COUNTY OF RIVERSIDE
ENVIRONMENTAL ASSESSMENT FORM: INITIAL STUDY

Environmental Assessment (CEQ / EA) Number: 43042
Project Case Type (s) and Number(s): Standard Gypsum Mine Surface Mining Permit No. 102 Revision 1 (SMP No.102R1)
Lead Agency Name: County of Riverside, Planning Department
Address: 4080 Lemon Street 12th Floor, Riverside, CA 92501
Contact Person: Evan Langan, AICP, Project Planner
Telephone Number: (951) 955-3024
Applicant's Name: Double D Mining, LLC
Applicant's Address: 14150 Vine Place, Cerritos, CA 90703

I. PROJECT INFORMATION

Project Description: The proposed project, Standard Gypsum Mine Surface Mining Permit No. 102 Revision 1 (SMP No.102R1), proposes a revision to the existing Surface Mining Permit for a 611-acre project site located in eastern Riverside County (County). The 611-acre site is located on the west side of the Little Maria Mountains, approximately 25 miles northwest from the City of Blythe and 10 miles west of Midland Road. Refer to Figure 1 for a Regional Vicinity Map and Figure 2 for a Project Site Aerial. The proposed project would expand the existing quarry with two phases of mining and develop three overburden stockpiles. The proposed project also includes final reclamation of the site to meet Riverside County Ordinance No. 555, the County's implementation of the Surface Mining and Reclamation Act (SMARA). Phase 1 would total approximately 75 acres of which approximately 49 acres are part of the existing quarry or other disturbed land. Phase 2 would continue mining within this quarry area and mine under the existing processing area. Phase 2 mining would add 1.5 acres of undeveloped land to the quarry. The planned overall mine site would encompass approximately 169.5 acres. The remaining 441.5 acres of the site are not to be developed. Approximately 4.7 acres of previously disturbed land are outside of planned facilities and are to be reclaimed. Table 1 provides the acreages for the various actions included with the proposed project.

Mining

The excavation plan for the revised mine site is divided into two operational phases based on geologic data and past mining experience and a reclamation phase. The Phase 1 proposed quarry would total approximately 75.1 acres and would expand the existing quarry in the south central part of the site to the northeast and deepen the quarry from approximately 100 feet to an average of 500 feet deep. Phase 2 mining would total approximately 9.2 acres and consist of mining under the existing process area. The Phase 2 plant site would be relocated to the east on currently disturbed plant and stockpile areas. Refer to Figure 3 for the Mine Plan and Figure 4 for Typical Quarry Cross Sections.

Table 1. Planned Mine Site Areas

Mine Facility	Existing Disturbed Areas (in acres)	Undisturbed Areas to Be Developed (in acres)	Total Area (in acres)
Phase 1 Quarry	48.7	26.4	75.1
Phase 2 Quarry Expansion	7.7 (Part of Plant Area during Phase 1)	1.5	9.2
Overburden Stockpile 1	4.6	8.3	12.9
Overburden Stockpile 2	4.6	7.1	11.7
Overburden Stockpile 3	4.1	6.2	10.3
Plant & Product Stockpiles	32.6	0	32.6
Drainage Improvements	1	1	2
Other Operational Areas / Roads	7.0	8.7	15.7
Subtotal of areas	**110.3**	**59.2**	**169.5**
Past Disturbances outside of future planned facilities to be reclaimed	4.7	0	4.7
Areas not to be developed	---	16.3	16.3
Total Reclamation Plan Boundary Areas	---	---	190.5
Overall Project Area not to be developed	---	---	441.5
Total Overall Project Area	**---**	**---**	**611.0**

Source: Double D Mining, April 2018

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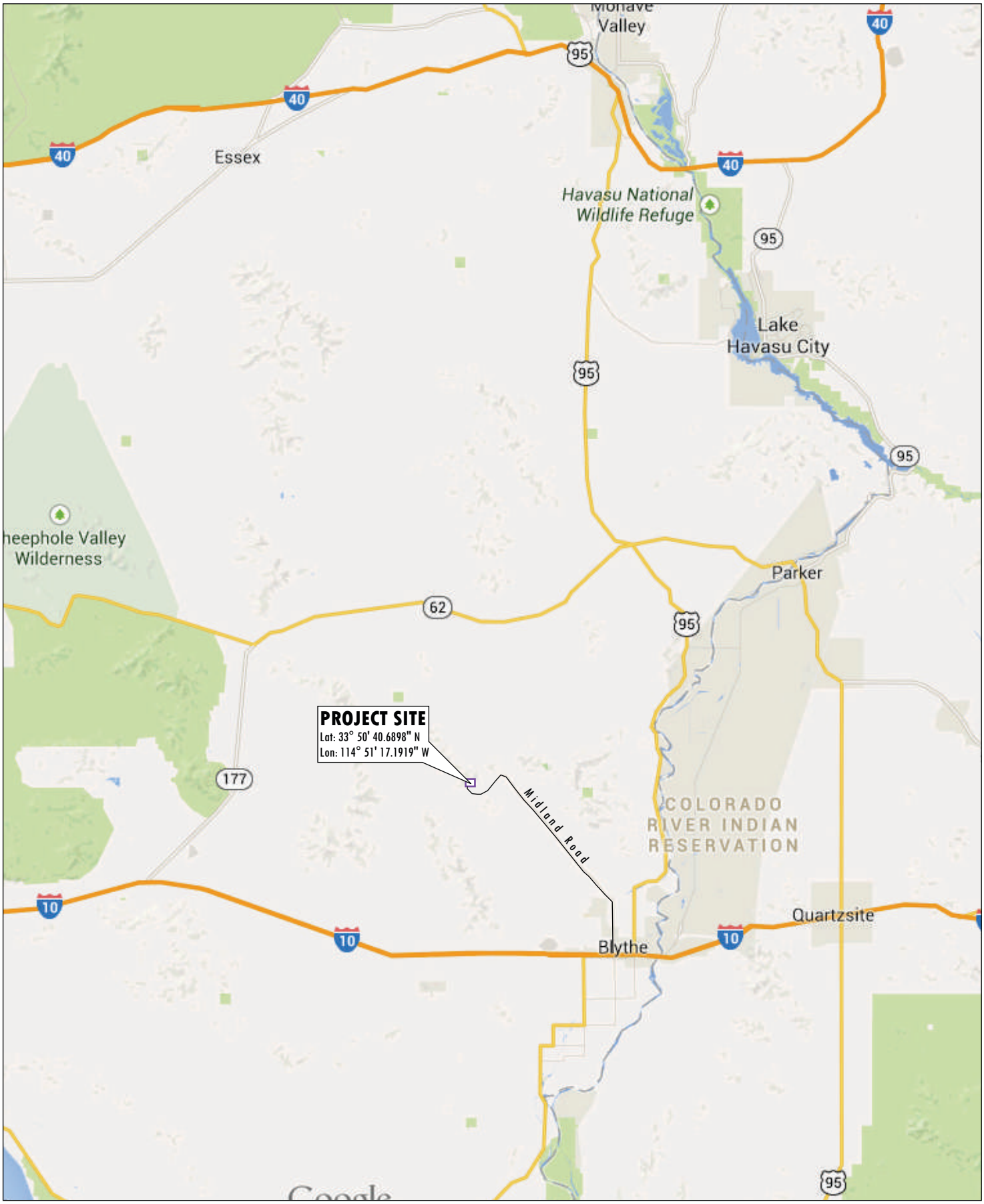

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Source: Lilburn Corp., Sept 2016.

LILBURN CORPORATION

REGIONAL VICINTY MAP

Double D Mining - Mine and Reclamation Plan

County of Riverside, California

FIGURE 1

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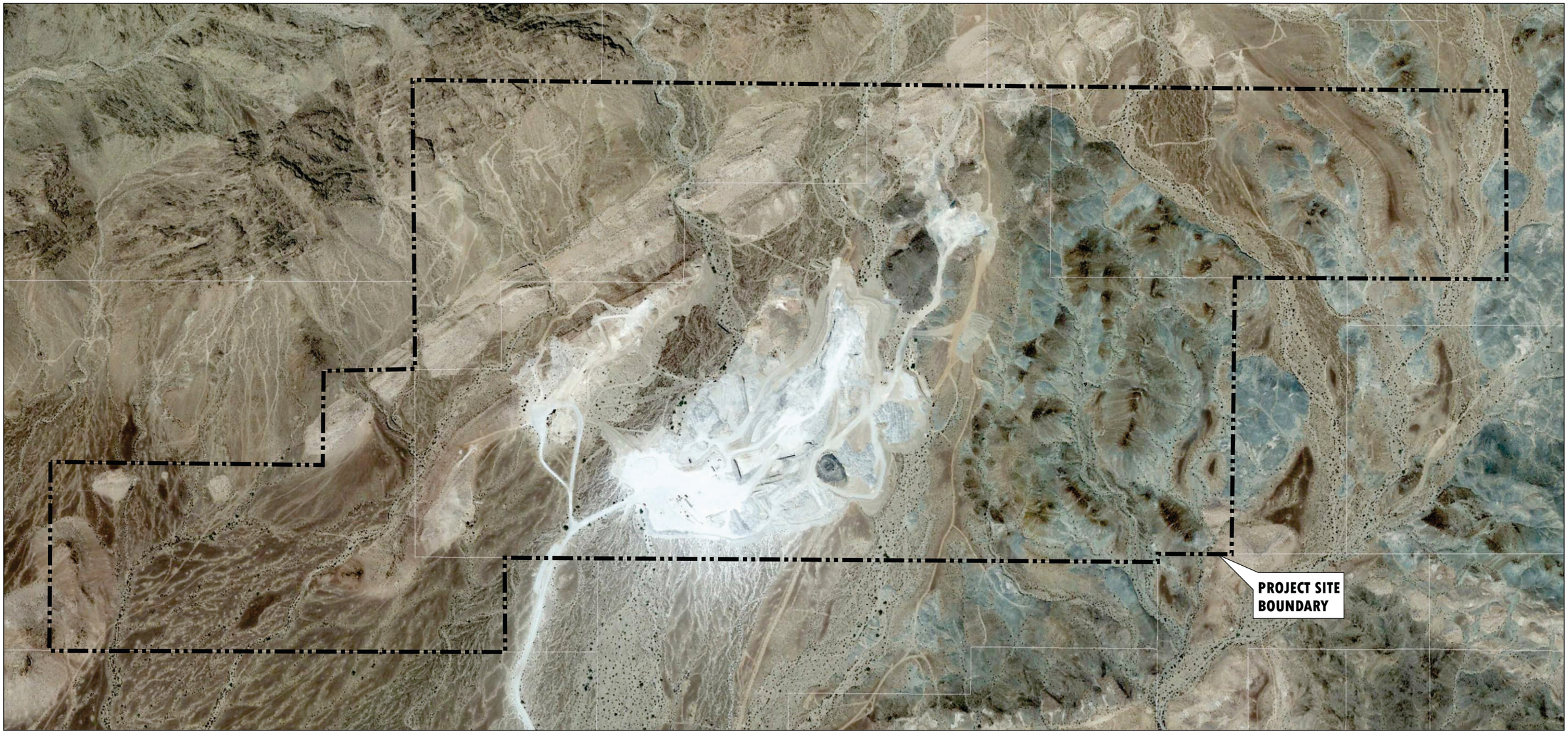

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Source: Lilburn Corp., Sept 2016.

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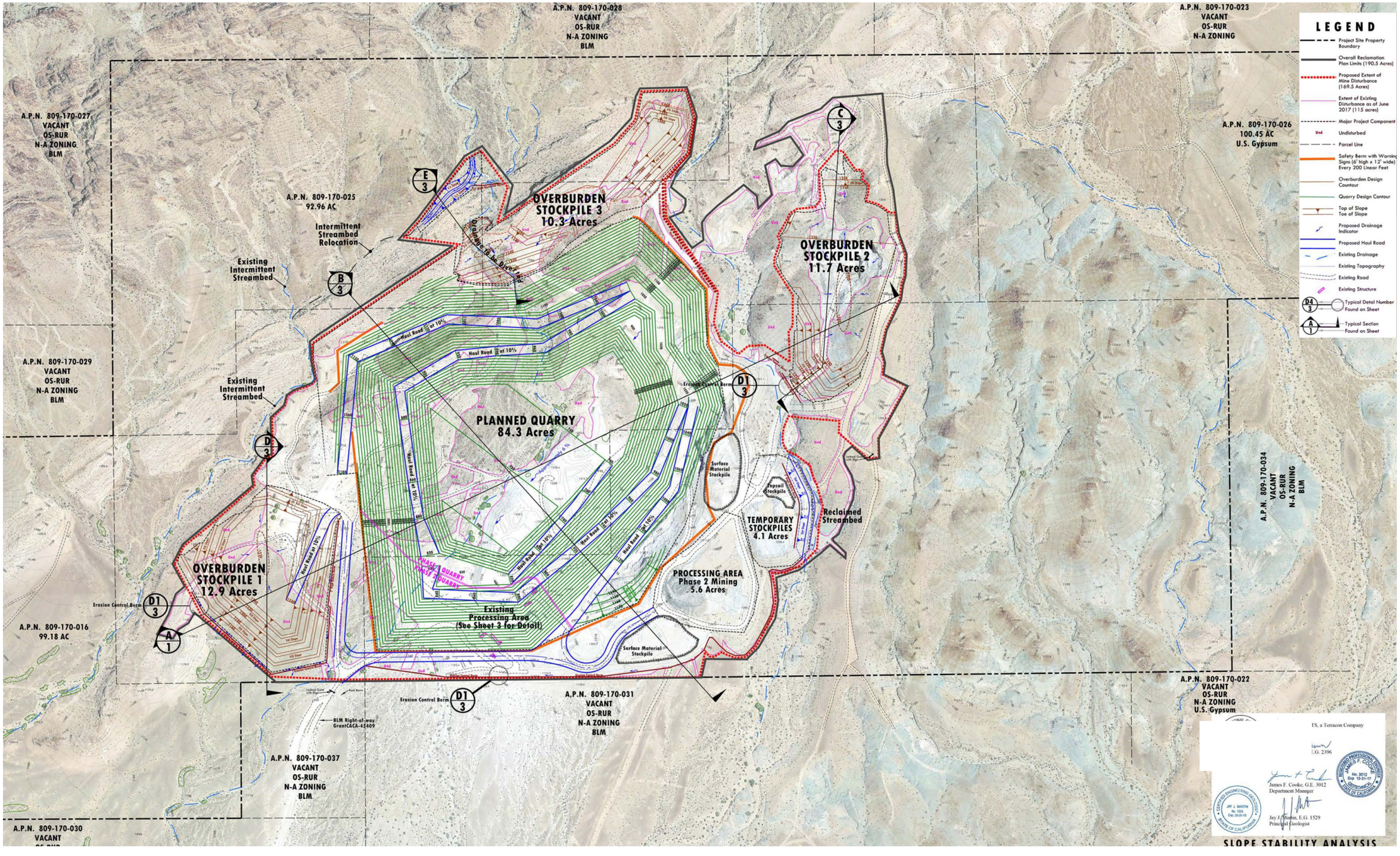
PROJECT SITE AERIAL

Double D Mining - Mine and Reclamation Plan
County of Riverside, California

FIGURE 2



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Source: Lilburn Corp., May 2018.

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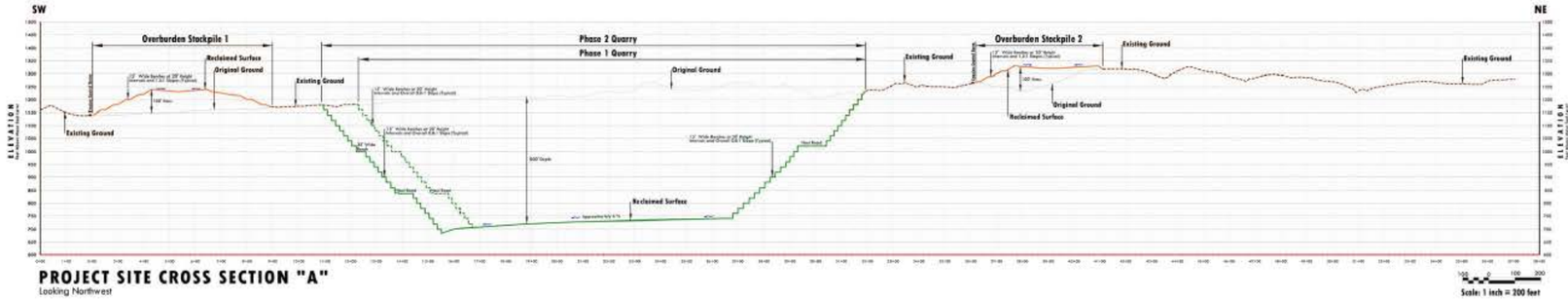
MINE PLAN

Double D Mining - Mine and Reclamation Plan

County of Riverside, California

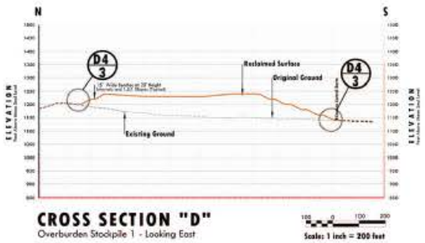
FIGURE 3



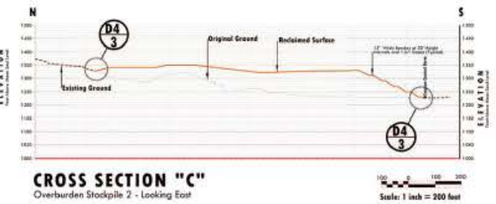
PROJECT SITE CROSS SECTION "A"
Looking Northwest

CHJ CONSULTANTS, a Tetra Tech Company
John S. McKernon, E.G. 2598
Senior Geologist
James F. Cosdir, G.E. 3012
Department Manager
Joy J. Martin, E.G. 1529
Principal Geologist

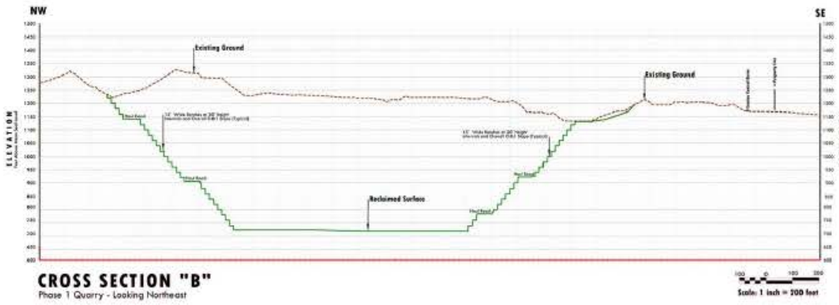
SLOPE STABILITY ANALYSIS



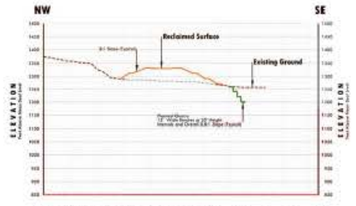
CROSS SECTION "D"
Overburden Stockpile 1 - Looking East



CROSS SECTION "C"
Overburden Stockpile 2 - Looking East



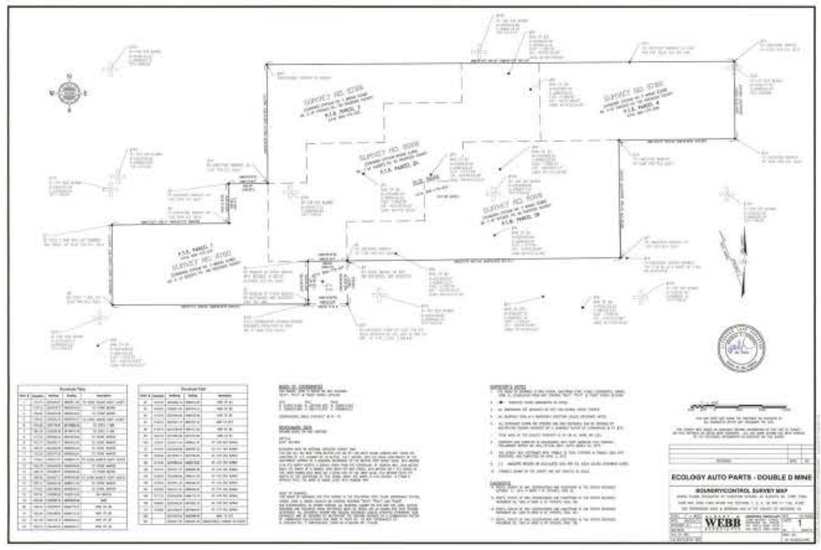
CROSS SECTION "B"
Phase 1 Quarry - Looking Northeast



CROSS SECTION "E"
Overburden Stockpile 3 - Looking Northeast
Scale: 1 inch = 200 feet

D1 3 **DETAIL 1**
Typical Erosion Control Berm

OBLIQUE VIEW RENDERING
Looking North



BOUNDARY CONTROL and SURVEY MAP

EXISTING PROCESSING AREA

Typical Quarry Cross Sections

Double D Mining - Mine and Reclamation Plan
County of Riverside, California

Source: Lilburn Corp., May 2018.

LILBURN CORPORATION

FIGURE 4

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Overburden for the site is estimated at 10% by volume. Overburden from the quarry would be stockpiled into three overburden stockpiles totaling 34.9 acres (Figure 3). The overburden stockpiles would be a maximum of 100 feet in height from base elevation and the tops would be designed with 10-foot-deep depressions to catch any precipitation and avoid runoff. The proposed haul roads on the site are designed to transport overburden directly to the stockpiles.

Table 2 below lists the pertinent data per mining phase, including the expected years of operation, size, quarry depth, and reserves. The future quarry expansion is proposed to be excavated according to this phasing plan. However, mining operations would experience unscheduled interruptions and/or phasing changes due to various market/economic demands and variation in material beyond Double D's control. The County would be updated in the annual monitoring report on the status of operational phases. The following is a summary of the planned mining operations by phase.

Table 2. Quarry and Phasing Data

Phase	Years of Operation (estimated)	Maximum Quarry Slope Depth (feet)	Maximum Quarry Flood Depth (feet MSL)	Estimated Ore Reserves (minus 10% waste) (millions of tons)	Estimated Material Excavated (millions of cubic yards)
Phase 1 Quarry Expansion	Up to 50 years	600 feet on north corner	500 feet (740 to 700 feet amsl)	55.3	32
Phase 2 Mining	Up to 10 years (2060 – 2070)	600 feet on north corner	500 feet (740 to 700 feet amsl)	6.0	3.5
Phase 3 (Final Reclamation)	5 years or until site is deemed successfully reclaimed				
Totals	**50 (operational) 5 (reclamation)**	**600**	**500 feet (740 to 700 feet amsl)**	**61.3**	**35.5**

Notes:

- Varying demand rates and product quality may affect estimated reserves, annual production, and phasing.
- Reserves based on 1.92 tons per cubic yard and 10% waste or non-spec material. Estimated reserves are rounded. Phase 3 is final reclamation.
- Stockpile capacity in tons based on 1.75 tons per cubic yard to take into account loose material. Estimated capacities are rounded. Additional overburden would be placed in the quarry in completed areas.

Source: Double D Mining, September 2016

The proposed maximum gypsum production during the project life would be 450,000 tons per year (TPY). It is anticipated it would take approximately two years for the proposed project to reach this level of production due to quarry development and demand. The estimated total volume of gypsum for the proposed quarry is approximately 25 million cubic yards (MCY) with an assumed 10% waste. Based on an average of 1.74 tons/CY, the total reserves are approximately 43 million tons (MT). With variations in quality, overburden, and demand, production may vary from 250,000 to 450,000 TPY. To meet the fluctuations in demand, the proposed project requests a 50-year operational life and a maximum production rate of 450,000 TPY. The original SMP has 24 years of operational life remaining of the original 65 years suggested based on the size of the deposit and the proposed magnitude of operations. Currently, eight to ten employees work one shift per day, five days per week. With the proposed increase in production, the number of employees would increase to 24. These workers include equipment operators, truck drivers, maintenance and repairmen, quality control technicians, supervisors, and office staff. Typical quarry mobile equipment is listed in Table 3 below.

Table 3. Typical Quarry Mobile Equipment

Equipment	Number	Purpose
Dozers	2	Removal of topsoil and overburden. Construction and maintenance of access roads.
Haul or Dump Trucks	4	Transportation of material on-site.
Motor Grading	1	Maintain roads on-site.
Drill Rig	1	Drilling holes for placement of explosives (contractor)
Water Trucks	2-3	Water for process plant dust control sprays, haul roads, stockpiles, and general dust suppression at the site.
Front-End Loaders	2	Loading of materials onto haul trucks.
Source: Double D Mining, September 2016		

Planned Ore Processing

Associated with the quarry will be a processing facility and product stockpiles on about 32.6 acres of the site, consisting of one or two crushers, one or two screens, conveyors and stackers, an administration trailer, an employee facility trailer, above-ground diesel fuel tanks, water tanks, truck scale, and truck and equipment parking areas. The current portable crushing and screening plant processes approximately 125 tons per hour (TPH) of gypsum product. As the proposed project includes Phase 2 mining operations under the existing processing plant, the existing and proposed processing facility materials and equipment would be relocated on the site. The current daily rate for one 8-hour shift is approximately 1,000 tons per day (TPD). The finished product is loaded by loaders into street-legal 25-ton haul trucks for transportation off-site. The revision to the SMP proposes mining and processing up to 3,000 TPD up to 6 days per week, to produce up to 450,000 TPY. The processing plant will increase its operational hours up to 24 hours per day or may add a second portable plant to meet the increase in production. With this revision, the applicant is requesting to allow mining 24 hours per day and 7 days per week. Truck trips to and from the site would be limited to the hours of 6:00 am to 8:00 pm. It is unlikely that operations would be conducted on holidays. Plant and equipment maintenance are conducted by an outside contractor and occurs as needed, 24 hours per day and 7 days per week. Typical process plant equipment is listed in Table 4 below.

Table 4. Typical Process Plant Equipment

Plant Equipment	Number (Approx.)	Purpose
Feeder	1-2	Feeds material to portable crusher plant
Crusher	1-2	Reduces (crushes) rock to product specification sizes (typ. minus 1/8-inch)
Screens	1-2	Sizes material
Conveyors and Stackers	4-8	Transports material in plant and into stockpiles
Truck Scale	1	Weighs trucks
Office trailers, employee breakroom	2-3	Administrative, employees breakroom
Source: Double D Mining, September 2016		

Site Access and Truck Trips

Access to the site is gained from County-maintained and paved Midland Road 12 miles northwest from Blythe, then approximately seven miles west on unpaved Arlington Mine Road, and approximately two miles north on an unpaved access road to the site. The Bureau of Land Management (BLM) has

granted a Right-of-Way Grant easement to the operator to use and maintain this road access from Midland Road to the site (BLM Serial No. CACA-45409).

The truck haul route established for the proposed project utilizes the unpaved access route from the site to Arlington Mine Road, to Midland Road, to 4th Avenue, to Intake Boulevard (Highway 95), and then to Interstate 10 (I-10). Truck trips to and from the site would be limited to the hours of 6:00 am to 8:00 pm.

Utilities

There is no water, sewer, or electrical facility available in the project vicinity. Water is transported to the site daily in 4,000-gallon water trucks from the Palo Verde Irrigation District canal, approximately 32 miles from the site. The proposed project is expected to use 24,000 to 40,000 gallons of water per day (the equivalent of 6 to 10 trucks) for dust control. Currently there are portable toilets and hand-wash stations throughout the site, which would continue to serve the proposed project. Diesel generators are used to provide electric service to the site.

Diesel is used to fuel on-site mobile equipment, trucks, and electric generators. The average amount of diesel required for one shift running full time is approximately 300 gallons per day. It is expected that diesel usage may double as production increases up to 450,000 TPY. Diesel is currently delivered to the site by truck from Blythe and stored on-site in two permitted, above-ground, 3,000-gallon and 4,000-gallon diesel tanks, which have a concrete catch basin and are encased in 3 to 4 inches of concrete for protection in this remote location. Currently, two portable diesel tank wagons are also used on-site. Best Management Practices (BMPs) are implemented for storage and fueling and a Spill Prevention Control and Counter-Measure Plan (SPCC) is in place.

Dust Suppression Measures

The proposed project would be subject to the following BMPs for dust suppression:

1. Application of chemical dust suppressants at least once per year, watering at least once per day, and limiting vehicle travel speed to 15 mph. These BMPs were assumed for Arlington Mine Road, the access road from Arlington Mine Rd to the mine site, and the mine processing areas, scale and office areas, employee parking areas, and maintenance areas.

2. Watering at least twice per day and limiting vehicle travel speed to 15 mph. These BMPs were assumed for roads/areas within the mining areas and on the roads from the mine areas to the overburden piles and processing areas.

Reclamation and Future Mining

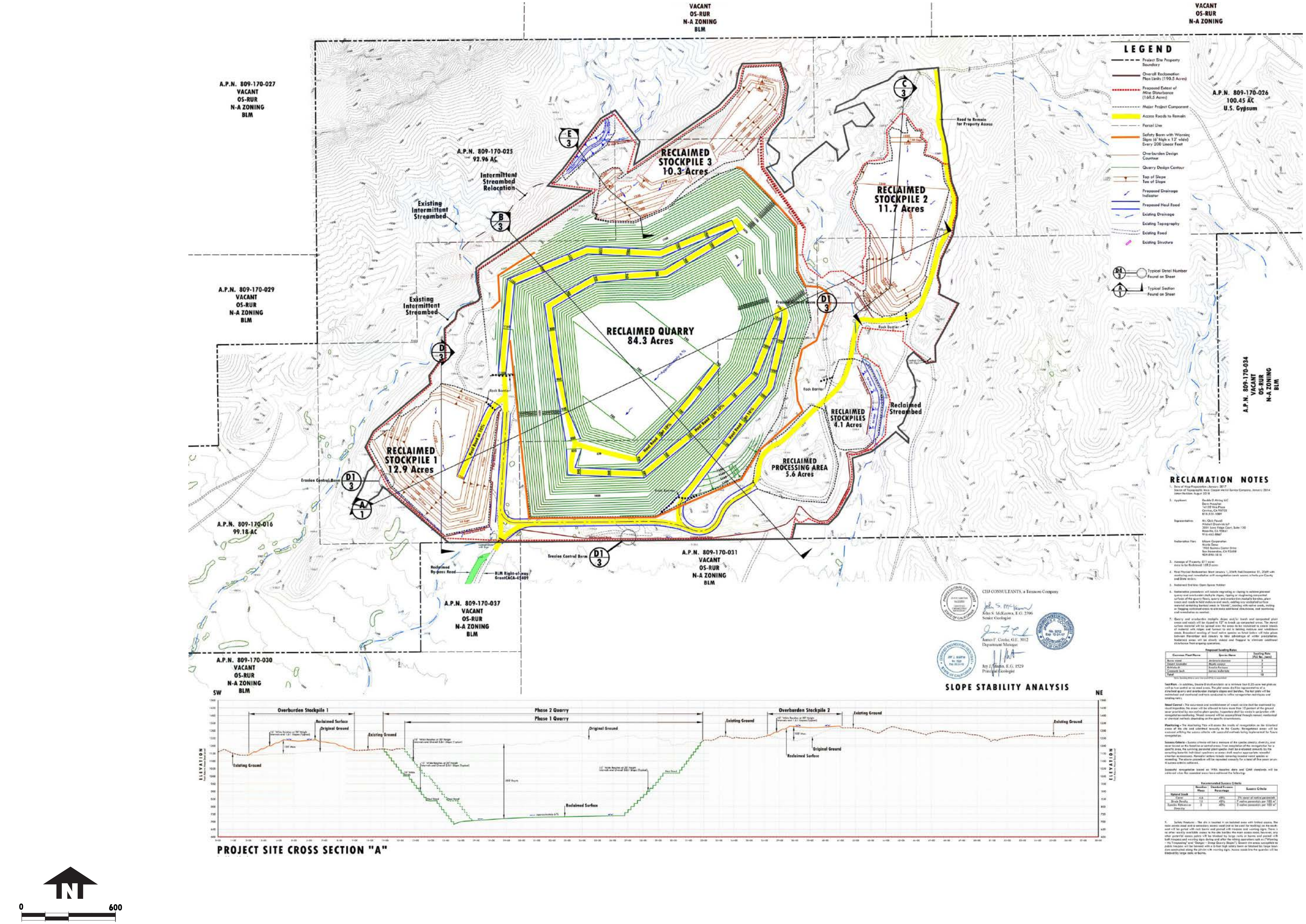
At the conclusion of gypsum mining and production, a final reclamation phase lasting approximately one year would commence, followed by monitoring the site's reclamation and revegetation success until reclamation parameters are met. The proposed post-mining or future land use would be open space habitat. Physical reclamation of the 190.5 acres would include final contouring, cleanup, revegetation, and monitoring. Any quarry slopes not finished would be sloped to 2H:1V and would be revegetated. Any quarry rim areas susceptible to public trespass would be gated and/or fenced and/or a safety berm constructed along the pit rim. Within one year of the completion of mining, all materials not needed for the reclamation of the site or future uses would be removed, including all stockpiles, process plants, equipment, tanks, infrastructure, and buildings. It is expected that the access road and the administration building would remain on site during reclamation and for future maintenance. See Figure 5 below for the Reclamation Plan.

Reclamation and mining out the reserves to planned depth may limit any future mining within the excavated quarry areas and the overburden sites. However, the site may have additional deposits with depth or within the overall project boundary that could be mined in the future.

Objectives

The following objectives have been incorporated into the revised SMP application:

1. To develop the resource that meets Riverside County Ordinance No. 555, the County's implementation of SMARA;
2. To secure adequate gypsum reserves in order to provide a reliable and economic source for agricultural needs of reducing water usage;
3. To provide for a maximum annual permitted production level of 450,000 tons per year based upon an average of 3,000 TPD of production;
4. To reclaim the site for a post-mining use of open space habitat;
5. To contour mining features and revegetate disturbed areas to minimize aesthetic and erosional impacts; and
6. To reclaim and maintain the site as necessary to eliminate hazards to public health and safety.



Source: Lilburn Corp., May 2018.

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RECLAMATION PLAN

Double D Mining - Mine and Reclamation Plan

County of Riverside, California

FIGURE 5

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A. Type of Project: Site Specific ☒; Countywide ☐; Community ☐; Policy ☐.

B. Total Project Area:

Residential Acres: N/A	**Lots:** N/A	**Units:** N/A	**Projected No. of Residents:** N/A
Commercial Acres: N/A	**Lots:** N/A	**Sq. Ft. of Bldg. Area:** N/A	**Est. No. of Employees:** N/A
Industrial Acres: 611 acres	**Lots:** N/A	**Sq. Ft. of Bldg. Area:** 480sq.ft.	**Est. No. of Employees:** 24
Other: N/A			

C. Assessor's Parcel No(s): 809-170-024; 809-170-025; 809-170-016; 809-170-026

Street References: Located in the hills north of the City of Blythe, west of Midland Road and north of Arlington Mine Road.

D. Section, Township & Range Description or reference/attach a Legal Description: Sections 1,2,3,10,11; T4S; R20E

E. Brief description of the existing environmental setting of the project site and its surroundings: The project site is approximately 611 acres, 105 of which have previously been used for mining activities for the past 70 years. The plant area consists of approximately 33 acres and includes a modular building, portable processing plant, employee parking, restrooms, and equipment staging. The remaining 473 acres of the project site are currently undisturbed with the exception of on-site access routes. The land surrounding the project site is privately owned by United States Gypsum Company to the northeast and southeast with the remainder of the surrounding area public lands managed by BLM.

II. APPLICABLE GENERAL PLAN AND ZONING REGULATIONS

A. General Plan Elements/Policies:

1. **Land Use:** The proposed project is consistent with the land use designation of Open Space – Rural that is applied to remote, privately-owned open space areas with limited access and a lack of public services. The extraction of mineral resources is subject to an approved surface mining permit and may be permissible, provided that the proposed project can be undertaken in a manner that is consistent with maintenance of scenic resources and views from residential neighborhoods and major roadways and that the project does not detract from efforts to protect endangered species.

2. **Circulation:** The proposed project has adequate circulation to and within the project site and is therefore consistent with the Circulation Element of the General Plan. The proposed project meets all other applicable circulation policies of the General Plan.

3. **Multipurpose Open Space:** The proposed project is consistent with County Ordinance No. 555 and SMARA. The proposed project also meets all other relevant Multipurpose Open Space policies.

4. **Safety:** The proposed project is not located within any special hazard zone and allows for the sufficient provision of emergency response services. The proposed project meets all other applicable Safety Element policies.

5. **Noise:** Sufficient features against any foreseeable noise sources has been provided for in the project design and the project meets all other applicable Noise Element policies and the standards of the noise ordinance.

6. **Housing:** Not Applicable – the proposed project does not include any housing.

7. **Air Quality:** The proposed project meets all applicable Air Quality Element policies.

8. **Healthy Communities:** The proposed project does not include any residences and not located near any residential neighborhoods or sensitive receptors.

9. **Environmental Justice (After Element is Adopted):**

B. General Plan Area Plan(s): Eastern Riverside County Desert Areas (Non-Area Plan)

C. Foundation Component(s): Open Space (OS)

D. Land Use Designation(s): Open Space – Rural (OS-RUR)

E. Overlay(s), if any: None

F. Policy Area(s), if any: None

G. Adjacent and Surrounding:

1. **General Plan Area Plan(s):** Eastern Riverside County Desert Areas (Non-Area Plan)

2. **Foundation Component(s):** Open Space (OS) and Rural (RUR)

3. **Land Use Designation(s):** Open Space – Rural (OS-RUR)

4. **Overlay(s), if any:** None

5. **Policy Area(s), if any:** None

H. Adopted Specific Plan Information

1. **Name and Number of Specific Plan, if any:** None

2. **Specific Plan Planning Area, and Policies, if any:** None

I. Existing Zoning: Natural Assets (N-A)

J. Proposed Zoning, if any: No zoning changes are included as part of the proposed project.

K. Adjacent and Surrounding Zoning: Natural Assets (N-A)

III. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (X) would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

IV. DETERMINATION

On the basis of this initial evaluation:

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS NOT PREPARED
☐ I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project, described in this document, have been made or agreed to by the project proponent. **A MITIGATED NEGATIVE DECLARATION** will be prepared.
☐ I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.

A PREVIOUS ENVIRONMENTAL IMPACT REPORT/NEGATIVE DECLARATION WAS PREPARED
☐ I find that although the proposed project could have a significant effect on the environment, **NO NEW ENVIRONMENTAL DOCUMENTATION IS REQUIRED** because (a) all potentially significant effects of the proposed project have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, (b) all potentially significant effects of the proposed project have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, (c) the proposed project will not result in any new significant environmental effects not identified in the earlier EIR or Negative Declaration, (d) the proposed project will not substantially increase the severity of the environmental effects identified in the earlier EIR or Negative Declaration, (e) no considerably different mitigation measures have been identified and (f) no mitigation measures found infeasible have become feasible.
☐ I find that although all potentially significant effects have been adequately analyzed in an earlier EIR or Negative Declaration pursuant to applicable legal standards, some changes or additions are necessary but none of the conditions described in California Code of Regulations, Section 15162 exist. An **ADDENDUM** to a previously-certified EIR or Negative Declaration has been prepared and will be considered by the approving body or bodies.
☐ I find that at least one of the conditions described in California Code of Regulations, Section 15162 exist, but I further find that only minor additions or changes are necessary to make the previous EIR adequately apply to the project in the changed situation; therefore a **SUPPLEMENT TO THE ENVIRONMENTAL IMPACT REPORT** is required that need only contain the information necessary to make the previous EIR adequate for the project as revised.
☐ I find that at least one of the following conditions described in California Code of Regulations, Section 15162, exist and **a SUBSEQUENT ENVIRONMENTAL IMPACT REPORT** is required: (1)

Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; (2) Substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any the following:(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR or negative declaration;(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measures or alternatives; or,(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects of the project on the environment, but the project proponents decline to adopt the mitigation measures or alternatives.

Evan Langan	July 7, 2022
Signature	Date
Evan Langan, AICP, Urban/Regional Planner IV	For: John Hildebrand, Planning Director
Printed Name	

V. ENVIRONMENTAL ISSUES ASSESSMENT

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000-21178.1), this Initial Study has been prepared to analyze the proposed project to determine any potential significant impacts upon the environment that would result from construction and implementation of the project. In accordance with California Code of Regulations, Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the County of Riverside, in consultation with other jurisdictional agencies, to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report is required for the proposed project. The purpose of this Initial Study is to inform the decision-makers, affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed project.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
AESTHETICS Would the project:				
1. Scenic Resources a) Have a substantial effect upon a scenic highway corridor within which it is located?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?	☐	☐	☒	☐
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐

Source(s): Riverside County General Plan Figure C-8 “Scenic Highways”, California Department of Transportation (Caltrans) Scenic Highway Program

Findings of Fact:

a) **No Impact.** According to the Riverside County General Plan and Caltrans Scenic Highway Program, the proposed project site is not located within a scenic highway corridor or within the vicinity of a scenic highway. Therefore, the project would have no impact on a scenic highway corridor.

b,c) **Less Than Significant Impact.** The proposed project would have a significant impact if it would damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; result in the creation of an aesthetically offensive site open to public view; or substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project is an expansion of an existing mine with the quarry designed to minimize additional surface disturbance by mining to a greater depth. The revised surface mining permit includes reclamation of past and future disturbances through contouring of slopes, roads, and overburden areas to match surrounding ridges and revegetation. Due to its remote location and existing

conditions, the project would not significantly impact scenic resources open to public view or public views of the site and surroundings. The project site is located in a remote portion of eastern Riverside County, approximately 9 miles from Midland Road, 15 miles from the nearest residence, and approximately 20 miles from commercial development. The project site is only visible from the access road off Arlington Mine Road. Due to the remote location of the proposed project, the project would have no impacts to scenic resources or public views.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

2. Mt. Palomar Observatory a) Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?	☐	☐	☐	☒

Source(s): GIS database, Ord. No. 655 (Regulating Light Pollution)

Findings of Fact:

a) **No Impact.** The proposed project would result in a significant impact if it would interfere with the nighttime use of the Mt. Palomar Observatory. The project site is located approximately 121 miles northwest of the Mt. Palomar Observatory, outside the limit of the Mt. Palomar Observatory Special Lighting area, which is 45 miles. The proposed project would also be required to comply with the County Light Pollution Standard (Ord No. 655), which is also applicable to the site's current mining operations. As the project site is located a substantial distance from the Mt. Palomar Observatory, outside the limit of its special lighting area, the proposed project would have no impact on the nighttime use of the Mt. Palomar Observatory.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

3. Other Lighting Issues a) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
b) Expose residential property to unacceptable light levels?	☐	☐	☐	☒

Source(s): On-site Inspection, Project Application Description

Findings of Fact:

a) **No Impact.** The proposed project is located in a remote area that is only visible when approaching the mine entrance from an access road off Arlington Mine Road. There are no residences or recreational uses near the project site. While mining operations are proposed to occur 24 hours a day requiring on-site lighting, it is not anticipated to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area due to

its remote location. In addition, any new sources of lighting would comply with the County Light Pollution Standard (Ord No. 655). Therefore, the proposed project would have no impact.

b) **No Impact.** The proposed project site is located approximately 15 miles from the nearest residence. As there are no residential land uses within the vicinity of the site and the project site is only visible when approaching the access road, there would be no potential to expose residents to unacceptable light levels. Therefore, the proposed project would have no impact.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

AGRICULTURE & FOREST RESOURCES Would the project:				
4. Agriculture 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 agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?	☐	☐	☐	☒
c) Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?	☐	☐	☐	☒
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

Source(s): Riverside County General Plan Figure OS-2 "Agricultural Resources," Department of Conservation Riverside County Important Farmland Map 2014 Sheet 3 of 3

Findings of Fact:

a) **No Impact.** According to the California Department of Conservation, Important Farmland Map for Riverside County, the project site is designated as "Other Lands." This designation includes land not designated in any other mapping category; examples include strip mines. The project site is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the Department of Conservation. The proposed project would not result in a conversion of farmland to non-agricultural purposes, as no farmland exists on the project site. Therefore, the proposed project would have no impact on farmland.

b,c,d) **No Impact.** There are no lands zoned for agricultural production or that are under active production on or within the vicinity of the project site. Furthermore, the nearest agricultural preserve, the Blythe Agricultural Preserve, is located approximately 18 miles to the southeast of the project site. Thus, the proposed project would not conflict within any agricultural zoning or agricultural uses. In addition, the proposed project would not involve any other changes that

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

would result in a conversion of Farmland to a non-agricultural use. Therefore, the proposed project would have no impact on agricultural resources.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

5. Forest a) 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 Govt. Code section 51104(g))?	☐	☐	☐	☒
b) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?	☐	☐	☐	☒

Source(s): Riverside County General Plan Figure OS-3b "Forestry Resources Eastern Riverside County Parks, Forests, and Recreation Areas"

Findings of Fact:

a,b,c) **No Impact.** The project site consists of an existing surface mine and surrounding vacant land. There are no timber or forest lands on the project site or in the surrounding vicinity. Therefore, the proposed project would not conflict with any existing zoning, cause any rezoning, or result in the loss or conversion of any forest land. Furthermore, as there are no forest lands in the project vicinity, the proposed project would not involve any changes to the environment that could result in a conversion of forest land to a non-forest use. The proposed project would have no impact on forest land.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

AIR QUALITY Would the project:				
6. Air Quality Impacts a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors, which are located within one (1) mile of the project site, to substantial pollutant concentrations?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Source(s): MDAQMD CEQA and Federal Conformity Guidelines, August 2016; Double D Gypsum Mine Air Quality and Greenhouse Gas Assessment, Atmospheric Dynamics, Inc., January 2017 (Appendix A)

Findings of Fact:

An Air Quality and Greenhouse Gas Assessment was prepared for the proposed project by Atmospheric Dynamics, Inc. (Appendix A). This report evaluated the proposed project's potential air quality and greenhouse gas emission impacts with respect to applicable CEQA guidelines and was reviewed and approved by the Mojave Desert Air Quality Management District (MDAQMD) (see Attachment 2 in Appendix A).

Air Quality Setting

The proposed project is located at the far eastern edge of Riverside County, which is in the Mojave Desert Air Basin (MDAB). The air basin is comprised of the following areas: the eastern portion of Kern County, the eastern portion of Riverside County, the northern portion of San Bernardino County, and the northern portion of Los Angeles County. An air basin generally has similar meteorological and geographic conditions throughout. Areas within each air basin are considered to share the same air masses and are therefore expected to have similar ambient air quality. The local air quality regulatory agency responsible for managing air quality in the project region where the Double D Mine is located is the MDAQMD.

California and the federal government (i.e., U.S. Environmental Protection Agency or USEPA) have established ambient air quality standards for several different pollutants. Among the pollutants that may be generated by the proposed project, those of greatest concern are emitted by materials processing and support equipment on the mine site, off-road equipment at the mine site, and offsite truck traffic. These pollutants include fine particulate matter less than 2.5 microns in diameter (PM2.5) and particulate matter less than 10 microns in diameter (PM10).

Regulatory Framework

Air quality and air pollution sources are regulated by Federal, State, regional, and local regulatory agencies. Air quality regulations provide the standards by which air quality is determined and institute controls on air pollution sources to improve air quality. The Federal Clean Air Act established the national ambient air quality standards and delegated the enforcement of air pollution control regulations to the states. In California, the California Air Resources Board (CARB) develops and enforces air quality regulations, but delegates the responsibility of stationary emission source regulation to local air pollution control agencies. In the project area, the MDAQMD is responsible for air pollution source regulation. Mobile sources of air pollutant emissions are regulated on a state-wide basis by the CARB.

The Federal Clean Air Act (Federal Act) was established in an effort to assure that acceptable levels of air quality are maintained in all areas of the United States. Air quality is characterized by the presence of pollutants that fall into two basic categories; criteria air pollutants and toxic or hazardous air contaminants. Criteria air pollutants refer to a group of pollutants that the regulatory agencies have

adopted ambient air quality standards and pollution management and control strategies. Toxic or hazardous air contaminants refer to a category of air pollutants that have potential adverse health effects but do not have an associated ambient air quality standard. These pollutants are called hazardous air pollutants (HAPs) in Federal law and toxic air pollutants (TACs) in California law.

Each state is divided into air basins based on topographic, geographic, and meteorological conditions. Each air basin is then assessed to determine if the area meets the National Ambient Air Quality Standards (NAAQS). Air basins or portions thereof have been classified as either "attainment" or "nonattainment" for each criteria air pollutant based on whether or not compliance with the standards has been achieved.

If an area does not meet the NAAQS over a set period of time, the USEPA designates the area as a "nonattainment" area for that particular pollutant and sets deadlines for bringing the area into compliance with the standards. These deadlines vary by pollutant, the current level of air pollution in the air basin, and the ability of each region to meet the deadline. The USEPA requires states that have areas that are not in compliance with the national standards to prepare and submit air quality plans showing how and when the standards will be met. These plans are referred to as State Implementation Plans (SIPs). If the states cannot show how the standards will be met, then they must show progress toward meeting the standards. Under severe cases, the USEPA may impose a Federal plan to show progress in meeting the Federal standards. The California Clean Air Act outlines a program for areas in the State to attain the California Air Quality Standards (CAAQS) by the earliest practical date. The California Clean Air Act set more stringent air quality standards for most of the pollutants covered under the Federal standards. The MDAB is classified as follows for the primary criteria pollutants in Table 5:

Table 5. MDAQMD Attainment Status

Pollutant	Averaging Time	Federal Status	State Status
Ozone	1-hr	Nonattainment	Nonattainment
Ozone	8-hr	Nonattainment	Nonattainment
CO	All	Attainment	Attainment
NO_2	All	Unclassified/Attainment	Attainment
SO_2	All	Attainment/Unclassified	Attainment
PM10	All	Unclassified	Nonattainment
PM2.5	All	Unclassified/Attainment	Nonattainment
Source: CARB website status maps, 3/2015. MDAQMD CEQA Guidelines, 8/2016.			

Unlike for other pollutants, an attainment plan is not required for areas that violate the State PM10 standards. As discussed below, the State PM10 standards are exceeded in Riverside County. While the MDAQMD is not required to prepare a PM10 attainment plan, the District is required to prevent significant deterioration of local air quality and make reasonable efforts toward achieving attainment status for all pollutants. However, the MDAQMD has prepared a Particulate Matter Attainment Plan, which lists PM10 control measures it considers cost-effective and developed a schedule for implementation of the plan.

As discussed above and summarized in Table 5, areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data and are judged for each air pollutant, using the most recent three years of

monitoring data. The Riverside County portion of the MDAB as a whole does not meet State and/or Federal standards for ozone and PM10, as designated by EPA and CARB[1].

Sensitive Receptors

Sensitive receptors are people who are particularly susceptible to the adverse effects of air pollution, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) non-cancerous greater than or equal to one (1). OEHHA has identified the following people who are most likely to be affected by air pollution: children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases. OEHHA, for purposes of health risk assessments considers sensitive receptors to be in the following categories: hospitals, convalescent care facilities, schools, colleges, daycare and residential care facilities. Residential receptors may also be considered sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present.

In addition to the mine location, aggregates from the mine would be transported by heavy-duty diesel trucks to various regional locations. Based on the preliminary transportation impact analysis report (TIAR) prepared for the proposed project[2], 100 percent of the trucks would travel to the south of the plant site into the Blythe area and then west on I-10 to the various product manufacturing sites. Thus, sensitive receptors were identified near the project site and/or along the proposed haul truck route, as shown in Table 6.

The nearest residences to the mine are located well over 19 miles to the southeast of the mine site in Blythe and due primarily to the distance, no sensitive receptors are expected to be exposed to high concentrations of air pollutants or cancer risk from the project location.

The MDAQMD has also identified in their CEQA Guidelines which project types must be evaluated for health risk based on the distance from the activity to the sensitive receptor location. This includes any industrial project within 1,000 feet of a sensitive receptor, any distribution center within 1,000 feet of a sensitive receptor and any major transportation projects within 1,000 feet of a sensitive receptor. As the project's use of haul trucks does not meet any of these definitions, the use route of the diesel trucks is not expected to impact any of the receptors along the transportation route.

[1] *CARB. See http://www.arb.ca.gov/desig/adm/adm.htm, accessed August 24, 2016.*
[2] *Albert A. Webb and Associates, Traffic Analysis Exemption Request, W.O. 15-0059, December 6, 2016.*

Table 6. Sensitive Receptor List

Segment	ID	UTM E	UTM N	Elev., ft.
Site Boundary to Arlington Mine Rd./2.1 miles	None	-	-	-
Arlington Mine Rd to Midland Rd./7.1 miles	None	-	-	-
Midland Rd to N. Lovekin Blvd./12.4 miles	None	-	-	-
N. Lovekin Blvd. to I-10/5.3 miles	Blythe Middle School	722080	3723064	273
	PV College Child Center	722093	3722681	272
	PV High School	722000	3722716	272
	PV College	721897	3722713	272
	Twin Palms HS	721955	3722541	272
	Residential #1	722066	3724790	272
	Residential #2	721963	3724770	272
	Residential #3	722089	3723792	274
	Residential #4	722016	3723832	273
	Residential #5	722167	3721765	268
	Residential #6	722118	3721774	268
I-10 West to Hwy 78	None	-	-	-

Based on Google Earth imagery dated 5/10/15.

Sensitive receptors as defined by OEHHA Risk Assessment Guidance, 2/2015.

Residential receptors are included. These receptors are located within 100 ft of the roadway and are representative of such receptors along N. Lovekin Blvd.

Receptor distance from roadways is <= 200 ft.

Significance Thresholds

The MDAQMD has identified significance thresholds for use in evaluating project impacts under CEQA[3]. The approach to MDAQMD thresholds for projects in the Riverside County portion of the MDAB is based on the Mojave Desert Air Quality Management District's (MDAQMD) Air Quality CEQA Guideline thresholds adopted in 2016. Significance thresholds used to evaluate air quality and GHG impacts from this project are described in Table 7. As discussed in the MDAQMD CEQA Guidelines, the emission comparison criteria in Table 7 is sufficient for most projects and was used in the evaluation of significance.

[3] *MDAQMD. 2016. California Environmental Quality Act (CEQA) And Federal Conformity Guidelines (August 2016)*

Table 7. MDAQMD Significant Impact Thresholds

Criteria Pollutant and Precursors	Annual Threshold, Tons per year	Daily Threshold, Lbs per day
VOC	25	137
NO_x	25	137
PM10	15	82
PM2.5	12	65
CO	100	548
SO_x	25	137
Greenhouse Gas Emissions		
GHGs, CO_2e	100,000	548,000
Notes: CO_2e = CO_2 equivalents		

Indirect source criteria pollutant and GHG emissions from offsite truck hauling and other vehicle traffic would also occur in Riverside County.

The operation of any project with the potential to expose sensitive receptors to substantial levels of TACs would have a potentially significant impact. MDAQMD recommends that health effects be evaluated for proposed projects that emit TACs where sensitive receptors are within a 1,000-foot radius from the project boundary (Zone of Influence). The following MDAQMD-recommended CEQA thresholds should be considered to have a significant impact.[4]

- Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

Non-cancer health risk is usually determined by comparing the predicted level of exposure to a chemical to the level of exposure that is not expected to cause any adverse effects (reference exposure level), even to the most susceptible people. This ratio of predicted exposure level to the reference exposure level is called the Hazard Index. This value represents the maximum concentration at which no adverse health effects to the respiratory system are anticipated to occur.

Results

For this analysis, emissions from mine operations were quantified for two scenarios:

1) Baseline, assuming mine operations continue at a baseline production rate of 1,000 tons per day (250,000 tons per year)[5] and
2) Proposed project, assuming mine operations increase to an extraction rate of 1,500 tons per day (450,000 tons per year) reaching that rate by 2019.

The breakdown of quantities and types of material extracted, processed, imported, and exported for the baseline and proposed project conditions is summarized in Table 8.

[4] *MDAQMD. 2016. California Environmental Quality Act (CEQA) And Federal Conformity Guidelines – August 2016.*

[5] *Based on the 2017 Mining Operational Annual Report, submitted to the California Department of Conservation, the Double D Mine produced 247,062 tons of processed gypsum. While the 2018 data has not yet been tabulated, preliminary data shows that gypsum production was similar to the 2017 operational data.*

Table 8. Existing and Proposed Project Material Quantities (Tons per Year)

Material Description	Baseline	Proposed	Proposed Maximum
Annual Amount Mined*	277,800	500,000	500,000
Annual Amount Gypsum Processed	250,000	450,000	450,000
Annual Amount Gypsum Shipped	250,000	450,000	450,000
Daily Production Rate (tons/day)	1000	1500	2860
Days per Year	250	300	350
Daily Operating Hours	8	12	24
** Assumes 10 percent of the material extracted is overburden material*			

The Double D Mine is an existing mine that extracts, processes (crushes, screens, and segregates) and sells gypsum to industrial manufacturing customers. Mine operation typically occurs weekdays during the daytime (8 hours per day). The mine production rate varies from month to month and year to year, depending on demand. The average annual processing production rate of 250,000 TPY was used to represent baseline conditions. For estimating baseline emissions, mine extraction and processing activities were assumed to occur for 8 hours per day at average rates of 1,000 tons per day for extraction and 1,000 tons per day for crushing and processing operations. A summary of the estimated daily and annual mine baseline emissions of CO, NOx, VOC, PM10, and PM2.5 are provided in Tables 9 and 10, respectively. Details of the emissions calculations are provided in Attachment 1 of Appendix A.

Table 9. Summary of Baseline Average Daily Emissions

Emission Source	Average Daily Emissions (lb/day)*				
	NOx	CO	VOC	PM10	PM2.5
Gypsum Processing	-	-	-	5.2	1.1
Processing & Mining Fugitives	-	-	-	66.6	5.7
On-Site Off-Road Equipment Emissions	62.0	34.4	5.6	1.24	1.17
Unpaved Road Fugitive Emissions				77.82	7.78
Paved Road Vehicle Travel	84.4	15.2	2.9	4.8	1.7
Drilling and Blasting	0.8	3.2	0.0	0.6	0.0
Fugitive PM Emissions from Wind Erosion	-	-	-	20.4	8.2
Total	147.2	52.8	8.5	176.7	25.6

** Average daily emissions calculated based on annual emissions and 250 days per year available for mine operation.*

[a] Emissions are those occurring at the mine site due to mining and associated activities and also include emissions from vehicles (trucks and employee vehicles) not permanently located at the site.

Table 10. Summary of Baseline Annual Emissions

Emission Source	Annual Emissions (ton/year)				
	NOx	CO	VOC	PM10	PM2.5
Gypsum Processing	-	-	-	0.65	0.13
Processing & Mining Fugitives	-	-	-	8.33	0.71
On-Site Off-Road Equipment Emissions	7.75	4.30	0.71	0.16	0.15
Unpaved Road Fugitive Emissions	-	-	-	9.73	0.97
Paved Road Vehicle Travel	5.45	1.12	0.19	0.32	0.12
Drilling and Blasting	0.10	0.40	0.00	0.08	0.00
Fugitive PM Emissions from Wind Erosion	-	-	-	3.44	1.38
Total	13.3	5.82	0.90	22.70	3.46

[a] Emissions are those occurring at the mine site due to mining and associated activities and also include emissions from vehicles (trucks and employee vehicles) not permanently located at the site.

The proposed project would result in increased emissions from operation of the expanded mine and increased extraction and production rates. Emissions from project related on-site activities would result mining activities, operation of the mine processing equipment, off-road mobile equipment (exhaust and fugitive dust) at the mine, wind erosion, and from blasting. It is anticipated that blasting would occur about 17 times per year. Off-site emissions would be produced by haul trucks and other vehicles traveling to and from the project site.

Emissions for baseline and proposed mine operation were based on the data in Table 7, construction and operation equipment, current and proposed on-road hauling VMT, employee traffic, blasting activities, and onsite processing activities. Tables 11 and 12 present the summary of emissions for the proposed operations scenario.

Table 11. Summary of Proposed Project Daily Emissions

Emission Source	Average Daily Emissions (lb/day)*				
	NOx	CO	VOC	PM10	PM2.5
Gypsum Processing				7.82	1.60
Processing & Mining Fugitives				91.1	8.5
On-Site Off-Road Equipment Emissions	96.6	55.1	12.2	1.9	1.8
Unpaved Road Fugitive Emissions				112.6	11.3
Paved Road Vehicle Travel	87.5	18.5	3.3	6.4	1.8
Drilling and Blasting	0.9	3.7	0.0	0.8	0.0
Fugitive PM Emissions from Wind Erosion				29.1	11.6
Total	185.0	77.3	15.5	249.7	36.7
Change in Emissions[a]	37.8	24.5	7.0	73.0	11.1
MDAQMD Daily Threshold	137	548	137	82	65
Exceed Significance Threshold	**No**	**No**	**No**	**No**	**No**

** Average daily emissions calculated based on annual emissions and 300 days per year available for mine operation.*
[a] Change from existing baseline

Table 12. Summary of Proposed Mine Annual Emissions

Emission Source	Annual Emissions (ton/year)				
	NOx	**CO**	**VOC**	**PM10**	**PM2.5**
Gypsum Processing	-	-	-	1.17	0.24
Processing & Mining Fugitives	-	-	-	13.67	1.28
On-Site Off-Road Equipment Emissions	14.48	8.26	1.84	0.29	0.28
Unpaved Road Fugitive Emissions	-	-	-	16.89	1.69
Paved Road Vehicle Travel	6.80	1.62	0.26	0.52	0.15
Drilling and Blasting	0.14	0.57	0.00	0.11	0.01
Fugitive PM Emissions from Wind Erosion	-	-	-	4.90	1.96
Total	21.43	10.45	2.09	37.54	5.60
Change in Emissions[a]	8.1	4.6	1.2	14.8	2.1
MDAQMD Annual Threshold	25	100	25	15	12
Exceed Significance Threshold	**No**	**No**	**No**	**No**	**No**

[a] *Change from existing baseline*

a) **No Impact.** The MDAQMD has prepared Particulate Matter Attainment Plans in 1995 and 1996, representing the most current applicable air quality plan for the air basin. These plans are designed to meet the requirements of Senate Bill 656 (2003), which required the District to list particulate matter control measures it considers cost-effective and to develop a schedule for their implementation. These documents are designed to serve as a summary of the District's current status, a long-range planning tool, and a roadmap for future District policy. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan. These plans include measures dealing with such topics as wood burning stoves, campfires, and dust from unpaved roads, construction grading activities, and open burning. The proposed project is subject to current MDAQMD rules and regulations, as it would be required to obtain construction and operating permits issued by MDAQMD (see discussion under *2.3.3 Local Air Quality Policies and Regulations*). Operating permits are renewed and updated annually, so the proposed project would be subject to future regulations adopted by MDAQMD under this plan. As a result, the proposed project would not conflict with or obstruct implementation of the MDAQMD's Particulate Matter Attainment Plan.

b) **Less Than Significant Impact.** The pollutants of most concern for the proposed project are particulate matter (PM10 and PM2.5). These result from mining activities and fugitive processes on the mine site and from haul roads, as well as from diesel exhaust particulate matter. For the purpose of this assessment, emissions of CO, NOx, VOC, PM10, and PM2.5 were quantified. The impacts from SO_2 emissions are anticipated to be minor because: (1) background concentrations are well below ambient air quality standards, and (2) due to the use of ultra-low sulfur fuel for the project, SO_2 emissions are expected to be negligible and were not evaluated.

The proposed project would result in increased emissions from operation of the expanded mine and increased extraction and production rates. Emissions from the proposed project would be comprised of on-site and off-site emissions. On-site emissions would result from mining activities, operation of the mine processing equipment, off-road mobile equipment (exhaust and fugitive dust) at the mine, wind erosion, and from blasting. Blasting activities currently occur at

a rate of about once per month. It is anticipated that blasting activities could increase to levels of about 17 times per year. Off-site emissions would also be produced by haul trucks, vehicles trucks, and employee vehicles traveling to and from the project site. For off-site vehicle emissions from the proposed project, the same assumptions and travel distances as described above for baseline emissions were used.

Project-related criteria pollutant emissions were calculated for the proposed project and for mine operation at the proposed project gypsum production rate of 450,000 tons per year. Average daily emissions, in pounds per day, and maximum annual emissions, in tons per year, were calculated for this analysis.

A summary of the estimated daily and annual mine proposed project emissions of CO, NOx, VOC, PM10, and PM2.5 are provided in Tables 11 and 12, respectively. The proposed project's net increases in emissions over baseline emissions were calculated as the difference between the baseline emissions, shown in Tables 9 and 10 and proposed project emissions shown in Tables 11 and 12.

As shown in Tables 11 and 12, the increased emissions from the proposed project are below the MDAQMD thresholds of significance. Therefore, the proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Furthermore, the emissions of criteria pollutants from the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under federal or state standards. Therefore, the proposed project would have a less-than-significant impact.

c) **Less Than Significant Impact.** The proposed project does not involve any land uses that have the potential to generate substantial amounts of point-source emissions. Furthermore, the closest sensitive receptor is over 15 miles south of the project site. Since this is greater than 1,000 feet, the impact from project TAC emissions, including crystalline silica and diesel particulate matter, are considered less than significant.

d) **Less Than Significant Impact.** Mines typically do not include processing of materials that cause odors. Due to the distance of the mine to the nearest receptors and since aggregate mining and those sources associated with mining are not known to generate objectionable odors, the proposed project would have a less-than-significant impact with regard to odors.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES Would the project:				
7. Wildlife & Vegetation a) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?	☐	☐	☐	☒
b) Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☐	☒	☐	☐
c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Wildlife Service?	☐	☒	☐	☐
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) 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 U. S. Fish and Wildlife Service?	☐	☒	☐	☐
f) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Source(s): GIS database, CVMSHCP, On-site Inspection, Biological Resource Assessment, WRA, October 2016, Biological Resource Assessment Addendum, WRA, January 2017 (Appendix B)

Findings of Fact:

On September 12-14 and October 10-13, 2016, the project's biologists from WRA, Inc. (WRA) conducted surveys within the project site to (1) document the plant communities present, (2) map potentially jurisdictional aquatic resources (i.e., wetlands and non-wetland waters), and (3) determine the potential for existing conditions to provide suitable habitat for special-status plant or wildlife species. Based upon these studies, WRA conducted surveys and/or habitat assessments for rare plants, desert tortoise, bats, raptors, Couch's spadefoot, and burrowing owls in 2017 and 2018. The results of these studies are summarized in the following sections.

Methodology

The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur within the Little Maria Mountains, Styx, Big Maria Mountains Northwest, Big

Maria Mountains Southwest, McCoy Wash, McCoy Peak, McCoy Spring, and Arlington Mine United States Geologic Survey 7.5-minute quadrangles:

- CNDDB records (CDFW 2016)
- USFWS quadrangle species lists (USFWS 2016)
- CNPS Inventory of Rare, Threatened, and Endangered Plants (CNPS 2016)
- Western Bat Working Group species accounts (WBWG 2016)
- California Bird Species of Special Concern (Shuford and Gardali 2008)
- California Amphibian and Reptile Species of Special Concern (Thompson et al. 2016)

Site visits were conducted to identify suitable habitat for special-status plant and wildlife species, and to document the presence of wetlands and non-wetland waters potentially subject to regulatory jurisdiction as Waters of the United States. Stream and lakes potentially subject to jurisdiction by California Department of Fish and Wildlife (CDFW) were also identified.

Results

Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed and proposed species. In addition, CDFW (formerly the California Department of Fish and Game, CDFG) Species of Special Concern (SSC), which are species that may face extirpation in California if current population and habitat trends continue, and U.S. Fish and Wildlife Service (USFWS) Species of Concern (SC) and Birds of Conservation Concern (BCC), are all considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most native birds in the United States, including non-status species, are protected by the Migratory Bird Treaty Act of 1918 (MBTA) and California Fish and Game Code (CFGC) Section 3513. Under these laws, destroying active nests, eggs, and young is prohibited. Some furbearing species are protected from take under CCR Title 14 Section 460. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are afforded little or no protection under CEQA, but are included in this analysis for completeness. A description of the CNPS Ranks and Threat Codes is provided below in Table 13.

Table 13. List of CNPS Ranks and Threat Codes

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

Special-Status Plant Species

Seven special-status plant species were determined to either be present or have a high likelihood of occurring due to the presence of suitable habitat elements and/or nearby occurrences. These species are discussed in more detail below.

Las Animas Colubrine (*Colubrina californica*), Rank 2B.3. Las Animas colubrine is a shrub found in Mojavean desert scrub and Sonoran desert scrub at elevations ranging from 30 to 3,280 feet (10 to 1,000 meters). It is found in narrow, steep, rocky ravines or washes. The species blooms April to June. All Las Animas colubrine observations were made in the two large north-south trending ephemeral wash on the north side of the Reclamation Area. These washes were at the apex of the southwest sloping bajada that the Reclamation Area rests on. Mining activities have truncated the washes at their southern extent. *C. californica* was most abundant on the north side of these washes where slopes were steeper and less disturbed. In total, 48 individuals were mapped in 2018, 32 within the impact area and 16 in the non-impacted reclamation area. All individuals observed were mature and most were fruiting during the springtime surveys. Seeds and vegetative characteristics were utilized to identify *C. californica* to species. Associated plant species included *Condea emoryi, Parkinsonia florida, Olneya tesota,* and *Bebbia juncea.*

Foxtail Cactus (*Coryphantha alversonii*), Rank 4.3. Foxtail cactus is found in Mojavean desert scrub and Sonoran desert scrub on sandy or rocky substrates, usually granitic. It prefers gravelly slopes and dissected alluvial fans. The species is known from an elevation range of 250 to 5,000 feet (75 to 1,525 meters). *Coryphantha alversonii* was commonly observed within ephemeral washes and rocky areas on a variety of substrates throughout the Reclamation Area (Appendix A – Figure 5). It was most abundant in the western portion of the Reclamation Area where small washes dissect the bajada or within the two larger north-south trending ephemeral washes. Some of these areas had signs of past mining activity such as roads and earth moving but did not appear to be heavily used at the time of the 2017 and 2018 surveys. Much of the current activity seems to be restricted to the active quarry and northeast portions of the Reclamation area. Approximately 770 individuals were observed during the 2018 surveys, the majority of which were within the Impact Area. Most were identified via meandering transects, but some visual observations with binoculars were made in areas with unstable substrates

and steep slopes. During the April 2018 survey, flowers, vegetative characteristics, and range distributions were used to positively identify *C. alversonii.*

Utah Vine Milkweed (*Funastrum utahense*), Rank 4.2. Utah vine milkweed is a perennial herb found Mojavean desert scrub and Sonoran desert scrub on sandy or gravelly soils. The species occurs at elevations ranging from 330 to 4,710 feet (100 to 1,435 meters). The species blooms from April to June, sometimes starting as early as March and ending as late at October. The project area contains suitable sandy and gravelly substrates in ephemeral washes that could support this species, and therefore, this species was determined to have high potential to occur in the project area. There was one individual of this species observed within a small ephemeral wash just beyond the west side of the project site in March 2018.

Harwood's Milk-Vetch (*Astragalus insularis* var. *harwoodii*), Rank 2B.2. Harwood's milkvetch is an annual herb found on sandy or gravely soils in washes and on dunes, often in creosote scrub. The species is known from an elevation range of 0 to 2,330 feet (0 to 710 meters). The species blooms from January to May. This species was determined to have high potential to occur within the project site, due to the presence of suitable dry wash habitat and other sandy substrates and documented occurrences within 5 miles of the project site (CDFW 2016).

Winged Cryptantha (*Cryptantha holoptera*), Rank 4.3. Winged cryptantha is an annual herb found in Mojavean desert scrub and Sonoran desert scrub. The species is known from elevation ranging from 330 to 5,540 feet (100 to 1,690 meters). The species blooms from March to April. The project site contains abundant gravelly to rocky soils in Sonoran Desert scrub, which are suitable for this species; therefore, this species was determined to have high potential to occur in the project site. This species was not observed during the 2017 and 2018 rare plant survey.

Abrams' Spurge (*Euphorbia abramsiana*), Rank 2B.2. Abrams' spurge is an annual herb found in Mojavean desert scrub and Sonoran desert scrub on sandy soils, often in dry washes. The species occurs at elevation ranges from -20 to 3,000 feet (-5 to 915 meters). The species blooms from September to November, sometime starting as early as August. The project site contains washes with occasional patches of finer-textured soils, which may be suitable for this species. In addition, this species has been documented within 5 miles of the project site (CDFW 2016). As such, this species was determined to have high potential to occur in the project site. This species was not observed during the 2017 and 2018 rare plant survey.

Desert Unicorn-Plant (*Proboscidea althaeifolia*), Rank 4.3. Desert unicorn-plant is a perennial herb found in sandy flats and washes in Sonoran desert scrub. The species is known from 280 to 3,280 feet (85 to 1,000 meters). The species blooms from May to October. The project site contains suitable sandy wash habitat; therefore, it was determined that this species has high potential to occur within the project site. This species was not observed during the 2017 and 2018 rare plant survey.

Special-Status Wildlife Species

Seven of 28 special-status wildlife species with the potential to occur within the project site were detected during surveys and are discussed below. These include: desert tortoise (*Gopherus agassizii*), loggerhead shrike (*Lanius ludovicianus*), ringtail (*Bassariscus astutus*), California leaf-nosed bat (*Macrotus californicus*), pallid bat (*Antrozous pallidus*), Yuma myotis (*Myotis yumanensis*), and western mastiff bat (*Eumops perotis*). Twelve other species determined to have a moderate to high potential to occur in the project site are also discussed below.

Desert Tortoise *(Gopherus agassiizii)*, Federal-Threatened, State-Threatened. The desert tortoise is restricted to desert lands in southern California, west of the Colorado River and desert lands in portions of southern Nevada and southwest Utah (Murphy et al. 2011). They occupy alluvial fans, washes, valley floors and canyons from near sea level to around 3500 feet where friable soils are suitable for den construction. They are found in saltbush scrub, creosote bush scrub, Mojave Desert scrub, and yucca tree woodland. Tortoises excavate and utilize burrows, pallets, and rock shelters as cover from predators and to regulate body temperature and water loss. They often share these shelters with other animals. They are most active after seasonal rains and are inactive during most of the year. Grasses form the bulk of their diet, but tortoises will also eat herbs, annual wildflowers, and new growth of cacti, as well as their fruit and flowers. Much of their water intake comes from moisture in the grasses and wildflowers they consume in the spring. Females will lay a clutch of five to 15 hard-shelled-eggs in April to mid-July. They can produce up to three clutches a year. They face threats from large-scale solar project habitat destruction, military base expansions, diseases, off-road activity, and poaching, as well as predation by ravens, coyotes, and feral dogs.

In September 2017 and May 2018, protocol level surveys for desert tortoise were completed by WRA biologists. During the baseline surveys conducted on the 611-acre property in September 2016, one adult desert tortoise was observed in the southeastern portion of the property but outside of the proposed mine expansion and reclamation areas. During the 2017 and 2018 protocol level surveys, no live desert tortoises were observed within the project area, although the area contains sections of suitable desert tortoise habitat and signs of previous desert tortoise activity. In addition, desert tortoises and sign have been documented in areas near the project area. Despite the suitable habitat and sign of desert tortoise's presence within the project area in the past, the protocol-level desert tortoise surveys of the project area did not contain recent sign of desert tortoise, suggesting that desert tortoises are not currently residing within the project area.

In 2019, the applicant discussed the proposed project and potential impacts to desert tortoise habitat with USFWS and CDFW in a series of conference calls. On October 9, 2019 WRA conducted a site visit with USFWS and other regulatory agencies regarding proposed desert tortoise and waters mitigation on-site; formal Section 7 Consultation with the USFWS via the Corps is pending.

Loggerhead Shrike *(Lanius ludovicianus)*, CDFW SSC, USFWS BCC. Loggerhead shrike is a common resident and winter visitor in lowlands and foothills throughout California. It prefers open habitats with scattered trees, shrubs, posts, fences, utility lines, or other perches. Nests are usually built on a stable branch in a densely foliaged shrub or small tree and are usually well concealed. The highest densities occur in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill, riparian, piñon-juniper, juniper, and desert riparian habitats. While this species eats mostly arthropods, they also take amphibians, small to medium-sized reptiles, small mammals, and birds. They are also known to scavenge on carrion. Suitable foraging habitat is present and suitable nesting habitat may be present in the shrubs found within the project site. During baseline surveys, one individual was detected within the project site, and a second individual was detected along the access road to the site.

Pallid Bat *(Antrozous pallidus)*, CDFW SSC, WBWG High Priority. The pallid bat is an insectivorous bat. It occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. The highest densities occur in arid, Sonoran life zones below 6,000 feet, but they have been found up to 10,000 feet in the Sierra Nevada Mountains. It roosts in a variety of cavities, from rock crevices to tree hollows to buildings (WBWG 2010). During the bat habitat

assessment on August 23, 2017, an acoustic bat detector was deployed over a small, temporary water feature within the northern edge of the quarry. Pallid bat calls were recorded and identified, indicating the presence of this species within the project area. However, no pallid bat roosts were found during the assessment.

California Leaf-Nosed Bat *(Macrotus californicus)*, CDFW SSC, WBWG High Priority. The California leaf-nosed bat is an insectivorous, non-hibernating bat found in arid regions ranging from southern California, Nevada, and Arizona through most of Mexico. It eats primarily large bodied insects such as moths, crickets, grasshoppers, and large beetles. Roosting habitat can consist of natural caves or buildings and mines (Jameson 2004). One individual of this species was found in a small horizontal mineshaft within the project area that was previously but no longer used to store explosives.

Western mastiff bat (*Eumops perotis californicus*), CDFW Species of Special Concern, WBWG High Priority. The Western mastiff bat ranges from Central Mexico across the southwestern US. In California this species roosts at elevations up to 4,600 feet where significant rock features are present (WBWG 2015). Mastiff bat roosts are primarily located high on cliffs under exfoliating rock slabs, but have also been found in similar crevices in large boulders and buildings. This species forages in groups high above the ground in broad, open areas and is most often found in desert washes, flood plains, chaparral, oak woodland, open pine forest, grasslands, and agricultural areas (WBWG 2015). During the bat habitat assessment on August 23, 2017, an acoustic bat detector was deployed over a small, temporary water feature within the northern edge of the quarry. Western mastiff bat calls were recorded and identified, indicating the presence of this species within the project area. However, no western mastiff bat roosts were found during the assessment.

Yuma myotis (*Myotis yumanensis*), WBWG Low Priority. The Yuma myotis is found throughout most of California at lower elevations in a wide variety of habitats. Day roosts can be found in buildings, trees, mines, caves, bridges, and rock crevices. Night roosts are usually associated with buildings, bridges or other man-made structures (Philpott 1996). During the bat habitat assessment on August 23, 2017, an acoustic bat detector was deployed over a small, temporary water feature within the northern edge of the quarry. Yuma myotis calls were recorded and identified, indicating the presence of this species within the project area. However, no Yuma myotis roosts were found during the assessment.

Ringtail *(Bassariscus astutus)*, CDFW Fully Protected. The ringtail is a small, slender member of the raccoon family. It is mostly carnivorous, preferring to forage in trees for mice, woodrats, insects, and birds, but it also eats a variety of berries and other fruits. The ringtail is nocturnal and rarely seen, although generally curious and unafraid when encounters do occur. Dens are made in hollow trees or among large boulders. It appears to prefer habitats near water, yet it does not forage in water or eat aquatic organisms. Its range includes much of California, extending outwards to include much of the southwest and Central America (Jameson 2004). Due to the presence of numerous crevices and large boulders offering potential den habitat, this species was determined to have a high potential to be present within the project site. During Couch's spadefoot surveys in 2017, tracks potentially belonging to ringtail were found in a small, temporary water feature at the northern edge of the project area; however, no live individuals were observed.

Colorado Valley Woodrat (*Neotoma albigula venusta*), S1S2. Colorado Valley woodrat is found in the low-lying desert areas of Imperial, San Diego, and Riverside counties (Grinnell, 1933; Hall, 1981). It is closely associated with patches of beaver-tail cacti (*Opuntia* spp.) and Mesquite. This species was included on the CDFW working list, but no evidence indicating that it was threatened was found.

Numerous woodrat nests were observed within the project site, and this species has been documented within 5 miles of the project site. Therefore, this species was determined to have a high potential to occur within the project site.

Cave Myotis *(Myotis velifer)*. CDFW SSC, WBWG Medium Priority. Cave myotis is a large myotis, with a forearm of 37-47 mm. It can be distinguished from other large myotis by the presence of a conspicuous bare patch on the back between the scapulae and the absence of either a keel on the calcar or fringe on the interfemoral membrane. Caves are the main roosts for this southwestern species, although it also uses mines, and occasionally buildings and bridges. It is primarily a crevice dweller. This species is also known to roost in barn swallow nests. Colonies of 2,000 to more than 10,000 individuals have been reported. This bat is reported to fly less erratically and more strongly than other species of myotis. It has been reported foraging over dense riparian vegetation and in drier desert washes. Dietary studies in Arizona, Kansas, and Mexico indicate that lepidopterans and coleopterans are typical prey.

Known predators include rat snakes, hawks, barn owls, and raccoons. In southern Arizona this species has been found in the winter occupying wet mine tunnels above 6,000 feet, where roost temperatures are 8 to 11 degrees Celsius. Within the United States it is most widely distributed in Arizona. This species is found primarily at lower elevations (the Sonoran and Transition life zones) of the arid southwest, in areas dominated by creosote bush, palo verde, brittlebush, and cactus. Due to abundant roost sites and the presence of preferred vegetation, this species was determined to have moderate potential to occur within the project site; however, no roosts for this species were identified during the bat habitat assessment in August 2017.

Pocketed Free-Tailed Bat *(Nyctinomops femorosaccus)*, CDFW SSC, WBWG Medium Priority. This species is a member of the Molossidae family and is thought to be non-migratory. The known altitudinal distribution is from near sea level to about 7,300 feet. Breeding populations have recently been identified in southern California. The pocketed free-tailed bat has a free tail, which extends beyond the edge of the interfemoral membrane. With a forearm of 45-49 mm, it is smaller than all other North American molossid species except *Tadarida brasiliensis*. It is slightly larger than *T. brasiliensis* and, unlike *T. brasiliensis*, has its ears joined at the midline. The pocketed free-tailed bat is colonial and roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests. The species may also roost in buildings, caves, and under roof tiles. The species forms maternity colonies, and females bear one young in late June or July. Lactating females have been taken between 7 July and 8 August, and volant juveniles recorded on 7 August. This species forages mainly on large moths, but its diet includes small moths and beetles, with small amounts of a variety of other insects. Owls and snakes have been documented preying on this species. Little is known about population dynamics, or ecology. This insectivorous bat occurs only in the southernmost counties of California, across to Texas, and down into central Mexico including Baja California. It is thought to be non-migratory. It roosts in buildings and in natural high, vertical rock crevices. Due to the presence of potential roosting habitat throughout the site, this species was determined to have a moderate potential to be present within the project site; however, no roosts for this species were identified during the bat habitat assessment in August 2017.

American Badger (*Taxidea taxus*), CDFW SSC. The American badger is a large member of the mustelid (weasel) family, with many adaptations for its active lifestyle as a burrowing carnivore. It prefers friable soils in open areas, including deserts, with high densities of its favorite prey: ground squirrels and pocket gophers. The highest densities of the species occur in the Great Basin region of California, Oregon, and Washington, but the species can occur throughout California where conditions

are appropriate (Jameson 2004). This species has a moderate potential to be present within the project site, particularly in areas with friable soils such as along dry wash margins.

Golden Eagle (*Aquila chrysaetos*), Federal Eagle Protection Act, CDFW Fully Protected, USFWS BCC. The golden eagle is a large raptor that occurs in open and semi-open areas from sea level to high elevation. Typical occupied habitats include grasslands, shrublands, deserts, woodlands, and coniferous forests. The large stick nests of this species are reused across years and may be maintained throughout the year. Nests are most often placed on the ledges of steep cliffs, but nesting also occurs in trees and on tall manmade structures (*e.g.*, utility towers). Golden eagles forage over wide areas, feeding primarily on medium-sized mammals (*e.g.*, ground squirrels and rabbits), large birds, and carrion. The largest peaks within the project site may present suitable nesting habitat, and therefore, this species was determined to have moderate potential to occur within the project site; however, raptor nest surveys conducted in May 2018 did not find any active golden eagles nests within or near the project site, nor have any individuals been observed incidentally during site visits.

Western Burrowing Owl (*Athene cunicularia*), CDFW SSC, USFWS BCC. The western burrowing owl is a small, ground-dwelling owl that is comparatively easy to see because it is flat, open grassland or gentle slopes and sparse shrub-land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. Burrowing owls exhibit high site fidelity and usually nest in abandoned burrows of ground squirrels or pocket gophers. A burrowing owl habitat assessment and burrow survey was conducted by WRA biologists on October 3 through 5, 2017 and found that no burrowing owls are currently using the Study Area or adjacent parcels for breeding. Conditions were generally too rocky for rodent burrows; in areas where soils were amenable to rodent burrows (generally on the banks of washes and on slopes), vegetation cover and height was relatively high. Based on the low density of suitable burrows and prey base present in the project area, burrowing owls are unlikely to reside on the site and use it as a nesting location; however, there is some limited potential for burrowing owls to use the location as a stopover location.

Prairie Falcon (*Falco mexicanus*), USFWS BCC. Prairie falcon is an uncommon resident and migrant that ranges from southeastern deserts northwest along the Coast Ranges and Sierra Nevada. It occurs in many habitats, but typically is associated with grasslands, savannahs, rangeland, agricultural areas, and desert scrub. Prairie falcons construct their nests on cliffs or other escarpments overlooking their hunting grounds. While other falcons primarily forage on birds, the majority of this species' diet consists of small mammals. They will seasonally take birds when mammals are scarce. Numerous rocky escarpments north of the project site could provide suitable habitat for this species; however, raptor nest surveys conducted in May 2018 did not find any active prairie falcon nests within or near the project site, nor have any individuals been observed incidentally during site visits. Therefore, the species was determined to have a moderate potential to be present within the project site.

Crissal Thrasher (*Toxostoma crissale*). CDFW SSC, USFWS BCC. The Crissal thrasher inhabits desert washes and riparian thickets in the Colorado River and Rio Grande valleys and their tributaries in southwestern North America; elsewhere to the south and southeast within its extensive range it may be found on brushy plains, in foothill scrub, or venturing into open piñonoak-juniper woodlands where there is a shrubby understory. The Crissal thrasher forages on the ground using its long, curved bill to probe through friable soil and sift through leaf litter in search of prey. Nests are most often placed in the densest portions of shrubs. This species was determined to have moderate potential to occur within desert wash habitat within the project site.

Le Conte's Thrasher (*Toxostoma lecontei*), CDFW SSC, USFWS BCC. Le Conte's thrasher is a resident of the Sonoran and Mojave deserts in California. This species nests in thorny shrubs or small desert trees where shade is available. Le Conte's thrashers prey primarily on insects, although lizards and eggs may also be taken. Cacti, saltbushes and other shrubs, yuccas (including small Joshua trees), and mesquites are favored plants for nest sites. Suitable habitat occurs within dry washes and other vegetated portions of the site, and therefore, this species was determined to have a moderate potential to be present in the project site.

Couch's Spadefoot (*Scaphiopus couchii*), CDFW SSC. In California, Couch's spadefoot toad occurs in scattered populations in Imperial County, north into San Bernardino County. They occupy deserts and arid regions of grassland, prairie, mesquite, creosote bush, thorn forest, and sandy washes to 5900 feet elevation. Couch's spadefoot breeds from May through September when scarce desert rainfall creates temporary pools. Temporary pools are often in rocky streambeds, washes, at the edges of agricultural fields, in depressions beside roads and railroad tracks, and in or around cattle tanks. In California, from the point of pond inundation, larvae have been observed entering metamorphosis in 7.5 to 8.5 days. Their diet is comprised of a variety of invertebrates, many of which are winged, and larval termites which also emerge during rains. Beetles, ants, grasshoppers, spiders, and crickets are also eaten (Stebbins 2003). WRA biologists conducted surveys for this species on September 11, 2017, and found no evidence that this species is present within the project area.

Mojave Fringe-Toed Lizard (*Uma scoparia*), CDFW SSC. Mojave fringe-toed lizard inhabits areas of fine windblown sand in the Mojave and Sonoran deserts from the southern end of Death Valley south to the Colorado River around Blythe, and into extreme western Arizona. This diurnal lizard is adapted to living in areas with fine windblown sand. The species goes underground in the sand or in a burrow in November and emerges in February. Young lizards may go under later and emerge earlier. The species takes cover in the sand to avoid extreme temperatures. The species commonly sleeps in the sand under a bush at night. The species eats primarily small invertebrates such as ants, beetles, and grasshoppers, along with occasional blossoms, leaves, and seeds. The species lays 1 to 5 eggs from May to July. Suitable habitat for this species occurs within the sandy washes of the project site, and therefore, this species was determined to have potential to occur within the project site.

Desert Kit Fox (*Vulpes macrotis arsipus*). The desert kit fox is found throughout the Mojave and Colorado Desert regions in California. It is a desert-adapted species that occurs mainly in desert scrub, open chaparral, halophytic scrub, and grassland. Occasionally, desert kit foxes use agricultural lands and urban environments. This species uses dens year-round and needs loose-textured soils suitable for burrowing. Kit fox prey consists primarily of kangaroo rats and other small rodents, as well as large insects and occasional rabbits. Suitable habitat for this species occurs within the project site, particularly in areas with friable soils such as along dry wash margins.

Critical Habitat

No designated Critical Habitat occurs within the project site.

Wetlands and Water of the United States

Waters of the United States

WRA biologists mapped approximately 23.10 acres and 115,915 linear feet of non-wetland waters (dry wash habitat, including desert lavender scrub) potentially subject to jurisdiction by the Corps and the

EPA under Section 404 of the CWA. These non-wetland waters consisted entirely of ephemeral to intermittent dry washes. No potentially jurisdictional wetland features were documented within the project site. In March of 2019 the applicant submitted an application to the Corps for a 404 permit from the Corps.

Waters of the State

WRA biologists mapped approximately 46.48 acres and 115,915 linear feet of non-wetland waters (dry wash habitat) potentially subject to jurisdiction by the RWQCB under Section 401 of the CWA and the Porter-Cologne Act or by the CDFW under Section 1600 of the CFGC. These non-wetland waters consisted entirely of ephemeral to intermittent dry wash habitat, including desert lavender scrub. No potentially jurisdictional wetland features were documented within the project site. In March of 2019 the applicant submitted applications to the Corps, CDFW, and RWQCB for a 404 CWA, 1602 Streambed Alteration Agreement and a 401 Water Quality Certification, respectively.

Streams, Lakes, and Riparian Habitat

No potentially jurisdictional lakes were documented within the project site. All riparian vegetation was found below the top of bank, or the outer limit of CDFW jurisdiction, and therefore, no additional mapping of riparian vegetation occurred. Riparian vegetation found below the top of bank was composed primarily of small, low-density stands of desert lavender, with scattered individuals of blue palo verde (*Parkinsonia florida*) and catclaw (*Senegalia greggii*) in the larger washes.

Terrestrial Communities

Sensitive Terrestrial Communities

Desert Lavender Scrub (*Condea emoryi* Shrubland Alliance), S3G4. Desert lavender scrub stands are common in throughout the Sonoran and southern Mojave deserts of California, generally occurring in narrow dry wash habitat. Desert lavender (*Condea emoryi*) is dominant or codominant in the shrub canopy (CNPS 2016). Although the characteristic species of this vegetation type, desert lavender, occurs commonly in washes in the project site, desert lavender scrub stands large enough to map have a limited presence, occurring in the westernmost portion of the project site and adjacent to the east of the central mining area. Where this vegetation type was met membership rules and was mapped, tree cover is sparse, ranging from 0 to 1 percent cover, and consists entirely of blue palo verde. The shrub canopy is typically open, ranging from 5 to 15 percent cover; commonly observed shrub species include desert lavender, rough sweetbush (*Bebbia juncea* var. *aspera*), catclaw, rock hibiscus (*Hibiscus denutadus*), white stemmed milkweed (*Asclepias subulata*), Anderson's thornbush (*Lycium andersonii*), little leaved rhatany (*Krameria erecta*), white rhatany (*K. bicolor*), burrobush (*Ambrosia salsola*), creosote, brittle bush, and burro weed. The herbaceous cover is typically sparse, ranging from 0 to 10 percent cover. Commonly observed herbaceous species include big galleta grass (*Hilaria rigida*), smallseed sandmat (*Euphorbia polycarpa*), spiderlings (*Boerhavia wrightii*, *Boerhavia triquetra* var. *intermedia*), trailing windmills (*Allionia incarnata*), desert trumpet (*Eriogonum inflatum*), small-flowered fagonia (*Fagonia laevis*), and annual grasses, which were not identifiable at the time of the site visit. These grasses likely included six weeks threeawn (*Aristida adscensionis*), however, which is common in similar habitat in the region. Approximately 10.91 acres of desert lavender scrub were mapped within the property, with 5.33 acres located within the mine expansion and reclamation areas.

Non-Sensitive Terrestrial Communities

Disturbed Lands, No Rank. In the project site, the disturbed lands mapping unit refers to areas that have experienced large-scale disturbance related to mining activity, including the mine pit, waste piles, and processing areas. Numerous unpaved roads are present throughout the project site, ranging from heavily used mining roads to little-used off-road vehicle tracks, but most are too small to map and are not included in this mapping unit. Built-up and urban disturbance areas are primarily unvegetated, but sparse vegetation may be present in areas that have not experienced recent disturbance, including creosote (*Larrea tridentata*), brittle bush (*Encelia farinosa*), burro weed (*Ambrosia dumosa*), and flat topped buckwheat (*Eriogonum deflexum* var. *deflexum*). Approximately 79.28 acres of disturbed lands have been documented within the project site based on an analysis and shapefiles prepared by Lilburn Corporation.

Desert pavement (*Chorizanthe rigida – Geraea canescens* Sparsely Vegetated Alliance), No Rank. Desert pavement occurs throughout the Mojave and Sonoran deserts of California on the gently sloping surfaces of alluvial fans and bajadas. Desert pavement is typically composed of cobbles and other rock fragments in areas that have experienced minimal to no disturbance for extended periods of time. This extended lack of disturbance allows "varnish" to develop on the exposed rock surfaces, giving desert pavement a color that may be darker than surrounding areas situated on similar substrate. Desert pavement is characterized by extremely sparse (often less than 1 percent cover), often annual vegetation; however, wash rivulets may be present in which shrubs and other vegetation may be present, but the vegetative cover is not high enough or consistent enough to map separately (Barbour et al. 2007, CDFW and AIS 2013, Menke et al. 2013).

Approximately 71.59 acres of desert pavement were mapped within the property, with 8.88 acres located within the mine expansion and reclamation areas. Desert pavement occurs primarily in the southwestern portion of the project site on a gently sloping bajada in areas where few wash rivulets are present. In the flat areas outside of the wash rivulets, vegetation was nearly non-existent, with occasional erect spiny herb skeletons observed. Within the wash rivulets, vegetation was sparse. Trees cover was less than 1 percent and consisted of occasional blue palo verdes. Shrub cover ranged from 1 to 5 percent; commonly observed shrub species include creosote, brittle bush, burro weed, white rhatany, rough sweetbush, and rock hibiscus. Herbaceous cover was sparse, ranging from 0 to 2 percent; commonly observed herbaceous species include big galleta grass, smallseed sandmat, desert trumpet, and spiderlings.

Creosote Bush – Brittle Bush Scrub (*Larrea tridentata – Encelia farinosa* Shrubland Alliance), S4G5. Creosote bush – brittle bush scrub is common in the Sonoran Desert and southern and central Mojave Desert in California, typically in hot, rocky environments along mid and upper-elevation mountain slopes and adjacent upper portions of alluvial fans and bajadas. Cresote and brittle bush are co-dominant and equally conspicuous in the shrub canopy (Menke et al. 2013, Sawyer et al. 2009). This is the most common vegetation type in the project site, occurring on nearly all topographic positions, landforms, and substrates. Numerous ephemeral drainages of varying sizes are included within this vegetation type because they are too small to map as a separate vegetation type, though they may still be considered a jurisdictional aquatic feature by regulatory agencies; these drainages will often have similar species and covers to those found in desert lavender scrub.

WRA mapped approximately 449.50 acres of creosote bush – brittle bush scrub within the property, with approximately 96.98 acres located within the mine expansion and reclamation areas. Creosote bush – brittle bush scrub primarily occupies upland positions in the project site, and the following species

composition and covers are most representative of this vegetation type. Tree cover is non-existent. Shrub cover is sparse, ranging from 1 to 5 percent; commonly observed shrub species include creosote, brittle bush, burro weed, and ocotillo (*Fouquieria splendens* ssp. *splendens*). In the eastern portion of the project site, in areas characterized by the blue-green color resulting from the presence of green schist, desert fir (*Peucephyllum schottii*) is relatively common and is occasionally similar in cover to creosote and brittle bush. Several cactus species are present throughout the project site, but all with less than one percent (1%) cover. Beavertail cactus (*Opuntia basilaris* var. *basilaris*), beehive cactus (*Coryphantha* sp.), and pencil cholla (*Cylindropuntia ramosissima*) are the most common cactus species in the flatter, lower elevation areas. Barrel cactus (*Ferocactus cylindraceus*) and cottontop (*Echinocactus polycephalus* var. *polycephalus*) are more common in steeper and higher elevation areas. Herbaceous cover is typically sparse, ranging from 0 to 5 percent; commonly observed herbaceous species include desert trumpet, big galleta grass, smallseed sandmat, flat topped buckwheat, rigid spiny herb (*Chorizanthe rigida*), and spiderlings.

a) **No Impact.** The project site is not subject to any Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs). No other local, regional, or state conservation plans are applicable to the project site. Therefore, the proposed project would have no impact related to conservation plans.

b,c) **Less than Significant with Mitigation Incorporated.** A Biological Resources Assessment (BRA) was conducted for the proposed Project in October 2016 (WRA 2016), with an Addendum prepared in January 2017 (WRA 2017). The mine and over burden areas will expand to encompass additional acres of currently undisturbed land within the project area.

Listed or Sensitive Plants

Based on a review of resources and observations during site visits, it was determined seven special-status plant species were present or had a high likelihood of occurring within the project area. Two species were identified within the project area. Las Animas colubrine was observed in multiple ephemeral washes throughout the project site, and Foxtail cactus was observed in rocky, dry areas with a variety of substrates.

Of the remaining five species, Harwood's milkvetch, winged cryptantha, and Abrams' spurge are all annual herb species that have a high potential to occur, based on site characteristics. Utah vine milkweed and desert unicorn-plant are perennial herbs found in sandy flats and washes in desert scrub habitats. Utah vine milkweed was observed on the mine property but outside of the project site. Within the project site, neither of these plants were encountered during field surveys; however, given the ephemeral nature of several of these plants, the timing of the surveys, and due to the limited scope of surveys, it was concluded by project botanists that absence could not be determined for these species. Thus, the assumption was made that suitable habitat for these species is present within the project area and that each of these plants has at least a high potential for occurrence and could be affected by the proposed project.

Noxious and Invasive Weeds

The term "noxious weeds" includes all plants formally designated by the United States Secretary of Agriculture or other responsible State official as such. These species usually possess one or more of the following characteristics: "aggressive and difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and being native or new to or not common to the United States or parts thereof" (USFS Manual 2080.5, 1995).

The introduction of noxious and invasive weeds species is a special concern for native plant communities and is recognized as a threat to native vegetation communities and wildlife. Noxious and invasive weeds pose a threat to the natural processes of plant community succession, fire frequency, biological diversity, and species composition. Noxious and invasive weeds can affect the persistence of some populations of special status species by replacing the foraging base, altering habitat structure, or excluding a species by vegetative growth.

Typically, in areas where few exotic species occur, the characteristics of the existing topsoil structure, cryptogamic crusts, or the existing native vegetation prevent weed seeds from germinating, particular within sites that exhibit desert pavement. Once soil disturbance has occurred, the soil structure or native biotic components are affected such that these factors no longer preclude the establishment of noxious or invasive weeds. Following establishment, new populations of weeds are often extremely difficult to eradicate, especially in arid environments. It may take decades to re-establish the native soil structure and biota. Ground disturbance activities such as vegetation clearing and grading may spread noxious weeds on the project site.

The proposed expansion has the potential to result in adverse impacts to special-status plants present within the expansion footprint. However, implementation of Mitigation Measure BIO-1 would reduce these potentially significant impacts to a less-than-significant level.

Sensitive Communities

Desert lavender scrub is considered a sensitive natural community and is protected by the CDFW. However, the proposed expansion would have no impact to desert lavender scrub found within the project area.

Listed or Sensitive Wildlife

Eighteen special-status wildlife species were determined to either be present, or have a moderate to high likelihood of occurring due to the presence of suitable habitat elements and/or nearby occurrences. Of those species, seven were observed during site surveys: desert tortoise, loggerhead shrike, ringtail, California leaf-nosed bat, pallid bat, Yuma myotis, and western mastiff bat. One species has a high potential to occur within the project site, the Colorado Valley woodrat, and 11 additional species have moderate potential to occur within the project site.

The proposed expansion has the potential to result in potentially significant impacts to special-status wildlife species present within and adjacent to the expansion footprint. Implementation of Mitigation Measures BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6 would reduce all potentially significant impacts to special-status wildlife species to a less-than-significant level.

d) **Less than Significant with Mitigation Incorporated.** The proposed project is not located within or near any lake or river or any known wildlife movement corridor or native wildlife nursery site, nor is the project site considered a regionally significant connection to other undisturbed open spaces. However, local wildlife, including desert tortoise, are expected to forage and pass through the site. The proposed project could result in disturbances to nesting birds either directly during ground-disturbing activities or indirectly through excessive movement, sound, or vibration. In addition, the desert tortoise may use the project area for foraging and nesting and have the potential to be disturbed by the proposed project. These impacts are considered

potentially significant. Impacts to these species would be reduced to less than significant through compliance with Mitigation Measures BIO-2, BIO-3, BIO-4, BIO-5, and BIO-6.

e,f) **Less than Significant with Mitigation Incorporated.**

Waters of the United States

The proposed project would permanently impact 2.38 acres and 6,725 feet of non-wetland waters that potentially fall under the jurisdiction of the Corps under Section 404 of the CWA. In March of 2019 the applicant submitted an application to the Corps for a 404 permit from the Corps.

Waters of the State

The proposed project would also permanently impact 4.71 acres and 6,470 feet of non-wetland waters that potentially fall under the jurisdiction by the RWQCB under Section 401 of the CWA and the Porter-Cologne Act or by the CDFW under Section 1600 of the CFGC In March of 2019 the applicant submitted applications to the Corps, CDFW, and RWQCB for a 404 CWA, 1602 Streambed Alteration Agreement and a 401 Water Quality Certification, respectively.

These impacts would occur to intermittent and ephemeral dry washes found within the proposed expansion footprint. No riparian vegetation occurred above the top of bank in the streams mapped in the project site. Desert dry wash habitats support unique assemblages of plants and wildlife species and it is well documented that they play an important contribution in conveying surface flows during the rainfall season to other habitats located down slope supporting special-status plants such as Las Animas colubrine.

Implementation of Mitigation Measure BIO-7 would reduce impacts to Waters of the United States and Waters of the State to a less-than-significant level.

g) **No Impact.** The only local policy or ordinance protecting biological resources within the project site is the Riverside County Oak Tree Management Guidelines, which require surveys of individual trees and minimization/avoidance of oak trees when feasible. There are no oak trees present on the project site and therefore, the proposed project would have no impact related to local policies/ordinances protecting biological resources.

Mitigation:

Mitigation Measure BIO-1: Special-Status Plant Species

Prior to obtaining a permit for activities involving subsurface disturbance, the project applicant shall prepare documentation acceptable to the County that shows compliance with the following:

Where surveys determine that special-status plant species are present adjacent to the proposed project site, impacts to special-status plant species shall be avoided through the establishment of activity exclusion zones, where no ground-disturbing activities shall take place. Within the project site, where avoidance of impacts to special-status plant species is not feasible, seed or plant propagules shall be collected from these species. The project applicant shall retain a qualified biologist to develop a mitigation and monitoring plan detailing impacts to special-status plant species, including foxtail cactus (*Coryphantha alversonii*) and Las Animas colubrina (*Colubrina californica*). The special-status plant mitigation and monitoring plan shall include:

- Documentation of proposed impacts to special-status plant species;
- Proposed mitigation including a combination of transplantation or re-establishment of impacted populations and/or preservation and management of existing populations;
- Proposed methods for transplantation, re-establishment, or restoration;
- A 5-year monitoring program with annual reporting;
- Performance criteria for transplants or plantings including (a) survivorship, (b) density and (c) cover, and performance criteria for invasive plants and other potential threats to the success of the mitigation efforts such as erosion, human disturbance, etc.; and
- A contingency plan for addressing any failure to meet performance criteria.

Mitigation Measure BIO-2: Avoidance of Nesting Birds during Nesting Season

Disturbance of occupied nests of migratory birds and raptors, including special-status birds, within the project site shall be avoided, where feasible, during the local nesting season for avian species (February 1 through August 15). If any such activities take place outside of the nesting season (August 16 through January 31), then no further action is necessary. If any such activities occur during the nesting season, preconstruction nest surveys shall be performed within 14 days prior to such activities to determine the presence and location of nesting birds.

If active bird nests are located during the preconstruction survey, construction activities shall be restricted as determined by the qualified biologist to avoid disturbance of the nest until young have fledged and the qualified biologist has determined that there is no further risk of injury to birds or nests from project-related activities. At a minimum for non-special-status species, a no-disturbance buffer of 250 feet shall be established around active nests of non-raptor bird species and a no-disturbance buffer of 500 feet shall be established around active nests of raptors. Appropriate no-disturbance buffers around special-status species shall be determined in consultation with CDFW.

A preconstruction nest survey report shall be submitted to the CDFW no later than seven days following the survey. Survey results are valid for 14 days; if construction work has not commenced within the surveyed areas in that period, surveys must be conducted again.

Mitigation Measure BIO-3: Exclude Bats from Known Roost

Prior to closure of the known bat roost located within a shallow adit at the mine, any bats that may be using the adit shall be passively excluded. In order to avoid harm to hibernating bats or non-volant young, exclusion, and closure of the mine shall take place in September or October. A qualified bat biologist shall consult with CDFW on appropriate methods to exclude bats prior to closure.

If closure of the adit must take place during the maternity season (April 1 to August 31), a roost survey shall be conducted to determine if bats are currently occupying the roosts. Nighttime emergence surveys and/or internal searches shall be conducted by a qualified biologist to determine presence/absence of bats. If no maternity colony is present, closure may commence within 30 days following the survey. If a colony is present, a qualified biologist shall determine the extent of a construction-free protective zone around the active nursery in consultation with CDFW. The zone shall be adequate to ensure that construction activities do not adversely affect

active nurseries and shall remain in place until the qualified biologist has determined the nursery is no longer active and exclusion and closure may take place.

Mitigation Measures BIO-4: Avoid Impacts to Desert Kit Fox, American Badger, and Ringtail

Prior to any initial ground disturbance within the proposed expansion areas and subsequent to the issuance of SMP 102R1, a qualified biologist shall conduct surveys for desert kit fox, American badger, and ringtails by identifying any active burrows. Active burrows and dens shall be flagged and avoided by 50 feet for badger and 200 feet for ringtail. Unoccupied dens shall be collapsed or closed with rock to prevent re-occupancy.

Occupied badger dens within the project site shall be hand-excavated if avoidance is not possible. Dens shall only be hand-excavated outside of the breeding season (February 15 through July 1). Any relocation of badgers shall take place after consultation and approval with CDFW.

If avoidance of occupied ringtail dens is not possible, denning ringtail shall be safely evicted under the direction of a qualified biologist. The biologist shall delay construction activity for a minimum of 20 days during the early pup-rearing season of May 1 to June 15 and a minimum of 5 days during the rest of the year (June 16 to April 30). If the qualified biologist documents ringtail voluntarily vacating the den site during this period, construction may begin within 7 days. If the ringtails do not vacate the den voluntarily within the required period (excluding the early pup-rearing period of May 1 to June 15), then the qualified biologist may passively relocate the ringtail after consultation with CDFW.

In the event that active desert kit fox den complexes are found, the complex shall be monitored to for a minimum of three days to classify them as natal or non-natal. If the complex is determined to be natal, a 300- to 500-foot non-disturbance buffer zone shall be established until a qualified biologist determines the young have dispersed. If the complex is determined to be non-natal, passive hazing techniques (e.g., one-way doors) shall be employed after consultation and approval with CDFW to discourage kit fox from using the complex. Upon successful exclusion of kit fox from the dens, the dens may then be collapsed.

Mitigation Measure BIO-5: Avoid Impacts to Colorado Valley Woodrat

For the protection of Colorado Valley Woodrat: within 30 days prior to initial vegetation removal and/or ground disturbance within the project site and subsequent to the issuance of SMP 102R1, a pre-construction survey for woodrat structures/houses shall be conducted by a qualified biologist. All woodrat houses within 25 feet of the work area shall be demarcated with flagging or protective fencing and avoided to the fullest extent feasible.

If avoidance by at least five feet is not possible, then houses to be impacted shall be dismantled by hand under the supervision of a qualified biologist. Dismantling is a slow procedure, which requires removal of sticks and cover by hand until a chamber is reached and can be visually inspected for presence of woodrat. If woodrat young are encountered during the dismantling process, the material shall be placed back on the house, and a work exclusion buffer of at least 20 feet placed around the structure. The structure shall remain unmolested for at least two weeks in order to allow the young to mature and leave the nest of their own accord. After the avoidance period, the nest dismantling process may begin again. Nest material shall then be moved to suitable adjacent vegetated areas that shall not be disturbed.

Mitigation Measure BIO-6: Desert Tortoise

Prior to any impacts to desert tortoise habitat in the expansion area and subsequent to the issuance of SMP 102R1, the project proponent shall consult with USFWS, obtain a Section 7 or Section 10 incidental take permit under the Endangered Species Act, and secure a Section 2080.1 Consistency Determination or 2081 Incidental Take Permit from CDFW. The project proponent shall adhere to all measures set forth in the permit, including any compensatory mitigation measures. Additionally, the following avoidance and minimization measures shall be incorporated into project activities:

- Vehicle speeds shall not exceed 15 miles per hour throughout the project site until the permanent desert tortoise exclusion fence is installed.
- Firearms, dogs, and other pets are prohibited within the project site.
- An authorized biologist, approved by USFWS and CDFW, shall conduct an environmental training for all personnel working within the project site prior to the initiation of any activities associated with the proposed project. The authorized biologist can delegate this task to a desert tortoise monitor, and both shall follow the standards and meet the qualifications outlined in Chapter 3 of the USFWS 2009 Desert Tortoise Field Manual. In addition, a training program shall be established that provides the same training to all new workers for the duration of the proposed project. Based on the duration of the proposed project, an on-site employee shall be trained by an authorized biologist to present the environmental training to new personnel working in the project site.
    - The environmental training shall have a focus on desert tortoise education for personnel who will work within the project site. At a minimum, the training shall cover: 1) the natural history, habitat requirements, identification and distribution of the desert tortoise, including occurrences in the project site; 2) the legal protections of these species and the consequences of "take"; 3) circumstances under which these species may be encountered during the course of the proposed project; and 4) avoidance and conservation measures.
- 100 percent coverage clearance surveys of the areas proposed for work activities to occur within the project site, with a focus on locating all desert tortoises above and below ground, shall be conducted by an authorized biologist and/or desert tortoise monitors designated by the authorized biologist no more than 72 hours prior to surface disturbance. One hundred percent coverage clearance surveys shall continue daily prior to work activities occurring in an area until the desert tortoise exclusion fence is installed around the perimeter of the project site.
    - Clearance surveys shall consist of at least two consecutive surveys of the project site. Surveys shall involve walking transects less than or equal to 15-feet wide under typical conditions. In areas of dense vegetation or when conditions limit the ability of the surveyor's to locate desert tortoises, transects shall be reduced in width accordingly. Clearance surveys shall be conducted when desert tortoises are most active, which is April and May or September and October.
- The project site shall be enclosed within a desert tortoise exclusion fence and tortoise fencing shall follow the guidelines of the USFWS 2009 Desert Tortoise Field Manual. The final fence design shall be sent to the USFWS for review, prior to initiation of the proposed project.
    - One hundred percent (100%) coverage clearance surveys of the project site with a focus on locating all desert tortoises above and below ground shall be conducted following construction of the desert tortoise exclusion fence in order

to ensure that tortoises cannot enter the project site. The clearance surveys shall follow the protocol listed above and in the 2009 Desert Tortoise Field Manual. In addition, an authorized biologist and/or a desert tortoise monitor shall be present for the removal of the desert tortoise exclusion fence, following completion of the proposed project.

- After the desert tortoise exclusion fence is installed, the fencing shall be checked several times a day by an authorized biologist for two days, to ensure a desert tortoise has not been trapped within the fence. If installed during the active season for desert tortoise, the fence shall be checked twice a day during the hottest part of the day for a minimum of three consecutive days with no tortoises observed, as desert tortoises often pace along new fences attempting to gain access to the other side or return to areas from which they were removed.
- A desert tortoise guard shall be installed at the entrance to the project site to allow access for vehicles while keeping desert tortoises from entering the project site. These one-slot desert tortoise guards form a trench, which is deep enough and wide enough to prevent tortoises from crossing, but narrow enough to allow vehicles and people to easily pass.
    - The desert tortoise guard shall consist of two steel I-beams set to match the access road crown to form the trench that desert tortoises cannot cross. The trench shall be eight inches wide and a minimum of eight inches deep to the top of the substrate. Medium density closed cell polyethylene foam or soft soil shall be used as the top inch to two inches of the substrate to provide a cushion for any animal that falls into the desert tortoise guards' trench. The surface of the substrate shall be bumpy to facilitate a desert tortoise in righting itself if it falls into the trench. An escape ramp leading back away from the access road, with a maximum slope of 3:1 and at least three feet in length, shall be constructed at each end of the desert tortoise guard. The desert tortoise exclusion fence shall be built up to the edge of the desert tortoise guard to provide a continuous barrier to the desert tortoises in order to prevent the animals from having access to project site.
- If a desert tortoise is encountered after clearance surveys have been completed, the desert tortoise shall be processed by the authorized biologist according to the methods described above and in the 2009 Desert Tortoise Field Manual.
- Following the installation of the desert tortoise exclusion fence and initial three days of checks by the authorized biologist, the fencing shall be inspected quarterly by the authorized biologist and/or desert tortoise monitor for the duration of the proposed project.
    - Maintenance and replacement of the desert tortoise exclusion fence is anticipated. Should maintenance or replacement of the fence be required, an authorized biologist shall be present. An authorized biologist shall train a quarry employee as an on-site monitor to inspect the desert tortoise exclusion fence and gate(s) monthly, as well as immediately following major weather events, for the duration of the proposed project. A log documenting fence and gate checks shall be submitted within 48 hours to the authorized biologist and kept on-site and available for agency review, shall there be a request to review the log.
- Fence inspections shall be conducted to mark deficiencies so that the fence shall be repaired promptly. Construction personnel shall report any observed damage

to the desert tortoise exclusion fence to the authorized biologist and ensure any holes are immediately blocked to prevent desert tortoise access into the project site. The applicant shall be responsible for making repairs to the desert tortoise exclusion fence. Any deficiencies observed in the fence shall be permanently repaired within 72-hours between March 15 and October 31 and within seven days between November 1 and March 14.

- Anyone that handles desert tortoises either during or after clearance activities shall have the appropriate authorizations from USFWS and CDFW, and follow the USFWS 2009 Desert Tortoise Field Manual guidelines or subsequent revisions. If necessary, the authorized biologist or desert tortoise monitor, under the guidance of an authorized biologist, shall relocate desert tortoise a minimum distance necessary to ensure their safety outside of the project site but within the project site. In general, desert tortoise shall be moved no more than 1,000 feet for juveniles and adults and nor more than 300 feet for hatchlings. Within the project site, there is up to a 1,000-foot buffer surrounding the project site (within the mine property) for relocation of desert tortoise. The authorized biologist shall document each desert tortoise encounter and/or handling with the following information, at a minimum:
    - The authorized biologist or desert tortoise monitor shall provide a narrative describing circumstances of each encounter. If a desert tortoise is observed or relocated, the narrative shall describe the vegetation type, dates of observations, conditions and health, and any apparent injuries or state of healing. If a desert tortoise is relocated, the location from which the desert tortoise is captured and the location in which it is released as well as maps shall be included. Additional information shall include whether the desert tortoise voided its bladder, and diagnostic markings (that is, identification numbers marked on lateral scutes) shall also be recorded and provided to USFWS and CDFW.
    - If a desert tortoise is observed or, if necessary, relocated, the account shall be reported to USFWS and CDFW in writing within one week of the occurrence of the encounter.
    - A translocation plan shall be developed and submitted for approval of the USFWS and CDFW.
    - During the clearance surveys, desert tortoises in burrows may be removed through penning or careful excavation, as outlined in the USFWS 2009 Desert Tortoise Field Manual. Multiple visits may be necessary if desert tortoises are inaccessible in deep caves or burrows. If any desert tortoises need to be translocated, the Authorized Biologist shall follow the USFWS-approved translocation plan.
    - During all handling procedures, desert tortoises shall be treated in a manner to ensure that they do not overheat or exhibit signs of overheating (e.g., gaping, foaming at the mouth, etc.), or are placed in a situation where they cannot maintain surface and core temperatures necessary for their well-being. Desert tortoises shall be kept shaded at all times until it is safe to release them. Ambient air temperature shall be measured in the shade, protected from wind, at a height of two inches above the ground surface. All clearance activities (capture, transport, release, etc.) shall occur when ambient temperatures are below 95°F (35°C) and not anticipated to rise above 95°F (35°C) before handling and processing desert tortoises are completed.

    - If a desert tortoise is encountered above ground and outside the temperature limits, procedures outlined in Section 7.4 or Section 7.5 of the USFWS 2009 Desert Tortoise Field Manual shall be implemented.
- Pipes, culverts, or similar structures must be stored and stockpiled more than 8 inches above ground level. Such materials stored on the ground would require inspection by the authorized biologist or desert tortoise monitor before the materials are moved, buried, or capped. As an alternative, such materials may be capped prior to storing or placed on pipe racks. Inspection and capping of these stored materials shall not be required following completion of the desert tortoise clearance survey and installation of the desert tortoise exclusion fence surrounding the project site.
- Vehicles and equipment parked within the project site shall be inspected immediately prior to being moved until the desert tortoise exclusion fence is installed.
    - Following the installation of the desert tortoise exclusion fence, vehicles and equipment shall only be parked within the fenced project site.
    - If a desert tortoise is found beneath a vehicle or equipment, the authorized biologist or desert tortoise monitor shall be contacted.
    - The authorized biologist or desert tortoise monitor, under the guidance of the authorized biologist, shall move the desert tortoise according to the approved translocation plan.
- If a desert tortoise is observed on the access road outside the Mine, traffic along the road shall stop and the desert tortoise shall not be moved and shall be allowed to leave the access road on its own.
- All trash and food items shall be promptly contained within closed, raven-proof containers in the project site to reduce the attractiveness of the area to common ravens (*Corvus corax*).
- If repairs to the Mine access road outside the project site are necessary, an authorized biologist or desert tortoise monitor shall be present to ensure desert tortoise are not impacted by the road maintenance activity.

Mitigation Measures BIO-7: Wetlands and Waters

Where possible, the proposed project shall be designed to minimize and avoid permanent impacts to desert wash habitats in the expansion area. Access roads that cross desert dry wash habitat in the expansion area shall utilize half-arch culverts or steel plates in a manner that leaves the bottom of the washes untouched and allows for continued conveyance of storm flows. Alternatively, access roads through the washes shall be removed during the first season of construction to replace the pre-project topography in a manner that shall not interrupt ephemeral surface flows.

Prior to any impacts to Waters of the United States and subsequent to the issuance of SMP 102R1, the project applicant shall obtain all required resource agency permits and shall prepare and obtain resource agency approval of a wetland mitigation plan. The project applicant shall adhere to all measures set forth in the permit, including any compensatory mitigation measures. The wetland mitigation plan shall include measures for avoidance, minimization, and compensation for wetland impacts. Avoidance and minimization measures may include the designation of buffers around wetland features to be avoided, or project design measures. Compensation measures shall include the preservation and/or creation of waters. The final mitigation ratios (the amount of waters created or preserved compared to the amount impacted) shall be determined by the applicable resource agencies, including the U.S. Army Corps of

Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife. The wetland mitigation and monitoring plan shall include the following:

- Descriptions of waters types and impacts.
- Plans showing the location of waters to be created, restored, or preserved.
    - The approximately four-acre stockpile within the wash area along the southeast side of the mine area shall be removed and pushed back by approximately 250 to 275 feet to the west as shown in Figure 6. Excess material shall be stockpiled to the west outside the reclaimed drainage, partially salvaged as product, used for road base and areas to be reclaimed, and/or placed within portions of the quarry as backfill. The west bank shall be graded to a slight slope of 3H:1V and armored with larger rock if needed for erosion control. The west slope and the reclaimed wash area shall be revegetated per the approved Reclamation Plan and per any additional conditions per the regulatory agencies with the wash species listed in the Reclamation Plan.
    - A second smaller area (approximately 0.2 acres) of material on the north side of the mine site that was previously pushed into a portion of the drainage shall be removed and revegetated per the approved Reclamation Plan and regulatory agency conditions.
- If waters are to be created, performance standards and monitoring protocols to ensure the success of created mitigation waters.
- A description of legal protection measures for the created and/or preserved waters (i.e. dedication of fee title, conservation easement, and/or endowment held by an approved conservation organization).

In addition to demonstrated compliance with all required permits, the applicant shall develop an erosion control plan. The erosion control plan may include many of the same management practices that shall be implemented through the SWPPP required by the RWQCBs, and may include additional management practices as deemed necessary. These additional management practices, including their implementation and an evaluation of their effectiveness, shall be detailed in the erosion control plan and associated logbook.

- Under the erosion control plan, the applicant shall maintain a logbook of all precipitation events and all instances of BMP implementation at all soil-disturbance sites, such as construction sites, staging areas, and surface water crossings. The logbook shall contain the date and time of the precipitation event, as well as the duration and intensity of the precipitation. Additionally, the logbook shall record all BMPs that were implemented prior to and/or following the precipitation, as well as a narrative evaluation of the erosion-prevention effectiveness of those BMPs.
- The erosion control plan shall include a proposed schedule for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design details and a time schedule. The applicant shall consider the full range of erosion control BMPs. The applicant shall also consider any additional site-specific and seasonal conditions when selecting and implementing appropriate BMPs.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

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Desert Tortoise Gate

Desert Tortoise Fence

Access to OB Stockpile 2

Arizona Low Flow Crossing Per CDFW

Surface Material Stockpile

Access Road

Existing Haul Road

Approximately 5 %

See Cross Section Below

TEMPORARY STOCKPILES 4.4 Acres

Material to be Removed, Reclaimed and Revegetated per Reclamation Plan and CDFW 1600 Conditions

PROCESSING AREA Phase 2 Mining 5.6 Acres

Rock Armouring

0.2 Acres

TEST PLOTS 6 - 10 meter x 10 meters

LEGEND

- Stockpile Removal
- 1190 Proposed Design Contour
- Project Site Property Boundary
- Overall Reclamation Plan Limits

Source: Lilburn Corp., March, 2020.

CDFW Condition Area
Approximately 375'

Original Ground

Existing Temporary Stockpile

3:1 Slope

Existing Temporary Stockpile to be Removed

TYPICAL CROSS SECTION

LILBURN CORPORATION

SOUTHEAST STOCKPILE RECLAMATION

Double D Mining - SMP 102R1
County of Riverside, California

FIGURE 6

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

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Monitoring:

Monitoring Measure BIO-1: Special-Status Plant Species

If impacts to special-status plant species are unavoidable, the project applicant shall be responsible for development of the Special-status Plant Species Mitigation Plan, which shall be approved by the County prior to disturbance activities within the expansion area. The project applicant shall be responsible for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements set forth in the mitigation measures.

Monitoring Measure BIO-2: Avoidance of Nesting Birds during Nesting Season

The project applicant shall be responsible for providing documentation of pre-construction surveys and avoidance and minimization measures to prevent impacts to nesting bird species during the nesting season. Evidence of compliance with this mitigation measure shall be required and approved by the County.

Monitoring Measure BIO-3: Exclude Bats from Known Roost

The project applicant shall be responsible for all prescribed management plans. The project proponent shall also seek approval by USFWS/CDFW, as applicable. The project applicant shall be responsible for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements to the applicable regulatory agency.

Monitoring Measures BIO-4: Avoid Impacts to Desert Kit Fox, American Badger, and Ringtail

The project proponent shall be responsible for all prescribed management plans. The project proponent shall also seek approval by USFWS/CDFW, as applicable. The project applicant shall be responsible for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements to the applicable regulatory agency.

Monitoring Measure BIO-5: Avoid Impacts to Colorado Valley Woodrat

The project proponent shall be responsible for all prescribed management plans. The project applicant shall also seek approval by USFWS/CDFW, as applicable. The project applicant shall be responsible for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements to the applicable regulatory agency.

Monitoring Measure BIO-6: Desert Tortoise

Prior to impacts to desert tortoise habitat in the expansion area, the project applicant shall be responsible for obtaining all necessary permits, for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements to the applicable regulatory agency. The project applicant shall seek approval by USFWS/CDFW, as applicable, for impacts to desert tortoise habitat.

Monitoring Measure BIO-7: Wetlands and Waters

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Prior to impacts to waters in the expansion area, the project applicant shall provide a Wetland Mitigation and Monitoring Plan that outlines compensatory mitigation measures, as required by regulatory agencies. The project applicant shall be responsible for obtaining all necessary permits, for adhering to all mitigation measures, and for complying with all monitoring and reporting requirements to the applicable regulatory agency.

CULTURAL RESOURCES Would the project:				
8. Historic Resources a) Alter or destroy a historic site?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of a historical resource, pursuant to California Code of Regulations, Section 15064.5?	☐	☐	☒	☐

Source(s): On-site Inspection, Project Application Materials, Phase I Cultural Resources Survey and Phase II Evaluation Report, Dudek, May 2018 (Appendix C)

Findings of Fact:

Dudek, the project's cultural consultant, conducted a Phase I cultural resource study of the project's Area of Potential Effect (APE). The APE is defined as the previously proposed 210-acre mine site, which has since been reduced to 169.5 acres. This study consisted of a records search of the project area with a one-mile radius buffer, and an intensive pedestrian survey of the APE. Within the APE are removal and stockpile locations within the active mine that have been completely disturbed since the mine opened and therefore have no potential to contain intact cultural resources. Therefore, the pedestrian survey focused upon the remaining areas proposed for mining operations that have minimal to no disturbance.

Methodology

This cultural resource investigation consisted of a records search at the Eastern Information Center, University of California, Riverside (EIC); initiation of correspondence with the Native American Heritage Commission (NAHC); and an intensive pedestrian survey of the project APE. In addition to the EIC records, the record search also examined the NRHP, Office of Historic Preservation (OHP) Archaeological Determinations of Eligibility (ADOE) and Historic Property Directory (HPD) lists, and historic maps. Historic aerial photographs and topographic maps were also reviewed online.

The pedestrian survey for this project was performed by Dudek Archaeologists Angela Pham and Andrea Vaughn on September 28 and September 29, 2016. Additional areas were surveyed by Dudek archaeologist Courtney Davis on October 24, 2016. Mine manager Earl Selph accompanied the crew during the survey. The survey was conducted using standard archaeological procedures and techniques that meet the Secretary of Interior's standards and guidelines for cultural resources inventory. Survey transects were spaced 15 meters wide and oriented south–north across accessible areas of the project APE proposed for re-permitting. Where transects were not feasible (such as on slopes greater than 25 degrees), transects were not utilized. Instead, a mixed approach selectively examining terraces, ridges, and potential rock outcrops were examined where possible).

Completely disturbed portions of the APE, such as the mine pit itself, were not surveyed, as they have no potential to contain archaeological resources, and no built environment resource (structures, etc.)

are present. Within each transect, the ground surface was examined for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials. All fieldwork was documented using field notes, digital photography, a Global Positioning System (GPS) receiver with sub-meter accuracy, iPad technology with close-scale field maps, and aerial photographs. Location-specific photographs were taken using an Apple 3rd Generation iPad equipped with 8 MP resolution and georeferenced PDF maps of the project site. Accuracy of this device ranged between 3 meters and 10 meters.

Dudek also consulted historic maps and aerial photographs to understand the development of the project APE. Historic aerial photographs of the project were available for 1996, 2002, 2005, 2009, 2010, and 2012 (NETR Online, n.d.). Photographs from 1996 to 2009 reveal that the active mine pit area and surrounding area is heavily disturbed by mining excavations, stockpiling of materials, and construction of numerous dirt hauling and access roads. Photographs from 2010 and 2012 show additional grading activities (roads and stockpiles) are located immediately northeast of the active mine pit. These photographs are consistent with what the property looks like today. No historic structures are located within the project area in the photos.

Results

The record search identified two previous cultural resources studies that have been performed within one-mile of the project area. Report number RI-01249 covered a small part of the western most portion of the project APE and report number RI-05823 covered approximately 1% of the of the APE. One cultural resource (P-33-001494) was identified in the project APE, and one cultural resource (P-33-001493) was identified in the one-mile record search area. Of the two cultural resources, one is located outside the APE, and the other is located within the APE. Neither resource has been formally evaluated for listing in the NRHP or the CRHR.

The pedestrian survey did not identify any archaeological sites or artifacts in the APE. One resource located in the APE was not relocated, and the second resource was updated and expanded. No historic structures or features were identified other than the mine pit and stockpiles.

a,b) **Less Than Significant Impact.** According to the Phase I and Phase II cultural resource reports conducted for the proposed project, the record search identified two previous cultural resources studies that have been performed within one-mile of the project area.

As part of the Phase II evaluation, P-33-001493 was expanded to include the entire mine site, encompassing the open pit, stockpiles, and other work areas. The mine was then recorded as part of P-33-001493 on a Department of Parks and Recreation (DPR) update form. However, the expanded area does not qualify as a historical resource or a unique archaeological resource. No other cultural resources, historical resources, or historic properties were identified in the project site. As this resource is not associated with any significant events locally, regionally, or nationally; is not associated with historically important people; does not contain intact features or components of individual distinction; and the resources does not have the potential to yield further information to history or prehistory. Therefore, the site is not eligible for listing on the CHRH or the Local Register, and is not considered significant under CEQA.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

P-33-001494, a small segment of an historic road, was recorded in 1978. This resource was not relocated during the study. Based on its location in relation to mining activities, it was likely destroyed by construction of other roads and or stockpiling of sediments. The road was associated with the initial exploration of the gypsum deposit and therefore could be considered part of P-33-001493. The road segment no longer exists and therefore is no longer considered a resource. As such, it is not eligible for listing in the CRHR and is not significant under CEQA.

According to the cultural resources study conducted for the proposed project, implementation of the proposed project would not alter or destroy a historic site or have a substantial adverse change in the significance of any historical resources. Therefore, the proposed project would have a less than -significant impact on historical resources.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

9. Archaeological Resources a) Alter or destroy an archaeological site?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource, pursuant to California Code of Regulations, Section 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

Source(s): Project Application Materials, Phase I Cultural Resources Survey and Phase II Evaluation Report, Dudek, October 2016 (Appendix C)

Findings of Fact:

a-b) **Less than Significant.** The current cultural resources inventory was completed to satisfy the requirements of CEQA and County requirements. Aside from the two resources identified in Section 8 (Historic Resources) above, no other cultural or archaeological resources were discovered on or near the project site. Based on the archival research and field survey, it is highly unlikely cultural resources shall be impacted by the proposed project. Dudek's Phase I cultural resources inventory and Phase II evaluation of the project APE suggests that there is a very low potential for the inadvertent discovery of intact cultural deposits during earth moving activities. However, in the unlikely event that archaeological material are identified on the project site during earth moving activities, Condition of Approval CULT-1 would ensure impacts remain less than significant.

c) **No Impact.** As stated above, based on archival research and a field survey it is highly unlikely that cultural resources, including human remains, will be encountered on the project site. However, in the unlikely case that human remains are found upon ground disturbance, work would halt in accordance with Public Resources Code 5097.98 and the County and County Coroner would be notified. The process set forth by the Public Resources Code is a legal requirement and would ensure that no impact would occur.

According to the cultural resources study conducted for the proposed project, historic maps available for the project site indicate that the site has been active with mining operations since at least 1953. Archival research did not identify the site as being used for any religious or sacred use in the past. The NAHC Sacred Land File search did not indicate the presence of cultural resources within the project APE. Furthermore, the project site is currently an active surface mine. Therefore, the project site does not serve as a religious or sacred use, and implementation of the proposed project would have no impact related to religious or sacred uses.

Condition of Approval:

CULT-1: Inadvertent Discovery

In the unlikely event that archaeological material should be identified by project personnel during earth moving activities, work shall be temporary halted, and the County of Riverside consulted. A qualified archaeologist shall be assigned to review the unanticipated find, and evaluation efforts of this resource for CRHR listing shall be initiated in consultation with the County.

Should human remains be discovered, work shall halt in that area and procedures set forth in the California Public Resources Code (Section 5097.98) and State Health and Safety Code (Section 7050.5) shall be followed, beginning with notification to the County and County Coroner. If human remains are determined to be of Native American origin, then County Coroner shall contact the NAHC to designate a Most Likely Descendent, who shall provide recommendations for the dignified disposition and treatment of the remains.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ENERGY Would the project:				
10. Energy Impacts a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or Local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Source(s): Riverside County General Plan, Riverside County Climate Action Plan ("CAP"), Project Application Materials

Findings of Fact:

a,b) **Less Than Significant Impact.** There are no electric facilities currently in the project area. Two diesel generators are used to provide electric service to power the process plant and office. No additional generators are expected to be needed for the proposed future operations; only additional hours of generator usage to approximately 16 hours per day, 5 to 6 days per week depending on production. Diesel is used to fuel on-site mobile equipment, trucks, and the electric generators. The proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy. Energy usage associated with the proposed project would be relatively small in comparison to the State's available energy sources and energy impacts would be negligible at the regional level. Because California's energy conservation planning actions are conducted at a regional level, and because the project's total impact to regional energy supplies would be minor, the proposed project would not conflict with California's energy conservation plans as described in the CEC's 2019 Integrated Energy Policy Report. Therefore, impacts would be less than significant.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required.

GEOLOGY AND SOILS Would the project directly or indirectly:				
11. Alquist-Priolo Earthquake Fault Zone or County Fault Hazard Zones				
a) Be subject to 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?	☐	☐	☒	☐

Source(s): Riverside County General Plan Figure S-2 "Earthquake Fault Study Zones," GIS database, Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

While the County of Riverside is at risk from many natural and man-made hazards, the event with the greatest potential for loss of life or property and economic damage is an earthquake. This is true for

most of Southern California, since damaging earthquakes are frequent, affect widespread areas, trigger many secondary effects and can overwhelm the ability of local jurisdictions to respond.

The San Andreas is one of a system of plate-bounding faults. Most of the movement between the plates occurs along the San Andreas Fault, which bisects Riverside County. The rest of the motion is distributed among northwest-trending, strike-slip faults of the San Andreas system (principally the San Jacinto, Elsinore, Newport-Inglewood and Palos Verdes Faults), several east-trending thrust faults that bound the Transverse Ranges and the Eastern Mojave Shear Zone (a series of faults east of the San Andreas, responsible for the 1992 Landers and the 1999 Hector Mine earthquakes).

The major state legislation regarding earthquake fault zones is the Alquist-Priolo Earthquake Fault Zoning Act. In 1972, the State of California began delineating "Earthquake Fault Zones" (called "Special Studies Zones" prior to 1994) around and along faults that are "sufficiently active" and "well defined" to reduce fault-rupture risks to structures for human occupancy (Public Resources Code [PRC] Sections 2621–2630). The project site is not located within an Alquist-Priolo Earthquake Fault Zone.

a) **Less Than Significant Impact.** The proposed project would have a significant impact if it would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death. The project site is located in a remote area and is not located in an Alquist-Priolo Earthquake Fault Zone or County of Riverside Earthquake Fault Study Zone. The project is located approximately 68 miles east of San Andreas Fault zone, Coachella section, the closest active fault to the proposed project site. The Blythe Graben Fault is located approximately 10 miles southeast of the project site but is considered inactive for project planning purposes. Therefore, the potential for ground rupture to occur at the site is considered nil. While light to moderate shaking of the site can be expected to occur during the lifetime of the proposed project, the project does not include any habitable structures and as the project site is located outside any fault hazard zones, the project would result in a less than significant impact.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

12. Liquefaction Potential Zone a) Be subject to seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Source(s): Riverside County General Plan Figure S-3 "Generalized Liquefaction", Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

Liquefaction is a process by which water-saturated materials (including soil, sediment and certain types of volcanic deposits) lose strength and fail during strong groundshaking. Specifically, liquefaction is defined as "the transformation of a granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure." Liquefaction occurs worldwide, commonly during moderate to great earthquakes. Four kinds of ground failure commonly result from liquefaction: lateral spread, flow failure, ground oscillation and loss of bearing strength.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

a) **Less Than Significant Impact.** According to the slope stability report prepared for the proposed project, the site includes 610 acres of bedrock highland within the Little Maria Mountains of Riverside County. The geologic substrates found within the project area include gypsum, limestone, quartzite, and green schist. Surface substrates within project area are composed of coarse, rocky alluvium consisting primarily of gravel, cobbles, and boulders. Based on the presence of non-liquefiable bedrock, the potential for liquefaction and other shallow groundwater-related hazards at the site is considered to be very low. Furthermore, according to the County's General Plan, the project site, has a low susceptibility to liquefaction. Therefore, the project would have a less than significant impact.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

13. Ground-shaking Zone a) Be subject to strong seismic ground shaking?	☐	☐	☒	☐

Source(s): Riverside County General Plan Figure S-4 "Earthquake-Induced Slope Instability Map," and Figures S-13 through S-21 (showing General Ground Shaking Risk) Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

Groundshaking is simply the movement of the earth resulting from an earthquake. Shaking can cause lateral movement and is the primary reason for collapse of buildings. The strength of seismic groundshaking at any given site is a function of many factors.

Factors of primary importance in groundshaking severity include the size of the earthquake, its distance, the paths the seismic waves take as they travel through the earth, the type of rock or soils underlying the site and topography (particularly whether a site sits in a valley or atop a hill). The amount of resulting damage also depends on the size, shape, age and engineering characteristics of affected structures. Interactions between ground motion and man-made structures are complex. Governing factors include a structure's height, construction and stiffness; a soil's strength and resonant period; and the period of high-amplitude seismic waves.

a) **Less Than Significant Impact.** The proposed project would have a potentially significant impact if it would be subject to strong seismic shaking. According to the slope stability report prepared for the proposed project, light to moderate shaking at the site can be expected to occur during the lifetime of the proposed project. The project does not include any habitable structures and would be required to comply with all applicable California Building Code (CBC) requirements. Therefore, impacts would be less than significant.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Landslide Risk a) 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, collapse, or rockfall hazards?	☐	☒	☐	☐

Source(s): On-site Inspection, Riverside County General Plan Figure S-5 "Regions Underlain by Steep Slope", Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

In the context of the slope stability report prepared for the project, "landslide" refers to deep-seated slope failures that involve mine pitscale features that have the potential to reduce the long-term stability of finished quarry reclamation slopes. Landslides in rock are typically related to structure in the parent material. Surficial failures refer to shallow failures that affect limited interbench zones and may result in localized raveling of rock material. Surficial failures or raveling, typically involving surface soils or the disturbed rock zone mantle, are considered a slope management/maintenance issue during mining.

The susceptibility of a geologic unit to landsliding is dependent upon various factors, primarily: 1) the presence and orientation of weak structures, such as fractures, faults or clay beds; 2) the height and steepness of the natural or cut slope; 3) the presence and quantity of groundwater; and 4) the occurrence of strong seismic shaking. Primary influences on the stability of final mine slopes are anticipated to be interaction between slope geometry and geologic structure including joints, foliation and bedrock faults within the pit margin. The groundwater and seismic potentials at the site are low.

a) **Less than Significant with Mitigation Incorporated.** According to the slope stability report prepared for the proposed project, the whole rock strength of bedrock materials is sufficient to accommodate the proposal overall slope angles. The proposed overall approximate 45-degree mine cut-slopes are suitable stable against failure for the anticipated long-term conditions, including the effects of seismic shaking. Furthermore, according to the General Plan, the project is not in an area where landslides have previously occurred or identified as being susceptible to a seismically induced landslide or rockfall. However, potentially significant landslide impacts could occur if the recommendations included in the slope stability report are not implemented. Potentially significant impacts would be reduced to a less than significant level with implementation of Mitigation Measure GEO-1.

Mitigation:

Mitigation Measure GEO-1

The following recommendations from the slope stability report shall be incorporated:

- Overall cut slopes shall be designed equal to or flatter than 45 degrees up to the maximum proposed height (585 feet) for all project phases.
- Mining operations and ongoing slope design shall include allowance for flattening of overall slope angles where adverse geologic structures pose a hazard to safety or long-term slope stability.

- Haul roads and ramps shall be designed in accordance with accepted mining standards and in compliance with Mine Safety and Health Administration (MSHA) requirements.
- Geologic mapping of all mine slopes and final reclamation slopes shall be performed by the mine operator's geologist prior to or during annual inspections or more frequently as conditions warrant.
- Preparation of the final benched slope faces shall include scaling to ensure removal of loose or potentially unstable blocks, if present.
- If raveling or instability is evident during excavation of final slopes, the bench width shall be increased to provide a suitable buffer to daylighted or unstable features and a sufficient bench area to mitigate rockfall.
- All unstable, rounded boulders, overburden, or mine slopes shall be removed or stabilized where accessible.
- Mine areas below loose rock, if left in place during mining, shall be restricted from general access and indicated by means of signage or fencing.
- Mine slopes shall be protected with perimeter berms and/or levees as necessary to prevent slope erosion or surface flow incursion in the areas where natural slopes drain toward the mining and/or reclaimed slopes.

Monitoring:

Monitoring Measure GEO-1

The applicant shall be responsible for retaining a geotechnical engineer or geologist for periodic observation of mine benches above working areas for indications of potential instability during mine operations. Pit slope monitoring shall include regular inspections of benches and pit crests in order to identify any tension cracking or other indications of potential slope instability. Inspection of the benches/pit walls near newly mined areas shall identify and document any features suggestive of slope instability, including fissures on cracks, raveling on rock faces, or water seepage. The geotechnical engineer or geologist shall be notified if adverse slope conditions that are not mitigated by established operational plans are discovered during mining. The required annual inspections shall be performed to provide documentation of conditions in mining and reclamation slopes. Inspections of pit conditions shall be performed at time intervals sufficient to provide for ongoing safety of personnel and mine slope stability and shall be determined by on-site personnel (mine manager) based on operating conditions.

15. Ground Subsidence a) 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 ground subsidence?	☐	☐	☒	☐

Source(s): Riverside County General Plan Figure S-7 "Documented Subsidence Areas Map", Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

Ground subsidence is typically a gradual settling or sinking of the ground surface due to fluid withdrawal, such as the removal of groundwater or oil and gas fluids. Typically, there is settlement in a vertical sense and little or no horizontal movement, although fissures (cracks and separations) are common. It

is generally caused when large amounts of groundwater have been removed from alluvium-containing, fine-grained sediments. Subsidence can range from small or local collapses to broad regional lowering of the earth's surface. While subsidence typically occurs throughout a susceptible valley, additional displacement and fissures occur at or near the valley margin. Susceptible valleys are those predominantly filled with unconsolidated sand and silty sand that includes thin layers of silt and clayey silt.

a) **Less than Significant.** According to the Riverside County General Plan, the project is located in a "susceptible" area for subsidence, although no areas of documented subsidence have occurred on the project site or within the project vicinity. The geologic formations found within the project area are coarse and rocky, including gypsum, limestone, quartzite, and green schist. These geologic units are not susceptible to subsidence. The alluvium adjacent to the project site consisting primarily of sand, gravel, cobbles, and boulders do not contain fine-grained sediments and therefore are not susceptible to subsidence either. The proposed project is not anticipated to result in significant declines in groundwater levels at the project site or surrounding areas; therefore the potential for the project to result in ground subsidence is very low and project impacts to this topic are less than significant.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

16. Other Geologic Hazards a) Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?	☐	☐	☐	☒

Source(s): Riverside County General Plan Figure S-10 "Dam Failure Inundation Zones", On-site Inspection, Project Application Materials

Findings of Fact:

a) **No Impact.** The project site is not located within an area which has a known risk of seiche, mudflow or volcanic activity. In addition, and according to the Riverside County General Plan, the proposed project site is not subject to inundation due to the failure of any nearby dams. Therefore, no impact would occur as a result of seiches, mudflows, volcanic hazards, or other geologic hazards.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

17. Slopes a) Change topography or ground surface relief features?	☐	☒	☐	☐
b) Create cut or fill slopes greater than 2:1 or higher than 10 feet?	☐	☒	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in grading that affects or negates subsurface sewage disposal systems?	☐	☐	☐	☒

Source(s): Riv. Co. 800-Scale Slope Maps, Project Application Materials, Slope Stability Analysis, CHJ Consultants, September 2016 (Appendix D)

Findings of Fact:

a,b) **Less than Significant with Mitigation Incorporated.** The existing on-site cut slopes would remain in their current condition. The proposed project would construct 15-foot-wide benches within the overburden stockpiles and top-to-toe slope angles of 23 degrees, or 2.35H:1V (horizontal:vertical). Additionally, rock slopes within the quarry, for both the Phase 1 quarry expansion and Phase 2 mining, would be 25-foot-high, 80-degree maximum faces, separated by 20-foot wide benches, creating an overall slope of 45 degrees, or 1H:1V. According to the slope stability report prepared for the proposed project, this benching plan is suitable for reclamation and mining. The proposed slopes of 45-degree mine cut-slopes are suitable stable for the anticipated long-term conditions, including the effects of seismic shaking. Slopes would also be revegetated as a part of the reclamation phase of the project. In order to ensure compliance with the site-specific recommendations listed in the slope stability report, Mitigation Measure GEO-1 above has been incorporated for the proposed project, as creation of slopes greater than 2:1 or higher would result in potentially significant impacts prior to mitigation. Therefore, impacts related to changes in the site's topography, ground surface relief, and slopes would be less than significant with mitigation incorporated.

Mitigation: Mitigation Measure GEO-1 shall apply.

Monitoring: Monitoring Measure GEO-1 shall apply.

c) **No Impact.** The project site does not currently include a subsurface sewage disposal system and the proposed project would continue to utilize the portable toilets on the site. Therefore, the project would have no impact regarding disturbance of any subsurface sewage disposal system. In the future, the operator may design and permit an on-site septic system, providing that studies are completed showing that existing soil conditions and design plans meet the Riverside County Environmental Health Services requirements. The siting of a septic system would be located so that approved mining operations would not impact its function. The design and installation of an on-site septic system are not included as a component of the proposed project analyzed in this document.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

18. Soils a) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
b) Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Source(s): Project Application Materials, On-site Inspection, Slope Stability Analysis, CHJ Consultants (Appendix D), September 2016, Hydrology and Hydraulics Report Webb Associates, September 2016 (Revised January 11, 2017) (Appendix E), Water Quality Management Plan Memorandum, Webb Associates, September 2016 (Appendix E)

Findings of Fact:

Soil erosion is the process by which soil particles are removed from a land surface by wind, water or gravity. Most natural erosion occurs at slow rates; however, the rate of erosion increases when land is cleared or altered and left in a disturbed condition. The primary factors that influence erosion include soil characteristics, vegetative cover, topography and climate.

Expansive soils have a significant amount of clay particles that can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils. The occurrence of these soils is often associated with geologic units having marginal stability. Expansive soils can be widely dispersed and they can occur in hillside areas as well as low-lying alluvial basins.

a) **Less Than Significant Impact.** A site-specific hydrology and hydraulics (H&H) study and water quality management plan (WQMP) were prepared for the proposed project (Appendix E). As shown in Figure 3 (Mine Plan), the proposed project includes several diversions and berms to divert the existing surface flows away from the proposed mining pit and overburden stockpile areas. As stated in the H&H study, due to the proposed diversion (Intermittent Streambed Relocation) and a proposed berm would result in increased runoff in some locations compared to existing conditions. However, other areas of the project site would be self-containing drainage areas or include high debris berms that would reduce runoff from existing conditions. Furthermore, as stated in the WQMP, a Stormwater Pollution Prevention Plan (SWPPP) was prepared for the project. According to the SWPPP, 100% of the site has permeable soil like surfaces with potential to erode during heavy rain events. The SWPPP contains site-specific Best Management Practices (BMPs) to prevent substantial erosion. Compliance with the SWPPP is required as a condition of approval for the proposed project. Therefore, the proposed project would result in a less than significant impact from substantial soil erosion.

b) **Less Than Significant Impact.** The proposed project would include one additional 40-foot by 20-foot modular building. The slope stability report for the project describes the expansive nature of gypsiferous material on the project site; however, the modular building would be placed near the processing area, which is located on fill material. This building would be required to comply with the CBC. Therefore, the addition of this temporary office space would not constitute a substantial risk to life and property. The proposed project would have a less than significant impact.

c) **No Impact.** There are no sewer facilities available on the project site or within the project vicinity. The proposed project would continue to use the portable facilities currently on the project site. Therefore, the proposed project would have no impact related to soils incapable of

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

supporting wastewater disposal systems. In the future, the operator may design and permit an on-site sewage disposal system, providing that studies are completed showing that existing soil conditions and design plans meet the Riverside County Environmental Health Services requirements. It is unknown at this time if the soils are capable of adequately supporting use of a septic system. Design and installation of an on-site septic system are not included as a component of the proposed project analyzed in this document.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

18. Erosion a) Change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?	☐	☐	☒	☐
b) Result in any increase in water erosion either on or off site?	☐	☐	☒	☐

Source: U.S.D.A. Soil Conservation Service Soil Surveys, Slope Stability Analysis, CHJ Consultants (Appendix D), September 2016, Hydrology and Hydraulics Report Webb Associates, September 2016 (Revised January 11, 2017) (Appendix E), Water Quality Management Plan Memorandum, Webb Associates, September 2016 (Appendix E)

Findings of Fact:

a,b) **Less Than Significant Impact.** A site specific H&H study and WQMP were prepared for the proposed project (Appendix E). Several diversions and berms, including an Intermittent Streambed Relocation, are proposed to divert the existing surface flows away from the proposed mining pit and overburden stockpile areas. As stated in the H&H study, stream diversions would be constructed in accordance with CDFW and the requirements of the Federal Clean Water Act. Due to the proposed Intermittent Streambed Relocation, there is an expected increase runoff of approximately 190 cfs. The proposed berm along the western side of the proposed quarry would also result in an increase of approximately 63 cfs. The proposed quarry is considered a self-contained drainage area and would therefore decrease surface runoff by approximately 372 cfs at this location. The high debris berm on the east side of the proposed quarry would decrease runoff by approximately 21 cfs from existing conditions. The SWPPP contains site-specific Best Management Practices (BMPs) to prevent substantial erosion. Compliance with the SWPPP is required as a condition of approval for the proposed project. The proposed project would result in a less than significant impact from substantial soil erosion.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

19. Wind Erosion and Blowsand from project either on or off site. a) Be impacted by or result in an increase in wind erosion and blowsand, either on or off site?	☐	☒	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source(s): Riverside County General Plan Figure S-8 "Wind Erosion Susceptibility Map," Ord. No. 460, Article XV & Ord. No. 484, Mojave Desert AQMD Fugitive Dust Rule 403, Mojave Desert AQMD permitting regulations; Double D Gypsum Mine Air Quality and Greenhouse Gas Assessment, Atmospheric Solutions, Inc., January 2017 (Appendix A)

Findings of Fact:

The most significant large-scale phenomena affecting air quality in the project area are the transport winds from the west. The proposed project would result in increased emissions from operation of the expanded mine and increased extraction and production rates. Emissions from project related on-site activities would result mining activities, operation of the mine processing equipment, off-road mobile equipment (exhaust and fugitive dust) at the mine, wind erosion, and from blasting. Tables 11 and 12 in Section 6 (Air Quality Impacts) above present the summary of emissions for the proposed operations scenario, including fugitive PM emissions from wind erosion.

a) **Less than Significant with Mitigation Incorporated.** Mining operations would result in stockpiles that may be susceptible to wind erosion. As stated in the project description above, during mining operations, all unpaved roads and active mining areas would be wetted, through water or approved dust control suppressants. Once mining is complete and reclamation has begun, revegetation would ensure a long-term reduction in wind erosion and blowsand. The Riverside County General Plan identifies the project site as within an area subject to "moderate" wind erosion hazards. Compliance with MDAQMD regulations such as Rule 403 for fugitive dust would also be required for the life of the Surface Mining Permit (SMP No.102R1). Implementation of Mitigation Measure GEO-2 would ensure compliance with MDAQMD regulations and impacts related to wind erosion and blowsand would be less than significant.

Mitigation:

Mitigation Measure GEO-2: Erosion Control Measures

The Operator shall ensure compliance with all relevant MDAQMD regulations by implementing erosion control procedures specific to wind erosion and fugitive dust.

Monitoring:

Monitoring Measure GEO-2: Erosion Control Measures

Annual inspections by Riverside County shall ensure compliance with Riverside County Ordinance No. 555 and the approved Mine and Reclamation Plan.

GREENHOUSE GAS EMISSIONS Would the project:				
20. Greenhouse Gas Emissions a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Source(s): Climate Action Plan, County of Riverside, December 2019; Double D Gypsum Mine Air Quality and Greenhouse Gas Assessment, Atmospheric Dynamics, Inc., January 2017 (Appendix A)

Findings of Fact:

An Air Quality and Greenhouse Gas Assessment was prepared for the proposed project by Atmospheric Dynamics, Inc. (Appendix A). This report evaluated the proposed project's potential air quality and greenhouse gas emission impacts with respect to applicable CEQA guidelines and was reviewed and approved by the MDAQMD (see Attachment 2 in Appendix A). The emission of GHGs from many sources over long periods of time has resulted in, and continues to contribute to, global warming and climate change. Individual development projects are too small to have a measurable effect on global climate; however, the GHG emissions from each project are assumed to result in an incremental contribution to global warming and climate change. The geographic scope of climate change is global, and the cumulative emissions of GHGs globally have resulted in cumulatively significant climate change impacts. In terms of CEQA, GHG emissions associated with individual development projects are by nature cumulative in their effects. As such, the focus of this analysis is to determine whether the GHG emissions associated with the Double D Mine project represent a considerable contribution to the cumulatively significant impacts resulting from global climate change. For purposes of this analysis, a cumulatively considerable contribution is considered a significant adverse impact.

Both on-site and off-site GHG emissions associated with the baseline and proposed mining operations were computed. The methodology was the same used to compute criteria air pollutant emissions previously described, which applied emission factors to existing and projected mine activity. Both on-site and off-site GHG emissions are from the use of off-road equipment and on- and off-site vehicle travel that includes mine trucks, truck traffic, and employee traffic. These emissions are primarily from fossil fuel combustion (mostly diesel). On-site emission sources at the mine include exhaust from stationary equipment, mobile off-road equipment, and on-site vehicles. Off-site emission sources include vehicle exhaust emissions from trucks and employee vehicles while traveling on- and off-site. GHG emissions from these sources were calculated in a similar manner as for criteria pollutant emissions using emission factors from CARB's OFFROAD and EMFAC2014 emissions models along with on-road vehicle and off-road equipment use and travel distance information. Due to the remote location of the mine, energy (electricity) for on-site mine use is produced by diesel generators. Emissions from the diesel generators were included in the emissions from off-road equipment.

Baseline Mine Operation Emissions

The CEQA Guidelines requires consideration of the "extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting" (CEQA Guidelines § 15064.4(b)(1)). As shown in Table 15, the total greenhouse gas emissions associated with the existing mine operation is estimated to be approximately 3,950 tons of CO_2e per year.

Table 15. Summary of Double D Mine Baseline Greenhouse Gas Emissions

Emission Source	GHG Emissions[a,b]	
	CO_2e (lbs/day)	CO_2e (tons/year)
Gypsum Processing	-	-
Processing & Mining Fugitives	-	-
On-Site Off-Road Equipment Emissions	16,628	2,079
Unpaved Road Fugitive Emissions	-	-
Paved Road Vehicle Travel	14,956	1,870
Drilling and Blasting	16	2
Fugitive PM Emissions from Wind Erosion	-	-
Total	31,601	3,950

[a] Includes emissions of N_2O and CH_4.
[b] Includes emissions occurring at the mine site due to mining and associated activities along with off-site vehicle (trucks and employee vehicles) travel within the MDAQMD boundary.

Proposed Mine Operation Emissions

For the proposed project, emission sources at the mine are the same as the existing mine with increased annual production rates, vehicle and equipment use, and increased blasting. The project is not anticipated to add electrical generation capacity, but rather it will utilize the existing generating capacity for more hours in the proposed operating scenario. Emissions for the existing and proposed scenarios were based on the current engine emissions profiles and factors in combination with the current and proposed operating hours.

Table 16 provides the on-site and off-site GHG emissions from proposed operation of the mine in 2019 at a production rate of 450,000 tons per year. The proposed project would increase GHG emissions over baseline conditions by 13,018 pounds per day and 2,848 tons per year.

The significance of the proposed project GHG emissions were evaluated by comparing the increase in emissions from the proposed project over baseline conditions to the MDAQMD threshold for Projects/Stationary Sources of 548,000 pounds per day and 100,000 tons/year. Significance thresholds for GHG emissions are also provided in Table 7 above in Section 6 (Air Quality Impacts). Table 16 shows the net increase in emissions caused by the project and compares those increases with the appropriate significance threshold.

Table 16. Summary Double D Mine Proposed Greenhouse Gas Emissions

Emission Source	GHG Emissions	
	CO_2e (lbs/day)[a]	**CO_2e[b] (tons/year)**
Gypsum Processing	-	-
Processing & Mining Fugitives	-	-
On-Site Off-Road Equipment Emissions	23,615	3,542
Unpaved Road Fugitive Emissions	-	-
Paved Road Vehicle Travel	20,986	3,253
Drilling and Blasting	19	3
Fugitive PM Emissions from Wind Erosion	-	-
Total	44,619	6,798
Change in Emissions[a]	13,018	2,848
MDAQMD Annual Threshold	548,000	100,000
Exceed Significance Threshold	**No**	**No**

[a] Includes emissions of N_2O and CH_4.
[b] Includes emissions occurring at the mine site due to mining and associated activities along with off-site vehicle (trucks and employee vehicles) travel within the MDAQMD boundary.

a) **Less Than Significant Impact.** As seen in Table 16 above, the net increase in GHG emissions from the project would not exceed the MDAQMD significance thresholds for direct or indirect CO_2e emissions. Furthermore, by providing a local and regional source for high quality gypsum, the project would be expected to reduce the emissions from transporting gypsum ore from more distant sources, including other in-state and in-country sources. Therefore, the proposed project's increase in GHG emissions would be a less-than-significant impact.

b) **Less Than Significant Impact.** Currently, the MDAQMD has not adopted a Greenhouse Gas Reduction Plan or Strategy that would apply to the project. On the State level the applicable plan, policy, or regulation would be the California Global Warming Solutions Act of 2006 (AB 32). As discussed earlier, AB 32 requires that greenhouse gases in California be reduced to 1990 levels by the year 2020. Executive Order B-30-15 and SB 32 established a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030. In December 2019, the County of Riverside adopted a Climate Action Plan Update (CAP), which contains guidance on the County's GHG Inventory reduction goals. The CAP includes GHG emission reduction measures for transportation, energy, area source emissions, purchased water, solid waste, agriculture, and industrial land uses. According to the 2019 CAP, "a threshold level above 3,000 MT CO2e per year will be used to identify projects that require the use of Screening Tables or a project-specific technical analysis to quantify and mitigate project emissions." The proposed project would increase GHG emissions over baseline conditions by 2,848 tons per year, which is less than the 3,000 MT CO2e per year screening level threshold identified in the CAP. As described above, project generated GHG emissions would not exceed thresholds used to evaluate the significance of GHG emissions. Furthermore, the proposed project would help to reduce emissions from transporting gypsum, by providing a local and regional source for high quality gypsum. Therefore, the proposed project would not conflict with any adopted plans and would be subject to rules or regulations that are contained in any GHG reductions plans. The proposed project would result in a less-than-significant impact.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

HAZARDS AND HAZARDOUS MATERIALS Would the project:				
21. Hazards and Hazardous Materials 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) Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?	☐	☐	☐	☒
d) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter (1/4) mile of an existing or proposed school?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒

Source(s): Project Application Materials, Department of Toxic Substances Control EnviroStor Database

Findings of Fact:

a,b) **Less Than Significant Impact.** The only hazardous materials associated with the proposed project include oils and fuels for construction, explosives for blasting, and other mining-related equipment. Diesel is used to fuel on-site mobile equipment, trucks, and electric generators. Diesel is currently delivered on-site by truck from Blythe and stored on-site in two permitted above ground 3,000-gallon and 4,000-gallon diesel tanks with a concrete catch basin and encased in three to four inches of concrete for protection in this remote location. Two portable diesel tank wagons are also currently used on the project site. Additional diesel fuel tanks are anticipated to accommodate up to double the amount of diesel fuel currently used on site. The Best Management Practices currently used for storage and fueling would also apply to any additional fuel tanks on the site. Furthermore, a Spill Prevention Control Plan and Counter-Measure Plan (SPCC) is currently in place and would also apply to any additional fuel storage tanks. Waste generated on-site is limited to non-hazardous waste piles and refuse from site workers. Waste piles would be disposed of on-site as part of the Reclamation Plan, and refuse would be disposed of according to County requirements. No explosives for blasting are stored on-site. The transporting, handling, storage, and use of explosives, blasting agents, and blasting equipment is directed and supervised by a qualified Blast Officer (blasting contractor). All vehicles and explosive transport magazines are required to conform to all Federal, State, and local regulations associated with the transportation and handling of explosives. Mining operations are inspected on an annual basis by the County of Riverside Department of

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Environmental Health for any hazardous materials problems. Therefore, potential impacts from the routine transport, use, or disposal of hazardous materials, and any reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

c) **No Impact.** The remote project site is accessible via a private access road and is not located along any major public roads. The project site is not located within any adopted emergency response plans or emergency evacuation plans. Furthermore, there are no residential structures or businesses that require access through the site during an emergency. Therefore, the proposed project would have no impact related to emergency response or evacuation plans.

d) **No Impact.** The proposed project is located within a remote location and is not located within ¼ mile of any existing or proposed schools. The closest school to the project site is located approximately 20 miles to the southeast of the project site in the City of Blythe. Therefore, the proposed project would have no impact related to hazardous emissions or handling of hazardous materials near a school.

e) **No Impact.** According to the Department of Toxic Substances Control EnviroStor Database, the project site is not located on a hazardous material site, as listed pursuant to Government Code Section 65962.5. Therefore, no impact would occur.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

22. Airports a) Result in an inconsistency with an Airport Master Plan?	☐	☐	☐	☒
b) Require review by the Airport Land Use Commission?	☐	☐	☐	☒
c) For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) 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?	☐	☐	☐	☒
d) For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Source(s): Riverside County General Plan Figure S-20 “Airport Locations,” GIS database

Findings of Fact:

a-d) **No Impact.** The project site is not located within an Airport Master Plan, airport influence area, or airport compatibility zone. The nearest airport is the Blythe Airport, located approximately 16 miles to the southeast of the project site. Therefore, the proposed project would not require review by the Airport Land Use Commission. Furthermore, the proposed

project is not located within the vicinity of any private airports or heliports. Therefore, the proposed project would have no impact related to airport hazards.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY Would the project:				
23. Water Quality Impacts a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through addition of impervious surfaces?	☐	☐	☒	☐
d) Result in substantial erosion or siltation on-site or off-site?	☐	☐	☒	☐
e) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site?	☐	☐	☒	☐
f) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
g) Impede or redirect flood flows?	☐	☐	☒	☐
h) In flood hazard, tsunami, or seiche zones, risk the release of pollutants due to project inundation?	☐	☐	☐	☒
i) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Source(s): Riverside County Flood Control District Flood Hazard Report/Condition, Hydrology and Hydraulics Report Webb Associates, September 2016 (Revised January 11, 2017) (Appendix E), Water Quality Management Plan Memorandum, Webb Associates, September 2016 (Appendix E)

Findings of Fact:

a,c,d,e,f,g) **Less Than Significant Impact.** A Hydrology & Hydraulics (H&H) report and Water Quality Management Plan (WQMP) were prepared for the proposed project by Webb Associates in September 2016 (Appendix E). As stated in the H&H report, the project site is located in an area with five watersheds delineated for existing conditions. Surface water generally flows in a south-southeasterly direction in the upper watersheds and flows in a southwest direction in the lower portion of the watersheds. Due to past mining activities, several berms and pits remain causing sump like conditions and ponding of surface flows. As shown on the Mine Plan, several diversions and berms are proposed to divert the existing surface water flows away from the existing and proposed mining pit and overburden stockpile areas.

In order to divert a major watercourse away from the quarry site, a high debris berm is proposed, which would divert an approximately 125-acre drainage to the southwest. In addition, a berm would also be needed along the northwest side of the proposed quarry to

prevent residual drainage from flowing into the quarry. A second high-debris berm is used to divert another major watercourse, consisting of approximately 257 acres, away from the proposed quarry and associated temporary stockpiles.

Due to the proposed Intermittent Streambed Relocation (diversion), runoff would increase by 190 cubic feet per second (cfs). The proposed berm along the western side of the proposed quarry expansion would result in an increase of 63 cfs. As the quarry would be a self-contained drainage area, there would be a decrease of 372 cfs in this area. The high debris berm along the east side of the proposed quarry expansion would also result in a decrease of 21 cfs. The project design includes drainage alternations such as berms and sumps (gravel trenches) outside stockpile areas in order to prevent runoff from stockpiles from deteriorating downstream waterbodies. Furthermore, the WQMP prepared for the project includes the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project site and contains site-specific Best Management Practices (BMPs) to prevent substantial erosion and pollution. Compliance with the SWPPP is required as a condition of approval for the proposed project. The proposed project would not violate any water quality standards, including but not limited to: sediment, trash/debris, oil/grease, pesticides, metals, and other pollutants. The proposed project would also result in a less than significant impact from altered drainage patterns and surface runoff.

b) **Less Than Significant Impact.** Water used on the project site is currently delivered by truck, and no wells are operated on-site. The proposed project would result in a minimal amount of increased impervious surface from the one modular building proposed. The rooftop of this modular office building does not present a significant increase in impervious surface on the 611-acre site. Accordingly, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project would have a less than significant impact related to groundwater.

h) **No Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map No. 06065C1925G, the project site is not located within the 100-year floodplain. Due to the low risk of storm related flooding at the project site, the project would have no impact related to the potential release of pollutants due to storm related flooding. The project site is not near a mapped tsunami inundation area; therefore, flooding impacts associated with tsunamis would not occur. A seiche is the oscillation of a body of water. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors and may be triggered by strong winds, changes in atmospheric pressure, earthquakes, tsunami, or tides. The project site is not located near a body of water that could result in any seiche impacts to the site.

i) **Less Than Significant Impact.** Mandatory compliance with the BMPs specified in the SWPPP would ensure the proposed project does not result in any significant impacts to water quality. The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Impacts would be less than significant.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
LAND USE/PLANNING Would the project:				
24. Land Use a) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
b) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?	☐	☐	☐	☒

Source(s): Riverside County General Plan, GIS database, Project Application Materials

Findings of Fact:

a) **No Impact.** The proposed project would revise the existing surface mining permit (SMP No. 102R1) in order to increase the area subject to mining activities, add overburden stockpiles, and increase the processing plant capacity. No other land uses are proposed on the project site during mining operations. Following completion and reclamation activities, the project site would be used as open space habitat. The proposed land uses are consistent with the General Plan and zoning designations for the project site and would not require a General Plan or zoning amendment.

b) **No Impact.** The proposed project is located in unincorporated Riverside County in a remote setting surrounded by open space. Therefore, the proposed project would not physically divide an established community and no impact would occur.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

MINERAL RESOURCES Would the project:				
25. Mineral Resources a) Result in the loss of availability of a known mineral resource that would be of value to the region or 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?	☐	☐	☒	☐
c) Potentially expose people or property to hazards from proposed, existing, or abandoned quarries or mines?	☐	☒	☐	☐

Source(s): Riverside County General Plan Figure OS-6 “Mineral Resources Area”

Findings of Fact:

a,b) **Less Than Significant Impact**. According to the County of Riverside’s General Plan, the project site is located in an area designated Mineral Resources Zone 4 (MRZ-4) (pursuant to the Surface Mining and Reclamation Act of 1975, or SMARA), which is defined as an area where

"presence and significance of mineral deposits undetermined." The proposed project would involve the continuation of mining on the 611-acre project site, which would result in the continued commercial extraction and production of the property's mineral resources. Accordingly, the proposed project would make productive use of the property's mineral resources, as planned for and expected by Riverside County and the California State Mining and Geology Board, which oversees SMARA. The proposed project would allow for the continued use of the property's aggregate resources, which are of value to the State and the region. Therefore, the proposed project would have less than significant impacts.

c) **Less than Significant with Mitigation Incorporated.** Access to the project site is obtained from Interstate 10 (I-10) and the N. Lovekin Boulevard exit, heading north to Midland Road, then northwest on Arlington Mine Road for approximately nine miles through Bureau of Land Management (BLM) property to the entrance on the south side of the mine. The project site is removed from areas visited by the general population. The proposed project would increase the number of employees at the project site from the existing 8-10, to up to 24. Site workers have the potential to be exposed to hazards inherent to mining operations, but such hazards would be addressed through mandatory compliance with federal, state, and local regulations governing working conditions in mines. Blasting operations on the project site, currently occur once per month, could increase to twice per month with implementation of the proposed project. This additional blasting activity represents a potentially significant impact related to exposure of site workers to hazards from mining activities. However, implementation of Mitigation Measure MIN-1 below would reduce this impact to a less than significant level

Mitigation:

Mitigation Measure MIN-1

Blasting operations involving drilling along the mining face, placement of charges, and detonation of charges shall be conducted by a blaster licensed through the Bureau of Alcohol, Tobacco, and Firearms for handling explosives. In compliance with County regulations, blasting shall only be conducted by a licensed blaster upon issuance of a blasting permit. The County Sheriff's Department shall also issue a site-specific blasting permit prior to any blasting activity. The licensed blaster shall also submit a certificate of insurance evidencing that he or she has obtained a general liability insurance policy of not less than $500,000 for each occurrence.

Other practices required for blasting operations shall include the following:

- Blasting shall take place between the hours of 10:00 a.m. and 4:00 p.m. on weekdays (Monday through Friday).
- No blasting shall be allowed after dark.
- A blasting plan involving proper blasting design with the efficient use of explosive delays and enough stemming or overburden material to confine fly rock, as designed by a qualified blasting expert shall be required.
- Site-specific safety features shall be required, including but not limited to:
  - The removal of unstable boulders
  - Stabilization of boulders
  - Limiting the amount of explosives used in blasting
  - Site inspection prior to blasting;
  - Lookout postings; and
  - Use of warning signal.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring:

Monitoring Measure MIN-1

Prior to the issuance of a blasting permit, the project proponent shall prepare a blasting plan, retain a licensed blaster, and prepare all permit application materials. The County shall ensure all insurance requirements are fulfilled and all safety requirements are included in the blasting plan, prior to issuance of the blasting permit. The project proponent shall be responsible for implementation of the blasting plan and all other blasting permit conditions.

NOISE Would the project result in:				
26. Airport Noise a) For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) 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?	☐	☐	☐	☒
b) For a project located within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Source: Riverside County General Plan Figure S-20 "Airport Locations," County of Riverside Airport Facilities Map, Noise Calculations (Appendix F)

Findings of Fact:

a,b) **No Impact.** The project site is not located within an Airport Land Use Plan, Airport Master Plan, airport influence area, or airport compatibility zone. The nearest airport is the Blythe Airport, located approximately 16 miles to the southeast of the project site. Therefore, the proposed project would have no impact related to airport noise.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
27. Noise Effects by the Project a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☒	☐

Source: Illingworth & Rodkin, Inc. Traffic Noise Modeling (see Appendix F)

Findings of Fact:

a, b) **Less Than Significant Impact.**

Noise from On-Site Processing Operations

County of Riverside Noise Ordinance

The County of Riverside Ordinance No. 847 prohibits the creation of any sound, on any occupied property to exceed a range of sound levels from 45 to 75 dB, depending on the land use type. There are no occupied land uses within 15 miles of the project site and General Plan Land Use designation surrounding the site and between the site and Blythe is Open Space. The land surrounding Double D Mining overall holdings is privately owned by United States Gypsum Company to the northeast and southeast with the remainder of the surrounding area public lands managed by the BLM. The ghost town of Midland is located approximately four miles to the east. Given the site's isolation, on-site operations would not exceed the maximum allowable noise limits of Ordinance No. 847 for future occupation of land uses in the project region

Noise Assessment – On-Site Activities

Stationary processing equipment and mobile earth moving equipment are the predominant sources of noise at quarries. Processing equipment typically consists of crushers, screens, conveyors, and generators. Mobile equipment typically includes loaders, dozers, excavators, and trucks. Table 17 summarizes average and maximum instantaneous noise levels measured at two Northern California quarries by Illingworth & Rodkin, Inc. (I&R). During busy processing periods, average noise produced by all the equipment operating within the processing area can reach 81 dBA Leq at a distance of 150 feet from acoustic center of the processing operations.

Table 17. Typical Noise Levels Resulting from Quarry Processing Operations

Source and Distance	Noise Level (dBA)	
	Average	L_{max}
Primary and secondary crushers at 100 feet	81	82
Loader and truck at 30 feet loading small aggregate	71	79
Excavator sorting large aggregate at 50 feet	85	93
Truck driving by at 25 feet	68	71
Portable Screening Plant at 40 feet from end	74	84
Loop/Fuel Truck at 70 feet	65	65
Truck scale process at 50 feet	68	78

Noise level projections for the nearest receptors to the quarry conservatively assumed a standard attenuation rate of 6 dB per doubling of distance from the noise source (Harris 1998). As an example, a noise measured 500 feet from its source would be 6 dB less at 1,000 feet from the source, and 12 dB less at 2,000 feet from the source. The nearest noise-sensitive receptors are located over 15 miles (79,200 feet) from the quarry. At a distance of 15 miles, the calculated noise level produced by on-site processing operations would be below 27 dBA Leq. Operational noise levels would fall into the inaudible range at the nearest receptors 15 miles from the quarry when considering the additional attenuation provided by intervening topographical shielding between the noise source and receptors and atmospheric absorption of acoustical energy over very large distances. Therefore, the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; impacts would be less than significant.

Noise and Vibration from Blasting

Double D Mining operations have included drilling and blasting (only when required). All blasting operations are handled by a professional outside service, who handle all permits and notifications to appropriate authority. No explosives are kept on-site. Diesel powered rotating cutting head (drum) machines may be used as an alternative mining method.

When blasting occurs at large distances from sensitive structures, the primary concern is cosmetic damage to structures. Cosmetic damage (e.g., minor cracking in plastered walls) can occur as a result of ground-borne vibration or acoustic overpressures. The Federal Transit Administration (FTA) establishes 0.20 in/sec peak-particle velocity (PPV) as a safe limit to avoid cosmetic damage to non-engineered timber and masonry buildings (FTA 2006). Caltrans also recommends 0.20 in/sec PPV as the upper level of vibration to which fragile buildings should be subjected (Caltrans 2013). The former U.S. Bureau of Mines established 0.50 in/sec PPV and acoustic overpressures exceeding 133 dB(L) as limits to avoid damage (USBM 1980). The more conservative 0.20 in/sec PPV limit is used in this analysis to avoid cosmetic damage to sensitive structures.

I&R monitored ground vibration and air-blast overpressures at the Syar Napa Quarry during two types of blasting events in January and August 2010 (Napa County 2013). Each event lasted a few seconds for the series of blast charges and rock fall. Measured blasting events included a pit blast and a wall blast. A pit blast occurs within the pit floor to loosen materials below grade. The measured pit blast consisted of 30 drilled holes that were 5.75 inches in diameter, with an average of 270 pounds of explosives per drilled hole (also known as a delay). A wall blast occurs on the side walls of the quarry pit to loosen materials from the pit wall. The measured wall blast used an average of 332 pounds of explosives per each of the 9 drilled holes (5.75 inches in diameter).

Vibration levels from blasting at Syar Napa Quarry ranged from less than 0.01 to 0.06 in/sec PPV at locations 2,200 to 3,800 feet from the blasts, but were typically 0.01 to 0.04 in/sec PPV. Vibration levels of 0.04 in/sec PPV or less, which are “barely perceptible,” were within one mile of the quarry blasts. Air-blast noise levels measured during these same events ranged from 101 to 116 dB (Linear or no weighting) within one mile. Noise and vibration levels measured from blasting events were below the FTA’s and the former US Bureau of Mines limits to avoid damage to structures at distances of one mile or less from the blasting events. At a distance of 15 miles, ground-borne vibration or acoustic overpressure levels would not be detectable and well below any thresholds. Thus, the project would not result in the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels; impacts would be less than significant.

Substantial Increase in Noise

As described above, on-site project activities would not be audible to sensitive receptors or other receptors due to sound attenuation over large distances and shielding from terrain. The project traffic would be the only source of noise caused by the project that would affect sensitive receptors or occupied land uses.

The CEQA Guidelines (Appendix G) establishes thresholds for the assessment of environmental noise impacts that address whether there is a "substantial increase" in ambient noise levels. Lead Agencies have defined this increase, generally, over range from 3 dB to 12 dB. A change of 3 dB is considered to be “barely audible” in the ambient environment and a change of 5 dB is considered to be a clearly noticeable change. For this analysis, the Community Noise Equivalent Level (CNEL) was used to characterize environmental noise conditions that affect people. CNEL is a measure noise levels over a 24-hour period, with a 5-dB weighting adjustment (or penalty) applied to the hourly energy-equivalent noise level (Leq[hr]) for noise occurring in the evening from 7:00 pm to 10:00 pm and a 10-dB weighting penalty applied to noise occurring from 10:00 pm to 7:00 am. This type of sound level descriptor characterizes the sensitivity of sensitive receptors to noise occurring in the evening and late night/early mornings.

A review of environmental noise impact studies recently conducted in Riverside County was conducted to identify the level of increase that is considered substantial. The FTA methodology for assessing noise level increases is typically used (County of Riverside 2014 and FTA 2006). FTA’s incremental criteria for noise exposure are more stringent where overall noise levels are louder. Where the baseline noise level is less than 60 dBA CNEL, a permanent increase in roadway traffic noise levels of 3 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant. Where the baseline noise level is between 60 dBA and 65 dBA CNEL, a permanent increase in roadway traffic noise levels of 2 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant. Finally, where the baseline noise level is above 65 dBA CNEL, a permanent increase in roadway traffic noise levels of 1 dBA over baseline ambient noise levels is considered to be substantial and, therefore, significant.

Traffic access to the project site would be from the City of Blythe along North Intake Boulevard, 4th Avenue and North Lovekin Road. There are rural-type residences and agricultural lands along these roadways. Existing traffic levels along 4th Avenue and North Lovekin Road are light consisting of existing traffic that travels to and from the project site. There is considerably more traffic along Intake Boulevard/U.S. Highway 95.

The change in ambient noise level was assessed by modeling traffic noise levels and estimating the ambient background noise level. The Federal Highway Traffic Noise Model (TNM version 2.5) was used to model traffic noise along these roadways (FHWA 2004). All traffic associated with the project site was assumed to use these roadways. Since there is very little traffic on 4th Avenue and North Lovekin Road, this assessment assumed that all of the traffic was associated with the project site. The California Department of Transportation (Caltrans) publishes annual average daily traffic volumes on State Highways (Caltrans 2016). For Intake/U.S. Highway 95, there are on average 4,950 vehicles per day north of Interstate 10, of which 12 percent are trucks. Project traffic was added to this traffic volume to identify the increase in noise levels. Traffic speeds were assumed at 55 miles per hour on all roadways.

Average daily traffic levels broken down by passenger vehicles, medium-duty trucks, and heavy duty trucks were used to develop hourly traffic volumes for existing and proposed project conditions. Currently, the project operates from 7:00 am to 7:00 pm, so trucks were assumed to be distributed evenly over the period 6:00 am to 8:00 pm. This period includes one early morning hour that is penalized for receptor sensitivity by 10 dB and one evening hour that is penalized by 5 dB. With the proposed project, the increase in traffic distributed over the currently assumed hours of 6:00 am to 8:00 pm with only one hour penalized for nighttime and one hour penalized for evening noise generation.

Results of this assessment are reported in Table 18. Sensitive receptors were not identified along Midland Road, so noise predictions along that roadway were not made. There are some residences located as close as about 50 feet from North Lovekin Blvd. and 4th Avenue. Most residences are 100 feet or further. Distances are measured between the roadway centerline and the closest outdoor use area or dwelling unit façade.

Table 18. Modeled Sound Levels along Roadways Accessing the Mine

Roadway Segments	Distance from Centerline	Existing CNEL dBA*	Project Conditions at 450,000 tons per year CNEL dBA		Significant Increase Threshold in dB
along - Midland Rd. - N Lovekin Blvd. - 4th Avenue	50ft	57	59	1.6	3
	100ft	54	55	1.5	3
	200ft	49	50	1.1	3
	400ft	47	47	0.6	3
along N. Intake Blvd. (US 95)	50ft	69	70	0.4	1
	100ft	66	66	0.4	1-2
	200ft	58	59	0.3	3
	400ft	51	53	0.3	3
**Includes non-traffic ambient background of 45 dB CNEL*					

The existing CNEL includes a quiet ambient background noise level, estimated at 45 dB, background traffic on North Intake Blvd (reported by Caltrans), and estimated existing mine traffic. Along the quieter roadways that have very low traffic volumes, existing levels range from about 47 to 57 dB CNEL. With the proposed project, noise levels would increase by about 1 to almost 2 dB along North Lovekin Blvd and 4th Avenue. Because of existing traffic on North Intake Blvd (US 95) the traffic level increase would be less than 1 dB on that roadway.

Noise level increases caused by the proposed project would not be substantial. There are no environments with sensitive receptors where the CNEL noise level would exceed 70 dB. For environments where the CNEL with the proposed project exceeds 65 dB CNEL (approximately 120 feet from the centerline of North Intake Blvd.), the increase would be less than 2 dB. Where the CNEL is 60 to 65 dB (about 120 to 190 feet from the centerline if North Intake Blvd.) the increase would be less than 1 dB. Along North Lovekin Blvd. and 4th Ave where the CNEL is less than 60 dB, the increase would be less than 3 dB. As such, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project based on the FTA noise thresholds cited above. In addition, the project would not result in the exposure of persons to or

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, impacts would be less than significant.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

PALEONTOLOGICAL RESOURCES:				
28. Paleontological Resources a) Directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature?	☐	☒	☐	☐

Source(s): Riverside County General Plan Figure OS-8 "Paleontological Sensitivity", Paleontological Resource Survey Report, Dudek, October 2016 (Appendix C)

Findings of Fact:

The project site is surrounded by desert mountains, alluvial fans, and valleys. Paleontological resources are limited, nonrenewable resources of scientific and educational value, and are afforded protection under state (CEQA) laws and regulations. A site-specific paleontological study was prepared for the proposed project in order to satisfy requirements in accordance with CEQA (13 PRC Section 2100 et seq.) and Public Resources Code Section 5097.5 (Stats 1965, c 1136, p. 2792). The study also complies with guidelines and significance criteria specified by the Society of Vertebrate Paleontology.

Methodology

Table 14 below provides the methodology used to assess the paleontological sensitivity of rock units.

Table 14. Assessment of the Paleontological Sensitivity of Rock Units

Resource Sensitivity/ Potential	Definition
High Sensitivity (High A)	High A is based on geologic formations or mappable rock units that contain fossilized body elements and trace fossils such as tracks, nests, and eggs.
High Sensitivity (High B)	High B is a sensitivity designation equivalent to High A, but is based on the occurrence of fossils at a specified depth below the surface. The category High B indicates that fossils are likely to be encountered at or below a certain depth, and may be affected during excavation by construction activities. A standard condition is attached to the project's environmental planning department, specifying that during grading stage review, a paleontological resource impact mitigation program is a condition for any excavation that reaches or exceeds the specified depth. The depth is generally based on the depth at which other fossils have been discovered in similar sediments near the project area.
Low Sensitivity/ Low Potential	After a literature search, records check, and field survey, areas may be determined by a qualified vertebrate paleontologist to have low potential for containing significant paleontological resources subject to adverse effects. These can include igneous geologic units such as granite and some volcanics. Sediments that are less than 10,000 years old are also included, as they are too young to contain fossils.

Undetermined Sensitivity/ Undetermined Potential	Areas underlain by sedimentary rocks, for which literature and unpublished studies are not available, have an undetermined potential for containing significant paleontological resources. These areas must be inspected during a field survey conducted by a qualified vertebrate paleontologist. A specific determination of high or low potential for containing significant nonrenewable paleontological resources can be made.
Source: County of Riverside 2013.	

Field and background research methods including a museum records search, geological map and paleontological literature review and field survey were used to perform this study. A paleontological records search request was submitted to the Los Angeles County Museum (LACM). The purpose of the LACM records search is to determine whether there are any known fossil localities in or near the project site, identify the sensitivity of geological units present within the project site, and determine whether a paleontological mitigation program is warranted to avoid or minimize potential adverse effects of project construction on paleontological resources.

Additionally, geological maps, reports and the Riverside County Land Information System (RCLIS) were reviewed to identify geological units on the project site. Furthermore, published scientific manuscripts and unpublished technical reports were reviewed, in conjunction with the geological map review, to determine the paleontological sensitivity of the rock units present within the project area.

Finally, pedestrian surveys of the project area were conducted in September 2016, by Dudek field personnel. The purpose of the field survey was to determine whether paleontological resources were present on the ground surface and to field check the published geological mapping. Survey transects were spaced 15 meters apart and oriented south/north across accessible areas of the project's area of potential effects proposed for re-permitting. Within each transect, the ground surface was examined for fossils (bones, teeth, and trace fossils). Ground disturbances such as burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials.

Results

The record search conducted by LACM found no records of fossil localities within a one-mile radius of the project site. However, similar aged deposits to those that underlie the project site have yielded Pleistocene age fossils nearby.

The pedestrian survey did not identify any paleontological resources on the ground surface within the project site. The active mine portions (the western, northern, and southern areas) of the project site have been entirely disturbed by gypsum processing activities (stockpiles, road grading, and test pits).

Review of the paleontological literature did not reveal any known fossil localities in the vicinity of the project site; however, recent (Williams, pers. obs. 2016) and previous paleontological investigations revealed numerous fossils from the same Quaternary geological units (Qa3 and Qa6) that are mapped in and around the project site. Although no known fossil localities were identified within the project site or within a one-mile radius buffer, LACM did state that vertebrate taxa have been identified in the same Pleistocene alluvial sediments in the wider region. Pleistocene-age alluvial deposits should be considered to have a high paleontological potential, and Holocene-age geological units should be considered as having a low or undetermined paleontological potential.

a) **Less than Significant with Mitigation Incorporated.** According to the paleontological survey conducted for the proposed project, no paleontological resources were found on or within a one-mile buffer of the project site. However, the project site is located on Pleistocene-age alluvial deposits, which should be considered as having high paleontological potential, and Holocene-age geological units, which should be considered to have low or undetermined paleontological potential. As such, the proposed project could potentially impact paleontological resources upon inadvertent discovery. However, implementation of Mitigation Measure PALEO-1 would reduce impacts to a less than significant level.

Mitigation:

Mitigation Measure PALEO-1:

Prior to ground disturbance within any previously undisturbed areas as a result of mining expansion, and subsequent to the issuance of SMP 102R1, the applicant shall retain a qualified paleontologist approved by the County of Riverside to create and implement a Paleontological Resource Impact Mitigation Program (PRIMP), which would reduce the project impacts to a less than significant level.

The project paleontologist retained shall review the approved development plan and shall conduct any pre-construction work necessary to render appropriate monitoring and mitigation requirements as appropriate. This PRIMP shall be submitted to the County Geologist for review and approval prior to any ground disturbance within previously undisturbed areas. Information to be contained in the PRIMP, at a minimum and in addition to other industry standard and Society of Vertebrate Paleontology standards, are as follows:

1. The project paleontologist shall participate in a pre-construction project meeting with development staff and construction operations to ensure an understanding of any mitigation measures required during construction, as applicable.

2. If the project paleontologist finds fossil remains, earthmoving activities shall be diverted temporarily around the fossil site until the remains have been evaluated and recovered. Earthmoving shall be allowed to proceed through the site when the project paleontologist determines the fossils have been recovered and/or the site mitigated to the extent necessary.

3. If fossil remains are encountered by earthmoving activities when the project paleontologist is not onsite, these activities shall be diverted around the fossil site and the project paleontologist called to the site immediately to recover the remains.

4. If fossil remains are found, fossiliferous rock shall be recovered from the fossil site and processed to allow for the recovery of smaller fossil remains. Test samples may be recovered from other sampling sites in the rock unit if appropriate.

5. Any recovered fossil remains shall be prepared to the point of identification and identified to the lowest taxonomic level possible by knowledgeable paleontologists. The remains shall then be curated (assigned and labeled with museum* repository fossil specimen numbers and corresponding fossil site numbers, placed in specimen trays and, if necessary, vials with completed specimen data cards) and catalogued. An associated specimen data and

corresponding geologic and geographic site data shall be archived (specimen and site numbers and corresponding data entered into appropriate museum repository catalogs and computerized data bases) at the museum repository by a laboratory technician. The remains shall then be accessioned into the museum repository fossil collection, where they shall be permanently stored, maintained, and, along with associated specimen and site data, made available for future study by qualified scientific investigators.

Monitoring:

Monitoring Measure PALEO-1:

Paleontological monitoring of earthmoving activities shall be conducted on an as-needed basis by the project paleontologist during all earthmoving activities that may expose sensitive strata. Earthmoving activities in areas of the project area where previously undisturbed strata shall be buried but not otherwise disturbed shall not be monitored. The project paleontologist or his/her assign shall have the authority to reduce monitoring once he/she determines the probability of encountering fossils has dropped below an acceptable level.

A qualified paleontologist shall prepare a report of findings made during all site ground disturbance activities within previously undisturbed areas with an appended itemized list of fossil specimens recovered during ground disturbance from mining expansion (if any). This report shall be submitted to the County Geologist for review and approval prior to final inspection.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
POPULATION AND HOUSING Would the project:				
Housing a) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
b) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?	☐	☐	☒	☐
c) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

Source(s): Project Application Materials, GIS database, Riverside County General Plan Housing Element

Findings of Fact:

a) **No Impact**. The proposed project is located in a remote area approximately 15 miles from the nearest residence. No residential structures are present on-site. The implementation of the project would not displace any person or any inhabitable residential structure, as there are none located on-site. The proposed project would have no impact.

b) **Less Than Significant Impact**. The proposed project would increase the number of employees from approximately 8-10 employees to 24 employees. However, the project would seek to hire from within the surrounding community and would therefore not create a demand for additional housing. Therefore, the proposed project would have a less than significant impact.

c) **Less Than Significant Impact**. No new homes or businesses would be created as a result of this project. The proposed project would continue using portable toilets to serve the proposed project, and would not include new sewer facilities or wastewater infrastructure. Additionally, the employment opportunities created as a result of the project are anticipated to be filled by members of the workforce that reside in the surrounding community. Therefore, the project would not directly or indirectly induce substantial population growth within the vicinity of the project site and impacts would be less than significant.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

PUBLIC SERVICES Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the 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:				
30. Fire Services	☐	☐	☒	☐

Source(s): Riverside County Fire Department

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Findings of Fact:

Riverside County provides Fire and Emergency Services to residents of unincorporated areas of Riverside County. The department consists of 100 fire stations within Riverside County, which provide administrative and operational support. The fire station closest to the project site is located approximately 25 miles south at 140 West Barnard Street in the City of Blythe, and is a part of Riverside County Fire Department (RCFD) Battalion 8.

Less Than Significant Impact. The proposed project would involve the continuation and expansion of an existing mining operation. As the project site is located in an unincorporated area of Riverside County, the RCFD currently serves the site. The proposed project includes one additional modular office building, and expansion of the mining areas and the ore processing plant. Coordination occurred between the RCFD and the Riverside County Planning in order to develop the conditions of approval for the proposed revision to the existing surface mining permit. The expansion of operations on the project site would not require an expansion of fire protection services or require new or physically altered facilities. Therefore, the project would have a less than significant impact.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

31. Sheriff Services	☐	☐	☒	☐

Source(s): Riverside County General Plan

Findings of Fact:

The Riverside County Sheriff's Department (RCSD) has a staff of over 4,000. The Colorado River Sheriff Station located at 260 North Spring Street in the City of Blythe provides service to the unincorporated areas from Red Cloud Road on the west, to Arizona state line of the east, and county line to county line on the north and south. Communities included in this service are Desert Center, Eagle Mountain, Blythe, Hayfield, Midland, Nicholls Warm Springs, Ripley, and the Colorado River area.

The California Highway Patrol (CHP) is the primary law enforcement agency for state highways and roads. The nearest CHP station to the project site (Blythe Station 660) is located at 430 S. Broadway in the City of Blythe. Services include law enforcement, traffic control, accident investigation, and the management of hazardous materials spill incidents.

Less Than Significant Impact. The proposed project would involve the continuation and expansion of an existing mining operation, which is provided law enforcement services under existing conditions by the Riverside Sheriff's Department. Once implemented the proposed project would require up to 24 employees. As there would be no need for physical alterations of sheriffs' stations to service the project, impacts would be less than significant.

Mitigation: No mitigation measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Monitoring: No monitoring measures are required.

32. Schools	☐	☐	☐	☒

Source(s): Riverside County Office of Education

Findings of Fact:

The project site is located within the vicinity of Palo Verde Unified School District (PVUSD) located in the City of Blythe. PVUSD includes one preschool, three elementary schools, and two high schools. Palo Verde College is also located in Blythe and is located approximately 24 miles south of the project site.

> **No Impact.** The proposed project does not involve the construction of any new homes or other residential buildings; however, it would require approximately 24 employees. As these employees will most likely be hired from the local workforce, the proposed project would not alter the local demographics and there would be no impact on school services.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

33. Libraries	☐	☐	☐	☒

Source(s): Riverside County General Plan

Findings of Fact:

The proposed project site is located approximately 21.34 miles northwest of the Palo Verde Valley Library located at 125 West Chanslor Way in the City of Blythe. The public library is a part of the Inland Library system composed of 18 branches of independent public libraries in Inyo, Riverside, and San Bernardino counties.

> **No Impact**. The proposed project does not involve the construction of any new homes or other residential facilities. Approximately 24 employees would be hired for the operational mining phase of the proposed project; however, these employees would be hired from the local workforce. As such, there would be no increase in demand for library services resulting from project implementation and no need for physical alterations to library facilities. Therefore, no impact would occur.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

34. Health Services	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source(s): Riverside County General Plan

Findings of Fact:

The project site is remote within unincorporated Riverside County. The nearest hospital is Palo Verde Hospital located at 250 North 1st Street, in the City of Blythe, approximately 22 miles southeast of the project site.

Less Than Significant Impact. The proposed project does not involve the construction of new homes and would increase employment only marginally. The prospective employees would be hired from the local workforce. The project would have a minor impact on these additional employees working in an industrial workplace. However, given the minor increase in employees switching to an industrial job, existing health services would be more than adequate. Therefore, the project would have a less than significant impact.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

RECREATION Would the project:				
35. Parks and Recreation a) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
b) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
c) Be located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?	☐	☐	☐	☒

Source(s): GIS database, Staff Review

Findings of Fact:

The majority of the project site is surrounded by Bureau of Land Management (BLM) lands. Joshua Tree National Park is located 31 miles to the west of the project site. In addition, the City of Blythe has approximately 74 acres of parkland overseen by the Blythe Parks Department. The nearest park within Blythe City limits is the Blythe Municipal Golf Course approximately 18 miles southeast of the project site.

a,b) **No Impact.** The proposed project does not involve or require the construction or expansion of any recreational facilities that might have an adverse physical effect on the environment. The proposed project does not involve the construction of any new homes and would not affect local demographics. Furthermore, the proposed project would expand mining activities on the project site and does not include the use of any park facilities. As such, there would be no impact on demand, no impact on physical deterioration, and no need for physical alterations to public or private recreational facilities.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

c) **No Impact.** As the proposed project is not located within a CSA or recreation and park district with a Community Parks and Recreation Plan, no Quimby fees would be required. No impact would occur.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

36. Recreational Trails a) Include the construction or expansion of a trail system?	☐	☐	☐	☒

Source(s): Riverside County General Plan, Circulation Element Figure C-6 Trails and Bikeway System

Findings of Fact:

a) **No Impact.** According to the Riverside County General Plan, Trails and Bikeway System Map, there are no recreational trails located on the project site or within the project vicinity. Therefore, the proposed project would not conflict with designated trail alignments. Furthermore, the proposed project does not include the construction of any recreational trails. No impact to recreational trails would occur from the proposed project.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
TRANSPORTATION Would the project:				
37. Transportation a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)??	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☒
d) Cause an effect upon, or a need for new or altered maintenance of roads?	☐	☐	☒	☐
e) Cause an effect upon circulation during the project's construction?	☐	☐	☒	☐
f) Result in inadequate emergency access or access to nearby uses?	☐	☐	☐	☒

Source(s): Riverside County General Plan; Traffic Impact Study Exemption Letter, Webb Associates, January 2017 (Appendix G); Riverside County Congestion Management Program, December 2011

Findings of Fact:

a) **Less Than Significant Impact.** According to the Riverside County *Transportation Analysis Guidelines for Level of Service, Vehicles Miles Traveled* any use that can demonstrate trip generation of less than 100 vehicle trips during peak hours is generally exempt from Traffic Impact Analysis requirements, per Board of Supervisor's action November 5, 1996 (Item No. 3.27). Trip generation data must be based on the most recent edition of the Trip Generation Report published by the Institute of Transportation Engineers (ITE) or other approved trip generation data. The proposed project would increase the on-site hours of operation from sunup to sundown of the same day Monday through Friday to a 24-hour operation Monday through Sunday. Currently there are 8-10 employees operating the mine and a maximum of 24 employees are expected for the proposed project. The project also proposes to increase daily production from 1,000 tons per day to 3,000 tons per day through a revised surface mining permit (SMP No.102R1). In addition to the two on-site water trucks that would result in 3-12 truck trips per day depending on operations and production, the proposed increase in mining operations is expected to generate 44 passenger car equivalent (PCE) trip-ends during the AM peak hour and 30 PCE trip-ends during the PM peak hour. Therefore, the proposed project would not conflict with any adopted plan, ordinance, or policy measuring the effectiveness for circulation performance. Furthermore, there are no mass transit, pedestrian, or bicycle facilities within the project site or surrounding vicinity. The project would have a less than significant impact on the local circulation system.

b) **Less Than Significant Impact.** CEQA Guidelines Section 15064.3(b) provides considerations for a lead agency evaluating a project's transportation impacts, dictating that vehicle miles traveled (VMT) are generally the most appropriate measure of transportation impacts. Prior to implementation of SB 743, CEQA transportation analyses of individual projects typically determined impacts on the circulation system in terms of roadway delay and/or capacity usage at specific locations, such as street intersections or roadway segments. SB 743, signed into law in September 2013, required changes to the guidelines for CEQA transportation analysis. The

changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts. The purpose of SB 743 is to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

Under SB 743, a project's effect on automobile delay shall not constitute a significant environmental impact. Therefore, LOS and other similar vehicle delay or capacity metrics may no longer serve as transportation impact metrics for CEQA analysis. The California Office of Planning and Research (OPR) has updated the CEQA Guidelines and provided a final technical advisory in December 2018, which recommends vehicle miles traveled (VMT) as the most appropriate measure of transportation impacts under CEQA. The California Natural Resources Agency certified and adopted the CEQA Guidelines including the Guidelines section implementing SB 743. The changes have been approved by the Office of the Administrative Law and are now in effect.

If a project would result in significant impacts, CEQA requires mitigation measures to be implemented to reduce or mitigate an impact. For VMT impacts, a combination of measures from several VMT reduction strategies may be implemented – project characteristics, multimodal improvements, parking, and transportation demand management (TDM) strategies. VMT is reduced by implementing strategies that reduce the number of automobile trips generated by the project, shift more trips from automobile to non-automobile modes, and/or reduce the distances that people drive. Generally, these reductions can be achieved by the implementation of TDM strategies.

SB 743 does not apply to goods movement (i.e., trucks). Section 15064.3 of the CEQA Guidelines states that VMT for transportation impacts refers to "... the amount and distance of automobile travel...". VMT analysis is limited to passenger vehicle and light truck trips. Therefore, the VMT associated with project trucks and the movement of goods is not required to be analyzed under CEQA.

In December 2020, Riverside County adopted its *Transportation Analysis Guidelines for Level of Service, Vehicles Miles Traveled* to help ensure that land use development and transportation projects comply with the latest CEQA requirements regarding VMT. The County's Transportation Analysis Guidelines provide standardized criteria and established thresholds of significance to be used for analyzing transportation impacts for CEQA. The earliest steps in evaluating a land use project's VMT impact is to perform an initial screening assessment (Transportation Analysis Guidelines, pg. 17). According to Figure 3 of the Transportation Analysis Guidelines, a project is presumed to have a less than significant impact on VMT if the project qualifies as or satisfies at least one of the following VMT screening criteria:

- Small Projects
- Transit Priority Area
- Local-Serving Retail
- Affordable Housing
- Local Essential Service
- Map Based
- Redevelopment Project

According to the County's Transportation Analysis Guidelines, a detailed CEQA assessment will not be required for land use elements of a project that meet the screening criteria listed above. The proposed project qualifies for screening based on the "small project" criteria identified in the Transportation Analysis Guidelines. According to the Guidelines, a "small project" applies to projects with low trip generation per existing CEQA exemptions or based on the County Greenhouse Gas Emissions Screening Tables, result in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold. The proposed project consists of an increase in production to an already existing and functioning site, with a negligible increase in employees and employee trips. All project employees currently reside in Blythe, and are known to carpool to the project location. As discussed in the GHG section of this document (see page 72), the proposed project would increase GHG emissions over baseline conditions by 2,848 tons per year, which is less than the 3,000 MTCO2e per year screening level threshold associated with "small projects" (Transportation Analysis Guidelines, Figure 3). Since the proposed project meets the County's VMT analysis screening criteria, a CEQA-level transportation analysis that evaluates the project's effects on VMT is not required. Therefore, impacts with regard to being in conflict or inconsistent with CEQA Guidelines section 15064.3, subdivision (b) would be less than significant.

c) **No Impact.** No roadway improvements are included as part of the proposed project, aside from internal circulation roads. These internal circulation roads would allow construction equipment and trucks to access mining excavation areas and transport materials to stockpiles and the processing plant. These roads would be designed according to County standards for safety and would not substantially increase hazards due to design features. Furthermore, the proposed project expands existing mining operations on the project site and therefore, does not include any incompatible uses that would pose a traffic safety hazard. The proposed project would have no impact related to hazardous features.

d,e) **Less Than Significant Impact.** The proposed project is an expansion and continuation of existing mining operations on the project site. The proposed increase in mining operations is expected to generate 44 passenger car equivalent (PCE) trip-ends during the AM peak hour and 30 PCE trip-ends during the PM peak hour (or 16 truck trips in the AM peak hour and 15 truck trips in the PM peak hour). The truck route for the proposed project would extend from Arlington Mine Road, to Midland Road, to North Lovekin Boulevard, to 4th Street, to U.S. Route 95 (N. Intake Boulevard). Since the project would increase traffic on County roadways, this may contribute to an increased need in County road maintenance. Maintenance of nearby roadway facilities would be funded through taxes generated by the proposed project, and the number of additional truck trips is not anticipated to result in the County's inability to fund other improvements. Therefore, the proposed project would have a less than significant impact on maintenance and circulation on local roadway networks.

f) **No Impact.** Due to the remote location of the proposed project, the project site does not serve as access to any other land uses, except for vacant open space. Furthermore, the project site is not identified as part of an emergency evacuation route. Emergency access to the project site would continue to utilize the site access road off Arlington Mine Road. Therefore, the proposed project would have no impact on emergency access.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Bike Trails a) Include the construction or expansion of a bike system or bike lanes?	☐	☐	☐	☒

Source: Riverside County General Plan Figure C-6 Riverside County Trails and Bikeway System

Findings of Fact:

a) **No Impact.** According to the General Plan, there are no public trails or bikeways identified on the project site or surrounding vicinity, and the proposed project would not decrease the performance or safety of any of these facilities. Therefore, the proposed project would have no impact on bike trails.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

TRIBAL CULTURAL RESOURCES Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:				
Tribal Cultural Resources a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? (In applying the criteria set forth in subdivision (c). of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.)	☐	☐	☐	☒

Source(s): Phase I Cultural Resources Survey and Phase II Evaluation Report, Dudek, May 2018 (Appendix C)

Findings of Fact:

In compliance with Assembly Bill 52 (AB52), notices regarding this project were mailed to all requesting tribes on July 28, 2015. Consultations were requested by the Twenty-Nine Palms Band of Mission Indians. Consultation with the tribe took place on December 13, 2016. The tribe requested that conditions of approval be placed on the project that dictate procedures to be followed in the event

unanticipated resources are identified during ground disturbing activities. This was completed, the project conditions of approval were provided to the tribe and consultation was concluded on December 13, 2016. No tribal cultural resources were identified and as such, there will be no impacts in this regard.

Dudek requested a Native American Heritage Commission (NAHC) search of their Sacred Lands File (SLF) on October 4, 2016 for the proposed project. The NAHC results, received October 6, 2016, reported that no Native American cultural resources have been located within the project APE, or the surrounding one-mile search buffer. The NAHC provided a contact list of Native American representatives for tribes that are traditionally affiliated with this the project area. Letters with a map and description of the planned project were subsequently sent to these individuals and organizations on October 7, 2016. No responses have been received to date.

a,b) **No Impact.** As discussed above, the NAHC Sacred Land File search did not indicate the presence of cultural resources within the project APE. Furthermore, Native American tribes were contacted with regard to the proposed project and have not responded to date. Therefore, the proposed project would have no impact on tribal cultural resources.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

UTILITIES AND SERVICE SYSTEMS Would the project:				
40. Water a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage systems, whereby the construction or relocation would cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐

Source: Department of Environmental Health Review, Project Application Materials

Findings of Fact:

a) **No Impact.** As stated in Section 5 (Water Quality Impacts), the proposed project would result in a net decrease of surface water drainage from the project site. Furthermore, there is no wastewater associated with the ore processing plant. Although the proposed project would increase the amount of water used for dust control, this water is absorbed by the material or evaporates. Therefore, the proposed project would have no impact on water treatment facilities and would not require the creation or expansion of any water treatment facilities of which would cause significant environmental effects.

b) **Less Than Significant Impact.** The mineral commodity mined on the site is gypsum. Gypsum is used for agricultural, commercial, and industrial purposes. Currently, Double D Mining's principal product is gypsum material to supply agricultural demand and needs. Gypsum increases water-use efficiency for crops and reduces the amount of water needed to sustain crops. Thus, gypsum use has become an important component in reducing agricultural water

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

use in California and allowing available water to produce more crops. There are no water facilities available in vicinity of the site. Water is transported to the site daily by means of 4,000-gallon water trucks. Water is collected from the Palo Verde Irrigation District canal located near Blythe, approximately 32 miles from the site. The operator has an annual contract for water usage with the District. The proposed project is expected to use up to 40,000 gallons per day for dust control. The annual amount of water based on 40,000 gallons per day and 310 days per year would be 38 acre-feet per year.

The Palo Verde Irrigation District occupies about 189 square miles of territory in Riverside and Imperial Counties, California. The District contains approximately 131,298 acres, 26,798 acres of which are on the Palo Verde Mesa. This Mesa lies just west of, and from 80 to 130 feet higher than, the valley. A portion of the Mesa area lies within boundaries of the Palo Verde Irrigation District. Colorado River water, supplied through Palo Verde Irrigation District canals, is lifted onto the Mesa by private pumps to irrigate a portion of the acreage in the District. The Palo Verde Irrigation District takes approximately 900,000 acre-feet per year from the Colorado River.[6] As stated above, the proposed project would utilize approximately 38 acre-feet, which would only result in a 15 acre-foot increase from existing conditions. This increase is below the amount contractually permitted for take. Therefore, the proposed project would have a less than significant impact related to water supply and the Palo Verde Irrigation District would not require any new or expanded entitlements to serve the proposed project.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

41. Sewer a) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects?	☐	☐	☐	☒
b) Result in a determination by the wastewater treatment provider that serves or may service the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

Source(s): Department of Environmental Health Review, Project Application Materials

Findings of Fact:

a) **No Impact.** There are no sewer facilities available in the project area or at the site. Currently, there are portable toilets stationed throughout the quarry site and plant as needed. These portable facilities are properly maintained and cleaned. Hand-wash stations are provided at each portable facility. These portable facilities would continue to serve the proposed project. Therefore, the proposed project would have no impact related to the construction of an on-site sewage disposal system.

[6] *Los Angeles Times. "Palo Verde Valley farmers and MWD find fallowing deal a win-win, so far." August 15, 2015. Website: http://www.latimes.com/local/california/la-me-palo-verde-drought-20150816-story.html*

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

b) **No Impact.** As the proposed project would continue to be served by portable facilities, no public sewer service is required. Therefore, the proposed project would have no impact on wastewater treatment capacity.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

42. Solid Waste a) Generate solid waste in excess of State or Local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
b) Comply with federal, state, and local management and reduction statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan)?	☐	☐	☒	☐

Source(s): Riverside County General Plan, Riverside County Integrated Waste Management Plan, Project Application Materials

Findings of Fact:

a,b) **Less Than Significant Impact.** Mining waste from the proposed project would be deposited on-site in the proposed overburden stockpiles. No imported waste materials of chemicals would be brought to the project site besides fuel and equipment maintenance fluids. All used fluids are removed from the equipment and from the site following standard regulations. A trash dumpster for waste generated by site workers and operations at the modular office buildings would be located on-site and would be picked up and hauled off weekly by the disposal company CR&R. The waste would then be transported to the Blythe Sanitary Landfill, which has an anticipated closure date of 2047[7] or the Desert Center Sanitary Landfill, which has an estimated closure date of 2087.[8] Therefore, existing landfills in the project vicinity have the capacity to handle the solid waste generated by the proposed project. Additionally, the propose project would comply with all federal, state, and local regulations, including the Riverside County Integrated Waste Management Plan, related to solid waste disposal. The proposed project would have a less than significant impact related to solid waste.

Mitigation: No mitigation measures are required.

Monitoring: No monitoring measures are required.

[7] *CalRecycle. Blythe Sanitary Landfill (33-AA-0017). 2011. Website: http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0017/Detail/*

[8] *CalRecycle. Desert Center Landfill (33-AA-0016). 2016. Website: http://www.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0016/Document*

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
43. Utilities Would the project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects?				
a) Electricity?	☐	☐	☐	☒
b) Natural gas?	☐	☐	☐	☒
c) Communications systems?	☐	☐	☐	☒
d) Street lighting?	☐	☐	☐	☒
e) Maintenance of public facilities, including roads?	☐	☐	☒	☐
f) Other governmental services?	☐	☐	☐	☒

Source(s): Project Application Materials

Findings of Fact:

a) **No Impact.** There are no electric facilities in the area. Diesel generators are used to provide electric service to the site to power the process plant and office. The generators are leased and equipped with required air emission controls. The proposed project would continue to use these diesel generators. Therefore, the proposed project would have no impact.

b) **No Impact.** As stated above, the proposed project utilizes diesel fuel for on-site mobile equipment, trucks, and electric generators. The proposed project would not utilize natural gas and would therefore have no impact on natural gas facilities.

c) **No Impact.** As the proposed project consists of the continuation and expansion of an existing mining operation, communication systems are already provided to the site via satellite and cellular phones. There are no landline telephone facilities within the project site due to its remote location. The proposed project would not require the construction of new or expansion of existing communication systems and would therefore have no impact.

d) **No Impact.** The project site is located in a remote location and site access is provided via a private access road through BLM land off Arlington Mine Road. The project site is not located near any public roadways and does not include any street lighting. Therefore, the proposed project would have no impact.

e) **Less Than Significant Impact.** Midland Road is a county-maintained paved road that connects to Arlington Mine Road, which is owned by the Bureau of Land Management (BLM). BLM granted a Right-of-Way Grant easement to the mine operator to use and maintain Arlington Mine Road access form Midland Road to the site. The proposed project would result in an increase in daily truck trips truck trips that would utilize local circulation routes. The truck route for the proposed project would extend from Arlington Mine Road, to Midland Road, to North Lovekin Boulevard, to 4th Street, to U.S. Route 95 (N. Intake Blvd.). Since the project would increase traffic on County roadways, this would contribute to an increased need in County road maintenance. Maintenance of nearby roadway facilities would be funded through taxes generated by the proposed project, and the number of additional truck trips is not anticipated to result in the County's inability to fund other improvements. Therefore, the proposed project would have a less than significant impact on maintenance and circulation on local roadway networks. Compliance with the requirements in the BLM easement would also ensure the proposed project has a less than significant impact on public roads.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

g) **No Impact.** The proposed project would not require the construction of any new or expansion of any other existing government facilities and therefore, the proposed project would have no impact.

Mitigation: No mitigation measures are required.

Monitoring: No mitigation measures are required.

WILDFIRE If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the project:				
44. Wildfire Impacts a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐
e) Expose people or structures either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source(s): Riverside County General Plan Figure S-11 "Wildfire Susceptibility", GIS database, Project Application Materials

Findings of Fact:

a) **No Impact.** Due to the remote location of the proposed project, the project site does not serve as access to any other land uses, except for vacant open space. Emergency access to the project site would continue to utilize the site access road off Arlington Mine Road. Therefore, the proposed project would have no impact on emergency response or evacuation plans.

b,c,d,e) **Less Than Significant Impact.** According to the Riverside General Plan Safety Element, the project site is located within an area that is mapped as having "moderate" susceptibility to wildland fire hazards. The project site is also designated as a federal responsibility area. The proposed project includes the addition of one modular office building and 24 employees. However, the project site and surrounding land contain little vegetation under existing conditions that could be susceptible to wildfire. Furthermore, there are no urban or residential land uses in the general vicinity of the project site. Surrounding land uses are vacant open space and reclaimed land previously used for mining. The proposed project would also include plant species that do not pose wildfire threats as part of the Reclamation Plan. Therefore, the proposed project would have a less than significant impact related to wildfire.

Mitigation: No mitigation is required.

Monitoring: No monitoring is required

MANDATORY FINDINGS OF SIGNIFICANCE Does the Project:				
45. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

Source(s): Staff review, Project Application Materials

Findings of Fact:

Less than Significant with Mitigation Incorporated. Implementation of the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of 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

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

of the major periods of California history or prehistory. Furthermore, implementation of the Biological Resources mitigation measures would ensure impacts to biological resources are mitigated to less than significant levels. As discussed in Section 3.5 (Cultural Resources), the project site would not impact any historical resources and does not contain any known archaeological resources. Furthermore, the project site has a low potential to contain buried cultural deposits or human remains. With implementation of Mitigation Measure PALEO-3, potentially significant impacts to paleontological resources would be less than significant. Therefore, the proposed project would not substantially degrade the quality of the environment.

46.	Have impacts which 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, other current projects and probable future projects)?	☐	☒	☐	☐

Source(s): Staff review, Project Application Materials

Findings of Fact:

Less than Significant with Mitigation Incorporated. Section 15130 of the CEQA Guidelines requires an evaluation of potential environmental impacts when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual 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. These impacts can result from a combination of the proposed project together with other projects causing related impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Cumulative projects provided by the City of Blythe include four single-family detached housing projects (Irvine Assets, St. Joseph's Investments, Chanslor Village, and Edgewater Lane) totaling 300 residential units. No other cumulative projects are proposed in the project vicinity in unincorporated Riverside County. Implementation of the proposed project and cumulative projects may result in potentially significant cumulative air quality impacts within the Mojave Desert Air Basin particularly for PM_{10}. However, the proposed project includes mitigation measures to ensure all potentially significant project impacts are reduced to less than significant levels. While air quality impacts were found to be close to the MDAQMD's PM_{10} significance thresholds, these impacts would be less than significant and therefore the project's contribution to air quality impacts in the Mojave Desert Air Basin would not be cumulatively considerable. With mitigation measures, the project would not contribute substantially to cumulative impacts on any resource and these impacts are not considered to be cumulatively considerable.

47.	Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Source(s): Staff review, project application

Findings of Fact:

Less than Significant with Mitigation Incorporated. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include community risks from air emissions, soil and seismic hazards, hazardous materials, and noise. Implementation of all of the mitigation measures required above would ensure the proposed project would have a less than significant impact on human beings including construction workers during project construction and employees during project operation.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

VI. EARLIER ANALYSES

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration as per California Code of Regulations, Section 15063 (c) (3) (D). In this case, a brief discussion should identify the following:

Earlier Analyses Used, if any: No other CEQA documents were used in this analysis.

Location Where Earlier Analyses, if used, are available for review:

Location: Not applicable.

VII. REFERENCES

The following documents were referred to as information sources during the preparation of this document.

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