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 State CEQA Guidelines.

PROJECT LABEL:

APN:	**0436-142-19**
APPLICANT:	Delilah Properties, Inc.
COMMUNITY:	Unincorporated area east of Apple Valley
LOCATION:	Approximately ½-mile north of Highway 18; 13 miles east of Interstate 15, at the Bear Valley cutoff.
STAFF:	Linda Mawby, Senior Planner
REP('S):	Lilburn Corporation, Marty Derus
PROPOSAL:	A revision to an existing Mining Conditional Use Permit and Reclamation Plan for the Apple Valley Clay Mine to extend the termination date from 2018 to 2035 on 20 acres.

USGS Quad:	FIFTEENMILE VALLEY, CA
T, R, Section:	T5N, R2W, Section: 32
Planning Area:	Apple Valley
OLUD:	RL (Rural Living)
Overlays	Biotic Overlay

PROJECT CONTACT INFORMATION:

Lead agency: County of San Bernardino
Land Use Services Department - Planning
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415-0187

Contact person: Linda Mawby, Senior Planner
Phone No: (909) 387-4002 ***Fax No:*** (909) 387-3249
E-mail: Linda.Mawby@lus.sbcounty.gov

Project Sponsor: Delilah Properties, Inc.
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Corona, CA 92879
Phone No: (951) 736-9590 ***Fax No:*** N/A
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PROJECT DESCRIPTION:

Delilah Properties, Inc. (parent company of Maruhachi Ceramics of America – MCA) proposes to revise its existing Mining Conditional Use Permit and Reclamation Plan ("Plan") for the Apple Valley Clay Mine on 20 acres (the Plan). The current Plan was approved by the County on January 2, 1994 SAMR/92-0064/DN250-127N, and revised in 2003 to reflect a splitting of the site and permit (CA Mine ID: 91-36-0007). Although, MCA has conducted mining operations at the Apple Valley Clay Mine since 1994, Delilah Properties, Inc. applied for the revision and splitting of the permit in 2003. The Plan has an expiration date of December 7, 2018. The revision proposed at this time is requesting the continuation of mining operations to December 2030 and subsequent reclamation to December 2035.

The Apple Valley Clay Mine is located in the unincorporated area east of the Town of Apple Valley in the high desert region of San Bernardino County (Figure 1, Regional Location). The site is approximately ½-mile north of State Highway18 (SH-18) and 13 miles east of Interstate-15, east of the Bear Valley cutoff (Figure 2, Project Vicinity). To date, MCA has confined its operations to approximately eight (8)-acres at the southerly portion of its 20-acre parcel (APN 436-142-19). The proposed revision includes plans for mining

the balance of the reserves, in two additional phases of approximately 6-acres each, along with site restoration through reclamation per the California Surface Mining and Reclamation Act of 1975 (SMARA), which is administered by the County of San Bernardino (Figure 3, Apple Valley Mine Plan).

Operations
Mining operations would be undertaken in three phases. The eight (8)-acre active area (Phase I) is currently fenced with secured access gates and warning signs. Upon completion of Phase I, active mining will continue north on approximately six acres in Phase II and then onto the northern six acres in Phase III. The active mining areas will be enclosed with security fencing.

Final slope will be inclined to 4H:1V (horizontal: vertical) up to an average height ranging from 15 to 18 feet. Setbacks of 30 to 35 feet in width will be maintained around the site. These setbacks will include fencing with warning signs on the outside edge of the property, secured gates, a one-lane dirt perimeter access road, an engineered drainage channel to collect any run-on to the site, and a 1.5-foot high protective berm. The surrounding drainage channel will direct run-on to four reinforced slope drains. Access into the quarry site is via a 5% decline ramp located at the east central area of the quarry that will be realigned as mining progresses northward.

Mining activities will generally be completed by a single Caterpillar loader. The clay product will be stockpiled and loaded directly into street-legal 25-ton transfer trucks. No crushing or screening of the material will be conducted onsite. On occasion, a dozer or grader may be utilized for mining and access improvements. To minimize dust generation, a water truck is required for use during stockpiling and loading of haul trucks. The mine operator shall water spray working mine areas and access roads on a regular basis and more frequently as needed during windy conditions. Water used for dust control will be non-potable, when available. Un-surfaced haul roads and access roads shall be maintained with biodegradable dust suppressants or covered with road base materials as needed. Site operations will be conducted only during daylight hours (7 a.m. to 5 p.m.) and up to six days per week. All refuse shall be disposed into approved trash bins and removed by a commercial vendor. Portable toilets will be used onsite and serviced by a commercial vendor and removed during inactive periods.

Truck traffic is anticipated at a maximum rate of two to eight truck loads per day as previously approved. Access is achieved from SH-18 via Laguna Seca Drive, north to Chaparosa Drive, then east ¾ mile and north ¼ mile.

Erosion Control
Control of drainage, erosion, and sedimentation of the mine site will involve the following primary components currently being implemented for existing operations:

- Limiting surface disturbance to the minimum area required for active operations;
- Implementing collection drainage to accept run-on towards the site and directing stormwater into the excavation via reinforced down drains; and
- Stabilizing disturbed areas by grading slopes to 4H:1V with coarse-textured soils and vegetation.

The project site is a dry lakebed, the lowest point in a drainage area of approximately 10 square miles. The drainage pattern of the lake bed will not be altered but the net storage capacity of the lake, as a result of the post-reclamation pits would increase by over 360,000 cubic yards (CY) at build-out. Rainfall occurring on the excavations and run-on will be retained within lowest elevations of the mine site. Under these conditions, the mine will not adversely impact the surrounding properties. In the event of major flooding, mine excavations will have a positive influence on adjacent properties by retaining more flood waters than the lake bed can presently retain.

Reclamation
Reclamation of the mine will take place concurrently with the mining operations. Topsoil and overburden will be preserved in stockpiles and protected from erosion to preserve its need for reclamation. Test plots will be created and maintained on-site as soon as practicable for monitoring and guide biologists to develop the appropriate revegetation seed mix as specified by the Office of Mine Reclamation.

Once excavation activity for each Phase is complete, over-steepened slopes will be re-contoured to attain a maximum slope of 4H:1V (Figure 4). Final graded slopes and the pit floor will not be further disturbed in preparation for revegetation. Revegetation will generally commence in late fall to correspond with the rainy season. Surface material in compacted work areas will be loosened by mechanical means, topsoil spread, and the area planted with the recommended seed mix pursuant to best practices garnered from active test plots.

ENVIRONMENTAL/EXISTING SITE CONDITIONS:

The Apple Valley Clay Mine is located on Deadman's Dry Lake, the lowest portion of an approximately 10 square mile drainage basin. The Granite Mountains surround the site to the west, north and east, varying in distance from ¼- to one-mile. Elevation at the north end of the property is 3,030 feet above mean sea level (AMSL) and decreases to 3,019 at the southern end. Access to the site from SH-18 is north on Laguna Seca Drive to Chaparosa Drive, then east ¾ mile and north ¼ mile. The 20-acre parcel is located in the southwest quarter of the northeast quarter of Section 32, Township 5 North, Range 2 West, San Bernardino Meridian.

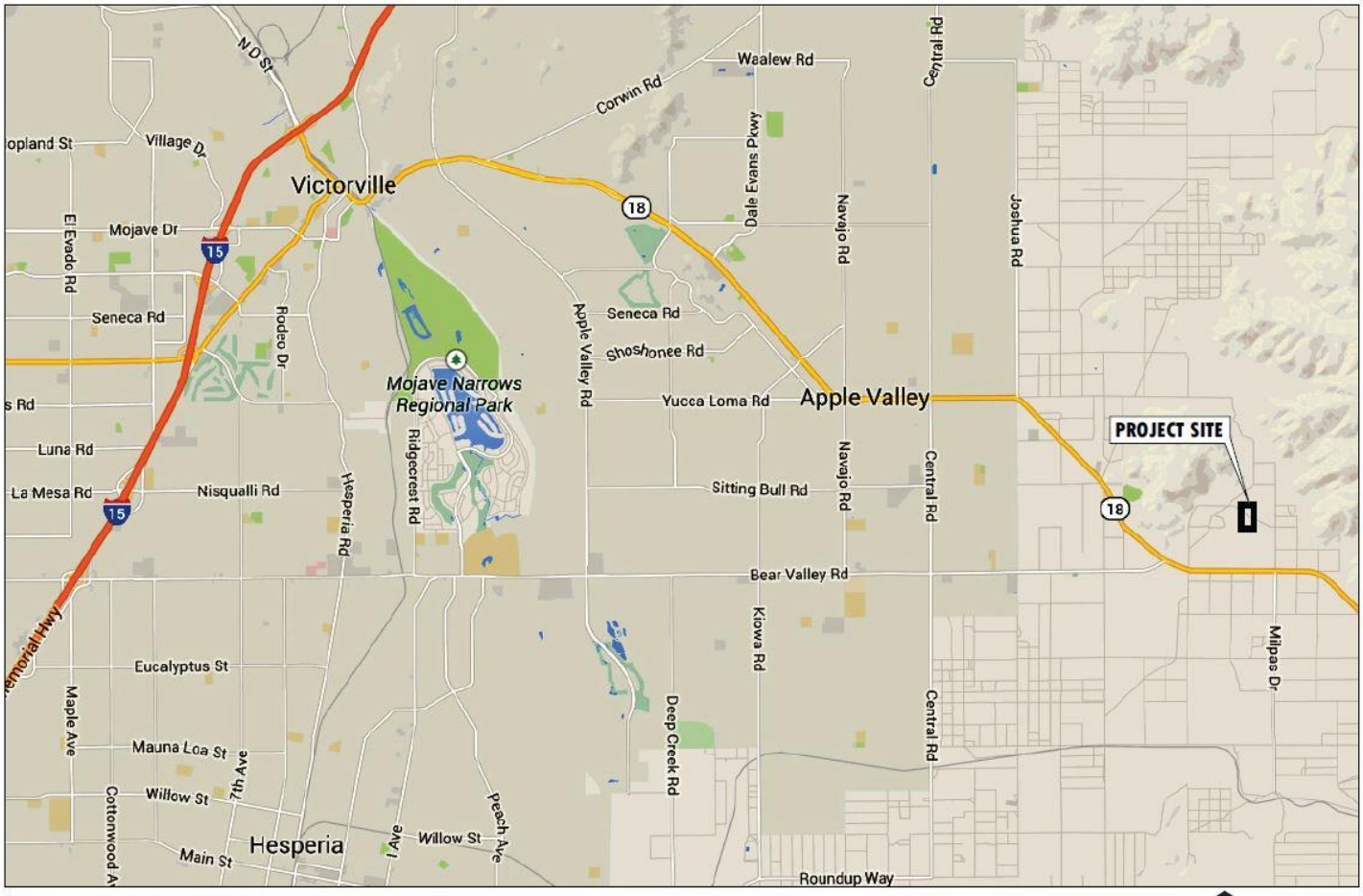
Mining activity at the site, to date, has occurred in a fenced area on approximately eight-acres at the southern end of the property. The mining operation includes a pit, access road, and a product stockpile. The remaining approximately 12 acres is relatively flat and appears to have been previously graded; vegetation is predominantly rabbit brush scrub.

Another 71-acre clay mine, previously a portion of the larger 91-acre mine of which the Apple Valley Clay Mine was a part, is adjacent to the south and southeast. The larger site was originally mined by the California Department of Water Resources for construction of the Cedar Springs Dam at Silverwood Lake. Other adjacent properties include vacant, privately-owned parcels varying from disturbed to minimally disturbed. Two residential/commercial properties are located approximately ½-mile south of the mine along SH-18. Milpas Road is ¼-mile to the east has several sparsely located residential/commercial properties. A closed County refuse disposal site (Apple Valley Landfill) is located approximately ¾-mile north of the mine site.

AREA	EXISTING LAND USE	OFFICIAL LAND USE DISTRICT
Site	Vacant – Clay Mine	AV/RL – Apple Valley/Rural Living
North	Vacant	AV/RL– Apple Valley/Rural Living
South	Vacant – Clay Mine	AV/FW – Apple Valley/Floodway
East	Vacant	AV/RL– Apple Valley/Rural Living
West	Vacant	AV/RL– Apple Valley/Rural Living

Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):
Federal: None
State of California: Office of Mine Reclamation
County of San Bernardino: Land Use Services – Mining Division, Planning Division, Land Development Division, Code Enforcement Division; Public Health-Environmental Health Services
Local: None

Figure 1
REGIONAL LOCATION



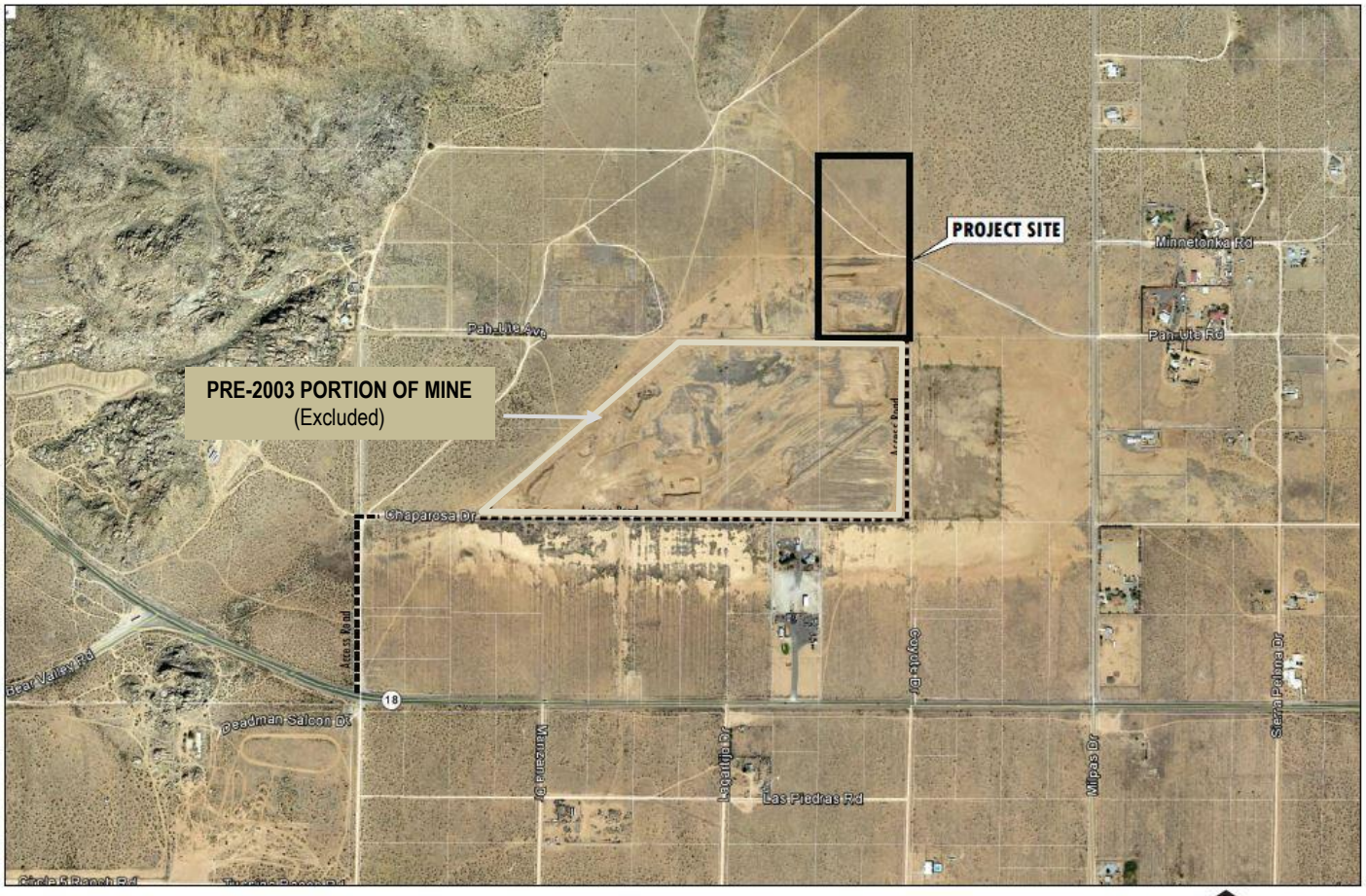
REGIONAL LOCATION

Apple Valley Clay Mine - CA Mine ID. # 91-36-0007
APN: 0436-142-019
County of San Bernardino, California

FIGURE 1

N
0 1.5 3
MILES
Source: Lilburn Corp., 12/2014.
LILBURN CORPORATION

Figure 2
PROJECT VICINITY



PROJECT VICINITY

Apple Valley Clay Mine - CA Mine ID. # 91-36-0007
APN: 0436-142-019
County of San Bernardino, California

FIGURE 2

N
0 950 1,900
FEET
Source: Lilburn Corp., 12/2014.; Aerial: 03/21/2013
LILBURN CORPORATION

Figure 3

APPLE VALLEY CLAY MINE

MINE PLAN

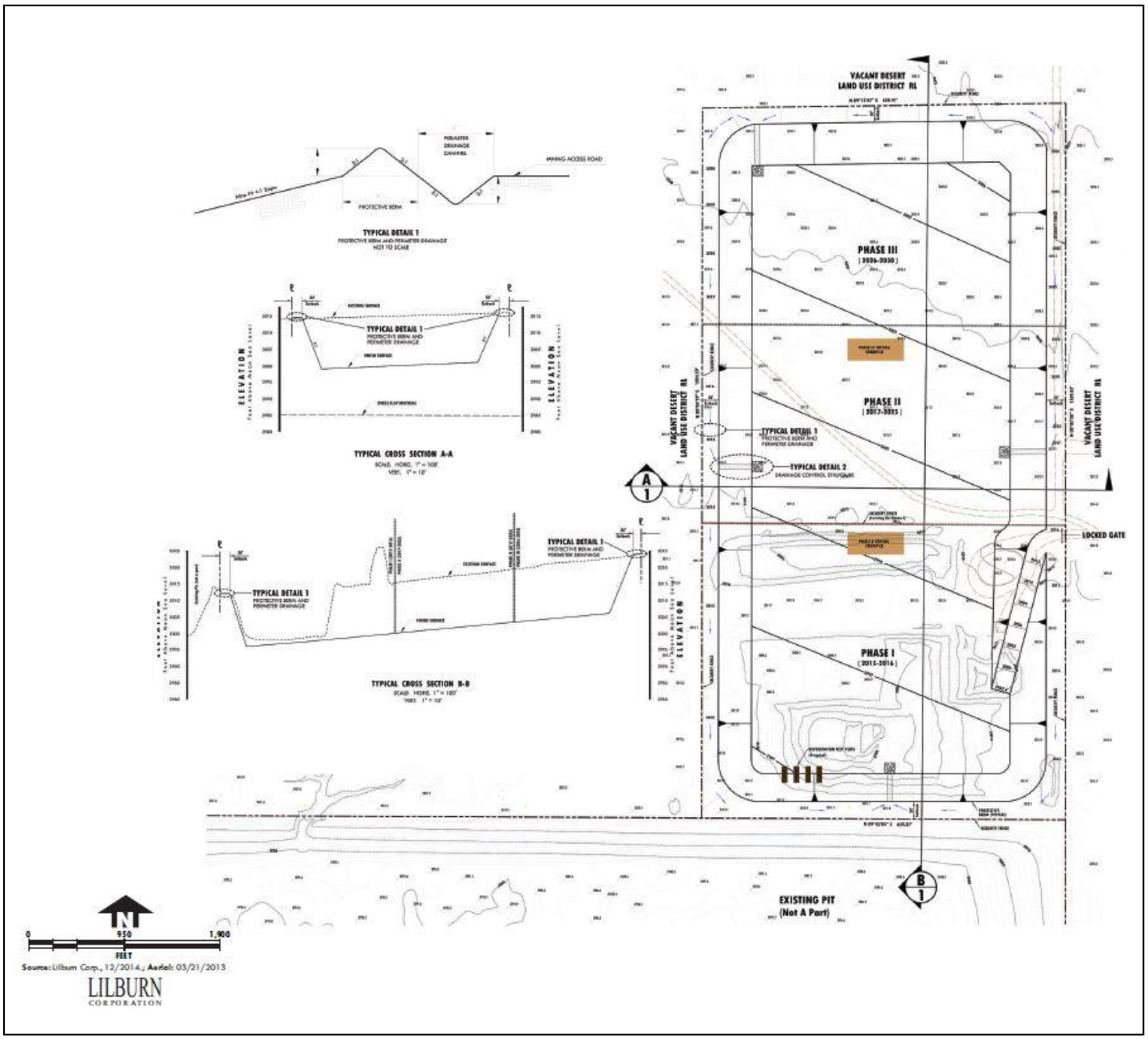
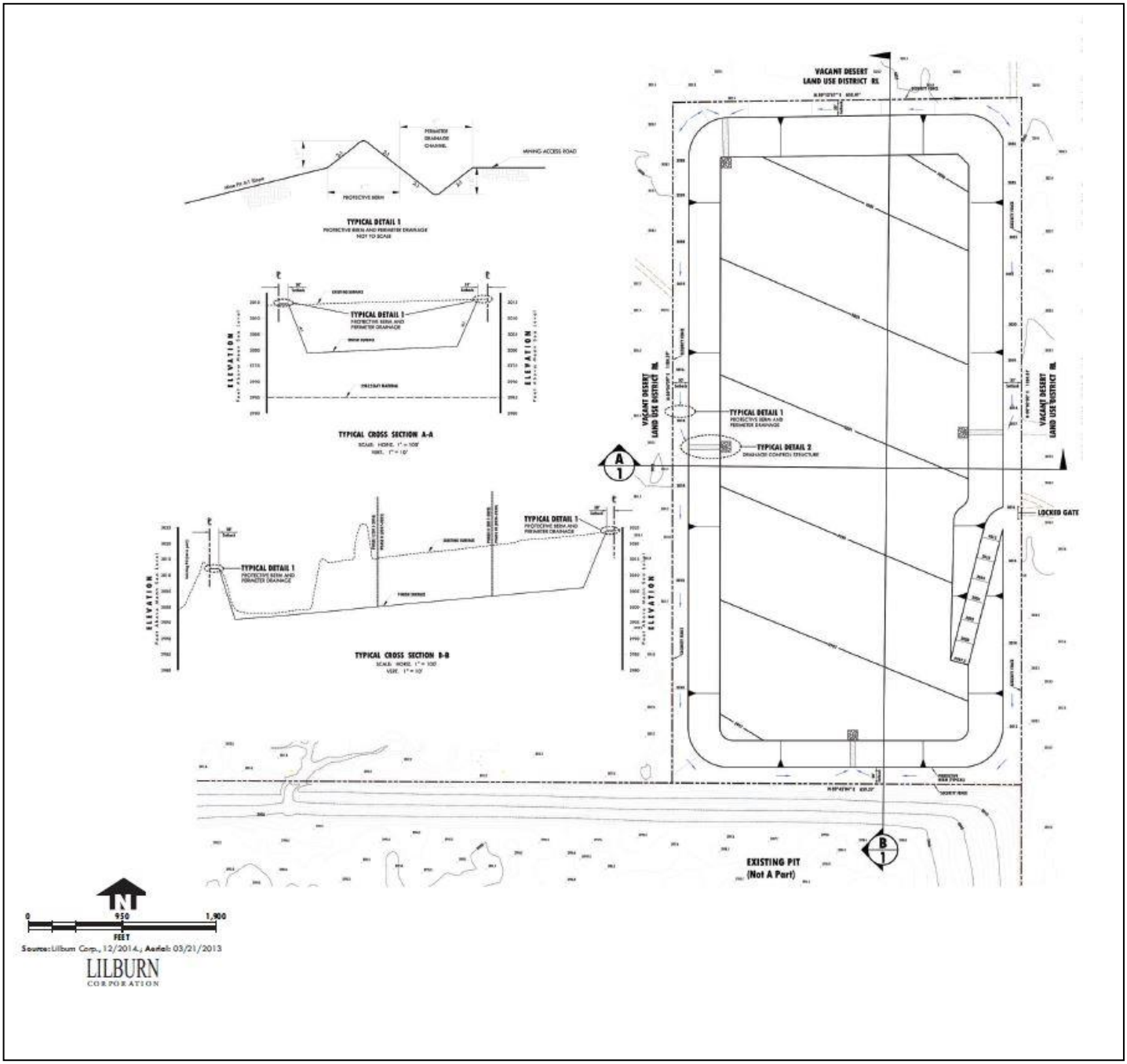


Figure 4

APPLE VALLEY CLAY MINE

RECLAMATION PLAN



EVALUATION FORMAT

This initial study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) 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 would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use/ Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation / Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

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

☐	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION shall be prepared.
☒	Although the proposed project could have a significant effect on the environment, there shall not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION shall be prepared.
☐	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: prepared by ***Linda Mawby, Senior Planner*** — June 30, 2015 Date

Signature: ***Dave Prusch, Supervising Planner*** — June 30, 2015 Date

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
I.	**AESTHETICS** - Would the project				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d)	Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

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

I a) **No Impact.** The project site is located on a flat, dry lakebed, which is the lowest point in the surrounding drainage area. It is surrounded on the west, north, and east by the Granite Mountains, and is not visible from populated areas. No views would be blocked by the operations, and the project will not create any features that would block surrounding views. Land immediately adjacent to the north, west, and east is currently vacant except for some isolated rural residences a half mile distant.

I b) **No Impact.** The project site is not located along a state scenic highway and no trees, rock outcroppings, or historic buildings would be affected. State Highway 18, located approximately 0.5 mile south, is a County-designated Scenic Route and is the primary access road to the Site. The mine is not visible from SH-18 and mining activities will not have a substantial adverse effect on scenic views.

I c) **No Impact.** The proposed project will not substantially degrade the existing visual character or quality of the site and its surroundings, because the project is consistent with the planned visual character of the area and will incorporate the approved design guidelines found in the East Valley Planning Area, including landscaping and the provision of walls/fences, landscaping and screening of exterior mechanical equipment, loading and storage areas.

I d) **No Impact.** No impacts related to nighttime lighting would occur because no activities are proposed during nighttime hours and the site is not lighted.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
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. Would 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?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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

II a) **No Impact.** No part of the property is classified as farmland; therefore, implementation of the project would not convert prime farmland, unique farmland, or farmland of statewide importance to non-agricultural use. The approximately 8-acre portion of the property developed as an active mine is classified as "other land" in the Department of Conservation – California Important Farmland Finder; the portion of the property that has not been developed as a mine is classified as "grazing land." No impacts are anticipated.

II b) **No Impact.** The location of the Apple Valley Clay Mine is identified as non-enrolled land in the San Bernardino County Williamson Act FY 2012-2013 (Sheet 1 of 2) Map, published by the California Department of Conservation, Division of Land Resource Protection. No land under Williamson Act Contract is identified in the immediate vicinity. No impacts to land under a Williamson Act Contract would occur.

II c-d) **No Impact**. Use of the site for mining would not conflict with zoning of forest land or timber resources and would not result in the conversion of forest land to non-forest use because those resources do not exist on the site. The project site has a land use designation of AV-RL Apple Valley-Rural Living under the County of San Bernardino General Plan Land Use Element. A biological resources study of the site identified the undeveloped portion of the site as vegetated with rubber rabbit brush habitat; no forest land or timber resources were identified to occur on the site. No impacts to timber resources or forest lands would occur.

II e) **No Impact.** No forest or farmland resources occur on the project site. Implementation of the project does not involve a change to the environment which could result in conversion of farmland to no-agricultural use or forest land to non-forest use because those resources do not occur on site. No impacts would occur.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
III.	**AIR QUALITY -** Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c)	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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e)	Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

SUBSTANTIATION: *(Discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable):*

Background: The Project Site is located in the Mojave Desert Air Basin (MDAB). The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over air quality issues and regulations within the MDAB. To assist local agencies to determine if a project's emissions could pose a significant threat to air quality, the MDAQMD has prepared the *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2011*. Air and dust emissions from the operational use of the Project were evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

Air quality is determined primarily by the types and amounts of contaminants emitted into the atmosphere, the size and topography of the local air basin and the pollutant-dispersing properties of local weather patterns. When airborne pollutants are produced in such volume that they are not dispersed by local meteorological conditions, air quality problems result. Dispersion of pollutants in the MDAB is influenced by periodic temperature inversions, persistent meteorological conditions and the local topography. As pollutants become more concentrated in the atmosphere, photochemical reactions occur, producing ozone and other oxidants.

Air emissions from the project are subject to federal, state, and local rules and regulations implemented through provisions of the federal Clean Air Act, California Clean Air Act and the rules and regulations of the California Air Resources Board (CARB) and the MDAQMD. Under the provisions of the federal and California Clean Air Acts, air quality management districts with air basins do not meet mandated air quality standards are required to prepare an Air Quality Management Plan (AQMP). An AQMP establishes an area-specific program to control existing and proposed sources of air emissions so that the air quality standards may be attained by an applicable target date.

The federal Clean Air Act and California Clean Air Act were established in an effort to assure that acceptable levels of air quality are maintained. These levels are based upon health-related exposure limits and are referred to as National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The ambient air quality standards establish maximum allowable concentrations of specific pollutants in the atmosphere and characterize the amount of exposure deemed safe for the public. These ambient air quality standards are identified in Table 1, "State and Federal Ambient Air Quality Standards". Primary federal standards reflect levels of air quality deemed necessary by the federal Environmental Protection Agency (USEPA) to provide an adequate margin of safety to protect public health. Areas that meet the primary standards are designated as "attainment" areas; those that exceed these standards are designated as "nonattainment" areas. Secondary standards further reflect levels of air quality pollutants necessary to protect public welfare from known or anticipated adverse effects.

Both USEPA and CARB have designated portions of the MDAB as nonattainment for a variety of pollutants, and some of those designations have an associated classification. Table 2, "State and Federal Air Quality Standards and Status, Mojave Desert Air Basin", identifies these designations and classifications and MDAQMD has adopted attainment plans for these nonattainment pollutants, and regulates emissions in a variety of ways. A Construct/Operate permit is required for all stationary equipment having potential to release air contaminants, and all emission and dust producing activities are also regulated.

The project will not process any material on-site; it is simply excavated by a loader and loaded into trucks for shipment off-site. If any processing equipment is operated temporarily on-site it would need to operate under a permit to operate from the MDAQMD or will utilize or maintain statewide portable equipment registration, as applicable. Operations and permits are inspected and renewed annually by the MDAQMD. Haul trucks and diesel equipment must meet requirements of the CARB's off-road diesel vehicles regulations to reduce diesel pollutants. Operations will be required to comply with MDAQMD Rules 401 (limiting visible emissions from exhaust); 402 (avoid nuisance emissions); 403 prohibits visible dust from crossing property lines); and 403.2 (requirements for controlling fugitive dust).

To assist local agencies in determining whether a project's emissions could pose a significant threat to air quality, the MDAQMD has prepared the *California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, August 2011*. Air and dust emissions from the operational use of the Project were evaluated and compared to MDAQMD standards and evaluated against the most recent thresholds applicable and described in the responses to questions III(a) through III(e) below.

Table 1
State and Federal
Ambient Air Quality Standards

		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	---	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})[8]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	20 µg/m^3		---		
Fine Particulate Matter ($PM_{2.5}$)[8]	24-Hour	---		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetic Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 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	9.0 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)[9]	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 ppb (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1-Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppd (196 µg/m^3)	–	Ultraviolet Flourescence, Spectrophotometry (Pararosaniline 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)[10]	---	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[10]	–	
Lead[11,12]	30-day average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average[11]	--		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Calendar Quarter	–		0.15 µg/m^3		
Visibility-Reducing Particles[13]	8-Hour	See footnote 13	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[11]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: ARB, June, 4, 2013.
1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and 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 arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site 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 µg/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 three 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 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C 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 measurement method which can be shown to the satisfaction of the ARB 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 U.S. 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 U.S. EPA.
8. On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$

standards (primary and secondary) was retained at 25 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards in the annual mean, averaged over 3 years.
9. To attain the 1-hour national standard, the 3-year average of the 98th percentile of the 1-hour daily maximum concentration 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.
10. 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 SO_2 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 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 new primary 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.
11. The ARB 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.
12. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/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.
13. In 1989, the ARB 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 2
State and Federal Air Quality Standards and Status
Mojave Desert Air Basin

Ambient Air Quality Standard	Status
Eight-hour Ozone (Federal)	Non-attainment, classified Moderate (portion of MDAQMD in Riverside County is attainment)
Ozone (State)	Non-attainment; classified Moderate
PM_{10} (Federal)	Non-attainment; classified Moderate (portion of MDAQMD in Riverside County is attainment)
$PM_{2.5}$ (Federal)	Unclassified/attainment
$PM_{2.5}$ (State)	Non-attainment (portion of MDAQMD outside of Western Mojave Desert Ozone)
PM_{10} (State)	Non-attainment
Carbon Monoxide (State and Federal)	Attainment
Nitrogen Dioxide (State and Federal)	Attainment/unclassified
Sulfur Dioxide (State and Federal)	Attainment/unclassified
Lead (State and Federal)	Attainment
Particulate Sulfate (State)	Attainment
Hydrogen Sulfide (State)	Unclassified (Searles Valley Planning Area is non-attainment)
Visibility Reducing Particles (State)	Unclassified

Source: MDAQMD CEQA and Federal Conformity Guidelines, August 2011

III a) **Less than Significant Impact.** Intermittent mining operations would be conducted by a single Caterpillar rubber-tired loader (typical) operating 8 hours per day when the site is active (worst case assumption). Clay will be stockpiled and then loaded directly onto 25-ton bottom dump trucks (5 trips per day @ 50 mile haul distance, worst case assumption). No on-site crushing or screening is proposed and no waste material or tailings would be produced on-site. The project site is within the

MDAB and under the jurisdiction of the MDAQMD. The MDAQMD is responsible for updating the AQMP. The AQMP was developed for the primary purpose of controlling emissions to maintain all federal and state ambient air standards for the district. A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures, and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

The Project is consistent with the zoning and land use classifications that were used to prepare the Mojave Desert AQMP (Rural Living/RL). In addition, based on Table 3, "Operational Emissions Summary" below, Project-generated emissions will not exceed emission thresholds for any of the regulated, "nonattainment" pollutants. Therefore, the Project's emissions are in compliance with the thresholds established by the MDAQMD. As a result, the project would not significantly increase local air emissions nor violate any Air Quality standards and thus would not conflict with or obstruct implementation of the AQMP. A less than significant impact would occur with compliance according to existing rules and regulations.

III b) **Less than Significant Impact.** Air quality analyses for the proposed project have been conducted in accordance with *CEQA and Federal Conformity Guidelines* (MDAQMD 2011) and the South Coast Air Quality Management District (SCAQMD) *Air Quality Handbook* with revisions through 2014. The air and dust emissions from the operational use of the Project were evaluated and compared to the MDAQMD standards and evaluated against the most recent thresholds applicable.

The MDAQMD has established the following significant annual emissions thresholds for determining whether the impacts from a project would be considered significant per CEQA:

Annual Emissions Thresholds of Significance

- Greenhouse Gases (CO2e) - 100,000 tons
- Carbon monoxide (CO) – 100 tons
- Oxides of Nitrogen (NO_x) – 25 tons
- Volatile Organic Compounds (VOC) – 25 tons
- Oxides of Sulfur (SO_X) – 25 tons
- Particulate matter (PM_{10}) – 15 tons
- Particulate matter ($PM_{2.5}$) – 15 tons

Source: CEQA and Federal Conformity Guidelines (MDAQMD 2011)

For the existing project, on-site mobile equipment and dust emissions were screened using the MDAQMD Emissions Inventory Guidance; SCAQMD *Air Quality Handbook*; Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks (EMFAC 2012); SCAQMD Off-Road Mobile Source Emissions Factors (years 2015 and 2016); AP-42 Chapters 11.19 and 13.2.2; and SCAQMD Particulate Matter Emission Factors. Air Quality worksheets can be found in Appendix A of the publication.

The estimated air pollutant emissions and their significance, as compared to the thresholds above, are summarized in Table 3. As shown, the increase in operational air emissions from the proposed project is less than the thresholds of significance. In addition, during the reclamation phase of the project, there would be one piece of equipment (loader/dozer) and a water truck to complete any remaining on-site grading and no off-site trucking. Therefore emissions from reclamation will also be below thresholds.

With implementation of the MDAQMD rules and Caltrans conditions and mitigations listed below, air quality impacts are expected to be less than significant.

Table 3
Operational Emissions Summary
(Pounds Per Day)

Source/Phase	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$
Loader[1] & Water Truck[2]	0.9	6.3	3.7	0.3	0.3
Street Legal Haul Trucks[2]	1.2	13.6	4.9	0.6	0.6
Fugitive Dust	---	---	---	0.2	0.1
Totals	**2.1**	**19.9**	**8.6**	**1.1**	**1.0**
MDAQMD Threshold	137	137	548	82	82
Significant	**No**	**No**	**No**	**No**	**No**

[1] Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks, 2015
[2] Off-Road Mobile Source Emissions Factors, 2015
Dust control assumed at 75% with water spray.
Dust related PM2.5 = 0.208 of PM10 (CEIDARS List).

Compliance with MDAQMD Regulation II and Rules 402 and 403

Although the Proposed Project does not exceed MDAQMD thresholds, the Applicant is required to comply with all applicable MDAQMD rules and regulations as the MDAB is in non-attainment status for ozone and suspended particulates (PM_{10} and $PM_{2.5}$ (state)). To limit dust production, the Applicant must comply with Rules 402 nuisance and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source. This would include, but not be limited to the following BACMs:

1. The Project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.

   - The Project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading and mining activity on the site. Portions of the site that are actively being mined shall be watered to ensure that a crust is formed on the ground surface, and shall be watered at the end of each workday.
   - The Project proponent shall ensure that all disturbed areas are treated to prevent erosion.
   - The Project proponent shall ensure that all mining and processing activities are suspended when winds exceed 25 miles per hour.

2. Exhaust emissions from vehicles and equipment and fugitive dust generated by on-site activities, would slightly increase NO_X and PM_{10} levels in the area. Although the Proposed Project would not exceed MDAQMD thresholds during operations, the Applicant would be required to implement the following conditions as required by MDAQMD:

   - All equipment used for mining must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.
   - The operator shall maintain and effectively utilize and schedule on-site equipment and haul trucks in order to minimize exhaust emissions from truck idling.
   - The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks and equipment, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for

all diesel fueled engines, trucks, and equipment with the statewide CARB Diesel Reduction Plan. These measures will be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines and truck and equipment fleets.

With compliance restrictions pursuant to the existing rules and regulations and conditions stated above, operational emissions are expected to be less than significant.

III c) **Less than Significant Impact**. Mining operations would be conducted by a single Caterpillar loader (operating 8 hours per day, worst case assumption). Clay will be stockpiled and then loaded directly on 25-ton bottom dump trucks (5 trips per day @ 50 mile haul distance, worst case assumption). No processing is proposed on-site. As shown in Table 3, the thresholds for the above referenced criteria pollutants would not be exceeded by the Project; therefore, cumulative air quality impacts are anticipated to be less than significant.

III d) **No Impact.** The proposed Project is located in a remote area of northeastern San Bernardino County, east of the San Bernardino Mountains. No processing will occur on-site. Impacts to sensitive receptors are not anticipated as thresholds are not exceeded and no residences are located adjacent to the site.

III e) **No Impact.** The generation of objectionable odors is not associated with this type of mining. No process is to occur on site. Therefore, no impacts are anticipated.

No significant adverse impacts are identified or anticipated with implementation of applicable standard conditions of approval and no additional mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IV.	**BIOLOGICAL RESOURCES -** Would the project:				
a)	Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc…) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?	☐	☐	☐	☒

SUBSTANTIATION: *(Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database ☐): Category N/A*

IV a) **Less than Significant Impact with Mitigation Incorporated.** A Biological Resources Study for the Apple Valley Clay Mine was conducted by Hernandez Environmental Services in November 2014. The study included a review of literature resources and a field survey conducted on October 3, 2014. The survey in particular surveyed the area for potential favorable habitat for 14 sensitive species of animals and four plant species that have the potential to be present on, or in the vicinity, of the property per various species listings. This includes those listed, or candidates for listing by the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). All potential habitats for these species were evaluated on the property and a determination was made for the probability of presence.

Threatened and Endangered Plants

A total of four plant species are listed as threatened, endangered, or as a candidate under the state and federal endangered species acts, and as a 1B.1-listed plant on the California Native Plant Society (CNPS) Rare Plant Inventory. The project site has no habitat for any of these species; therefore, these species are considered not to be present. Following are descriptions of the four species and their potential of occurring on the site.

Cushenberry Oxytheca

The Cushenberry oxytheca (*Acanthoscyphus parishii* var. *goodmaniana*) is a federally Endangered plant and a 1B.1-listed plant on the CNPS Rare Plant Inventory. It is found on limestone talus and on rocky slopes. The property did not contain any habitat that would be associated with this plant species. The species is not present.

Parish's Phacelia

The Parish's phacelia (*Phacelia parishii)* is a 1B.1-listed plant on the CNPS Rare Plant Inventory. It is found in alkaline flats and slopes and in clay soils. The active clay mine is too disturbed for this species to be there, and the mine is currently in operation. The expansion areas did not have any surface clay soils. The expansion area also appears to have been previously graded. No suitable habitat is present and the species was not observed. The species is not present.

Parish's Popcorn flower

The Parish's popcorn flower (*Plagiobothrys parishii*) is a 1B.1-listed plant on the CNPS Rare Plant Inventory. It is found in alkaline soils. The active clay mine is too disturbed for this species to be there, and the mine is currently in operation. The expansion areas did not have any visible alkaline soils. The expansion area also appears to have been previously graded. No suitable habitat is present and the species was not observed. The species is not present.

Parish's Alkali Grass

The Parish's alkali grass (*Puccinellia* parishii) is a 1B.1-listed plant on the CNPS Rare Plant Inventory. It is found in alkaline springs and seeps. No springs or seeps are present on the property. No suitable habitat is present and the species was not observed. The species is not present.

According to the California Natural Diversity Database (CNDDB) maintained by the CDFW, no plant species designated as threatened or endangered by the State of California or the Federal Government were identified on the site. The active mine portion of the property is already disturbed. The expansion will impact areas that appear to have been previously graded and contain no sensitive habitat.

Threatened and Endangered Animals

A total of six animal species are listed as threatened, endangered, or candidate species under state and federal endangered species laws, or for special consideration under the California Environmental Quality Act. Following are descriptions of the six species and their potential of occurring on the site.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a state Species of Special Concern. It is found in open, dry annual or perennial grasslands, desert or scrublands characterized by low-growing vegetation. The owl also uses rodent burrows to establish shelter and nests. No burrowing owls were observed during the field visit. No suitable burrows for nesting and shelter were seen. This species is not present.

Swainson's Hawk
The Swainson's hawk (*Buteo swainsoni*) is a state threatened species. It is found in riparian forests and woodlands. The property has no riparian forests or woodlands for this species to forage or nest. This species is not present.

Townsend's Big-eared Bat
The Townsend's big-eared bat (*Corynorhinus townsendii*) is a state Candidate species. It prefers to roost in the open hanging from walls and ceilings. This species is extremely sensitive to human disturbances. The property has no habitat and is too disturbed for this species. This species is not present.

Desert Tortoise
The desert tortoise (Gopherus agassizii) is a federally and state Threatened species. It is found in desert scrub, desert washes, and Joshua tree habitats. It requires friable soils to dig burrows and nest construction. The property has no habitat for this species. The property was surveyed and no signs of desert tortoise-either burrows, or live animals-were seen. The property is too disturbed, is surrounded by human uses, and lacks the annual and perennial plants on which the desert tortoise would feed. This species is not present.

Mohave Ground Squirrel
The Mohave ground squirrel (*Xeropermophilus mohavensis*) is a state Threatened species. It is found in desert scrub, open desert, alkali scrub, and Joshua tree habitats. It prefers sandy to gravelly soils and avoids rocky areas. This species uses burrows at the base of medium to large shrubs such as creosote bush as cover. The property does not contain habitat for this species. The property was surveyed and no suitable burrows were seen. The property is too disturbed and all medium to large shrubs have been previously removed. This species is not present.

Per the findings of the Biological Resources Study, no species identified as candidate, sensitive, or of special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service occur on the site. No impacts to such species are anticipated.

The biological resources study identified potential nesting habitat for migratory birds in the portion of the site characterized by rubber rabbitbrush vegetation. Impacts to migratory nesting birds may potentially occur if vegetation clearing activities occur during the nesting season of March 1 through September 30. In order to avoid potential impacts to nesting birds, the recommendation from the Biological Resources Study to avoid and minimize these impacts shall be implemented as Mitigation Measure 1.

IV b) **No Impact**. The Biological Resources Study identifies three habitat types at the project site: disturbed rubber rabbitbrush (*Ericameria nauseosus*) dominant habitat (11 acres), disturbed unvegetated area (1 acre), and disturbed mine site area (8 acres). Disturbed unvegetated areas are described as dirt roads with no vegetation. The Disturbed mine site area is described as a fenced area developed with an active clay mine that includes product stockpiles and a mining pit. Disturbed rubber rabbitbrush dominant habitat appears to have succeeded creosote bush scrub habitat. Additional plant species associated with the rubber rabbitbrush scrub include: creosote bush (*Larrea tridentate*), white bursage (*Ambrosia dumosa*), desert mallow (*Sphaeralcea ambigua*), cheesebush (*Ambrosia salsola*), London rocket (*Sisymbrium irio*), common fiddleneck (*Amsinckia intermedia*), croton (*Croton californicus*), milkweed (*Asclepias erosa*), fourwing saltbush (*Atripex canescens*), cheatgrass (*Bromus tectorum*), desert spurge (*Chamaesyce albomarginata*), Jimsonweed (*Datura wrightii*), Cooper's goldenbush (*Ericameria cooperi*), California buckwheat (*Eriogonum fasciculatum*), desert trumpet (*Eriogonum inflatum*), and Russian thistle (*Salsola tragus*).

No riparian vegetation or Joshua trees were identified at the site. No impacts to riparian habitat or sensitive plant communities would occur.

IV c) **No Impact**. Per the findings of the Biological Resources Study, the project site does not contain state or federal jurisdictional streams, rivers, lakes, or wetlands. No impacts to such resources would occur because they do not exist onsite.

IV d) **No Impact.** The property does not have utility as a wildlife movement corridor. The portion of the property developed with an active clay mine is fenced and disturbed. The portion of the property not yet developed is traversed by two dirt roads and the area appears to be frequently utilized by off-highway vehicles. No impacts to wildlife corridors would occur.

IV e-f) **No Impact**. The project site is located within the planning areas of the West Mojave California Desert Conservation Area (CDCA) Plan Amendment and the Town of Apple Valley Multi-Species Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The West Mojave CDCA Plan Amendment was adopted by the Bureau of Land Management (BLM) in 2006. The Project site is located on private property outside of BLM jurisdiction, therefore the West Mojave Plan would not apply. According to CDFW, the Town of Apple Valley Multi-Species NCCP/HCP is still in the implementation stage and has not yet been adopted as a land use document. No conflicts related to applicable land use plans or NCCPs/HCPs are anticipated.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level less than significant.

MM#	Mitigation Measure
BIO -1	Initial ground disturbance and vegetation clearing should be scheduled to occur outside of the bird nesting season (March 15-September 15). If initial ground disturbance/vegetation clearing cannot be scheduled outside of the bird nesting season, the project applicant will contract a qualified biologist to conduct a pre-construction nesting bird surveys within three days prior to initiating ground disturbance/vegetation clearing. If active nests are found during the nesting bird surveys, they will be flagged and a 200-foot buffer shall be protected around the nest. Such buffers must remain in place until the young have fledged and the nest become unoccupied as determined by the qualified biologist.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
V.	**CULTURAL RESOURCES** - Would the project				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

SUBSTANTIATION: *(Check if the project is located in the Cultural ☐ or Paleontologic ☐ Resources overlays or cite results of cultural resource review):*

V a-b) **Less than Significant Impact with Mitigation Incorporated.** The site is a dry lakebed that becomes inundated during local, heavy rains and is impacted by existing roads, off-road vehicle use, and past grading. A historical resources record search for APN 0436-142-19 and its vicinity was conducted on January 16, 2015 by the San Bernardino County Museum Archaeological Information Center. The records search included eight (8) general area overviews. The records search results show no records of prehistoric archaeological resources, no records of cultural landscapes, no records of ethnic resources, and no records of heritage properties. One possible historic structure/archaeological site location was identified on historic maps. Based upon available historical records and maps, and comparison with similar environmental localities, the sensitivity assessment for the overall project area was assigned as follows:

Prehistoric Archaeological Resources: *High*
Historic Archaeological Resources: *High*
Historic Resources (built environment): *Low*
Cultural Landscapes: *Unknown*
Ethnic Resources: *Unknown*

The determination for prehistoric archaeological resources is based on sites found near the project area and sites known to occur in and around dry lakes. The potential for historic archaeological resources is based on road and nearby structures shown on historic maps. The area of potential effect (APE) is located within the boundaries of the historic Silver Mountain/Oro Grande Mining District and resources associated with mining and milling may occur.

In order to avoid and/or minimize potential impacts to historical and archeological resources, the mitigation measures listed below shall be implemented.

V c) **Less than Significant Impact with Mitigation Incorporated.** A Regional Paleontologic Locality Inventory (RPLI) and field survey of the 20-acre project site was conducted by the San Bernardino County Museum in October 1992. RPLI records showed that no previous resources' assessment had been conducted within the boundaries of the parcel; therefore, no paleontologic localities are reported within it. Existing records show that immediately adjacent to the southern border of the property fossil remains of Pleistocene jackrabbit have been produced. Additionally, remains of extinct camel and horse have been recorded in Pleistocene lake sediments approximately eight (8) miles east of the property. Based on existing records and a field survey conducted on October 9,

1992, it was determined that that project site has a high potential to contain non-renewable paleontologic resources. Excavation in conjunction with development has a high potential to impact these resources. In order to avoid and/or minimize potential impacts to non-renewable paleontologic resources mitigation measure listed below shall be incorporated.

V d) **Less than Significant Impact with Mitigation Incorporated.** Construction activities, particularly grading, soil excavation and compaction, could adversely affect unknown buried human remains. The Mitigation Measures below shall be implemented to reduce potential impacts to less than significant.

Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as conditions of project approval to reduce these impacts to a level below significant.

MM# Mitigation Measures

CUL-1 Prior to any new disturbance on the 11 acres north of the existing fenced mine site, a qualified Archaeological consultant shall complete a pre-construction field survey for prehistoric archaeological resources. A written report of the results and any additional protection measures recommended shall be submitted to the County Museum and Planning Department for review and approval. Additional measures (i.e. curation) may be required of the applicant based on the survey's results.

CUL-2 Prior to any new disturbance on the 11 acres north of the existing fenced mine site, a qualified vertebrate Paleontologist shall monitor initial excavation activities on the undisturbed portions of the parcel. The Contract agreement shall incorporate the recommendations of the County Museum for this site (SBCM 1992). In the event that paleontologic resources are encountered, the operator shall stop work in the area of the find and the paleontologist shall evaluate the resource and determine the appropriate recovery measures, if any, to be implemented.

CUL-3 If human remains of any kind are found during earthwork activities, all activities must cease immediately and the San Bernardino County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the Native American Heritage Commission whom will then identify the most likely descendants to be consulted regarding treatment and/or reburial of the remains. If a most likely descendant cannot be identified, or the most likely descendant fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the contractors shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. Any costs incurred related to the remains shall be borne by the project proponent.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VI.	**GEOLOGY AND SOILS** - Would the project:				
a)	Expose people or structures to 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.	☐	☐	☒	☐
	ii. Strong seismic ground shaking?	☐	☐	☒	☐
	iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv. Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil, as defined in Table 181-B of the California Building Code (2001) creating substantial risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☐ if project is located in the Geologic Hazards Overlay District):*

VI a) The project site is not located within a geologic hazard overlay zone in the County of San Bernardino General Plan.

i) **Less than Significant Impact**. As identified in the State of California Special Study Zones – Fifteenmile Valley Quadrangle, official map published by the Division of Mines and Technology, the project site is located south of the Helendale fault and north of the North Frontal Fault Zone (west). The site is not located in the immediate vicinity of these faults and less than significant impacts are anticipated related to the exposure of people or structures to potential fault rupture.

ii) **Less than Significant Impact.** The project site is subject to geologic hazards such as earthquakes that occur from time to time in the Southern California area. The Mojave Desert is a seismically active region; safety provisions identified in the Uniform Building Code are required when development occurs to reduce potential ground shaking hazards to less than significant level. The

project does not propose to construct any structures. Less than significant impacts are anticipated resulting from the potential exposure of employees to ground shaking.

iii-iv) **Less than Significant Impact.** The project site is located within the Town of Apple Valley sphere of influence and is included within the analysis area of the Town's General Plan. As identified in Exhibit IV-2 of the Geotechnical Element, the site is not located within an area where local geological and groundwater conditions suggest a potential for liquefaction. Additionally, the site is not located in a hillside or mountain area were rock falls and landslides are expected to occur during an earthquake or where the local topography and geological conditions suggest potential for earthquake induced landslides. Therefore, the proposed project is not anticipated to expose people or structures to significant effects resulting from these types of natural events.

VI b) **Less than Significant Impact.** The site is an existing dry lake bed with clay deposits. There is no topsoil and the surface material is part of the product to be excavated. The mine will be operated with erosion controls for localized on-site erosion. Control of drainage, erosion, and sedimentation of the mine site will involve the following primary components currently being implemented for existing operations.

- Limiting surface disturbance to the minimum area required for active operations;
- Using a surrounding collection drainage to accept run-on towards the site and directing waters into the excavation for percolation or evaporation via reinforced down drains; and
- Stabilizing disturbed areas through grading slopes to 4H:1V and revegetation.

The project site is a dry lakebed with about 10 square miles of drainage area. The drainage pattern of the lake bed will not be altered but the net storage capacity of the lake would increase by over 360,000 CY at build-out. Any rainfall occurring on the excavations and run-on will be retained within the confines of the mine site. This situation will not impact the surrounding adjacent property. Less than significant impacts related to soil erosion of loss of topsoil are anticipated.

VI c) **Less than Significant Impact.** As identified in County of San Bernardino Geologic Hazards Overlay Map FH08C, the site is not located in hillside or mountain areas where numerous rock falls and landslides are expected to occur or where local topography and geological conditions suggest the potential for landslides. The project site is subject to geologic hazards such as earthquakes that occur from time to time in Southern California. The site is not located within a special study zone in the State's Geologist Alquist-Priolo Act Maps; therefore, less than significant impacts associated with earthquake or ground shaking that could result in off-site landslide, lateral spreading, subsidence, liquefaction, or collapse are anticipated.

VI d) **Less than Significant Impact**. Expansive soils are characterized by their ability to undergo significant volume change as a result of changes in the soils moisture content. Expansive soils are commonly very fine-grained with a high percentage of clay. The project site is a clay mine site and the soils on site are potentially expansive. The proposed project is the further development of the mine site; no on-site structures that may potentially be affected by expansive soils are proposed. Less than significant impacts related to expansive soils are anticipated.

VI e) **No Impact.** The proposed project does not include a proposal for septic tanks. Portable toilets are available at the site. No impacts related to septic tanks or waste water disposal are anticipated.

No significant adverse impacts are identified or anticipated with implementation of applicable standard conditions of approval and no additional mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VII	**GREENHOUSE GAS EMISSIONS -** Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

SUBSTANTIATION:

According to CEQA Guidelines section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." Moreover, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

San Bernardino County GHG Reduction Plan

In September 2011, the County of San Bernardino adopted a Greenhouse Gas Emissions (GHG) Reduction Plan (September 2011) ("GHG Plan"). The GHG Plan presents a comprehensive set of actions to reduce the County's GHG emissions to 15% below current levels (2007 levels) by 2020, consistent with the AB 32 Scoping Plan. GHG emissions impacts are assessed through the GHG Development Review Process (DRP) by applying appropriate reduction requirements as part of the discretionary approval of new development projects. Through its development review process, the County implements this aspect of CEQA by requiring new development projects to quantify project GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance. A review standard of 3,000 metric tons of CO_2 equivalent ($MTCO_2e$) per year is used to identify projects that require mitigation through the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions. Note that the MDAQMD has an annual threshold of 100,000 tons of CO_2 per year as discussed herein under Section III, Air Quality.

VII a-b) **Less than Significant Impact.** The following analysis is based on the *Governor's Office of Planning and Research, Technical Advisory on CEQA and Climate Change*.

Per CEQA guidelines, new project emissions are treated as standard emissions, and air quality impacts are evaluated for significance on an air basin or even at a neighborhood level. Greenhouse gas emissions are treated differently in that the perspective is global, not local. Therefore, emissions for certain types of projects might not necessarily be considered as new emissions if the project is primarily population driven. Many gases make up the group of pollutants that are believed to contribute to global climate change. However three gases are currently evaluated: carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). South Coast Air Quality Management District (SCAQMD) provides guidance methods and/or Emission Factors. MDAQMD allows the use of this methodology.

A screening threshold of 3,000 $MTCO_2e$ per year has been adopted by the County as potentially significant to global warming. Utilizing the South Coast Air Quality Management District's (SCAQMD) Offroad Model - Mobile Source Emission Factors model (http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html), annual operation GHG emissions amount to approximately 288.71 $MTCO_2e$ per year based on a worst case of 250 days of operations per year (see Table 4). Operations would not exceed the County's thresholds.

The GHG emissions calculated a result of the Proposed Project are significantly less than the County screening threshold of 3,000 $MTCO_2e$,thus effects on climate change are expected to be less than significant.

Table 4
Greenhouse Gas Emissions
(lbs/day)

Equipment	CO_2	CH_4	N_2O
Loader & water truck[1]	872	0.08	0.00
Street Legal Trucks[2]	2,694	0.05	0.00
Total Pounds/Day	3,566	0.13	0.00
Total Metric Tons per year	406	0.31	0.00
MTCO2e Per Year	**406.3**		
County Screening Threshold	3,000 $MTCO_2e$		
Significant (Yes/No)	**No**		

Note: Assumes 250 working-days/year.
[1] SCAQMD Off-Road Mobile Source Emissions Factors (2015);
[2] SCAQMD Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks (2015)
CH_4 multiplied by 21 to equal $MTCO_2e$.

California Climate Action Registry General Reporting Protocol, 2009I, Tables C.7-C.9

Required Conditions

The project emissions are less than significant. However, the applicant will be required to implement GHG reduction performance standards. The GHG reducing performance standards were developed by the County to improve the energy efficiency, water conservation, vehicle trip reduction potential, and other GHG reducing impacts from all new development approved within the unincorporated portions of San Bernardino County.

The Applicant would be required to implement the following conditions as required by MDAQMD and CARB regulations:

1. All equipment used for mining must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.

2. The operator shall maintain and effectively utilize and schedule on-site equipment and haul trucks in order to minimize exhaust emissions from truck idling. This measure involves the enforcement of an Anti-Idling Policy for heavy - duty diesel trucks, including local and long distance haul truck. This policy would prohibit idling of on and off - road heavy duty diesel vehicles for more than 5 minutes. This measure is required under Title 13, California Code of Regulations, Section 2485 Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. onsite operator will supervise vehicles that access the site for loading and unloading and off-road trucks and equipment to comply with this regulation.

3. The operator shall comply with all existing and future CARB and MDAQMD regulations related to diesel-fueled trucks and equipment, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

MDAQMD rules for diesel emissions from equipment and trucks are embedded in the compliance for all diesel fueled engines, trucks, and equipment with the statewide CARB Diesel Reduction Plan. These measures will be implemented by CARB in phases with new rules imposed on existing and new diesel-fueled engines and truck and equipment fleets.

No significant adverse impacts are identified or anticipated with implementation of applicable standard conditions of approval and no additional mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
VIII	**HAZARDS AND HAZARDOUS MATERIALS -** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

SUBSTANTIATION:

VIII a) **No Impact.** Mining operations would be conducted by a single Caterpillar Track Loader. Clay will be stockpiled and then loaded directly on 25-ton bottom dump trucks. No waste material or waste products are produced. There will be no on-site fuel storage and no equipment or vehicle maintenance at the site. All servicing would occur off-site at an equipment yard by the equipment contractor. The proposed project does not include the use, transport, or disposal of hazardous materials; therefore, no impact would occur.

VIII b) **No Impact.** The proposed project does not include the use, transport, or disposal of hazardous materials; therefore, no impacts related to potential release of hazardous materials are anticipated.

VIII c) **No Impact.** The project site is not located within ¼ mile of a school. Furthermore, the proposed project does not include the use, transport, or disposal of hazardous materials. No impacts are anticipated.

VIII d) **No Impact.** The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 as reported on the California Department of Toxic Substances Control EnviroStor database on November 13, 2014. No impact is anticipated.

VIII e-f) **No Impact.** The project site is not located within the boundaries of an airport land use plan or within the vicinity of a private airstrip. The Apple Valley Airport is located approximately eight miles northwest of the project site. The proximity of the airport would not result in a safety hazard for people working at the mine site.

VIII g) **No Impact.** The project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The area surrounding the site is sparsely populated, and no such plans would be affected.

VIII h) **No Impact.** The project will not expose people or structures to a significant risk of loss, injury or death involving wild land fires. The Project site is not mapped within a Fire Safety Overlay District as identified on the County General Plan Hazards Overlay. The mine site is a dry lakebed with minimal vegetation surrounded by vacant desert lands. The project is not anticipated to create any safety hazards that may result in impacts from wildfires to people or structures due to its lack or vegetation and vacant perimeter properties

No significant adverse impacts are identified or anticipated with implementation of applicable standard conditions of approval and no additional mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
IX	**HYDROLOGY AND WATER QUALITY -** Would the project:				
a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?	☐	☐	☐	☒
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☐	☒
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f)	Otherwise substantially degrade water quality?	☐	☐	☐	☒
g)	Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structure which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

SUBSTANTIATION: *(Check ☐ if project is located in the Flood Hazard Overlay District):*

IX a) **No Impact.** The project will not violate any water quality standards or waste discharge requirements, because the project's design incorporates measures to diminish impacts to water quality to an acceptable level as required by state and federal regulations. Development and operation of the site has been designed to avoid impacts to water quality. There would be no production water created or off-site run-off. Water will be trucked in and used for dust control. The site will be internally drained into a shallow depression which will act in a similar manner as the existing dry lake bed. Surface disturbance would be limited to the minimum area required for active operations and perimeter collection drainage would be used to accept run-on towards the site and direct waters into the excavation via reinforced down drains. A six-foot wide and 1.5-foot deep drainage channel will be maintained to collect run-on and direct waters into four reinforced slope drains. A 1.5-foot high protective berm would be constructed around the pit rim to limit run-on from eroding the final slopes.

After each major storm event or at least quarterly, any final slopes, the perimeter drainage, down drains, and the access road will be visually inspected to determine if any substantial erosion is evident as sheet, rill, or gully erosion, or if the drainage is breached. A major storm event is defined as precipitation totals of 0.5 inches per 24-hour period. Any rills or gullies in excess of 8 square inches in cross sectional area and more than 10 linear feet located on final slopes shall be arrested using straw mulch, hay bales, rock mulch, or sandbag barriers and any damage to the drainage system would be repaired within one month of observation.

No equipment maintenance or fuel storage will occur on-site. Based on the proposed mine design and implementation of the drainage monitoring program as described above, no impacts to water quality are anticipated.

IX b) **Less than Significant Impact**. The project will not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The project would develop approximately 12 acres of vacant land into an open pit quarry. The Apple Valley Clay Mine is located within a dry lakebed with about 10 square miles of drainage area. The drainage pattern of the lake bed would not be altered but the net storage capacity of the lake would increase by over 360,000 cubic yards at build-out. Water usage to control dust emissions during operations is estimated to be approximately 1,000 gallons per day. Water would be transported to the site on a water truck from an Apple Valley Water District metered hydrant. No groundwater will be utilized for operation. Development of the mine would create a pit that may be used for groundwater recharge. Less than significant impacts to groundwater recharge are anticipated.

IX c-e) **No Impact.** The project will not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. The project does not propose any substantial alteration to a drainage pattern, stream or river. The Apple Valley Clay Mine is located within Deadman Dry Lake. The site was originally developed as part of a 91-acre clay mine by the Department of Water Resources (DWR) for the development of the Cedar Springs Dam at Silverwood Lake. MCA purchased the mine from DWR in 1974. Per the Reclamation Plan, the drainage pattern of the lake bed would not be altered but the net storage capacity of the lake would increase by over 360,000 cubic yards at build-out. The mine plan has been designed for rain to run-on into the active mine pit via constructed four reinforced down-drains to reduce the potential for on-site erosion. Continued development of the site is not anticipated to result in an alteration to the dry lake that would result in substantial off-site erosion or siltation, result in on-site or off-site flooding, or create run-off.

IX g-i) **No Impact.** The project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, because the project does not propose any substantial alteration to a drainage pattern, stream or river. The proposed project is the continued development of the Apple Valley Clay Mine and does not include development of housing or any other form of structures. Additionally, the project site is not located within a floodplain as identified in either in Exhibit IV-4 of the Town of Apple Valley General Plan or the County of San Bernardino Hazard Overlay Map FH08B. No impacts are anticipated.

IX j) **No Impact.** The project will not be impacted by inundation by seiche, tsunami, or mudflow, because the project is not adjacent to any body of water that has the potential of seiche or tsunami nor is the project site in the path of any potential mudflow. Based on the responses to Geology and Soils Issues VI (a) and VI (c) of this Initial Study Checklist, the project site is not located in an area prone to landslides, soil slips, or slumps. Therefore, the proposed project would have no impacts from mudflows.

No significant adverse impacts are identified or anticipated with implementation of applicable standard conditions of approval and no additional mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
X.	**LAND USE AND PLANNING** - Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

SUBSTANTIATION:

X a) **No Impact.** The proposed project is the revision of a Mine and Reclamation Plan for an existing clay mine. Apple Valley Clay Mine is located on private land in unincorporated San Bernardino County approximately 4 miles east of the Town of Apple Valley. The mine site is located approximately half a mile north of Highway 18 and approximately 13 miles east of I-15, east of the Bear Valley cut-off. The site is designated RL-Rural Living in the County of San Bernardino Land Use Element of the General Plan. Adjacent property to the north, west, and east of the site is also designated Rural Living but is not currently developed. A 71-acre clay mine site is located to the south of the project site and is designated FW-Floodway in the General Plan. Implementation of the project would not physically divide an established community.

X b-c) **No Impact**. The project site is located within the planning areas of the Bureau of Land Management (BLM) West Mojave California Desert Conservation Area (CDCA) Plan Amendment and the Town of Apple Valley Multi-Species Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). The West Mojave CDCA Plan Amendment was adopted by the BLM in 2006. The project site is located on private property outside of BLM jurisdiction, therefore the West Mojave Plan does not apply. According to CDFW, the Town of Apple Valley Multi-Species NCCP/HCP is still in the implementation stage and has not yet been adopted as a land use document. Therefore, no conflicts related to applicable land use plans or NCCPs/HCPs are anticipated.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XI.	**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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

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

XI a-b) **Less than Significant.** The proposed project is the revision of a Mining CUP and Reclamation Plan to allow continued mining of an existing clay mine. The site is classified as MRZ-2a, which indicates that the area is underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified as MRZ-2a contain discovered mineral deposits that are either measures or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Such areas are of prime importance because they contain known economic mineral deposits. The site has been historically mined since 1968 for the development of the Cedar Springs Dam at Silverwood Lake. Approval of this Plan revision will allow the continued utilization of this important clay resource. Less than significant impacts are anticipated.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XII.	**NOISE** - Would the project result in:				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

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

The project site is not located in Noise Hazard (NH) Overlay District and is not subject to severe noise levels according to the County General Plan Noise Element.

XII a, c-d) **Less than Significant Impact**. The project is not expected to expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Mining of the site is achieved with one Caterpillar loader operating at the active quarry site. The clay is temporarily stockpiled and loaded into street-legal 25-ton transfer trucks. There is no crushing or screening conducted on-site. On occasion, a dozer or grader may be used on-site for mining or road development. Site operation would be conducted only during daylight hours (7 a.m. to 5 p.m.) up to six days a week on an intermittent basis. Adjacent properties are currently undeveloped, with the exception of a clay mine directly to the south. Two residential/commercial properties are located approximately ½-mile south and east of the mine and State Highway 18 is located approximately ½-mile to the south. Noise impacts are not expected to occur as a result of the project.

b) **No Impact**. Mining of the site is achieved with on Caterpillar loader operating at the active quarry site. No habitable structures that would be affected by potential groundborne vibration occur in the immediate vicinity. No impacts related to exposure of groundborne vibration would occur.

XII e-f) **Less than Significant Impact With Mitigation Incorporated**. The project site is not located within a land use plan or in the vicinity of a private airstrip. No impacts related to excessive noise levels from these types of land uses would occur.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XIII.	**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)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

SUBSTANTIATION:

XIII a-c) **No Impact.** The proposed project is the revision of a Mine and Reclamation Plan for an existing clay mine. The project would allow for continued mining at the site through 2030, with reclamation of the site to follow. Implementation of the project would not result in a change to existing operations. The project would not result in population growth, displace existing housing, or necessitate replacement housing. No impacts are anticipated.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XIV.	**PUBLIC SERVICES**				
a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	Fire Protection?	☐	☐	☐	☒
	Police Protection?	☐	☐	☐	☒
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☐	☒
	Other Public Facilities?	☐	☐	☐	☒

SUBSTANTIATION:

XIV a) **No Impact.** The proposed project will not result in substantial adverse physical impacts associated with the provision of: new or physically altered governmental facilities, a 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, including fire and police protection, schools, parks or other public facilities.

Fire Protection: Fire protection is provided by the Apple Valley Fire Protection District; the District is independent and its service area extends from the Mojave River east to Lucerne Dry Lake and Rabbit Dry Springs Dry Lake. The district maintains a mutual aid agreement with the City of Victorville, the San Bernardino County Fire Department, and the Bureau of Land Management. Such agreements allow for fire departments within the region to actively support one another regardless of geographic or jurisdictional boundaries. A joint dispatch center servicing the mutual aid agencies is located in Victorville. Fire Station No. 331 is located approximately 4 miles northwest of the site on Highway 18. Implementation of the proposed project would not significantly increase demand for fire protection services and is not anticipated to impact acceptable service ratios, response times, or other performance objectives.

Police Protection: The Town of Apple Valley contracts with the San Bernardino County Sheriff Department for the provision police services. The reported level of law enforcement staffing, as of 2008, is approximately 1.02 sworn officers for every 1,500 residents. According to the General Plan, in 2007 police response to high priority calls occurred within 3 to 7 minutes, depending on the time of the day and traffic flow. Response time is anticipated to increase as the population grows and traffic levels increase. The proposed project is not anticipated to result in increased demand for police protection services that would impact acceptable service ratios, response times, or other performance objectives.

Schools: The project would not induce population growth and would not increase demand for school services or impact existing school facilities. No impacts are anticipated.

Parks: The project would not induce population growth and would not increase demand for parks or impact existing park facilities. No impacts are anticipated.

Other Public Facilities: Implementation of the project would not result in a direct increase in the population in the project area and therefore would not substantially increase the demand for public services, including public health services and library services.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XV.	**RECREATION**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SUBSTANTIATION:

XV a-b) **No Impact.** The proposed project is the revision of a mine reclamation plan for an existing and operating clay mine and would allow for the continued mining of clay minerals through 2030, with reclamation of the land to follow. The project would not result in population change that would increase the use of existing neighborhood and regional parks or other recreational facilities and would not necessitate the construction of new facilities. No impacts are anticipated.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
XVI.	**TRANSPORTATION/TRAFFIC -** Would the project:				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and greenways, pedestrian and bicycle paths, and mass transit.	☐	☐	☐	☒
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.	☐	☐	☐	☒
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☐	☒
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

SUBSTANTIATION:

XVI a-b) **No Impact.** Increased production rates are not proposed, therefore, changes to the existing traffic generated by the existing mine operation are not proposed. Truck traffic is anticipated at a maximum rate of two to eight truck loads per day, as previously approved. A commercial road approach was constructed at the intersection of Laguna Seca Drive and SH-18 per Condition of Approval No. 43 under the previous 1994 Plan. Implementation of the project would not conflict with applicable plans or policies related to the effectiveness of the circulation system or conflict with the applicable congestion management program.

XVI c) **No Impact.** Implementation of the project would not result in a change to air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Implementation of the project would allow for continued mining operations through 2030.

d) **No Impact.** The proposed project is to allow continued mining at an existing clay mine through the year 2030. Existing access to the mine would not change, and design features, such as sharp curves or a dangerous intersection that would pose a hazard, are not proposed. No impacts

would occur.

XVI e) **No Impact**. Implementation of the project would not impact existing emergency access.

XVI f) **No Impact.** Implementation of the project would not impact existing public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVII.	**UTILITIES AND SERVICE SYSTEMS -** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?	☐	☐	☐	☒
e)	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?	☐	☐	☐	☒
f)	Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

SUBSTANTIATION:

XVII a-c) **No Impact**. As described in the Mine and Reclamation Plan, any rainfall occurring on the excavations and run-on from off-site will be retained within the confines of the mine site. This would not impact the surrounding adjacent property. The project site is located within a dry-lakebed with about 10 square miles of drainage area. The drainage pattern of the lake bed would not be altered by the ongoing mining operations. The net storage capacity of the lake is anticipated to increase by over 360,000 CY at build out. Because the project would drain into itself and the operations would not generate waste water, no impacts related to the expansion of waste water facilities or storm water facilities would occur.

d) **No Impact.** Water use on-site is used solely to minimize dust generation. The mining operation would retain a water truck for wetting-down material and roads during mining activities and for wetting-down haul trucks prior to site departure. Approximately one thousand (1,000) gallons of water may be used per day for dust suppression activities. A water truck would be used to transport water from an Apple Valley Water District metered hydrant to the project site. It is not anticipated that there would be any excess water from the wetting-down procedure; therefore no recycling would occur. The use of water as described in the revised reclamation plan does not change existing uses at the ongoing mine operation and therefore no significant impacts are anticipated.

e) **No Impact**. The project does not include a proposal for waste water treatment. The site is not serviced by wastewater utilities. Portable toilets would be used on-site and serviced by a commercial vendor. No impacts related to the capacity of the wastewater service provider would occur.

f) **No Impact**. The mining operation would not produce tailings. Because no overburden would be generated, no method is required or planned for handling of solid waste. Material removed from the mine will be stockpiled then loaded onto haul trucks for transport to the end user. Any refuse would be disposed of into approved trash bins and removed by a commercial vendor. Continued operations at the Apple Valley Clay mine would not impact the capacity of the local landfill.

g) **No Impact**. No mining waste would be produced by the proposed operation. Additionally no equipment or vehicle maintenance would be done on-site. All servicing would be done off-site at equipment yards. Any refuse would be disposed of into approved trash bins and removed by a commercial vendor. No impacts related to solid waste regulations are anticipated.

No significant adverse impacts are identified or anticipated and no mitigation measures are required.

	Issues	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant*	*No Impact*
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE:**				
a)	Does the project 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?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c)	Does the project have environmental effects, which shall cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

SUBSTANTIATION:

XVIII a) **Less than Significant with Mitigation Incorporated.** Based on the analyses contained in this Initial Study, impacts to Aesthetics, Agriculture and Forestry Resources, Air Quality, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, and Traffic are considered as having a less than significant or no impact on the environment.

The results of the Initial Study show that there are potentially significant impacts to Biological Resources and Cultural Resources. These impacts will be reduced to less than significant after incorporation of mitigation measures and compliance with existing rules and regulations. As a result, the Project will not substantially degrade the quality of the environment and impacts to air quality, habitat, wildlife populations, plant and animal communities, rare and endangered species, important examples of the major periods of California history or prehistory or traffic, would be less than significant with mitigation.

XVIII b) **Less than Significant with Mitigation Incorporated.** None of the proposed mining activities would substantially contribute to any cumulatively significant impact on the evaluated resources. The proposed Project would not result in any unmitigated adverse effects on Aesthetics, Air Quality, Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Hydrology or Water Quality, Noise, or Traffic, and there would be no contribution to any cumulatively considerable impacts in these issue areas. There would be no long-term loss of Agricultural or Forestry Resources or loss of availability of a Mineral Resource of value to the state, region, or locally, so there would be no cumulative effect. The project would involve reclamation of the project site for long-term open space habitat. There would not be an adverse change in scenic value or visual quality or noise levels that could contribute to a cumulative impact. No impacts on Utility or Services Systems would occur as a result of project implementation that could combine with cumulative effects in the area surrounding the project.

In addition, the analysis in this Initial Study Checklist demonstrated that the Proposed Project is in compliance with all applicable regional plans including but not limited to, air quality, biological resources, and greenhouse gas emissions. Compliance with these regional plans serves to reduce impacts on a regional basis so that the Project would not produce impacts, that considered with the effects of other past, present, and probable future projects, would be cumulatively considerable. Based on the analyses contained in this Initial Study, cumulative environmental impacts are considered less than significant with mitigation incorporated, less than significant or having no impact on the environment.

In all other instances where the project has the potential to contribute to a cumulatively considerable impact to the environment, mitigation measures have been imposed to reduce potential effects to less than significant levels. As such, with incorporation of the mitigation measures imposed throughout this Initial Study Checklist, the project would not contribute to environmental effects that are individually limited, but cumulatively considerable, and impacts would be less than significant.

XVIII c) **Less than Significant**. As discussed this Initial Study Checklist, the Project would not expose persons to adverse impacts related to Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Population and Housing, or Transportation/Traffic hazards. These impacts were identified to have no impact, a less than significant impact, or a less than significant impact with mitigation incorporated.

The implementation of the existing rules and regulations, conditions from permit approvals and the mitigation measures identified in this Initial Study Checklist and listed below would result in a less than significant impact. There would be no substantial adverse effects on human beings, either directly or indirectly.

XIX. MITIGATION MEASURES
(Any mitigation measures, which are not 'self-monitoring' shall have a Mitigation Monitoring and Reporting Program prepared and adopted at time of project approval)

SELF MONITORING MITIGATION MEASURES: (Condition compliance will be verified by existing procedure)

BIO-1 **I**nitial ground disturbance and vegetation clearing should be scheduled to occur outside of the bird nesting season (March 15-September 15). If initial ground disturbance/vegetation clearing cannot be scheduled outside of the bird nesting season, the project applicant will contract a qualified biologist to conduct a pre-construction nesting bird surveys within three days prior to initiating ground disturbance/vegetation clearing. If active nests are found during the nesting bird surveys, they will be flagged and a 200-foot buffer shall be protected around the nest. Such buffers must remain in place until the young have fledged and the nest become unoccupied as determined by the qualified biologist.

CUL-1 Prior to any new disturbance on the 11 acres north of the existing fenced mine site, a qualified Archaeological consultant shall complete a pre-construction field survey for prehistoric archaeological resources. A written report of the results and any additional protection measures recommended shall be submitted to the County Museum and Planning Department for review and approval. Additional measures (i.e. curation) may be required of the applicant based on the survey's results.

CUL-2 Prior to any new disturbance on the 11 acres north of the existing fenced mine site, a qualified vertebrate Paleontologist shall monitor initial excavation activities on the undisturbed portions of the parcel. The Contract agreement shall incorporate the recommendations of the County Museum for this site (SBCM 1992). In the event that paleontologic resources are encountered, the operator shall stop work in the area of the find and the paleontologist shall evaluate the resource and determine the appropriate recovery measures, if any, to be implemented.

CUL-3 If human remains of any kind are found during earthwork activities, all activities must cease immediately and the San Bernardino County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, he or she will notify the Native American Heritage Commission whom will then identify the most likely descendants to be consulted regarding treatment and/or reburial of the remains. If a most likely descendant cannot be identified, or the most likely descendant fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the contractors shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance. Any costs incurred related to the remains shall be borne by the project proponent.

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County of San Bernardino, Development Code, 2007.

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South Coast Air Quality Management District, Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks, Scenario Year 2015.

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Lilburn Corporation. Mine Reclamation Plan for the Apple Valley Clay Mine CA Mine ID: 91-36-0007. Prepared for Delilah Properties, Inc. November 2014.

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Town of Apple Valley General Plan, 2009.