County and retained by the applicant. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.*

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XIX. UTILITIES AND SERVICE SYSTEMS

SUBSTANTIATION:

a) Water
Less Than Significant Impact –The proposed project will require the installation of a water conveyance pipeline to reach the site. The water utility that serves the project area, SDWC, would install this pipeline within Athol Street at a location west of the intersection of Athol Street and Trona Road, extending generally west to the boundary of the project site. The installation of this pipeline underground would not cause any significant environmental effects and, as discussed under issue X(b) of this document, the water system will not require expansion of existing water facilities beyond the construction of the conveyance pipeline to the proposed project. Therefore, development of the PVL Lime Plant would not result in a significant environmental effect related to the relocation or construction of new or expanded water facilities. Impacts are less than significant.

Wastewater
Less Than Significant Impact – Due to the rural nature of the community of Trona, the proposed project will not be connected to any municipal wastewater treatment system, because none exist in the project area. The project will develop a septic system on site to provide restroom facilities for employees and visitors. The project will be required to comply with the San Bernardino County standards for septic tank installations. Once the new septic tank has been constructed and is in use, it would be self-contained and will not require treatment at a wastewater treatment facility. Therefore, the development of the septic system required to dispose of wastewater at the site is not anticipated to result in a significant environmental effect. Impacts are less than significant.

Stormwater

Less Than Significant Impact – The surface water runoff from the project site will be managed in accordance with the approved SWPPP and consistent with the criteria contained in the approved Drainage/Hydrology Study, as discussed in the Hydrology and Water Quality Section (Section X) of this Initial Study. The on-site drainage will capture the incremental increase in runoff from the project site associated with project development. Runoff will be detained within the on-site retention pond located at the eastern end of the project site. This system will be designed to intercept the peak 100-year flow rate from the project site or otherwise be detained on site and discharged in conformance with San Bernardino County requirements (Appendix 5a, Hydrology). Therefore, surface water will be adequately managed on site and as such, development of the PVL Lime Plant would not result in a significant environmental effect related to the relocation or construction of new or expanded stormwater facilities. Impacts are less than significant.

Electric Power

Less Than Significant Impact – Development of the PVL Lime Plant would require construction underground electrical conduits along Athol Street. SCE has agreed to develop the new connections. SCE is expanding and upgrading its transmission and distribution networks to meet the region's growing demand for electricity, and improve grid performance, while meeting California's ambitious renewable-power goals. As such, it is anticipated that SCE would have ample power supply to serve the project without the need for additional electrical capacity. Development of the underground conduits along Athol Street would not result in a significant environmental effect related to the relocation or construction of new or expanded energy facilities. Impacts are less than significant.

Natural Gas

Less Than Significant Impact – Development of the PVL Lime Plant will require construction of a new gas pipeline within First Street and a corridor that aligns with First Street to connect to the project site at the western boundary. The installation of this pipeline underground would not cause any significant environmental effects, and the natural gas required for this project will not require expansion of existing facilities beyond the construction of the conveyance pipeline to the proposed project. Therefore, development of the PVL Lime Plant would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. Impacts are less than significant.

Telecommunications

No Impact – Development of the PVL Lime Plant would require installation of wireless internet service that would also serve as phone service. This will be accomplished through the installation of a satellite dish or local wi-fi receiver to receive the signal required for wireless internet service. This effort would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

- b) *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under Hydrology, Section X(b). The proposed project intends to utilize potable water from SDWC for its domestic water needs. PVL also seeks to obtain its operational water from SDWC; however, PVL has drilled an on-site well to provide its operational water. To use water from the on-site well, PVL must install a treatment system to clean the water to potable or near potable levels for its various operational needs. Should SDWC provide water sufficient to meet all of PVL's domestic and operational needs, the amount of water at issue would represent 18.5% of the SDWC average volume utilized per year: 226 AF (reflective of an average yearly volume of water use between 2010 and 2014, as reported by SDWC in their annual report). If SDWC supplies only the domestic water for the project, this will represent an increase in only 0.93% of the recent average SDWC volume. As such, the impacts of relying on the on-site well will have no significant impact and the impacts of relying on the water from SDWC will be less than significant with the implementation of mitigation measures **HYD-1 through HYD-3**. As such, a sufficient water supply exists to meet the project's requirements.

- c) *No Impact* – The project area does not presently have a wastewater treatment collection system or treatment provider. The project will develop a septic system on site to provide restroom facilities for employees and visitors. The Project will be required to comply with the San Bernardino County standards for septic tank installations. Once the new septic tank has been constructed and is in use, it would be self-contained and will not require treatment at a wastewater treatment facility. Therefore, there is no potential to adversely impact a wastewater treatment provider. No mitigation is required.
- d&e) *Less Than Significant Impact* – The proposed project will generate demand for solid waste service and has a minimal potential to contribute to potentially significant cumulative demand impacts on the solid waste system. Solid waste generation rates outlined on the CalRecycle¹² website indicate solid waste generation rates of 3 lbs. per employee per 1,000 SF per day or 622.38 lbs. per day for the proposed PVL Lime Plant project. The total solid waste generated per year would equal about 113.59 tons or after an assumed 50% diversion to be recycled per the state's solid waste diversion requirements under AB 939, the project solid waste generation will be about 56.80 tons per year.

The Trona-Argus Transfer Station serves the project area for waste disposal. The Applicant will be responsible for hauling solid waste to the Trona-Argus Transfer Station. The Transfer station can accept 88 tons per day, with a maximum permitted capacity of 352 tons on site at any given time. This facility transfers waste to other County facilities or other nearby landfills, such as the Ridgecrest Sanitary Landfill, which has a maximum permitted capacity of 10,500,000 cubic yards (CY) and a remaining capacity of about 5,037,428 CY according to the CalRecycle website for this landfill.¹³ The Ridgecrest Sanitary Landfill accepts a maximum of 701 tons per day. The proposed project is not anticipated to generate much construction waste as there are no structures on site that would require demolition and the Applicant intends to balance the soils on site. As demonstrated above, it is anticipated that operation of the project would generate about 56.80 tons per year, which represents 0.022% of the Ridgecrest Sanitary Landfill's maximum permitted capacity per year. The project is anticipated to generate about 0.31 tons per day or about 0.35% of the Trona Transfer Station's maximum daily throughput. This is a miniscule percentage of the available throughput, and as such, the proposed project is not anticipated to 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. Furthermore, any hazardous materials collected on the project site during either construction of the Project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. Impacts under these issues are considered less than significant. No further mitigation is necessary.

¹² <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>

¹³ <https://www2.calrecycle.ca.gov/SWFacilities/Directory/15-AA-0059/Detail/>

Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

XX. WILDFIRE

SUBSTANTIATION:

- a) *Less Than Significant With Mitigation Incorporated* – The proposed project is located adjacent to U.S. BLM land, though it is not located within an area classified as a very high fire hazard severity zone. The San Bernardino County Land Use Plan General Plan Hazard Overlay Map (Figure IX-7) indicates that the proposed project is not located within a fire safety boundary (overlay district). Furthermore, it would take less than 3 minutes for SBCFD to reach the site from Station #53 which is located just east of the project site. As stated under previous sections, the proposed project would require installation of natural gas and possibly water pipeline within Athol Street, which would require a construction traffic management plan that would be implemented through mitigation measure **TRAN-1** to ensure adequate traffic flow along Athol Street and within First Street when these pipelines are being constructed. As such, given that the proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zone, it is not anticipated that the proposed project would substantially impair an adopted emergency response plan or emergency evacuation plan.
- b) *No Impact* – As stated under issue XX(a) above, the proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zone. Furthermore, the proposed project is adjacent to a mountain range with no fuel that would sustain a wildfire. Therefore, based on the project location and the surrounding setting, the proposed project would have no potential to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors. No Impacts are anticipated and no mitigation is required.
- c) *No Impact* – As stated under issue XX(a) above, the proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zone. Furthermore, the proposed project is adjacent to a mountain range with no fuel that would sustain a wildfire. The project will require the installation of electricity pole lines along Athol Street, installation of a natural

gas pipeline within First Street, and possibly the installation of a water pipeline within Athol Street. Athol Street within the project footprint is adjacent to a levee which allows for a break between the roadway and the BLM land that makes up the mountain range just north of the project site. Furthermore, First Street and the corridor beyond it, within which the natural gas pipeline will be installed is removed from the mountains, and contains limited vegetation. Therefore, given the location of the roadways within which and adjacent to which the required utilities will be installed, it is not anticipated that the proposed project would exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. No impacts are anticipated under this issue.

- d) *Less Than Significant Impact* — As stated under issue XX(a) above, the proposed project is not located in or near a state responsibility area or land classified as very high fire hazard severity zone. Furthermore, the proposed project is adjacent to a mountain range with no fuel that would sustain a wildfire. The proposed project is separated by a floodway/levee from the nearby mountain range. It is not anticipated that the adjacent mountains could support a wildfire given the limited fuel available to sustain a fire of any magnitude. Therefore, it is not anticipated that the proposed project would 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.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

SUBSTANTIATION: The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized in this section.

- a) *Less Than Significant With Mitigation Incorporated* – The Project has no potential to cause a significant impact upon any biological or cultural resources. The project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal, because the project site previously served as a boiler ash disposal landfill, so no natural biological habitat exists within the Project site. However, mitigation was identified in order to protect both on and off-site nesting birds. Based on the historic disturbance of the site, and its current disturbed condition, the potential for impacting biological resources is low, though the natural gas pipeline alignment is located in an area containing potentially suitable habitat for certain species, which requires mitigation to minimize impacts to biological resources. Additionally, mitigation measures were identified in order to protect cultural resources that might exist within the Project site. Therefore, with implementation of previously identified mitigation measures, the Project will not have the potential to 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, 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. Please refer to the biological and cultural sections of this Initial Study.

- b) *Less Than Significant With Mitigation Incorporated* – The nature of the Project as a new lime plant is such that without proper site design and mitigation, leaks and spills of organic matter could occur. However, with the implementation of a SWPPP and associated BMPs, no significant long-term impacts to the environment would occur from Project operations. Long-term environmental goals would benefit from the development of the proposed project, because the PVL Lime Plant would be constructed and operated in a more environmentally friendly manner than the lime plants that currently serve the California Market, but which are located out of state. The Project has fourteen (14) potential impacts that are individually limited, but may be cumulatively considerable, including: Aesthetics, Air Quality, Biology, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas, Hydrology and Water Quality, Land Use and Planning, Noise, Tribal Cultural Resources, Transportation, Utilities and Service Systems, and Wildfire. These issues require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The Project is not considered growth-inducing, as defined by *State CEQA Guidelines*. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, would have a less than significant cumulative impact.
- c) *Less Than Significant With Mitigation Incorporated* – The proposed project includes activities that have a potential to cause direct substantial adverse effects on humans. The issues of Aesthetics, Air Quality, Geology and Soils, Greenhouse Gas, Hazards and Hazardous Materials, Noise, and Wildfire require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without utilization of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

Conclusion

This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Agricultural and Forestry Resources, Mineral Resources, Population/Housing, Public Services, and Recreation. The issues of Aesthetics, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas, Hydrology and Water Quality, Land Use and Planning, Noise, Tribal Cultural Resources, Transportation, Utilities and Service Systems, and Wildfire require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact.

Based on the findings in this Initial Study, San Bernardino County proposes to adopt a Mitigated Negative Declaration (MND) for the PVL Lime Plant development project. A Notice of Availability/Notice of Intent to Adopt a Mitigated Negative Declaration (NOA/NOI) will be issued for this project by the County. The Initial Study and NOA/NOI will be circulated for 30 days of public comment because this project involves the state as either a responsible or trustee agency. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by the County for a possible adoption at a future County Planning Commission hearing, the date for which has not yet been determined. If you or your agency comments on the MND/NOA/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA.

MITIGATION MEASURES

Any mitigation measures that are not “self-monitoring” shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval. Condition compliance will be verified by existing procedure.

Aesthetics

AES-1 The Applicant shall paint structures exceeding the 75 feet height limit—as set forth in the San Bernardino County Regional Industrial Zoning Development Standards—a similar color to the surrounding mountains (specifically, the Argus Mountain Range to the general north of the PVL Lime Plant site).

AES-2 Prior to approval of the Final Design, an analysis of potential glare from sunlight or exterior lighting that may impact vehicles traveling on adjacent roadways shall be submitted to the City for review and approval. This analysis shall demonstrate that due to building orientation or exterior treatment, no significant glare may be caused that could negatively impact drivers on the local roadways or impact adjacent land uses. If potential glare impacts are identified, the building orientation, use of non-glare reflective materials or other design solutions acceptable to the County of San Bernardino shall be implemented to eliminate glare impacts.

Air Quality

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into project plans and specifications for implementation during construction:

- Apply soil stabilizers as necessary to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Apply water to disturbed surfaces and haul roads 3 times/day.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.
- Identify proper compaction for backfilled soils in construction specifications.

AIR-2 The following signage shall be erected no later than the commencement of construction: A minimum 48 inch high by 96 inch wide sign containing the following shall be located within 50 feet of each project site entrance, meeting the specified minimum height text, black text on white background, on one inch A/C laminated plywood board, with the lower edge between six and seven feet above grade, identifying a responsible official for the site and local or toll free number that is accessible 24 hours per day:

“[Site Name] {four-inch text}
[Project Name/Project Number] {four-inch text}
IF YOU SEE DUST COMING FROM {four-inch text}
THIS PROJECT CALL: {six-inch text}
[Contact Name], PHONE NUMBER {six-inch text}
If you do not receive a response, Please Call {three-inch text}
The MDAQMD at 1-800-635-4617 {three-inch text}”

AIR-3 During project operations a 4,000-gallon water truck shall be available on-site at all times for dust control.

- AIR-4 As they become available and financially feasible, the Applicant shall consider replacing bulk delivery trucks with hydrogen or electric trucks/tractors.
- AIR-5 Wind breaks and/or fencing shall be developed in areas that are susceptible to high wind induced dusting.
- AIR-6 Off-road diesel equipment operators shall be required to shut down their engines rather than idle for more than five minutes and shall ensure that all off-road equipment is compliant with the CARB in-use off-road diesel vehicle regulation.
- AIR-7 All material transported off-site with dust blow off potential shall be sufficiently watered or securely covered to prevent excessive amounts of dust being generated.
- AIR-8 The Applicant shall use a water truck to maintain moist disturbed surfaces and actively spread water during visible dusting episodes to minimize visible fugitive dust emissions. If the site contains exposed sand or fines deposits (and if the project would expose such soils through earthmoving), water application or chemical stabilization will be required to eliminate visible dust/sand from sand/fines deposits.
- AIR-9 The Applicant shall formulate a high wind response plan that addresses enhanced dust control if winds are forecast to exceed 25-mph in any upcoming 24-hour period.
- AIR-10 Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the Mojave Desert Air Quality Management District.

Biological Resources

- BIO-1 Where avoidance of the adjacent habitat is not feasible, the following actions shall be implemented. For the temporary loss of the presumed occupied MGS habitat, the Applicant shall provide compensation for temporary loss of habitat and individual MGS in the following manner: (1) the Applicant shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; (2) the Applicant shall offset the loss of the temporarily disturbed habitat by purchase of acceptable MGS habitat at a 1:1 ratio; and (3) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur until the Applicant obtains an ITP. Note that the final compensation package contained in the permit may differ from the above compensation package, but the Applicant finds that this compensation package shall at a minimum meet the requirements of this measure.

Alternatively, the Applicant may perform a protocol MGS presence/absence survey consistent with CDFW Guidelines prior to initiating construction and should it be determined that the adjacent habitat is not occupied by MGS, the above mitigation measure need not be implemented.

- BIO-2 Prior to construction, the Applicant shall conduct a plant survey for the Borrego milk-vetch (*Astragalus lentiginosus* var. *borreganus*). This survey shall be conducted by a qualified professional biologist familiar with this species. If these plants are identified within the temporary project area of impact, the botanists shall relocate these plants to adjacent comparable habitat that will not be disturbed.
- BIO-3 In compliance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) the project proponent shall ensure that a pre-construction burrowing owl survey is conducted a maximum of

30 days prior to construction activities. A qualified biologist shall conduct the survey to determine if there are any active burrowing owl burrows within or adjacent to (within 300 feet) the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to CDFW for approval, outlining procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow (per CDFW 2012), depending on the time of year and level of disturbance near the site in accordance with guidelines specified by the CDFW.

BIO-4 Although no golden eagle nests were observed during the survey of the project footprint, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in the USFWS Interim Golden Eagle Inventory and Monitoring Protocols; and other Recommendations (Pagel et al. 2010). This requires two aerial flights of the project boundary within a 10-mile radius of the project site are required to occur between March and May, at least 30 days apart, to assess golden eagle presence. An eagle take permit is not required.

Should any habitat suitable for the golden eagle be impacted, the Applicant shall provide compensation for temporary loss of habitat in the following manner: (1) the Applicant shall offset the loss of the temporarily disturbed habitat by purchase of acceptable golden eagle habitat at a 1:1 ratio; and (2) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the USFWS.

BIO-5 Although no desert tortoises were detected during the site surveys, habitat along the pipeline alignments is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in Chapter 6 of the US Fish and Wildlife Service Desert Tortoise (Mojave Population) Field Manual. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.

BIO-6 Prior to the construction of the following phases of the Project—1. Construction of the Lime Plant and 2. Construction of the Natural Gas Pipeline—the entity responsible for the construction thereof (Phase 1. Panamint Valley Lime, Phase 2. PG&E) shall conduct a floristic based assessment of special status plants and natural communities that adheres to the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. If it is determined that special status plants and/or natural communities may be impacted from the Project specific avoidance, minimization, and mitigation measures will be developed and implemented. The Biological Resources Assessments generated shall be deemed adequate for three years following the date of the field assessment(s). After this time period an updated biological field assessment(s) will be required.

BIO-7 Prior to the construction of the proposed project, preconstruction surveys for desert kit fox and American badger pursuant to the corresponding approved CDFW protocols, as determined by a qualified biologist.

- Desert kit fox is a protected species and may not be taken at any time pursuant to Title 14 of the California Code of Regulations Section 460.
- American badger is a Species of Special Concern.
- Should either species be found on or adjacent to the Project area, the Applicant shall require the preparation of either/both a desert kit fox or/and American badger mitigation and monitoring plan.
- Desert Kit fox breeding season is January to the end of May. If a natal burrow is located on the Project site, a qualified biologist shall determine appropriate buffers and maintain connectivity to adjacent habitat. No Project activities or vegetation removal may occur within the buffer or habitat connectivity zone.

BIO-8 The Applicant and/or PG&E shall submit a Lake and Streambed Alteration Notification (SAA) to CDFW. If CDFW finds that the channel in the natural gas pipeline alignment is jurisdictional, the Applicant and/or PG&E shall process and obtain the SAA. No ground disturbance within potential jurisdictional areas shall occur until the Applicant and/or PG&E obtains an SAA. Note that the final compensation package contained in the permit shall be implemented by the Applicant and/or PG&E.

BIO-9 The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, a qualified biologist shall be retained by the Applicant, and shall be on site during the nesting season period identified above to monitor all active nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist shall also monitor the habitat within a 50-foot perimeter of the project footprint. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.

Cultural Resources

CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an on-site inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the on-site archaeological professional, who is acceptable to the County and retained by the applicant. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

Geology and Soils

GEO-1 Based upon the findings contained in the Geotechnical Investigation and Geotechnical Investigation Update (Appendix 4a and 4b of this document), all of the recommended design and construction measures identified in Appendix 4a (listed under “Conclusions and Recommendations,” pages 5-16) and the site preparation summary identified in Appendix 4b (pages 3-7) shall be implemented by the Applicant. Implementation of these specific measures will address all of the identified geotechnical constraints identified at project site, including soil stability of future project-related structures.

GEO-2 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of stored backfill material. If covering is not feasible, then measures such as the use of straw bales or sand bags, shall be placed around

the stored material and used to capture and hold eroded material on the project site for future cleanup.

- GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) shall be sprayed with water or soil binders twice a day, or more frequently if fugitive dust is observed migrating from the site within which the PVL Lime Plant is being constructed.
- GEO-4 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an on-site inspection shall be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the on-site paleontological professional, who is acceptable to the County and retained by the applicant. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the CEQA Guidelines.

Greenhouse Gas

- GHG-1 The Applicant shall acquire 60,000 tons of permanent CO₂ emission reduction credits, or the equivalent thereof equal to an offset of 60,000 tons of CO₂ per year. The emission reduction credits shall be obtained from a trusted source that must be approved by the MDAQMD staff. A copy of the certification shall be provided to the MDAQMD and County upon receipt. The emission reduction credits must be purchased prior to operations of the PVL Lime Plant.

Hydrology and Water Quality

- HYD-1 PVL shall offer Searles Domestic Water Company/Searles Valley Minerals funds to replace existing domestic water equipment (low flush toilets, repair of water leaks, high efficiency faucets, etc.) of its customers to offset 2.1-acre feet of existing potable water demand.
- HYD-2 Should the Applicant obtain process water (39.9 AFY) from SDWC, and if recycled water becomes available at the project site, the Applicant shall connect to this system and utilize recycled water for landscape irrigation, and any other feasible uses of recycled water on the project site.
- HYD-3 Should the Applicant obtain process water (39.9 AFY) from SDWC, once IWVGA has identified basin-wide conservation measures, the Applicant shall implement business practices that are consistent with these conservation measures and consistent with facility operational requirements, thereby ensuring that this project contributes to basin-wide water conservation. The applicant shall inform the County upon adoption of basin-wide measures and the actions they have undertaken to be consistent with these measures.

Noise

- NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with properly operating and maintained mufflers.
- NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided adequate hearing protection devices to ensure no hearing damage will result from construction activities.
- NOI-3 No construction activities shall occur during the hours of 7 PM through 7 AM, Monday through Friday, and 5 PM to 9 AM Saturdays; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.

- NOI-4 Equipment not in use for five minutes shall be shut off.
- NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.
- NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.
- NOI-7 The County will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities with copies of the report filed with the County Planning Department. The Report shall be filed with the County within a 72 hour period.
- NOI-8 Construction staging areas shall be located as far from adjacent sensitive receptor locations as possible, for example near the north- or south-west corners of the project site.

Transportation

- TRAN-1 The construction contractor will provide adequate traffic management resources, as determined by San Bernardino County. The County shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standards, to provide adequate traffic control and safety during excavation activities. At a minimum, this plan shall include the following:
- a) Methods to minimize the amount of time spent on construction activities;
 - b) Methods to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes;
 - c) Methods to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure adequate traffic flow;
 - d) Identification of alternative routes, if necessary, that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and
 - e) Identification of methods or procedures to ensure that at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.
- TRAN-2 The County shall require that all disturbances to public roadways maintained by the County be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable Caltrans or County standard design requirements.

PROJECT-SPECIFIC REFERENCES

- AECOM, "Desert Tortoise, Western Burrowing Owl, Desert Kit Fox, and American Badger Presence/Absence Survey for the ACE Phoenix Project San Bernardino County, California" dated July 2012
- AECOM, "Preliminary Hydrology and Hydraulics Study, PVL Lime Plant" dated June 20, 2018
- AECOM, "Preliminary Site Characterization for Biological Resources for the ACE Phoenix Project, San Bernardino County, California" dated June 1, 2012
- CRM TECH, "Phase I Historical/Archaeological Resources Survey: Industrial Lime Production Plant Project, near the Community of Trona, San Bernardino County, California" dated April 2, 2019
- EnviroPlus Consulting, Inc., "Biological Analysis of a Proposed Lime Plant in Trona, California" dated June 2, 2018
- Eremico Biological Services, "Mohave Ground Squirrel Survey at the Proposed Phoenix Combined Heat and Power Project Site, Trona, San Bernardino County, California" dated July 29, 2013
- Paul Ervin (of Biostream Inc.) and Tom Snowden/Richard Wilson (of WZI), "Air Quality/Greenhouse Gas Study, Panamint Valley Limestone, Lime Kiln and Processes" dated January 18, 2020
- Indian Wells Valley Groundwater Authority (IWVGA), "Final Draft Groundwater Sustainability Plan for the Indian Wells Valley Groundwater Basin, Bulletin 118 Basin No. 6-054" dated January 2020
- Krazan & Associates, Inc., "Geotechnical Investigation, Proposed Lime Plant, Ace Ash Landfill, Athol Street and Roberts Road, Trona, California" dated August 14, 2018, updated February 25, 2019
- Luhdorff & Scalmanini, "Ground Water (Hydrologic) Technical Memorandum to Support San Bernardino Conditional Use Permit Related to Adequate Service Certification Water and Sewer (Form W2) – PVL Lime Plant APN: 0485-031-12" dated July 3, 2019
- San Bernardino County General Plan

Links:

- <https://www.sce.com/about-us/reliability/meeting-demand>
- <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>
- USGS Mineral Industries Survey at <http://www.lime.org> or by calling (703) 243-5463
- <https://www.lime.org/lime-basics/uses-of-lime/enviromental/hazardous-wastes/>
- <https://www.osha.gov/chemicaldata/chemResult.html?RecNo=203>
- https://www.lime.org/documents/lime_basics/fact-safety_precautions.pdf
- <http://wp.sbcounty.gov/dph/programs/ehs/wastewater/>
- <https://www.scag.ca.gov/Documents/UnIncAreaSanBernardinoCounty.pdf>
- <http://www.sbcounty.gov/Uploads/lus/GeneralPlan/FINALGP.pdf>
- <http://wp.sbcounty.gov/sheriff/patrol-stations/barstowtrona/>
- <http://www.gosbcta.com/sbcta/plans-projects/CMP/CMP16-Complete-061416.pdf>
- <https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates>
- <https://www2.calrecycle.ca.gov/SWFacilities/Directory/15-AA-0059/Detail/>

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