ENVIRONMENTAL IMPACT REPORT ADDENDUM
FOR THE
CORONA QUARRY
(Surface Mining Permit No. 93-01)

Prepared for:

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LIST OF ABBREVIATIONS AND ACRONYMS

ACOE or Corps	U.S. Army Corps of Engineers
amsl	above mean sea level
bgs	below ground surface
BLM	Bureau of Land Management
BMPs	Best Management Practices
C-CAP	Corona Climate Action Plan
CDFW	California Department of Fish and Wildlife (formerly CA Dept. of Fish & Game)
CEIDARS	California Emission Inventory Development and Reporting System
CEQA	California Environmental Quality Act
CGS	California Geological Survey
City	City of Corona
County	Riverside County
CUP	Conditional Use Permit
DOC	California Department of Conservation
DPM	diesel particulate matter
EIR	environmental impact report
FEMA	Federal Emergency Management Agency
GHG	greenhouse gases
GI	General Industrial
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
HCP	Habitat Conservation Plan
HMA	Hot Mix Asphaltic-Concrete
HRA	Health risk assessment
I-15	Interstate 15
JPR	Joint Project Review
LAFCO	Local Agency Formation Commission
M-3	Heavy Manufacturing zone
MBTA	Migratory Bird Treaty Act
MEI	maximum exposed individual
MR	Mineral Resource overlay
MRZ	Mineral Resource Zone
MSHCP	Multiple Species Habitat Conservation Plan
$MTCO_2e$	metric tons of carbon dioxide equivalent

NPDES	National Pollutant Discharge Elimination System
PCC	Portland cement concrete
P-C	Production-Consumption
$PM_{2.5}$	particulate matter less than 2.5 micrograms/cubic meter ($\mu g/m^3$)
PM_{10}	particulate matter less than 10 micrograms/cubic meter ($\mu g/m^3$)
RMC	Ready-Mixed Concrete
RP	Reclamation Plan
SARWQCB	Santa Ana Regional Water Quality Control Board
SCH	State Clearinghouse
SCAQMD	South Coast Air Quality Management District
SKR	Stephens' kangaroo rat
SMARA	Surface Mining and Reclamation Act of 1975 or Act
SMGB	State Mining and Geology Board
SMP	Surface Mining Permit
SSC	California Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
USACOE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VMC	Vulcan Materials Company, West Region
WDID	Waste Discharge Identification

1.0 INTRODUCTION

This document has been prepared as an Addendum to the previously certified 1989 Corona Quarry Environmental Impact Report (EIR) (Riverside County No. 316) (SCH No. 88081517) as determined to be required by the City of Corona (*current Lead Agency)* in accordance with California Environmental Quality Act (CEQA) Guidelines §15164.

Vulcan Materials Company (VMC), the Applicant, submitted an application to the City of Corona (City) entitled "Corona Quarry SMP & Revised Reclamation Plan" (VMC, March 2013). VMC currently proposes to modify their existing permit (SMP 93-01) to allow mining activities to be extended from the currently permitted term (to the year 2023) to the year 2113 on the full 260 acres originally analyzed in the certified 1989 EIR. Changes to the existing processing facilities or permitted maximum daily and annual production throughput limit of 5 million tons per year are not proposed. Therefore, only minor technical changes or additions to the environmental analysis in the 1989 EIR are necessary.

1.1. CEQA STANDARDS

Once the environmental review process is complete, CEQA prohibits further environmental review of a project unless changes that require additional discretionary approval are proposed for the project. If a proposed project change triggers further CEQA review, a lead agency must determine whether those changes necessitate a "subsequent" EIR, "supplemental" EIR or "addendum" to the prior-approved EIR. A subsequent or supplemental EIR is required only where it is necessary to explore the environmental ramifications of a substantial change not considered in the original EIR. (CEQA § 21166; CEQA Guidelines § 15162.)

Whether and to what extent changes to an existing project require additional CEQA documentation is determined by comparing the potential impacts from proposed project changes to the analysis in the prior-certified EIR. CEQA requires a subsequent or supplemental EIR only where (1) substantial changes to a project, a substantial change in circumstances surrounding project, or new information about the project; (2) results in new significant impacts or more severe impacts that were not analyzed in the prior EIR; and (3) which would require major revisions to address. (CEQA § 21166; CEQA Guidelines § 15162.) Project changes that do not meet the above criteria may be addressed in an addendum, which is appropriate where "some changes or additions [to the prior CEQA document] are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred." (CEQA Guidelines § 15164.)

The Proposed Project, as discussed herein, does not involve substantial changes to the project that was considered in the 1989 EIR, does not involve new significant impacts or more severe impacts that were not analyzed in the 1989 EIR, and does not require major revisions to the 1989 EIR. As fully explained below, the Applicant proposes to, with some variations, continue operations consistent with the project analyzed in the 1989 EIR. The City of Corona has accordingly determined that this CEQA Addendum is appropriate and in compliance with CEQA.

1.2 1989 EIR

The 1989 EIR evaluated the Corona Quarry, a hardrock deposit located on a 336.23-acre site, of which 260 acres were proposed to be mined. Mining was originally proposed to occur in two phases, but the project was modified during the review process to include six phases. Mining would occur in a basic top-to-bottom sequence as was currently occurring at the site. Final benches would be established at approximately 25-foot intervals. Processing, including crushing and sorting would occur and the plant facility would include a concrete batch plant and asphalt plant (refer to EIR Figures 9, 10, and 11).

Mining would be accomplished by drill and blast, load, haul and dump methods. Under normal conditions, blasted rock would be loaded onto off-road dump trucks by large rubber-tired loaders. The dump trucks transport the rock via haul roads to the primary crusher. The primary crusher reduces the quarry run material to less than eight inches in size. Conveyor belts carry the product rock from the primary crusher to a surge pile. The processing plant utilizes crushers and vibrating screens and wet washing to size the materials into specification aggregates for on-site direct sales, or transfers to the on-site concrete batch plant and asphalt plant.

The operations would be relatively free of mining wastes based on the material composition. Excess non-PCC quality materials would include excess overburden soils and rock types not considered saleable materials and natural fines washed from the aggregates used in concrete products. These fines may be sold or used during site reclamation. The total anticipated non-PCC quality material for the mined area was estimated to be 3.5 million tons.

Of the 336.23 acres encompassing the Corona Quarry site, approximately 260 acres were proposed for mining and the remainder would include setbacks, processing areas, storage sites, roadways, and undisturbed open space. The lowest elevation of the quarry would be 500 feet above mean sea level (amsl). Reclamation would occur following completion of mining activities. Some reclamation could occur simultaneous with mining and processing with the use of excess materials as fill.

The 1989 EIR was prepared to evaluate environmental impacts associated with the following issues:

- Hydrology (drainage, erosion, flooding, groundwater, surface and subsurface water quality)
- Noise and Vibration (truck traffic and blasting)
- Air Quality (dust mining and processing, vehicular emissions, and asphalt production)
- Biological Resources (riparian and coastal sage plant communities, and endangered species)
- Archaeological Resources
- Visibility and Aesthetics (local resources, designated State scenic highway, substantial landform changes)

- Circulation (truck traffic on Cajalco Road and Magnolia Avenue)
- Public Safety (access and blasting)
- Fire Hazard (within a regional fire hazard area)

Conclusions from the 1989 EIR regarding environmental impacts are listed below. The information is presented here as a basis for comparison with the Proposed Project that is addressed by this Addendum.

- The Original Project was determined to have avoided impacts and/or mitigated impacts to an "insignificant" level in the areas of:
    - Hydrology/Drainage with mitigation;
    - Noise/Vibration with mitigation;
    - Archaeological Resources with mitigation;
    - Public Safety with mitigation;
    - Fire Hazards with mitigation;
    - Air Quality with mitigation; and
    - Circulation (traffic) with mitigation;
- Significant unavoidable adverse impacts were overridden for specific impacts in the areas of:
    - Aesthetics: and
    - Biological resources.

Overriding findings were adopted for the destruction of vegetation, disturbance of wildlife habitat, and effects on sensitive species found on-site including the golden eagle, California black-tailed gnatcatcher, and the federally-listed endangered Stephens kangaroo rat. Overriding findings were also adopted for the aesthetic alterations to the topography resulting in visual impacts on residential properties and views from the I-15 freeway.

1.3 PROJECT UNDER REVIEW

The activities described above currently occur as part of the on-going permitted operations at the Corona Quarry within the 160 acres approved for mining in 1989. VMC's March 2013 application (Proposed Project) proposes to modify their existing permit to allow mining activities to continue from the current permitted term (to the year 2023) to the year 2113 on the full 260 acres as analyzed in the 1989 certified EIR. Mining would be conducted in six phases to a depth of 500 feet amsl. Total reserves to be mined are estimated at approximately 351 million

tons. No changes are proposed to the existing processing facilities or allowed maximum daily and annual aggregate production of 5 million tons as entitled by the existing permit and reclamation plan. A complete project description discussing the revised mining area phasing and reclamation plan is included in Section 2.0 of this EIR Addendum. A comparison of existing permitted operations and the proposed revisions is also provided in Section 2.0.

VMC is also requesting that a Development Agreement between VMC and the City be approved. A Development Agreement is intended to strengthen the public planning process, to encourage private participation in comprehensive planning and to reduce the economic costs of development by providing earlier vesting than otherwise available under California law. Development agreements are within the total discretion of the City.

1.3.1 Project Location

The Corona Quarry is located in the eastern portion of the City of Corona in the County of Riverside. Interstate 15 (I-15) is approximately ¾-mile to the west. Access from the I-15 is via Magnolia Avenue, 1½-miles northwest of the quarry. The existing visual character of the site is that of an active hillside surface mine including a processing plant within a north to south ridge.

The All American Asphalt mine and processing facility is located adjacent to the north and the 3M Company mining and processing facilities are adjacent to the south. The Burlington Northern Santa Fe rail lines adjacent to the site are used to transport material to market. Residential development within the City is located approximately ½-mile to the northeast and ¾-mile to the west. Residential development within Riverside County is located ½-mile to the east of the quarry property boundary. One residential structure (a non-conforming land use) is located ¼-mile to the east/southeast.

1.3.2 Permits

The Proposed Project requires the permits and approvals below:

<u>City of Corona</u>

- Approval of a Revised SMP and Reclamation Plan;
- Approval of Updated Financial Assurances / Reclamation Bonding; and
- Approval of a Development Agreement to be executed between the City and VMC.

1.4 IMPACT EVALUATION FORMAT

Chapter 3.0 of the EIR Addendum contains an evaluation of environmental impacts that could occur with the implementation of the Proposed Project. The Addendum contains minor changes and additions necessary to make the previous certified 1989 EIR adequate.

Each section in Chapter 3.0 begins with a description of the 1989 EIR conclusions for each environmental issue followed by any changes to impacts associated with the Proposed Project, mitigation measures, and conclusions.

1.5 COMPARISON OF ENVIRONMENTAL FINDINGS BETWEEN 1989 EIR AND 2013 EIR ADDENDUM

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Aesthetics		
Aesthetics / Visual Resources	Unavoidable Adverse Impact with Mitigation Incorporated	No Change
Air Quality and Greenhouse Gases		
Air Quality	Less Than Significant with Mitigation Incorporated	No Change
Greenhouse Gas Emissions	Not Applicable / Not Analyzed	Reduced Impact
Health Risk	Not Applicable / Not Analyzed	Reduced Impact
Biological Resources		
Vegetative Type/Land Use	Significant and Unavoidable with Mitigation Incorporated for riparian areas	Reduced Impact
Special-Status Plants	Significant and Unavoidable with Mitigation Incorporated	No Change
Special-Status Animals	Significant and Unavoidable with Mitigation Incorporated	Reduced Impact
Raptor Use	Significant and Unavoidable	Reduced Impact
Jurisdictional Waters	Less than Significant Impact with Mitigation Incorporated	No Change
Cultural Resources		
Cultural Resources	Less than Significant Impacts	No Change
Historical Resources	Less than Significant Impacts	No Change
Prehistorical Resources	Less than Significant Impacts	No Change
Geology and Soils		
Alquist-Priolo Special Studies or County Fault Hazard Zone	Not Applicable/No Impact	No Change
Liquefaction Potential Zone	Not Applicable/No Impact	No Change
Ground shaking Zone	Generally Suitable/Less than Significant Impacts	No Change
Slopes	Less than Significant Impacts	No Change
Landslide Risk Zone	Less than Significant Impacts	No Change
Rockfall Hazard	Less than Significant Impacts	No Change

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Expansive Soils	No Impact	No Change
Hydrology and Water Quality		
Erosion	Less than Significant Impact with Mitigation Incorporated	No Change
100-year Floodplain	Less than Significant Impact with Mitigation Incorporated	No Change
Groundwater/Water Quality	No Impact	No Change
Noise		
On-site Mining Operations	Less than significant with Mitigation Incorporated	No Change
Off-site Traffic Noise	Less than significant with Mitigation Incorporated	No Change
Vibration from Blasting	Less than significant with Mitigation Incorporated	No Change
Public Safety and Hazards		
Public Safety – Site Access Restriction	Less than Significant Impacts	No Change
Public Safety - Blasting	Less than Significant Impacts with Mitigation Incorporated	No Change
Fire Hazards	Less than Significant Impacts	No Change
Traffic and Circulation		
Traffic	Less Than Significant Impact with Mitigation Incorporated	No Change

2.0 PROPOSED PROJECT DESCRIPTION

Background

In 1988, CalMat Co., a predecessor of the Project Applicant and operator VMC, applied to the County for a SMP and reclamation plan for the existing Corona Quarry project site including a crushing, screening, and washing plant, a concrete batch plant, and an asphalt batch plant onsite. The applied-for permit incorporated acreage reaching westward to Cajalco Road and to authorized additional mineral processing facilities including a hot mix asphalt plant (HMA), a ready mix concrete plant (RMC), and a rail loadout facility as well. The County was the Lead Agency at that time as the project site was outside the corporate boundaries of the City of Corona (City). The County prepared the Corona Quarry EIR No. 316 (the 1989 EIR), which evaluated the entire proposed quarry disturbance on 260 acres of an approximate 336-acre site. The EIR also indicated that the 260 acres would be mined over two phases. However, subsequent to the completion of the EIR, the applicant increased the number of mining phases to six while still only covering 260 acres. Following certification of EIR No. 316 in October 1989, the County Board of Supervisors approved a reduced size and duration alternative of the project. The approved SMP No. 168 was for three of the six proposed mining phases and all the processing plants on 160 acres rather than 260 acres, and for a period of 34 years until the year 2023 instead of 100 years.

The subject property was annexed from the County into the City on October 9, 1991. At the time of the annexation, the City also entered into a Pre-Annexation Agreement with CalMat (March 20, 1991) to ensure the mining operation previously approved by the County of Riverside would not be jeopardized once annexed into the City of Corona. Upon annexation, the City granted SMP 92-01 by Resolution No. 93-13. This new SMP updated the text of the County's prior conditions of approval to reflect project annexation into the City, identifying the specific City departments that would take over the functional responsibilities of their County equivalents. In March 1992, specific conditions of approval were modified through the approval of SMP 93-01, granted by the City Council with Resolution No. 93-44. SMP 93-01 and its conditions of approval are the current entitlement with the City and the site's California Mine ID No. is 91-33-0027.

Proposed Project

VMC submitted an application to the City entitled "Corona Quarry SMP & Revised Reclamation Plan," (VMC, RGP, March 2013). VMC proposes to modify their existing permit to allow continued operations from the current permit term (to the year 2023) to the year 2113 on the full 260 acres (Proposed Project or Proposed Plan) as analyzed in the 1989 certified EIR. Mining would be conducted in six phases to a depth of 500 feet amsl. Total reserves are estimated to be approximately 351 million tons. No changes are proposed to the existing processing facilities or allowed maximum daily and annual aggregate production of 5 million tons per year as entitled by the existing permit and reclamation plan. Therefore, VMC's proposal requires only minor technical changes to the environmental analysis prepared for the 1989 certified EIR.

VMC is also requesting approval of a Development Agreement between VMC and the City establishing certain terms and provisions relating to VMC's proposal as described herein. A Development Agreement is intended to strengthen the public planning process and to encourage private participation in comprehensive planning. Development agreements are within the total discretion of the City.

This section describes the Proposed Project which was fully assessed in the 1989 certified EIR including the design features of the Proposed Project that avoid or minimize impacts prior to application of any required mitigation measures. The Proposed Project location and regional setting, the term of the permit to operate the facility, and the Proposed Project components (including the quarry, processing area, and appurtenant facilities and improvements), are described in the following sections:

- Section 2.1 – Applicant Project Design Features
- Section 2.2 – Regional Setting
- Section 2.3 – Permit Term
- Section 2.4 – Project Site
- Section 2.5 – Project Components
- Section 2.6 – Mining Operations
- Section 2.7 – Project Phasing
- Section 2.8 – Reclamation Plan

2.1 APPLICANT PROJECT DESIGN FEATURES

Although all previously identified mitigation measures and conditions of approval since approval of SMP No. 168 and certification of the 1989 EIR will continue to apply to the new project, new mining and reclamation methods have since been developed that would improve the efficiency of the operation and reduce environmental impacts. Specific applicant-initiated project design features provided in the Application that that may exceed or supplement applicable conditions and mitigation measures to avoid or reduce potential impacts as part of the Proposed Project design are listed below. These features differ from mitigation measures in that they are required to comply with statutory and regulatory requirements and are incorporated into the design of the Proposed Project in a way that avoids or minimizes impacts prior to the implementation of mitigation measures. The following are key components incorporated into the Proposed Project design that minimize impacts:

- **Stay within original footprint:** avoid additional impacts not analyzed and mitigated in the 1989 EIR;
- **Revised phasing and reclamation layout**: includes concurrent operations in multiple phases which generates greater efficiency for mining methods to reduce energy consumption, greenhouse gas emissions (GHG), and air quality impacts;
- **Mining and reclaiming in layers**: in lieu of the existing phasing on the property, each layer would be mined from the top down and benches would be reclaimed in succession concurrently in an earlier timeframe;

- **Green Standards**: adherence to the voluntary California Building Standards Commission standards for green construction material sources;
- **Air Quality**: control of particulate emissions from specified equipment to Tier 4 standards or better; and
- **Biological Resource Design Components:** 1) implement the development mitigation requirement associated and in compliance with the Western Riverside County MSHCP policies; 2) conduct burrowing owl surveys 30 days prior to disturbance of suitable habitat and if owls detected, follow appropriate protocols: 3) obtain authorizations from regulatory agencies for impacts to jurisdictional waters, and compensate for the loss of unvegetated streambed/riverine and riparian vegetation at appropriate ratios; 4) remove potential nesting bird vegetation outside the nesting season and/or conduct surveys and establish construction activity buffers; and 5) minimize potential direct impacts to the coastal California gnatcatcher by conducting habitat clearing and removal outside of the breeding season. These survey and permitting requirements required by existing rules and regulations are further discussed in detail in Section 3.3.2 herein.

2.2 REGIONAL SETTING

The project site is located in the City of Corona to the southeast of the interchange of the I-15 and 91 Freeway (see Figure 2-1). Areas to the north and south are unincorporated areas known as the communities of Home Gardens and El Cerrito, respectively (see Figure 2-2). The east portion of the City is dominated by heavy industrial development including the Project Site, adjacent mining and processing facilities to the north and south into the County of Riverside, a closed landfill, and railroad lines. Specific industrial land uses located adjacent to the Corona Quarry include the All American Asphalt mining and processing facility directly to the north and the 3M Company mining and processing facilities directly to the south. Residential development exists approximately half a mile to the northeast of the site and three-quarters of a mile to the west of the site, and very low density residential has recently been developed to the east of the site in Riverside County jurisdiction. A single, more isolated residence structure (a non-conforming use) is additionally situated to the east-southeast of the site, approximately one-quarter mile distant in the City (see Figure 2-3).

The project site is located on a dominant local topographic feature known as the El Sobrante de San Jacinto Mountains that rise approximately 1,000 feet above the valley floors. These hills, with existing mining slopes and residential development to the east, are visible from residential, commercial and industrial land uses as well as two freeways. The generally grass-covered hillsides with some areas of coastal sage scrub have been visually impacted by mining activities for 50 to 100 years.

The site is located along the eastern side of the Temescal Wash, an ephemeral stream which serves as the principal drainage channel for most of the surrounding area. Flood control facilities and the on-going mining operations along the Wash have modified the original stream profile over the past several decades.

Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

Regional Location

Corona Quarry EIR Addendum

Corona, California

Figure 2-1

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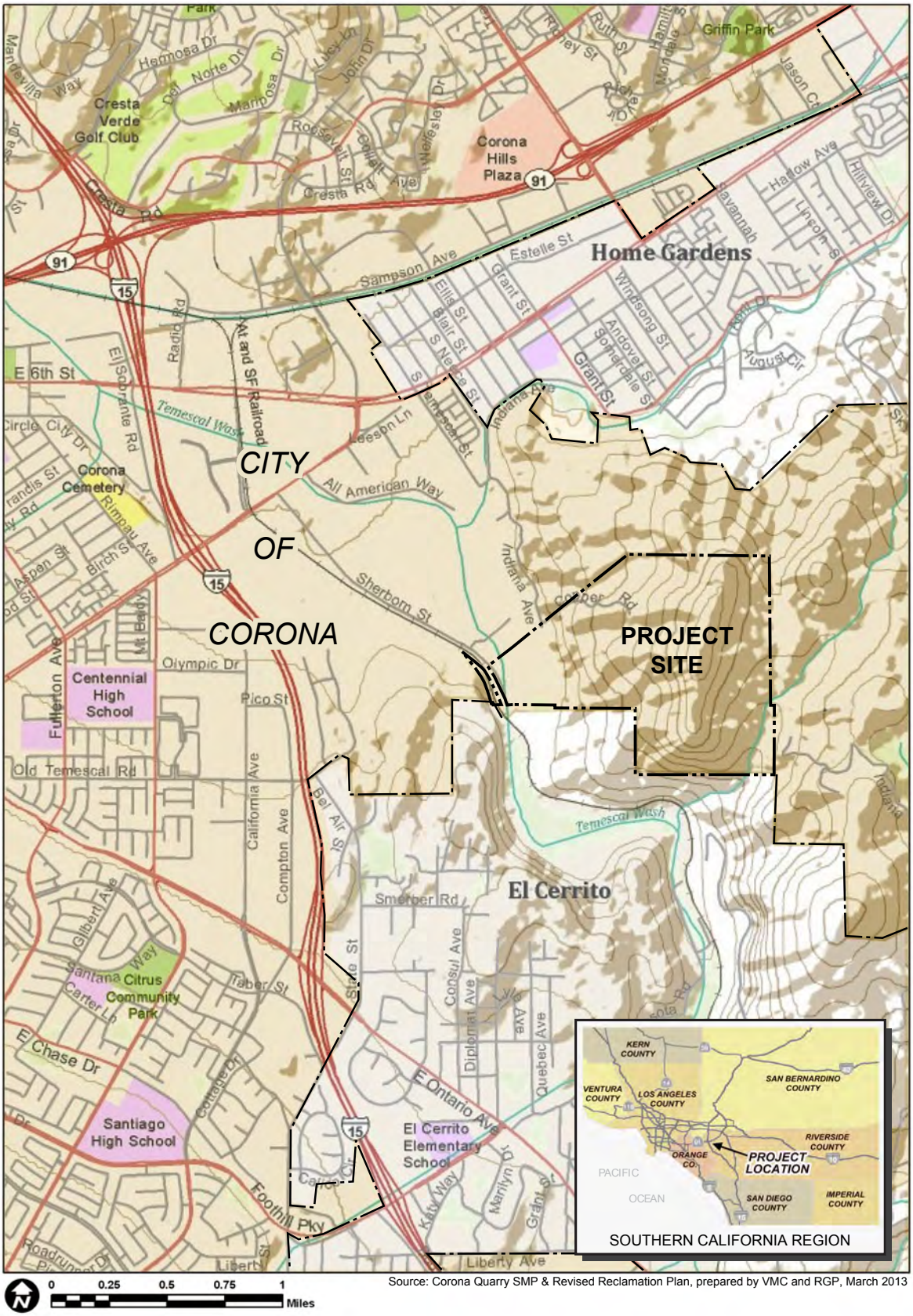

Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

Local Vicinity

Corona Quarry EIR Addendum

Corona, California

Figure 2-2

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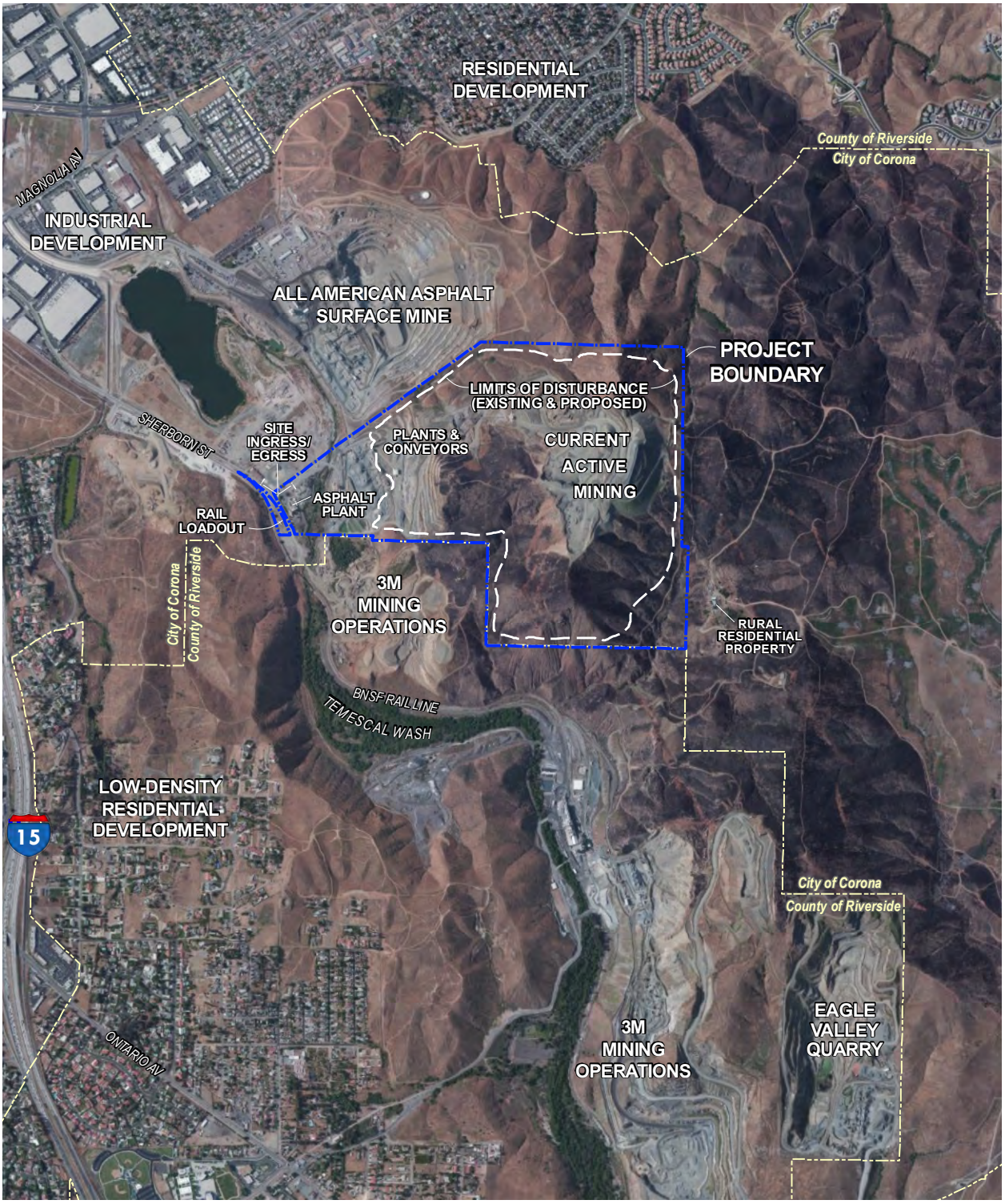

Source: VMC and RGP, August 2013

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Surrounding Land Uses

Corona Quarry EIR Addendum

Corona, California

Figure 2-3

The Surface Mining & Reclamation Act of 1975 (SMARA) includes a process whereby the State formally acknowledges geographical areas that contain mineral resources and the significance of these resources to the state and/or region. The State Department of Conservation (DOC) through the California Geological Survey (CGS) and the State Mining and Geology Board (SMGB) implements the mineral land classification/designation process for mineral resource conservation. Through this process, the Temescal Region, which includes the Corona Quarry, has been recognized as Mineral Resource Zone 2 (MRZ-2), confirming the presence of a significant mineral deposit (DOC, CGS, SR 143, 1981). The CGS also declared the Corona Quarry site as an area of regional significance, confirming the economic importance of the mineral deposit to the entire region.

In 2012, CGS published a report and accompanying map, commonly referred to as Map Sheet 52 (DOC, CGS, Map Sheet 52: Aggregate Availability in California, 2012) which identifies aggregate resources needed for a production- consumption region's 50-year supply. The Project Site and surrounding mine sites are within the Orange County – Temescal Valley Aggregate Production-Consumption Region and specifically within the Temescal Wash Resource Area. Map Sheet 52 identified a significant shortage of permitted aggregate reserves in the Temescal Valley-Orange County production-consumption area to meet projected demand over the next 50 years. The study found that based on the population projections that permitted aggregate reserves in the p-c region are approximately thirty-two percent (28%) of the over one billion ton 50-year projected demand; or approximately an 11 to 20-year supply for the region.

2.3 PERMIT TERM

The term of the permit approved by the County of Riverside in 1989 and subsequent amendments to the Corona Quarry SMP allows for extraction of 90 million tons of aggregate by the year 2023. The total estimated resource on site was initially estimated at 400 million tons. From the time of project approval through the year 2012, approximately 35 million tons have been recovered to meet the demand that has been substantially less than originally projected. Therefore, an estimated 351 million tons remain available for extraction within the originally proposed project footprint of 260 acres. VMC is currently projecting an annual production rate equal to or less than the 5 million tons per year evaluated in the 1989. The application seeks an extension beyond the current permit expiration to a time when all reserves have been extracted, or through the year 2113, whichever occurs first.

In the event that the SMP Amendment is not authorized by the City, VMC will continue operations and reclamation as currently permitted and obligated under SMP No. 93-01.

2.4 PROJECT SITE

The existing Corona Quarry occupies a portion of a 336-acre site in the City (see Figure 2-3). The City's 2004 General Plan Land Use Map designates the site and areas to its northwest, north, and east as General Industrial (GI) (see Figure 2-4). The site is located within the City's Heavy Manufacturing (M-3) zoning classification with a Mineral Resource (MR) overlay on the City's Zoning Map (see Figure 2-5). The existing and proposed projects are consistent with the General Plan designation and the site's zoning classification. Parcels that make up the site are shown in Table 2-1 below.

Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

General Plan Land Uses

Corona Quarry EIR Addendum

Corona, California

Figure 2-4

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Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

Zoning Map
Corona Quarry EIR Addendum
Corona, California
Figure 2-5

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Table 2-1
Project Site Assessor's Parcel Numbers

Assessor's Parcel Number	Acreage
107-0700-15	1.42
135-2700-02	24.72
135-2700-03	5.50
135-2700-05	46.71
135-2700-06	177.88
278-1200-01	40.00
278-1300-01	40.00
TOTAL	336.23

Source: "Corona Quarry SMP & Revised Reclamation Plan," VMC, RGP, March 2013

The existing mine site includes numerous existing, authorized material processing facilities, such as a hot mix asphaltic-concrete (HMA) plant, a ready-mix concrete (RMC) plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and unpaved access and mine roads for transport of materials and equipment, as well as several portable structures, which house the administrative office, employee restrooms, break rooms, and a lunchroom. The site also supports a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to any of the above facilities and equipment.

2.5 PROJECT COMPONENTS

Mineral Commodity to be Mined

The Corona Quarry produces a wide spectrum of construction-grade aggregates, ranging from fine sands to riprap. Among other uses, these products are used as the basic ingredient in concrete for construction of homes, public and private buildings, dams, bridges, highways and other structures. The material mined at Corona Quarry is also used for the production of hot mix asphaltic-concrete for use in parking lots, highways, surface streets, bicycle paths and related trail systems.

Estimated Annual Production

The production rates for Corona Quarry are carried forward unchanged from the 1989 EIR and are projected as follows:

- Aggregate materials processing and distribution facilities: up to approximately 5 million tons per year including:
    - Hot Mix Asphaltic-concrete production and distribution: 600,000 tons per year (approximately 550,000 tons of aggregate) (part of the 5 million tons of aggregate materials above) and
    - Ready-Mix Concrete production and distribution: 875,000 cubic yards per year (approximately 1.44 million tons of aggregate) (part of the 5 million tons of aggregate materials above)

Truck Access Routes

Truck access to the Project Site is provided by Sherborn Street, which connects to Magnolia Avenue approximately one mile northwest of the Project Site entrance. Magnolia Avenue, a major four-lane roadway, connects to the I-15 freeway approximately one-third of a mile to the west. The 1989 EIR projected 25% of project traffic would travel south on the I-15 and 65% north on the I-15, with most of the northbound traffic transitioning to State Route 91 approximately one mile north of Magnolia Avenue. The remaining 10% truck traffic is local and sub-regional oriented, anticipated not to be freeway destined.

The City has verified that VMC has satisfied SMP No. 93-01 Conditions of Approval Nos. 5 and 50 and related mitigation measures in the 1989 EIR requiring construction of specific street improvements and depositing of funds for street improvements and traffic signals. In addition, the intersection of Magnolia Avenue and I-15 was substantially re-constructed in 2009 and included widening the existing Magnolia Avenue Bridge to 9 lanes, adding double exclusive left-turn lanes onto the southbound onramp, adding a new northbound loop on-ramp, modifying the existing northbound on-ramp including an exclusive right-turn lane, and signal improvements.

Rail loadout facilities are also permitted for market transport of aggregate resources. Rail loadout of material is currently permitted and is intended to continue depending on market demands and conditions. To the extent that rail loadout continues, trucking of material will decrease.

2.6 MINING OPERATIONS

Mining operations, including the method of extraction, method of processing, hours of operation, noise monitoring, and dust control methods under the Proposed Project will remain as analyzed in the 1989 certified EIR and authorized under the current entitlements and regulations. No change is proposed to these activities. These activities are described in further detail below.

Method of Extraction

The mineral resource is extracted by conventional surface mining methods. The method of extraction and handling includes the following activities.

Material is loosened within active mining areas using heavy equipment, and/or by drilling and blasting as needed to fracture rock. Material is then loaded and transported to the processing area via large-capacity off-road haul vehicles to a crusher and energy-regenerative conveyor. The crushed material is transported via conveyor to a down slope materials processing plant. The material is further crushed and screened, sent to stockpiles based on material size prior to blending and possible washing, and conveyed to sales stockpiles/load out bins for loading into on-road trucks or rail cars for transport to customers. The locations of processing and conveying equipment will shift from time to time on the property in response to operational progress and to improve efficiency.

Off-road trucks and mining have limited hours of operation from 6 am to 10 pm east of the ‘ridgeline’ pursuant to conditions of approval. On-site mining and processing operations, as well

as equipment maintenance, are permitted 24 hours per day. Off-site material conveyance occurs via on-road trucks (and also with the option of rail service) on a 24-hour basis.

Method of Processing

Extracted rock (pit-run material) is reduced in size by a primary crusher located at the northwest portion of the quarry. The material is then transported via conveyor system to the processing plant located at the western portion of the site for further processing. Material from the primary crusher is separated by size and/or quality, further reduced in size, washed (if necessary) and stored in surge piles ready for market sale. As noted above, process and equipment locations, including crusher, conveyor, haul route and stockpile locations, are adjusted as necessary in response to operational progress and to improve efficiency. Figure 2-6 illustrates the ongoing site operations as a site plan view and Figures 2-7 and 2-8 are site photos of the onsite operations.

Hours of Operation

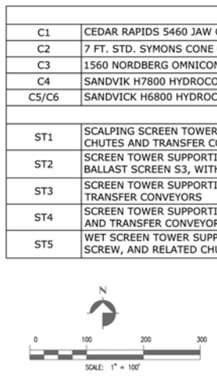
Permitted hours of operations on the project site are established by Conditions 25, 26, 27, 39, and 51(h) in the Conditions of Approval for SMP 93-01. In summary, the conditions permit:

- Operations, including drilling, processing, and maintenance, 24 hours a day, seven days a week in areas west of the ridge. *Condition 27*
- Operations, other than maintenance or emergencies, from 6:00 am to 10:00 pm in areas east of the ridge. *Condition 25*
- Market shipping, including trucking and rail methods, 24 hours a day, seven days a week. *Condition 26, 27*
- Quarry blasting from noon to 4:00 pm, Monday through Friday. *Condition 39*
- Operation of the hydraulic hammer to break oversize rocks restricted to between 7 am and 6 pm. *Condition 51.h.*

Noise Monitoring

SMP No. 93-01 Condition 35 established the project's maximum noise levels to be those in the City's Model Noise Ordinance Standards, Table 1 in the Noise Assessment by Mestre Greve Associates (available on file at the Community Development Department). Noise studies conducted for quarry operations have consistently shown noise levels to be below the maximum levels and therefore VMC is required by the City to submit noise studies only upon City request. The most recent request for such a study was in 2009; the results of this study indicated noise levels were below allowable levels (refer to Section 3.7 Noise for additional discussion). Existing restrictions on noise emissions and requirements for reporting would be preserved under the proposed modifications to the SMP.

CRUSHERS	
C1	CEDAR RAPIDS 5460 JAW CRUSHER WITH TRUCK DUMP HOPPER, VIBRATING GRIZZLY FEEDER AND CONVEYOR
C2	7 FT. STD. SYMONS CONE CRUSHER
C3	1560 NORDBERG OMNICONE BALLAST CRUSHER LOCATED ON TOWER ST2
C4	SANDVIK H7800 HYDROCONE TERTIARY CRUSHER LOCATED ON TOWER ST2
C5/C6	SANDVICK H6800 HYDROCONE QUATERNARY CRUSHERS
SCREEN TOWERS	
ST1	SCALPING SCREEN TOWER SUPPORTING 8X24, 3-DECK INCLINED DEISTER SCALPING SCREEN S1 WITH RELATED CHUTES AND TRANSFER CONVEYORS
ST2	SCREEN TOWER SUPPORTING 8X24, 3-DECK INCLINED DEISTER SCREEN S2 AND 5X16, 2-DECK INCLINED DEISTER BALLAST SCREEN S3, WITH RELATED CHUTES AND CRUSHERS C3 & C4
ST3	SCREEN TOWER SUPPORTING 8X24, 3-DECK INCLINED DEISTER SCREENS S4 & S5 AND RELATED CHUTES AND TRANSFER CONVEYORS
ST4	SCREEN TOWER SUPPORTING THE 8X20, 3-DECK HORIZONTAL JCI SCREENS S6, S7 & S8 AND RELATED CHUTES AND TRANSFER CONVEYORS
ST5	WET SCREEN TOWER SUPPORTING 8X20, 3-DECK INCLINED DEISTER SCREEN S9, KOLBERG 44"X32' SINGLE SAND SCREW, AND RELATED CHUTES, WATER PIPING AND PUMPS



MAJOR CONVEYORS	
PRIMARY/SECONDARY PLANT:	
PB2	PRIMARY SURGE PILE STACKING CONVEYOR
PB3	TUNNEL CONVEYOR FEEDING SCALPING SCREEN S1 LOCATED ON TOWER ST1 FROM UNDERSURGE PILE
PB4	CONVEYOR FEEDING SECONDARY CRUSHER C2
PB6	PIT FINES FROM ST1 TO PB9
PB8	SECONDARY SURGE PILE STACKING CONVEYOR
PB9	TELESCOPING STACKING CONVEYOR FOR PIT FINES PILE
FINISH PLANT CONVEYORS:	
B1	TUNNEL CONVEYOR FEEDING SCREEN S2 LOCATED ON TOWER ST2 FROM UNDER SURGE PILE
B4	BALLAST STACKING CONVEYOR
B5	CRUSHERS C4, C5 & C6 DISCHARGE TO CONVEYORS B6 & B7
B6/7	CONVEYORS FEEDING SCREENS S4 & S5 ON TOWER ST3
B9	CONVEYOR FEEDING QUATERNARY CRUSHERS C5 & C6
B10	1"X3/4" PRODUCT STACKING CONVEYOR
B11	3/4"X1/2" PRODUCT STACKING CONVEYOR
B14/15/16	CONVEYORS FEEDING SCREENS S6, S7 & S8 ON TOWER ST4
B21	1/2"X3/8" PRODUCT STACKING CONVEYOR
B22	3/8"X#8 PRODUCT STACKING CONVEYOR
B23	-#4 PRODUCT STACKING CONVEYOR
LOADOUT CONVEYORS:	
LB1/2	LOADOUT TUNNEL CONVEYORS UNDER PRODUCT PILES
LB3	CONVEYOR COLLECTING FROM LB2 TO FEED RINSE SCREEN S9 ON TOWER ST5
LB4	LOADOUT CONVEYOR FOR DRY PRODUCTS
LB5	LOADOUT CONVEYOR FOR WET PRODUCTS

Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

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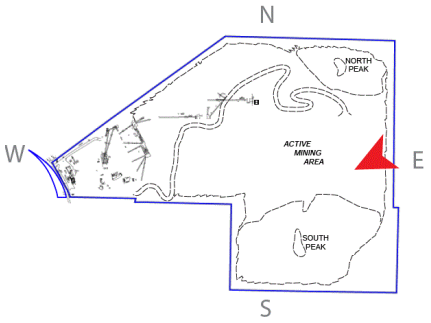
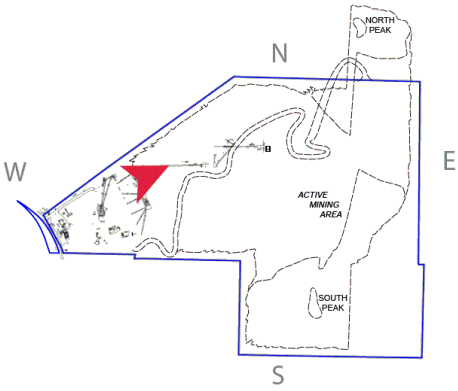
Corona Quarry Site Plan
Corona Quarry EIR Addendum
Corona, California
Figure 2-6



Existing Phase 2 Mining Operations



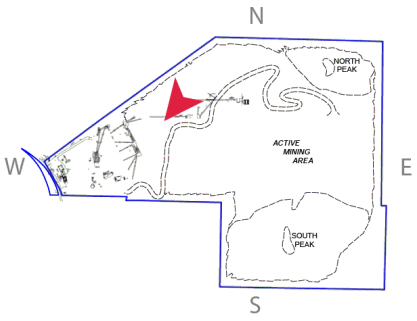
Material Processing and Conveyor Facilities

LILBURN CORPORATION

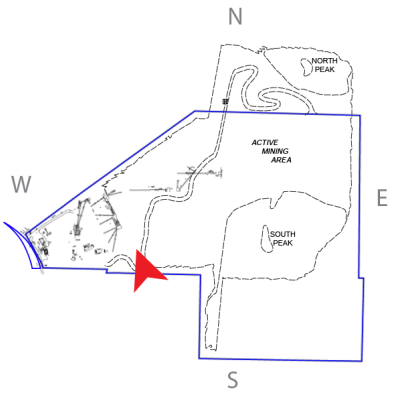
Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

On-Site Views
Corona Quarry EIR Addendum
Corona, California
Figure 2-7

Material Sorting and Stockpiling



Market-Ready Product Load-Out Stations



LILBURN CORPORATION

Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

On-Site Views
Corona Quarry EIR Addendum
Corona, California
Figure 2-8

Dust Control Methods

VMC implements stringent measures to minimize dust production from mine operations. Paramount among these is South Coast Air Quality Management District's (SCAQMD) Rules 403 and 1157 requirements. Dust control requirements are established by Conditions 24 and 39 in the Conditions of Approval for SMP 93-01. The measures required by these Conditions include:

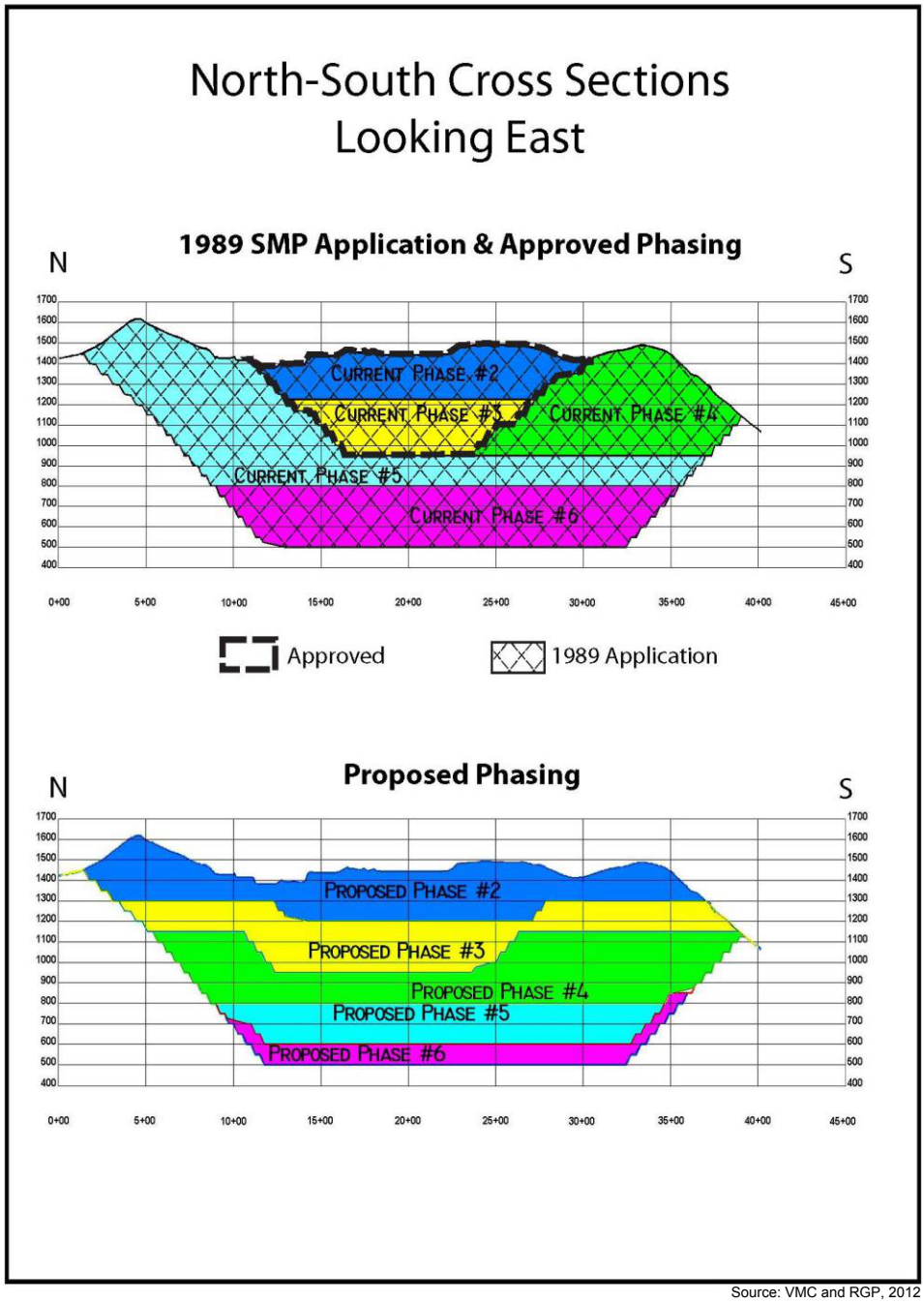
- Obtaining all necessary permits or clearances from the SCAQMD. *Condition 9* (i.e. permits to construct and operate all stationary equipment onsite per SCAQMD rules and regulations with annual renewals required)
- Maintaining roads, driveways, and mining areas wetted while in use, or treating such areas with approved dust suppressants. *Condition 24*
- Preventing spillage on public roadway and removal of any spillage should it occur. *Condition 30*
- Complying with the approved Blasting Plan and ensuring dust production remains below established standards. *Condition 39*

2.7 PROJECT MINE PHASING

VMC proposes to continue mining the site in six phases, as similarly analyzed in the 1989 EIR. Figures 17 through 21 consist of eight full sized map sheets from the Corona Quarry SMP & Revised Reclamation Plan application that show details of the proposed mine phasing areas and cross sections by phase.

The proposed mine phasing covers the similar extent of mining (260 acres total) and depth to 500 feet amsl in Phase 6 as analyzed in the 1989 Corona Quarry EIR. The first phase has already been completed and is currently the site of the processing facilities and market-ready stockpiles. Proposed phasing consists of a layered mining approach throughout the entire mining area. The difference from the 1989 application is that recovery of the available resource will occur in lifts, or mining phases (see Figure 2-9 for a cross section of the 1989 phasing and the proposed phasing). Figures 2-10 through 2-11 show a comparison of the Phases 2 and 3 areas between the 1989 County approved SMP 168 and the proposed phasing. Figures 2-12 through 2-14 show a comparison of the Phases 4, 5, and 6 areas between the 1989 application and EIR areas and the proposed phasing. Note that at the end of mining or end of Phase 6, that the footprint and depth of the mine area are the same; 260 acres and 500 feet amsl.

A summary of the estimated extraction quantities in the proposed phasing plan is presented in Table 2-2. Given the proposed phasing configuration and the intent to extract aggregate in a more efficient manner, mining may be required to occur in multiple phases at a given point in time.



Source: VMC and RGP, 2012

Current and Proposed Phasing Cross-Sections

Corona Quarry EIR Addendum
Corona, California
Figure 2-9

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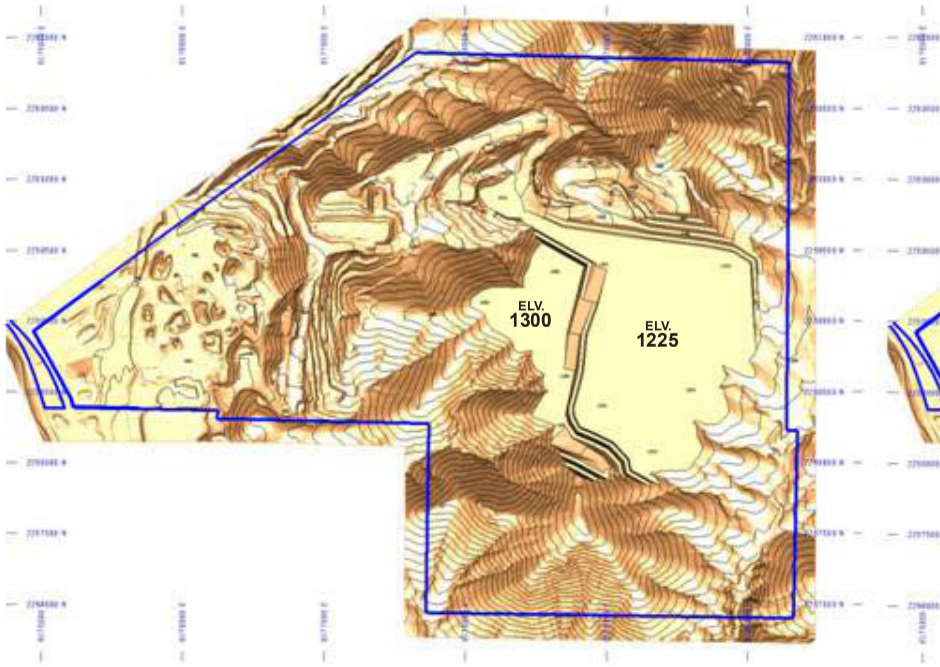
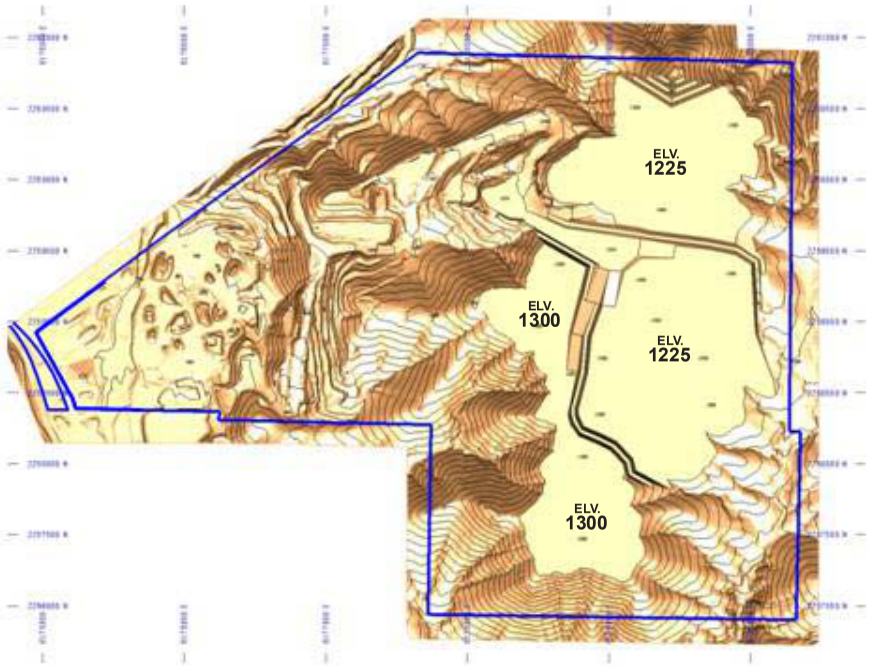
PHASE 2 COMPARISON

Approved Phase 2
(SMP 168-1989)



Proposed Phase 2



N.T.S.

Note: Illustrative for Comparative Purposes

Source: VMC and RGP, 2012

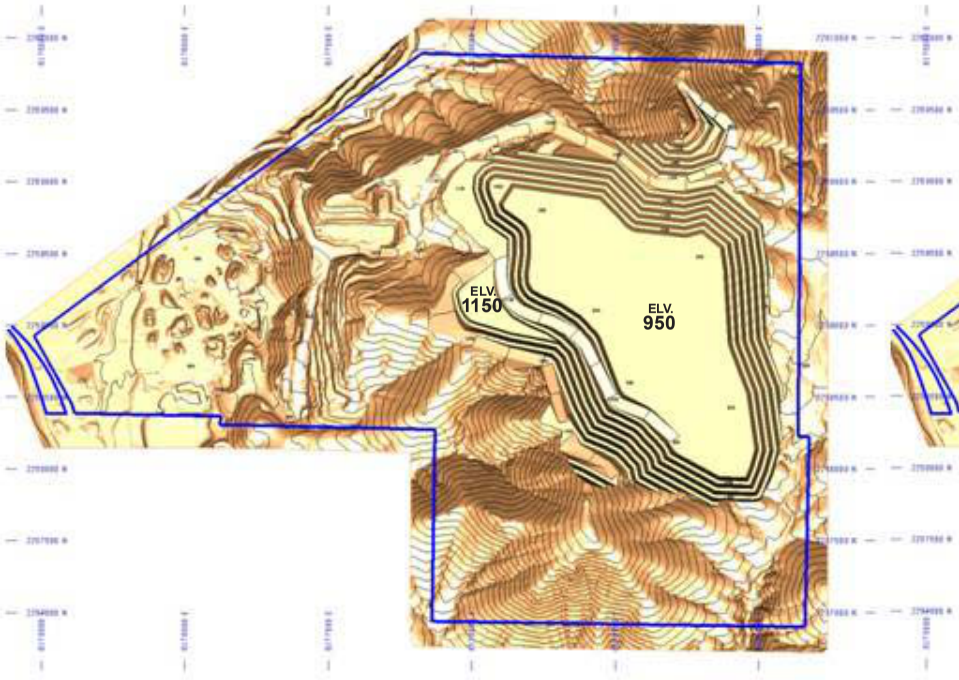
Phase 2 Comparison 1989/2012
Corona Quarry EIR Addendum
Corona, California

Figure 2-10

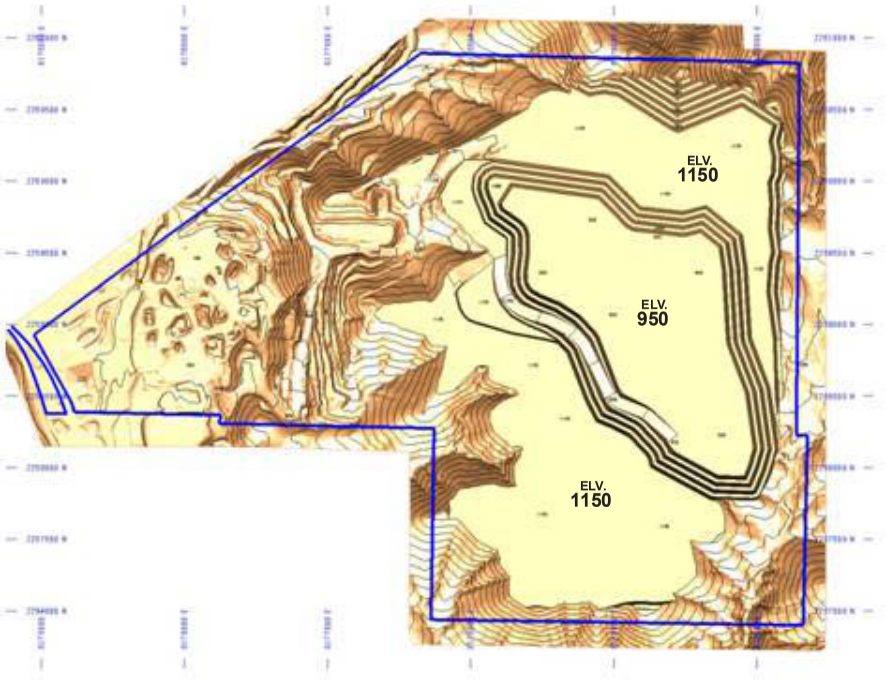
LILBURN CORPORATION

PHASE 3 COMPARISON

Approved Phase 3
(SMP 168-1989)



Proposed Phase 3



N
N.T.S.

Note: Illustrative for Comparative Purposes

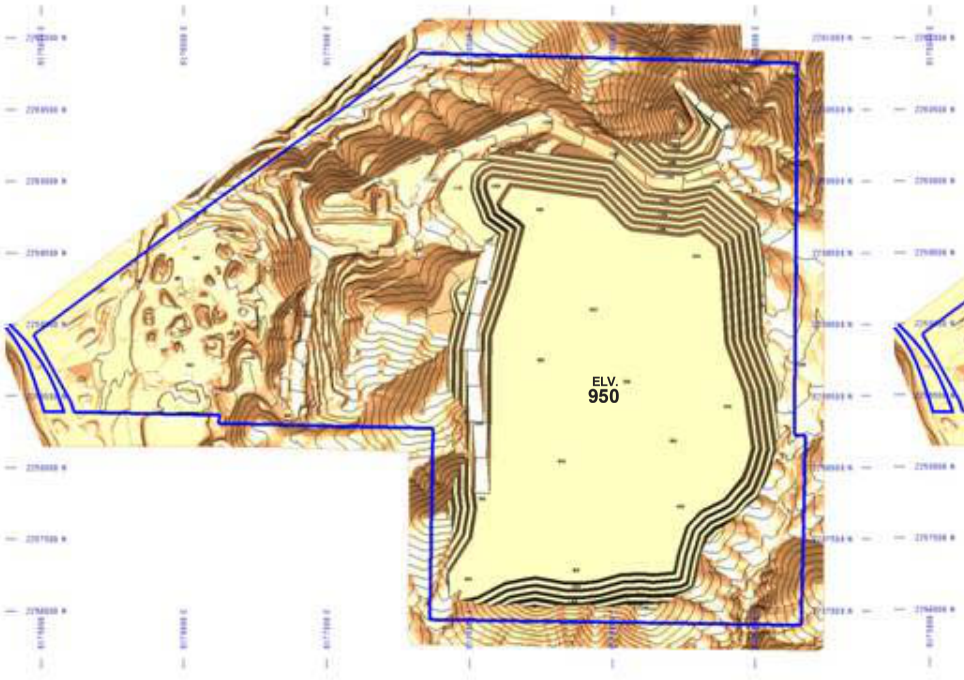
Source: VMC and RGP, 2012

Phase 3 Comparison 1989/2012
Corona Quarry EIR Addendum
Corona, California
Figure 2-11

LILBURN
CORPORATION

PHASE 4 COMPARISON

1989 Application-Phase 4



Proposed Phase 4

N

N.T.S.

Note: Illustrative for Comparative Purposes

Source: VMC and RGP, 2012

Phase 4 Comparison 1989/2012

Corona Quarry EIR Addendum

Corona, California

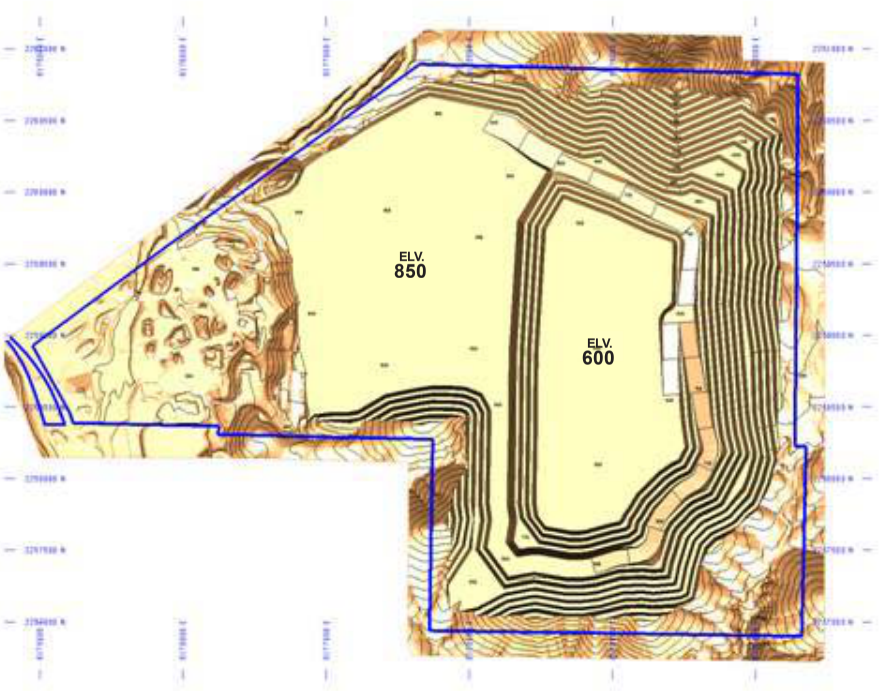
Figure 2-12

LILBURN CORPORATION

PHASE 5 COMPARISON

1989 Application-Phase 5

Proposed Phase 5



N.T.S.

Note: Illustrative for Comparative Purposes

Source: VMC and RGP, 2012

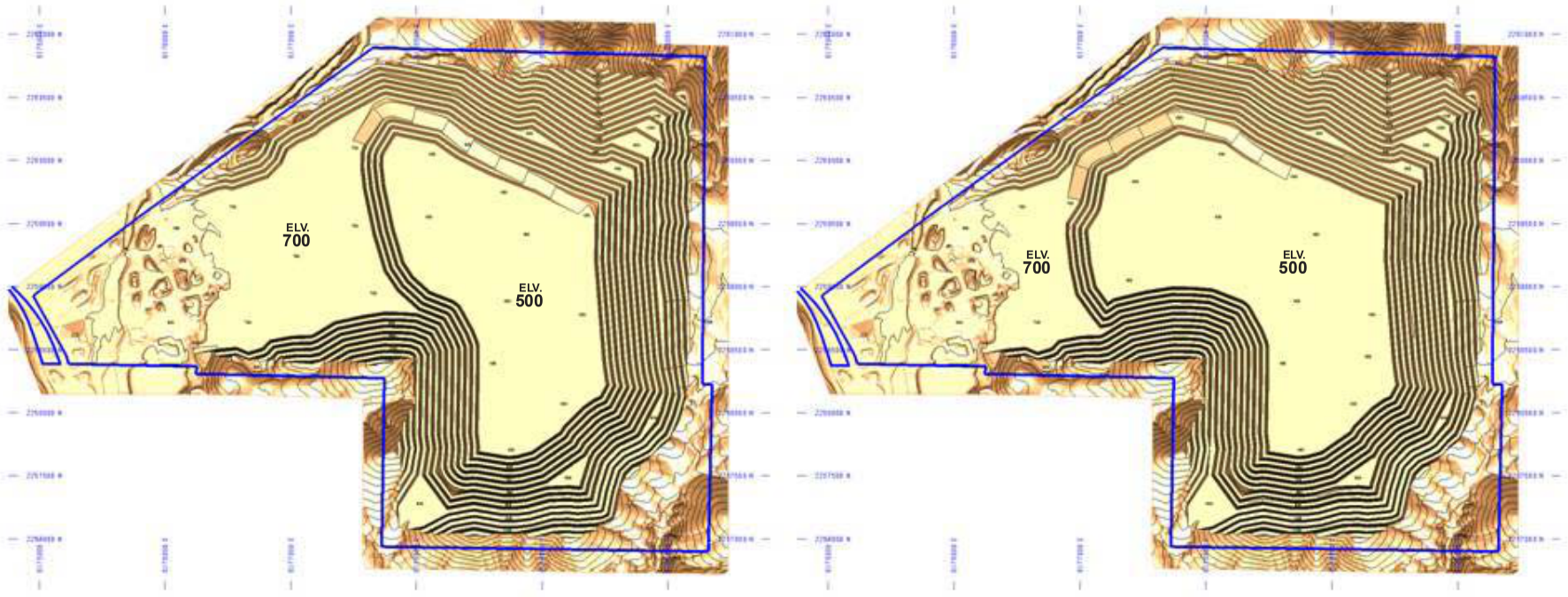
Phase 5 Comparison 1989/2012
Corona Quarry EIR Addendum
Corona, California
Figure 2-13

LILBURN CORPORATION

PHASE 6 COMPARISON

1989 Application-Phase 6

Proposed Phase 6



N.T.S.

Note: Illustrative for Comparative Purposes

Source: VMC and RGP, 2012

Phase 6 Comparison 1989/2012

Corona Quarry EIR Addendum

Corona, California

Figure 2-14

LILBURN CORPORATION

Table 2-2
Mining Phase Summary

Products & Production	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Totals	1989 Project Description
Non-PCC Quality Market Material[1] (tons)	13,764,000	8,084,000	7,878,000	3,328,000	109,000	33,163,000	No Data Provided
Fresh Rock (Product) (tons)	25,543,000	73,878,000	102,983,000	66,232,000	82,414,000	351,050,000	400,000,000
Strip Ratio (tons/tons)	0.54	0.11	0.08	0.05	0.001	0.09	No Data Provided
Approximate Year of Initiation[2]	Ongoing	2020-2030	2035-2050	2060-2080	2085-2095		

[1] Saleable and used for reclamation.
[2] Will vary based on market conditions, with Phase 6 to conclude no later than December 31, 2113. Notwithstanding the estimated dates, phases are not linked to dates.

Source: "Corona Quarry SMP & Revised Reclamation Plan," VMC, RGP, March 2013

2.8 RECLAMATION PLAN

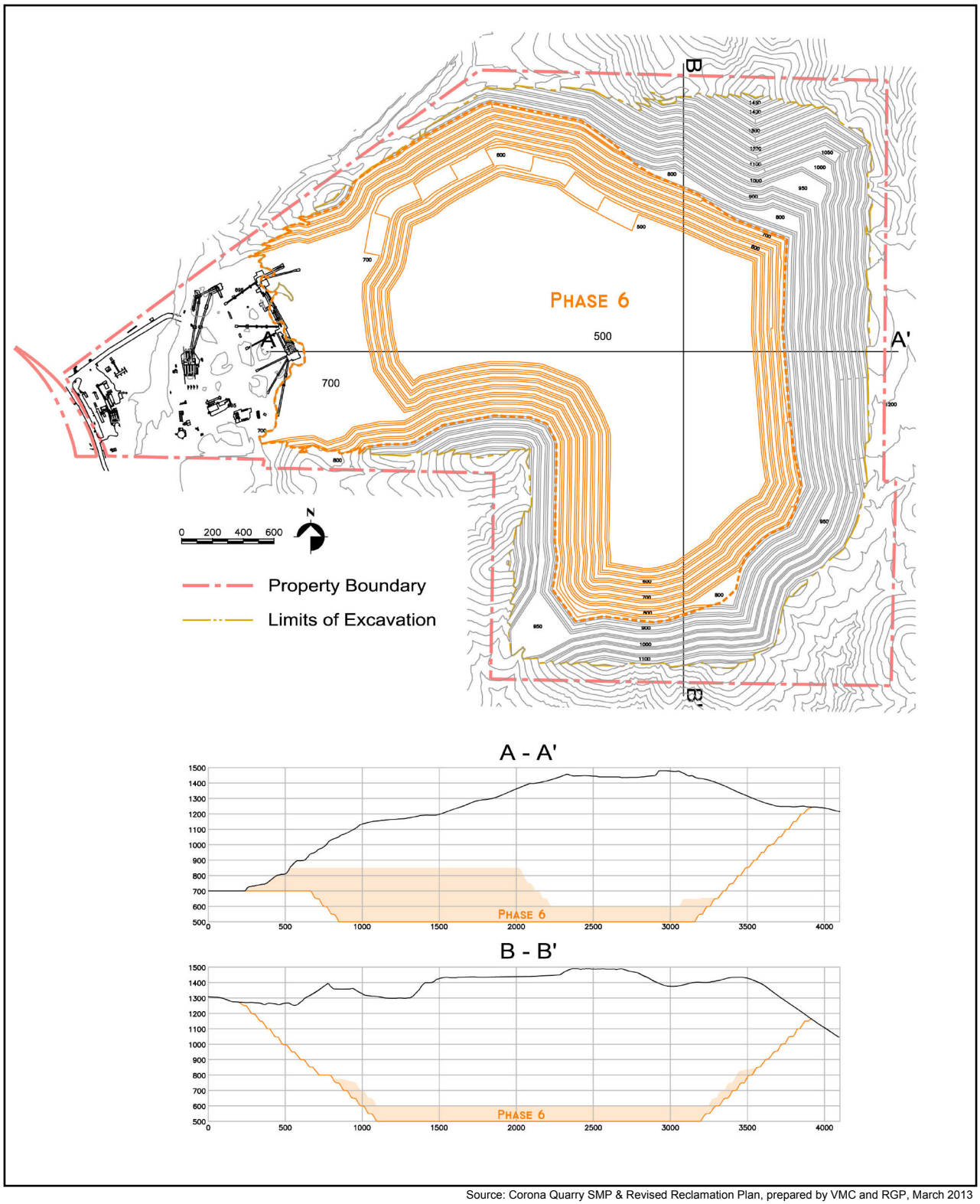
VMC's proposal would modify the approved 1989 Reclamation Plan to reflect continued operations through the full six-phase envelope analyzed in the 1989 certified EIR. The site end use, final slopes, and revegetation approach, however, will remain consistent with the existing Reclamation Plan.

Reclamation Phasing

The amended Reclamation Plan assumes that the end use of the site, after mining ceases, will be open space as approved in the previous and existing permits, and as analyzed in the 1989 certified EIR. At the completion of mining, the site will consist of a bowl-shaped area, with benched perimeter slopes along most of the northern, eastern, and southern portions and a large relatively flat pad at the base of the slopes on the western portion (see Figure 2-15).

Mine phasing will allow reclamation activities to occur concurrently within Phases 2 – 6. These phases will be conducted in a layered approach, rather than sectional mining as was evaluated for the 1989 surface mining permit and reclamation plan. Mining in a layered approach allows for more efficient use of operational resources and a reduction in air emissions. As each mining phase is completed, the exposed faces and benches will be reclaimed from the top completed bench downward. It is anticipated that reclamation will be ongoing in multiple phases simultaneously.

Upon the completion of mining, operational waste such as equipment parts, oil and fuel containers, and domestic solid waste (e.g. litter) will be disposed of in accordance with State and local health and safety ordinances. All structures and equipment not required to remain on-site as part of site reclamation will be dismantled and removed prior to final mine closure.



Source: Corona Quarry SMP & Revised Reclamation Plan, prepared by VMC and RGP, March 2013

Proposed Mining and Reclamation Program: Phase 6

Corona Quarry EIR Addendum

Corona, California

Figure 2-15

LILBURN CORPORATION

Slope Stability

The existing 1989 Reclamation Plan requires the step-benching slope reclamation method typical of hard rock quarries. This approach will be maintained as part of the mining permit and reclamation plan amendment. The reclaimed site will feature 1:1 cut slopes with 25-foot wide benches and 25-foot highwalls. Geotechnical analysis conducted in 2012 by Haley & Aldrich, Inc. determined that the proposed reclaimed slope of 1:1 is adequate for use at the Corona Quarry under all geologic conditions. The static and pseudostatic (under seismic conditions) factors of safety are well above the minimum design criteria of 1.5 and 1.15, respectively. The slope stability factors of safety for all slopes and quarry faces have been found suitable for the proposed end use and conform with the surrounding topography.

Topsoil and Non-PCC Quality Material

The mine site has no topsoil to be salvaged. However, non-PCC quality marketable material is present in varying quantities throughout the site. The non-PCC quality material is not a mine waste and will be temporarily stockpiled and primarily sold for market use as well as used as revegetation medium in the reclamation process. No mine waste will be produced as a result of mining and material processing. Negligible quantities of process fines will be blended with non-PCC quality material primarily for the purpose of market use as well as used as a slope revegetation medium in site reclamation.

Revegetation

The revegetation plan is detailed in the SMP & Revised Reclamation Plan and summarized on Sheet 7 of 8 within the Proposed Plan including the revegetation palette and amendments planned. At the termination of all mining activity, unnecessary on-site traffic routes to be reclaimed will be stripped of any road base material and prepared for revegetation. The office facilities, storage facilities, and parking areas will be removed and surfacing materials stripped. These areas will be ripped or disked in preparation for planting.

The horizontal benches will be planted with the same plant palette proposed in the 1989 permit and reviewed in the 1989 EIR. Sequential revegetation will occur on the site. As mine benches are completed, revegetation will commence. Benches and slopes will be seeded with native or ecologically comparable species that are able to survive without irrigation. The floor of the quarry will be filled with inert material and graded to create a stable semi-level surface.

Monitoring

Reference sites will be established in undisturbed and un-mined areas located in close proximity to the mined slopes. The purpose of establishing reference sites is to be able to match the existing conditions in areas adjacent to the mined slopes.

Test plots will be conducted simultaneously with mining operations to determine the most appropriate planting procedures to ensure successful revegetation. Site revegetation will be conducted during the fall season to take advantage of the ensuing rainy seasons.

A revegetation monitor will oversee and guide implementation and maintenance activities, the monitor will also evaluate plant development and conduct data collection during establishment of plantings, and prepare reports documenting the restoration program. Monitoring of the revegetation areas will allow for a determination of maintenance needs, if any, and permit development of an information base documenting implementation efforts, maintenance activities, and the development of newly-planted vegetation. Reports of the findings will be prepared on an annual basis after revegetation commences. Monitoring of the revegetation sites will be conducted until these sites are determined to be self-sustaining.

Safety

The site is secured with security fencing (chain link and barbed wire) along the entire perimeter of the site. In addition, entry gates to the site are locked during non-business hours. Warning signage, indicating "No Trespassing" and "Steep Slopes," is also placed at strategic distances along the site fencing. The site manager and other employees ensure only authorized personnel are onsite.

Stream Protection (including Surface and Groundwater)

Surface and groundwater shall continue to be protected from siltation and pollutants as a result of ongoing operations in accordance with the State's Industrial Activities Stormwater General Permit (Industrial General Permit, Order No. 97-03-DWQ), and other pertinent discharge requirements issued by the Santa Ana Regional Water Quality Control Board. The site is governed by the conditions of an industrial Strom Water Pollution Prevention Plan (SWPPP) for the Corona Quarry (WDID No. 8 33S0001931). Pursuant to the NPDES permit requirements, the amended Reclamation Plan will conform to the current SWPPP and recommended Best Management Practices (BMPs).

Financial Assurance

VMC currently maintains and will continue to maintain financial assurances payable to the City and the State of California adequate for the reclamation of the site and will update the financial assurance on an annual basis, in accordance with the requirements of SMARA. These financial assurances estimates are updated and reviewed annually by the City and OMR for completeness and accuracy.

Reclamation Plan Compliance

VMC's Corona Quarry is subject to numerous conditions, mitigation measures, and performance standards. Compliance with these controls has been confirmed through City-prepared annual SMARA inspections and the accompanying annual reports. The annual reports document compliance with the mine's conditions, mitigation measures, and performance standards.

3.0 ADDENDUM TO 1989 EIR ANALYSIS

The 2013 Application and technical studies submitted by VMC for the Proposed Project (Amendment to Surface Mine Permit 93-01) were considered by the City of Corona and reviewed in light of the 2012 CEQA Appendix G Environmental Checklist Form. The City determined that certain environmental topics should be analyzed for the Proposed Project, in light of the certified 1989 EIR and the focused technical studies provided by the Applicant in 2013 as part of the Application. These environmental topics are reviewed in the following sections of this EIR Addendum:

3.1 Aesthetics/Visual Resources
3.2 Air Quality and Greenhouse Gas Emissions
3.3 Biological Resources
3.4 Cultural Resources
3.5 Geology and Soils
3.6 Hydrology and Water Quality
3.7 Noise & Vibration
3.8 Public Safety and Hazards
3.9 Traffic and Circulation

VMC submitted focused technical studies and/or supplemental information to address the environmental topics of Aesthetics, Air Quality/Greenhouse Gas Emissions, Biological Resources, Geology/Geotechnical, and Noise/Vibration. Each of these submittals was subject to peer review for purposes of determining their adequacy in evaluating the Proposed Project in light of CEQA and was subsequently used in the preparation of the following impact analyses.

Table 3-1 compares the certified 1989 Corona Quarry EIR assessment of the full 260-acre mining area with the proposed 2013 SMP and Revised Reclamation Plan.

Table 3-1
Comparison of the 1989 EIR with the Proposed Project

Feature	1989 Certified Corona Quarry EIR[1]	2013 Surface Mining Permit & Revised Reclamation Plan	Change from 1989 Corona EIR Analysis
Site Acreage	336 acres	336 acres	No
Mining Acreage	260 acres	250-260 acres	No
Total Reserves	400,000,000 tons (est.)	351,050,000 tons (est.)	No
Non-PCC quality marketable material[4]	3,500,000 tons (est.)	33,163,000 tons (est.) (based on more precise surveys & measuring techniques)[4]	Yes
Type of Material Mined	PCC-grade aggregate materials	PCC-grade aggregate materials	No
Mining Method	Loosening of the rock by dozer unit and / or drilling and blasting	Loosening of the rock by dozer unit and / or drilling and blasting	No

Feature	1989 Certified Corona Quarry EIR[1]	2013 Surface Mining Permit & Revised Reclamation Plan	Change from 1989 Corona EIR Analysis
Mine Phasing[1 & 2]	Two phases: Initial phase (approximately 7,000,000 tons of aggregate material) mined to clear area for a permanent processing plant along the west portion of the site. Phase 2 consists of aggregate extraction on the remainder of the 260 acres to total depletion of aggregate resource.	Six phases: Proposed mine phasing covers the similar extent of mining as was applied for, and analyzed by the 1989 EIR. Proposed phasing consists of layered mining approach throughout the entire mining area to facilitate efficient mining and concurrent reclamation.	Yes
Mining Depth	Down to approximate elevation of 500 feet amsl	Down to approximate elevation of 500 feet amsl	No
Reclamation Sequence	Where possible, reclamation shall occur concurrently with mining. As one phase of mining is completed the exposed mine faces and ledges shall be reclaimed. Reclamation may occur across multiple phases simultaneously.	Where possible, reclamation shall occur concurrently with mining. As one phase of mining is completed the upper exposed mine faces and ledges shall be reclaimed. Reclamation may occur across multiple phases simultaneously.	No
Slope Reclamation Type	Step Benching or traditional benching method	Step Benching or traditional benching method	No
Revegetation	Establishment of a permanent, self-perpetuating vegetative ecosystem to closely mimic the natural environment, through resoiling and revegetation, with monitoring and specific assurance mechanisms to guarantee successful completion in a hard rock setting.	Establishment of a permanent, self-perpetuating vegetative ecosystem to closely mimic the natural environment, through resoiling and revegetation, with monitoring and specific assurance mechanisms to guarantee successful completion in the hard rock setting.	No
Estimated Years to Completion	76-102 years	Sooner of exhaustion of permitted reserves or 100 years, December 31, 2113	Yes
Backfilling	No on-site backfilling. Available non-PCC quality material will be made available for market use as well as stockpiled and used as revegetation medium during reclamation process	No on-site backfilling. Available Non-PCC quality material will be made available for market use as well as stockpiled and used as revegetation medium during reclamation process	No
Material Processing	Materials are loaded and transported to the processing area via conveyors and mining vehicles. The materials are processed by a series of crushers and screens by a conveyor system. Resulting materials are placed in a series of structures and stockpiles for sale and distribution.	Materials are loaded and transported to the processing area via conveyors and mining vehicles. The materials are processed by a series of crushers and screens by a conveyor system. Resulting materials are placed in a series of structures and stockpiles for sale and distribution.	No
On-site production	Processed aggregate material; Hot-mix asphalt; Concrete batch plant	Processed aggregate material; Hot-mix asphalt; Concrete batch plant	No
Quarry Production[3]	Up to approximately 5,000,000 tons per year (16,025 tons per operating day)	Up to approximately 5,000,000 tons per year (16,025 tons per operating day)	No

Feature	1989 Certified Corona Quarry EIR[1]	2013 Surface Mining Permit & Revised Reclamation Plan	Change from 1989 Corona EIR Analysis
Blasting	May occur between 12 noon and 4 pm, Monday through Friday	May occur between 12 noon and 4 pm, Monday through Friday	No
Material Stockpiling	Materials are stockpiled at the processing plant area in various stockpiles based material size.	Materials are stockpiled at the processing plant area in various stockpiles based material size.	No
Process Water	Water controls air emissions at crushing and transfer points. Also necessary during the screening and washing process of aggregates.	Water controls air emissions at crushing and transfer points. Also necessary during the screening and washing process of aggregates.	No
On-Site Material Conveyance	Materials are loaded and transported to the processing area via heavy-duty equipment and mining vehicles.	Materials are loaded and transported to the processing area via heavy-duty equipment and mining vehicles.	No
Off-Site Material Conveyance	Vehicular transport on public streets and optional rail loadout	Vehicular transport on public streets and optional rail loadout.	No
End Use	Open space, with a goal to provide a site suitable for post-mining uses such as residential, commercial, industrial, public service or recreational/open space.	Non-special habitat open space for subsequent future land use designation as appropriate for City land use goals in 2112.	No
Accessory Uses & Activities	HMA / RMC / Rail Loadout	HMA / RMC / Rail Loadout	No

1 - The 1989 Corona Quarry EIR analyzed the original proposal, which was to mine the full extent of aggregate resources located on the site in two phases. Subsequent to completion of the EIR, the applicant redesigned the project to consist of six phases rather than two phases while maintaining the analyzed operational characteristics. The six-phase proposed project became the project considered by the County.

2 - The County of Riverside approved the 1989 Corona Quarry Surface Mining Permit and Reclamation Plan No. 168 under the condition that only the first three phases (Phases 1, 2, and 3) would comprise the mining operations. Phases 4 through 6 were not a part of the approved permits. When annexed into the City of Corona in 1991 and revised in 1993, the City renumbered the Project entitlement to SMP 93-01.

3 - The daily quarry production rate described above is not a limit on throughput, but a description of typical daily activity based on the permitted annual maximum throughput. Actual daily production varies based on product demand. Production is capped at 480,000 tons per month in Permit to Operate A/N 523143 issued by the SCAQMD.

4 – Non-PCC quality material: The difference between the current calculation and past calculations is due to inclusion of weathered rock tonnage with non-PCC quality market product tonnage. The difference from the 1989 certified EIR to the Proposed Project is the result of significantly deeper drilling and geotechnical testing to ascertain a more accurate portrayal of the non-PCC quality material volume. Volume change is partially definitional. (In the past it was assumed that everything but the overburden would be high quality rock. The operator now has a better understanding of the deposit and has found that the weathered rock does not meet PCC grade material specifications and can only be marketed as either sub base or fill materials.)

3.1 AESTHETICS/VISUAL RESOURCES

3.1.1 1989 EIR Conclusions

The 1989 EIR included a discussion of the existing environmental setting, potential impacts and mitigation measures for aesthetics and visual resources that could be potentially affected by the project. The 1989 EIR concluded that the greatest visual impact that would result from the Corona Quarry would be topographical changes. Over 1,000 feet of elevation would be removed from the highest portion of the site. The most dominant peak in the local area would be removed. These significant changes in elevations would take place over the proposed permit period with mining anticipated to occur until the year 2089. As concluded in the EIR, the Riverside County General Plan states that development in hillside areas (slopes of 25% or greater) should be designed to follow or flow with the natural contours of the site. Ridgeline, canyon edges and hilltop development is discouraged. The Corona Quarry project was found to cause significant alteration of peaks and ridgelines.

The 1989 EIR concluded that "It is impossible to fully mitigate the topographical alterations that will occur, as a result of the Corona Quarry project. No structure, berm, or plant material can screen the elimination of a 1,625-foot peak. During mining, visual mitigation shall be limited to the use of earth tone paints for the processing plant to lessen its impact, and the retention of vegetation along the western edge of the site, to help maintain a natural appearance near the site entrance. No invasive night lighting shall be permitted which could cast unnatural shadows or glare."

The mitigation measures adopted as part of the 1989 EIR certification included:

Aesthetic reclamation shall involve, at a minimum, the following, to achieve a more generally acceptable post-project visual character:

a. Removal of all mining equipment, processing plants and stockpiles, and the clearing of related debris.
b. Restoration to a structurally stable final topography, minimizing geological hazards and facilitating natural drainage of surface waters.
c. Contouring of mined terraces to produce more natural topographical faces by means of random rounding of edges and the interruption of ledges.
d. Establishment of a permanent, self-perpetuating vegetative ecosystem to closely approximate the natural environment, through resoiling and revegetation, with monitoring and specific assurance mechanisms to guarantee successful completion to be provided by project proponent.
e. Whenever possible, reclamation shall occur concurrently with mining. As one phase of the mining operation is completed the exposed cliff faces and ledges shall be reclaimed.
f. When mining has been completed, the landform shall be such that a suitable post-reclamation land use is possible.

In addition, Condition of Approval No. 43 requires that "light sources shall be limited to those necessary for normal maintenance and security activities, and for nighttime mining operations which are located more than 300 feet inside the outer boundary of the project. Light sources shall be shielded so as not to direct glare into any residential areas."

The 1989 EIR found that aesthetic resource impacts including alterations to the topography was a significant and unavoidable adverse impact and an overriding finding was made which indicates that "the utilization of this regionally significant mineral resource located close to market areas outweighs the unavoidable adverse impact" (FEIR, Staff Report, page 13).

3.1.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the project site being disturbed with mining activities similar to the project analyzed in the 1989 EIR, and extension of the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mix asphaltic-concrete plant, a ready-mix concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily and annual aggregate production limit of 5 million tons per year, only to phasing and an extension in the duration of the permit term.

Compared to the analysis contained in the 1989 EIR, the Proposed Project will change the phasing in which mining and reclamation would be completed. All other visual impacts associated with the operation (e.g. decrease of the ridgeline, vegetation removal) and the characteristics of these elements (e.g. – lighting of color, rows of linear, engineered benches) were previously analyzed in the 1989 EIR for the entire mining footprint of 260 acres. Therefore, the only difference between the project considered in the 1989 EIR and the 2013 Proposed Project modification is the phasing configuration.

The 1989 EIR included a visual assessment from five vantage points: from the west, north, east, south, and I-15 freeway. Photos from these surrounding vantage points included existing views from sensitive receptors and areas proposed for residential development and/or under construction. Hand-drawn renderings provided views of the visual impacts at mid-project and end-project timeframes for the 260-acre impact. The renderings clearly labeled adjacent mine sites in addition to the Project site.

The 1989 EIR reviewed the Corona Quarry site as it related to visibility from I-15, an Eligible State Scenic Highway on the State Master Plan. As discussed in the 1989 EIR, the Riverside County General Plan identified the portion of the route in proximity to the Project Site as being already heavily impacted by extractive resource operations and a landfill. The County at the time did not consider this portion of the route a desirable State Scenic Highway and recommended its

deletion from the State Master Plan. This portion of I-15 south of the 91 Freeway is still listed as an Eligible State Scenic Highway by the State, however the Corona General Plan (March 2004 as updated) does not include I-15.

Since certification of the 1989 EIR, development in the vicinity of the project site has not created the potential for an increase in visual impacts. The area's visual character is still dominated by urban development including extensive mining, other industrial uses, commercial, and residential, and highways and roads. The area to the east of the project site is a north-south trending ridge with sparse vegetation. The distance to the nearest sensitive residential uses has not changed. The closest homes in 1989 (the homes located in the Bel Air development) were 3,000 feet to the southwest and west from the project and they continue to be the closest homes to the site today. Another housing development is located about 3,000 feet north of the site. These residential areas are partially shielded by intervening hills.

Since 1989, there have been no changes to the standards of significance provided in CEQA Appendix G Environmental Checklist regarding analysis of Aesthetics/Visual Resources.

The Applicant submitted a Visual Impact Assessment prepared by RGP in March 2013 (see Appendix A). This analysis included a comparison of the existing visual setting to the potential visual impacts from the Proposed Project utilizing the same five vantage points evaluated in the 1989 EIR to determine if any new significant or substantially greater significant impacts may result in light of the evaluation and conclusions presented in the 1989 EIR. This information was peer reviewed by Lilburn Corporation and conclusions are discussed herein.

The Visual Impact Assessment utilized a standardized method for rating visual quality used by the Bureau of Land Management (BLM) to provide a more quantified assessment, a method utilized in current environmental assessments more so than in 1989. Because residential views are considered more sensitive than commercial /industrial uses and highways, residential views from the west, north, east, and south as well as along I-15 were evaluated similar to the 1989 EIR.

The existing conditions were evaluated with renderings for the mid-project and end-project views. Views from the west and north will have views of the project's linear and engineered benches which are disharmonious with the natural form, line, color, and texture of the native slopes. The 1989 EIR stated that the original project's topographical changes and linear and engineered benches would be visible, just as under the Proposed Project. This impact is considered potentially significant, consistent with the 1989 EIR.

Views from the east and south will have views of the project's alterations to the uppermost portion of the project site ridgeline in the mid-point of the project's life when mining removes the upper ridge. At the project's conclusion, the proposed benches and other remnant project features will not be visible from these directions. The 1989 EIR stated that the original project is generally not visible from the east and except for topographical changes near the completion of mining or many years into the life of the project, just as under the Proposed Project. Because of

the potential visibility of project operations along the highest portions of the project slopes, this impact is considered potentially significant, consistent with the 1989 EIR.

The 1989 EIR and the current assessment both determined that views from I-15 would be potentially significant. No new or substantially greater significant impacts would occur from the Proposed Project.

3.1.3 Addendum Conclusions

The Aesthetics Section set forth in the 1989 EIR remains accurate and conclusions are unchanged by this Addendum. The Proposed Project will not have any new or substantially greater significant aesthetics impacts from that already anticipated by the analysis in the 1989 EIR as it evaluated approximately 260 acres being disturbed by mining operations. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these same conditions as well as others for SMP 93-01.Conditons related to signage, lighting, landscaping, revegetation, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to lessen visual impacts to the extent reasonably feasible. All previously identified conditions and mitigation measures will continue to be incorporated into the project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Aesthetics / Visual Resources	Unavoidable Adverse Impact with Mitigation Incorporated	No Change

3.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

3.2.1 1989 EIR Conclusions

The 1989 EIR included Environmental Setting/Potential Impacts/Mitigation Measures sections for Air Quality. The potential air quality sources identified were: 1) processing emissions; 2) fugitive dust generation; and 3) off-site vehicular emission.

The 1989 EIR determined that the principal emission from the Corona Quarry processing plant would be particulates due to processing of materials. The amount of particulate emissions will vary depending upon the level of emission controls to be used. However, the South Coast Air Quality Management District (SCAQMD), through its Regulation XIII, effectively limits the particulate emissions from processing plants to 150 pounds per day, with any emissions above this level to be off-set.

As indicated in the EIR, dust would be generated from the mining and transport activities proposed onsite. These emissions are a result of drilling, blasting, loading, and earth moving. Emissions would be controlled by watering the area prior and during excavation or the use of soil stabilizers. Such methods can reduce fugitive dust emissions by 50 percent.

Emissions from truck traffic, 1,740 truck trips per day, were also addressed in the EIR as creating potential air quality impacts. The EIR concluded that project-related truck emissions actually represent a decrease in the pollutants which would be generated if the project were not to proceed. The EIR states, "This is due to the fact that the project is located within the rapidly developing Orange County-Western Riverside County aggregate consumption region. If no substantial aggregate quarry is established within this area, aggregates necessary to build the houses and roads in this area will have to come from existing quarries located outside of the region (Irwindale, San Bernardino County, and Palmdale)."

The mitigation measures adopted as part of the EIR certification (and incorporated in Conditions of Approval 9, 15, 24, and 30) included:

1) Compliance with SCAQMD Rules and Regulations will result in mitigation of impacts for the Corona Quarry project and acceptable air quality levels in adjacent areas. These regulations require that the project proponent apply the best available control technology to their operations. These measures are expected to include one or more of the following:

    - A foam dust suppression system on processing equipment;
    - Watering of all haul roads and use of dust palliative, as necessary;
    - Baghouse installed on asphalt plant; and/or
    - Baghouse installed on ready-mix plant.

2) During the rare times when daytime winds are out of the ~~west~~ east *(note: corrected to be out of east, not west)*, additional mitigation measures to minimize particulate emissions in

local residential areas shall be implemented. These measures include use of watering during grading activities and additional watering during blasting or delaying of blasts until more favorable wind conditions are realized.

The 1989 EIR found that potential air quality impacts can be mitigated to a level of insignificance (FEIR, Staff Report, page 9).

3.2.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the quarry project site being disturbed with mining activities similar to the 1989 EIR and mining would be permitted until the earlier of depletion of the resource or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mixed asphaltic-concrete plant, a ready-mixed concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and unpaved access and mine roads for transport of materials and equipment. The Proposed Project does not propose any change to the maximum daily or annual production rates, number and frequency of blasts, processing rate, vehicle miles traveled in association with project operations, or any other operational characteristic that would result in a change to daily emissions or to the Mass Daily Emission Threshold analysis included in the 1989 EIR. The Proposed Project will be subject to the same dust and exhaust emission control measures and will not have any new or substantially greater significant air quality impacts from those already anticipated by the analysis in the 1989 EIR. A June 11, 2012 Air Quality and Climate Change Impact Assessment showed less than significant impacts would occur from the Proposed Project.

Proposed Project Design Components

New and in-use diesel engines are subject to existing California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle regulation (Section 2449 in Title 13, Article 4.8, Chapter 9, California Code of Regulations (CCR)) that will result in reduced emissions in future years. This regulation requires an operator to control diesel particulate matter (DPM) to Tier 4 levels or better for large off-road vehicle fleets by 2020. DPM from off- and on-road vehicles and emissions of other toxic air contaminants from the asphalt plant are also the main factors in determining health risk effects from the Proposed Project. The Proposed Project includes the following project design components:

1. Excavators operating on-site will control particulate emissions to better than Tier 4 levels prior to achieving an aggregate production rate of 2.8 million tons per year.
2. Mine haul trucks will begin to control particulate emissions to better than Tier 4 levels prior to achieving an aggregate production rate of 3.1 million tons per year.
    a. The first truck will be controlled before achieving 3.1 million tons per year and will be among the two trucks with the highest number of hours in future years.

b. A second truck will be controlled before achieving 3.3 million tons per year and will be among the three trucks with the highest number of hours in future years.

c. A third truck will be controlled before achieving 3.5 million tons per year and will be among the four trucks with the highest number of hours in future years.

d. A fourth truck will be controlled before achieving 3.7 million tons per year and will be among the five trucks with the highest number of hours in future years.

3. Each mine haul truck and pit loader operating on-site will control particulate emissions to Tier 4 levels prior to achieving an aggregate production rate of 3.9 million tons per year.
4. Loaders operating in the plant area will control particulate emissions to less than Tier 4 levels prior to achieving an aggregate production rate of 4.75 million tons per year.

CEQA Thresholds of Significance

Standards of significance were added to the CEQA Guidelines since the 1989 EIR for GHG emissions and the following questions are included in the 2013 CEQA Statute and Guidelines, Appendix G:

VII. GREENHOUSE GAS EMISSIONS.

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

GHG emissions are addressed below for the Proposed Project.

Air Quality Impacts

The Proposed Project does not propose changes to the daily or annual production limits and associated activities from the air quality analysis in the 1989 EIR. The term of the mine permit would be extended from 2023 to 2113. The current air quality criteria pollutants (carbon monoxide, nitrogen dioxide, particulates and sulfur oxides) were addressed in the 1989 EIR. The Proposed Project will result in fewer criteria emissions than the original Project in the 1989 EIR due to efficiencies achieved through operational changes; improvements to equipment efficiency and emissions controls; and new regulations that establish strict emission limits and offsets.

The 1989 EIR was not required to and did not separately document emissions of particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$), for which ambient air quality standards were established in 2002 and the SCAQMD CEQA threshold was eventually established. The 1989 EIR did, however, address particulate matter consistent with then-applicable thresholds. The EIR addressed all particulates less than 10 microns in diameter, including $PM_{2.5}$, which is a

subset of total particulates and of PM_{10}. Note that $PM_{2.5}$ within fugitive dust is approximately 3% of total particulates and approximately 30% of PM_{10} per California Emission Inventory Development and Reporting System (CEIDARS) Table A. The Proposed Project will not increase particulate matter emissions compared to the project analyzed in the 1989 EIR.

2012 Air Quality, Health Risk and Climate Change Impact Assessment

The Applicant submitted an "Air Quality and Climate Change Impact Assessment" prepared by Sespe Consulting, Inc. dated June 2012 as part of their application package (see Appendix B). This report reviewed the 1989 EIR and the existing air quality assessments and conducted GHG and health risk assessments (HRA). Potential impacts were reviewed in light of the evaluation presented in 1989 EIR. This information was peer reviewed by Lilburn Corporation.

The assessment determined that the 1989 EIR did not include an analysis of GHG emissions or health risks. Neither of these analyses was required in 1989 as a part of the CEQA Appendix G Guidelines or legislation in effect at that time. Assessments for the current project's potential impacts related to these two issues are discussed below.

Note that the Proposed Project's GHG and HRA impacts would typically be analyzed against current or existing GHG levels and emissions that cause health impacts and that these current emissions would act as a baseline for the impact assessment. The GHG and health risk assessments, however, selected a more conservative approach and analyzed the Proposed Project against the physical conditions that existed in 1989 at the time of the original EIR for purposes of determining the entire mining operations' GHG and HRA impacts.

GHG Emissions

The Project as described in the 1989 EIR would have produced GHG emissions; however, the 1989 EIR contains no analysis of GHG impacts because no such analysis was required at that time.

The City addresses climate change and GHG impact assessment for CEQA projects in the Corona Climate Action Plan (C-CAP) (January 2012) within Appendix B of the City's General Plan. To address the State's requirement to reduce GHG emissions, the City prepared the C-CAP with the target of reducing GHG emissions within the City by 15% below 2008 levels by 2020. The City's target is consistent with the AB 32 target and ensures that Corona is providing GHG reductions locally that will complement the State and international efforts of stabilizing climate change.

Climate change is considered significant if: 1) the project results in greater than 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year and does not implement appropriate performance measures as determined by the City; or 2) a project conflicts with an adopted plan (e.g. AB 32 Scoping Plan, C-CAP). On the basis of City's General Plan Measure R2-E7 for Commercial/Industrial Energy Efficiency and Renewable Retrofits, the performance standard

would be that the proposed changes reduce emissions by 20% or greater from affected sources (i.e. haul trucks).

On the basis of annual GHG emissions inventories provided by Vulcan and the CARB In-Use Off-Road Diesel Vehicle regulation that would reduce emissions from on-road haul trucks over the existing setting, unmitigated emissions from the Proposed Project at peak production are estimated to be approximately 10,500 $MTCO_2e$ per year. This value is greater than the 10,000 $MTCO_2e$/yr screening level used by SCAQMD. Therefore, the Project is required to meet performance measures (e.g. C-CAP measures) that will ensure low GHG emissions; or offset emissions to less than the screening level.

The City's General Plan Measure R2-E7 requires that GHG emissions be reduced by 20% from such modified industrial projects. For the Proposed Project, the only change is in the phasing which will affect the on-site haul distance. Accordingly, GHG emissions from the haul trucks would need to be reduced by at least 20% to be consistent with the performance measure.

Appendix D in the "Air Quality and Climate Change Impact Assessment" in this Addendum's Appendix B shows that the new phasing resulting in shorter haul truck average distances would reduce GHG emissions by approximately 30% as compared to the phasing within the 1989 EIR. In addition, the downhill conveyor generates electricity for the facility as it operates reducing the need for commercial power. The following state-wide measures from AB 32's early action measures and included in the C-CAP that would reduce GHG emissions by approximately 3.5% by 2020 include:

R1-T7: GOODS MOVEMENT EFFICIENCY MEASURES - targets system wide efficiency improvements in goods movement to achieve GHG reductions from reduced diesel combustion from mobile sources (on-road and off-road) by 1.6%.

R1-T8: HEAVY-DUTY VEHICLE GHG EMISSION REDUCTION (AERODYNAMIC EFFICIENCY) - Increases heavy-duty vehicle (long-haul trucks) efficiency by requiring installation of best available technology and/or CARB approved technology to reduce aerodynamic drag and rolling resistance to reduce heavy-duty vehicle GHG emissions by 1.9%.

The Proposed Project will result in fewer GHG emissions than the original Project in the 1989 EIR due to efficiencies achieved through operational changes; improvements to equipment efficiency and emissions controls; and new regulations that establish strict emission limits that also reduce GHG emissions. Thus, there is no new or substantially greater significant impact as compared to the original approval and the Proposed Project's effect on climate change is determined to be less than significant. The GHG assessment found that with the Proposed Project phasing and the electricity generated by the downhill conveyor, GHG emissions would be reduced to less than the significance threshold and by the required 20 percent reduction in the City's General Plan Measure R2-E7.

Health Risk Assessment

The Project as described in the 1989 EIR would have produced emissions with effects that are quantifiable in a HRA; however, the 1989 EIR contains no HRA because no such analysis was required at that time. The HRA in the "Air Quality and Climate Change Impact Assessment" is summarized below.

Toxic air contaminants are considered significant if cancer risk equals or exceeds 10 in 1 million to the maximum exposed individual (MEI), sensitive and worker receptors. Chronic and acute risk (noncancer) would need to be less than 1.0 hazard index (SCAQMD's threshold of significance). Cancer risk is the main concern because it approaches the threshold at lower activity levels than the acute and chronic assessments would allow for this type of project.

Current analytical protocols and tools used in the HRA include recently published on- and off-road vehicle emissions inventories (EMFAC2011 and OFFROAD2011) as well as methods used in the CalEEMod planning model. Air dispersion modeling using ISCST3; and health risk assessment using HARP and HARP Onramp are approved for use in SCAQMD. DPM from off- and on-road vehicles and emissions of other toxic air contaminants from the asphalt plant are incorporated into the HRA.

New and in-use diesel engines are subject to regulations that result in reduced emissions in future years. Cancer risk is assessed over a lifetime of exposure (70 years) so emissions reductions that will occur because of regulation are applicable to assess cancer risk estimates. VMC operates a large equipment fleet and accordingly, the Project equipment is required to achieve Tier 4 PM emissions standard or better in Year 2020.

The HRA determined that the Project's emissions would produce less than the 10 in 1 million excess cancer risk threshold as established by the SCAQMD to the maximum exposed individual (MEI) sensitive and off-site worker receptors and less than 1.0 chronic hazard index at any point outside of the facility (see Appendix A within Appendix B for figures). These results include implementation of CARB diesel emission reduction regulations in which all engines must achieve Tier 4 emission standards by 2020 and with project design components included in the project design above.

3.2.3 Addendum Conclusions

The Air Quality Section as set forth in the 1989 DEIR and the conclusions adopted with certification of the EIR remain accurate and are unchanged by this Addendum. The Proposed Project will not create any significant new air quality impacts not previously assessed in the 1989 EIR.

The 1989 certified EIR did not include an analysis of GHG emissions or health risks. Neither of these analyses was required in 1989 as a part of the CEQA Appendix G Guidelines or legislation in effect at that time. The HRA and GHG/climate change assessment conducted for the Proposed Project determined that potential impacts would be less than significant with compliance of

existing regulations and implementation of Proposed Project design measures. The Proposed Project would also result in fewer GHG emissions and toxic air contaminants than the original Project in the 1989 EIR due to efficiencies achieved through operational changes; improvements to equipment efficiency and emissions controls; and new regulations that establish strict emission limits. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01 which remain in effect. Conditions related to compliance with SCAQMD rules and regulations, dust control, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit air quality impacts. No new or substantially greater significant air quality, greenhouse gas, or health risk impacts as compared to the 1989 EIR would occur. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusion Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Air Quality	Less Than Significant with Mitigation Incorporated	No Change
Greenhouse Gas Emissions	Not Applicable / Not Analyzed	Reduced Impact
Health Risk	Not Applicable / Not Analyzed	Reduced Impact

3.3 BIOLOGICAL RESOURCES

3.3.1 1989 EIR Conclusions

The 1989 EIR describes the overall Corona Quarry site of 336 acres as mainly consisting of partially degraded nonnative annual grassland and coastal sage scrub communities, but also containing two discreet areas of riparian vegetation. The EIR identified impacts to all three vegetation types, including potential impacts to riparian vegetation.

No special status plants were noted in the 1989 EIR's list of plant species identified on the site. Three special-status animals were identified within the overall Corona Quarry site including the California black-tailed gnatcatcher, a C2 candidate species for listing and California Species of Special Concern (SSC) (now the federally threatened coastal California gnatcatcher); golden eagle, a fully protected State species and SSC; and Stephens' kangaroo rat (SKR), federal endangered and State threatened species. Other animals were noted on-site that did not have special status in 1989, but have since been designated as California SSC. These include the northwestern San Diego pocket mouse, loggerhead shrike, and San Diego black-tailed jackrabbit.

The 1989 EIR analyzed the unavoidable and adverse impacts to species as the result of the loss of coastal sage scrub and grassland habitats, including the gnatcatcher and it habitat, SKR and its habitat, and foraging raptor habitat (including golden eagle), and documents the presence of suitable raptor foraging habitat within the Corona Quarry site.

No jurisdictional delineation was conducted in connection with the 1989 EIR. However, the EIR evaluated the potential impact to riparian habitat, provided mitigation, and acknowledged that the loss of riparian habitat may require authorizations pursuant to Section 1601-3 of the Fish and Game Code and Section 404 of the Clean Water Act prior to disturbance of these areas (DEIR Appendix 5.8, Biotic Report).

The 1989 EIR determined that significant unavoidable adverse impacts would result from the project including the loss of 210 undisturbed acres of the 260-acre 1989 proposed project of vegetation and wildlife habitat with both sensitive and federally listed endangered species on-site. The surface disturbances would affect sensitive species found on-site including the golden eagle and California black-tailed gnatcatcher; along with the SKR, a federally-listed endangered species also found on-site (Final EIR, Staff Report, page 13).

A statement of overriding considerations was adopted for the project. As stated in the Final EIR, "The public benefits of the proposed project or decreased size alternative relative to the continued use and expansion of this regionally significant mineral resource outweigh the project's adverse impact upon the biological resources" (Final EIR, Staff Report, page 13).

The mitigation measures adopted as part of the 1989 EIR certification included:

1) Riparian areas on the southwest end of the project site shall be preserved. The processing plant shall be located at least fifty (50) feet from riparian areas.

2) If disturbance or removal of riparian vegetation is unavoidable, as determined by the Board of Supervisors, alternative mitigation shall take the form of enhancement of the existing wetland communities near the permanent pond in the southwest corner of the site. This pond may be expanded by excavation and inundation, and allowed to vegetate naturally as the existing pond did.
3) Invasive non-native plants, such as tamarisk and giant reed, shall be removed to further enhance the existing riparian habitats. The riparian sites shall be monitored annually to prevent reestablishment of these weed species, especially in the pond area.
4) Additional water will be required to maintain the water level in the expanded pond. If this habitat is not enlarged, a wildlife guzzler (a kind of drinking fountain for wildlife) shall be installed in the area to benefit the native animal species. Erosion and sediment controls shall be installed in the area to benefit the native animal species. Erosion and sediment controls shall be installed to protect the pond from increased sedimentation due to quarrying or processing.
5) At the time when mining progresses to within 200 feet of the Stephen kangaroo rat habitat (as identified on Figure 18 of this document), a field study of the area shall be performed by a biologist qualified to identify the species. If any individuals are found on-site they shall be captured and then released in the preserve sites which the County of Riverside is in the process of establishing.
6) All existing and future ordinances regarding the preservation of the Stephens kangaroo rat shall be observed and obeyed.

3.3.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the project site being disturbed with mining activities similar to the project analyzed in the 1989 EIR and extension of the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mix asphaltic-concrete plant, a ready-mix concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the annual production of 5 million tons, only to phasing and an extension in the duration of the permit term.

No changes in the CEQA standards of significance have occurred since 1989; however two noteworthy programs in regional conservation planning have been adopted in western Riverside County: the SKR Habitat Conservation Plan (HCP) and the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Of the 260-acre Project site evaluated in the 1989 EIR, 109 acres remained undisturbed in 2013 and are the subject of this EIR Addendum.

Biological Assessment

Glenn Lukos Associates, Inc. (GLA) prepared a biological assessment in February 2013, programs in regional conservation planning have been adopted in western Riverside County: the SKR Habitat Conservation Plan (HCP) and the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)"General Biological Report, CEQA Consistency Analysis, and MSHCP Consistency Analysis" (see Appendix C). GLA conducted biological surveys in order to identify and evaluate the biological impacts related to the HCP and MSHCP consistency that might result from the Proposed Project within the approximately 109-acre area that would be disturbed in addition to the existing permitted disturbance, as compared to biological impacts analyzed in the 1989 EIR.

Biologists/Regulatory Specialists from GLA conducted site specific surveys from December 2011 to October 2012. Geographically, the report addresses the approximately 109 acres within the 260-acre Project site that will be disturbed under the Proposed Project that were previously assessed in the 1989 EIR, and compares the resulting biological impacts to the biological impacts analyzed in the 1989 EIR.

SKR Habitat Conservation Plan

In 1996, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW – formerly California Department of Fish and Game) approved a long-term HCP for SKR. The SKR HCP established permanent SKR Core Reserves in western Riverside County for the long-term conservation of SKR. For areas located outside of the Core Reserves, the HCP established a Fee Assessment area where individual projects are required to pay the SKR Fee in order to obtain coverage for impacts to SKR habitat under the HCP. An EIR/EIS was prepared to analyze the effect of projects on SKR within the HCP. The current Project is not located within a SKR Core Reserve, but does occur within the SKR Fee Assessment area. VMC has paid the SKR Fee for all areas within the 336-acre Corona Quarry site subject to the SKR Fee assessment.

Western Riverside County MSHCP

In 2005, the USFWS and CDFW approved the Western Riverside County MSHCP. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats. An EIR/EIS was prepared to analyze and address the cumulative impacts to special-status species through implementation of the MSHCP. Through agreements with the USFWS and CDFW, the MSHCP designates 146 special-status animal and plant species as "Covered Species", the majority of which have no project-specific survey/conservation requirements. As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the MSHCP, cumulative impacts to biological resources (with the exception of non-covered species) would be less than significant provided the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6).

The Corona Quarry site is located within the Temescal Canyon Area Plan of the Western Riverside County MSHCP. Portions of the 109-acre proposed disturbance area occur within two MSHCP survey areas, including the Narrow Endemic Plant Species Survey Area (NEPSSA Number 7) and the Burrowing Owl (*Athene cunicularia*) Survey Area [Exhibit 4 – MSHCP Overlay Map]. Target species NEPSSA Number 7 include San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*). The MSHCP requires habitat assessments for these designated target species, and focused surveys if suitable habitat is present.

The Project site does not occur within the Criteria Area Plant Species Survey Area (CAPSSA), Mammal Survey Area, or Amphibian Survey Area. Portions of the Project site occur within the MSHCP Criteria Area, including Cell #s 1923, 1924, 2018, and 2019 [Exhibit 4 – MSHCP Overlay Map]. Project sites occurring within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if portions of the sites may be needed for inclusion in the MSHCP Conservation 3 Area. Furthermore, project sites located within the Criteria Area, regardless of whether project lands are targeted for conservation, are also subject to the Joint Project Review (JPR) process. The approximately 109-acre area proposed for disturbance is not located within areas targeted for conservation by the MSHCP.

Survey Results

Site-specific surveys were conducted for the Project within the approximately 109-acre area that would be disturbed under VMC's proposal. The field studies included: (1) general reconnaissance surveys and vegetation mapping based on the Holland Classification System; (2) general wildlife surveys; (3) habitat assessments and focused surveys for special-status plants, including Narrow Endemic Plants as designated by the corresponding MSHCP survey area; (4) habitat assessments and focused surveys for special-status animals; (5) an evaluation of the Project area for MSHCP riparian/riverine areas and vernal pools; and (6) jurisdictional delineation to determine the presence/absence of areas subject to the jurisdiction of the Corps, Regional Board, and CDFW. Observations of all plant and animal species were recorded during each of the above mentioned survey efforts (see Appendix C - Floral and Faunal Compendium).

The majority of the Project site occurs within the MSHCP Burrowing Owl Survey Area. *Volume I, Section 6.3.2* of the MSHCP which requires projects within the Survey Area to conduct habitat assessments and focused surveys pursuant to the 2006 MSHCP Burrowing Owl Survey Instructions. GLA biologists determined that portions of the Project site contain suitable habitat for the burrowing owl. As such, a focused burrow survey was conducted on April 6, 2012. Focused burrowing owl surveys were conducted for all areas containing suitable burrows.

Approximately 35.63 acres of mainly the northern areas of the Project site support Riversidean sage scrub vegetation, portions of which have the potential to support the coastal California gnatcatcher (*Polioptila californica californica*). GLA biologist Kevin Livergood (TE-172638-1), holding a valid 10(a)(1)(A) permit from USFWS, conducted non-breeding season focused

gnatcatcher surveys according to the 1997 USFWS guidelines (see Appendix D within Appendix C). (Results below)

Section 6.1.2 of the MSHCP also requires habitat assessments (and focused surveys within suitable habitat) for the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii traillii*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and listed fairy shrimp. The Project site does not contain suitable habitat for any of these species.

Special-Status Animals - The Project site contains habitat for two special-status animals that were detected at the Project site during general and focused biological surveys, including the coastal California gnatcatcher and orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*).

Raptor Use: The Project site provides foraging habitat for a number of raptor species, including both common and special-status raptors. Raptors are not expected to nest within the Project site due to a lack of suitable habitat. Four different raptor species were observed at the Project site during biological surveys, including red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperi*), northern harrier (*Circus cyaneus*), and American kestrel (*Falco sparverius*).

Nesting Birds: The Project site contains trees, shrubs, and ground cover providing suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. The Project incorporates nesting bird surveys as a design component to ensure that Project activities will avoid nesting birds.

MSHCP Riparian/Riverine Areas and Vernal Pools: The Project site contains approximately 0.23 acres of "riparian/riverine" areas as defined by the MSHCP, including approximately 0.13 acre of riparian habitat, and 0.10 acre of unvegetated drainages (riverine areas).

Potential Impacts

With respect to biological resources, the Proposed Project includes the following project design components or project elements and compliance with existing regulations that have been considered in the evaluation of potential project impacts:

- VMC would pay the development mitigation requirement associated with the MSHCP, and the Proposed Project will be consistent with other MSHCP policies.
- VMC paid the SKR Fee for all areas within the 336-acre Corona Quarry site subject to the SKR Fee assessment.
- No more than 30 days prior to ground disturbance a qualified biologist will conduct a pre-construction burrowing owl survey within all areas of suitable habitat to be disturbed. If burrowing owls are detected on site, VMC will coordinate with the responsible wildlife agencies (i.e., U.S. Fish and Wildlife Service and California Department of Fish and Wildlife), and will relocate the owls following accepted protocols.

- To minimize potential direct impact to the coastal California gnatcatcher, all clearing and removal of suitable habitat will occur between July 16 and February 14, outside of the breeding season.
- The removal of potential nesting vegetation will be conducted outside of the nesting season (February 1 to August 31) to the extent that this is feasible. If vegetation must be removed during the nesting season, a qualified biologist will conduct a nesting bird survey of potentially suitable nesting vegetation prior to removal. Surveys will be conducted no more than three (3) days prior to scheduled removals. If active nests are identified, the biologist will establish buffers around the vegetation containing the active nest (500 feet for raptors and 200 feet for non-raptors). The vegetation containing the active nest will not be removed, and no grading will occur within the established buffer, until a qualified biologist has determined that the nest is no longer active (i.e., the juveniles are surviving independent from the nest). If clearing is not conducted within three days of a negative survey, the nesting survey will be repeated to confirm the absence of nesting birds.
- VMC will obtain the necessary authorizations for proposed impacts to jurisdictional waters, including, but not limited to a Section 404 permit from the U.S. Army Corps of Engineers (Corps), a Section 401 Water Quality Certification from the Regional Water Quality Control Board (Regional Board), and a Section 1602 Streambed Alteration Agreement from the CDFW. VMC will compensate for Project-specific impacts at a minimum 1:1 ratio for unvegetated streambed/riverine, and a minimum 2:1 ratio for riparian vegetation.

Vegetation Types/Land Uses: The Project site contains six vegetation types/land uses, including 21.69 acres of existing disturbed/developed lands, 0.13 acre of riparian vegetation (mule fat scrub and southern willow scrub), 51.2 acres of non-native grassland, 18.97 acres of Riversidean sage scrub, and 16.66 acres of non-native grassland/Riversidean sage scrub. The vegetation types are consistent with those generally documented in the 1989 EIR, with the overall impact being less in some areas. For example, approximately 22 acres of the current Project site have been disturbed since the 1989 EIR. Further, the 1989 EIR concluded that impacts to vegetation would be significant and unavoidable.

Impacts to disturbed/developed areas, mule fat scrub, and non-native grassland are less than significant. Impacts to Riversidean sage scrub (including non-native grassland/Riversidean sage scrub) are potentially significant, although consistent with the disturbance proposed and analyzed in the 1989 EIR. However, with the Project's consistency with the policies of the MSHCP, impacts to Riversidean sage scrub are less than significant as a result of the coverage afforded by the MSHCP. Impacts to southern willow scrub are potentially significant; however the Project incorporates a design component that will compensate for the loss of southern willow scrub at appropriate ratios, thereby reducing impacts to below a level of significance.

Special-Status Plants: The Proposed Project will impact two special-status plants (graceful tarplant and paniculate tarplant); however, impacts to these species would be less than significant due to their low level of sensitivity and limited distribution onsite.

Special-Status Animals: The Proposed Project will result in the loss of habitat for two listed species (coastal California gnatcatcher and Stephens' kangaroo), both of which would be potentially significant impacts. Impacts to both of these species were previously evaluated as significant and unavoidable in the 1989 EIR.

The gnatcatcher is designated as a covered species under the MSHCP. Therefore, with the Proposed Project's consistency with the policies of the MSHCP, the loss of gnatcatcher habitat would be less than significant based on the coverage afforded by the MSHCP. Furthermore, the Proposed Project incorporates the following design component pertaining to the gnatcatcher, pursuant to MSHCP requirements: To minimize potential direct impact to the coastal California gnatcatcher, all clearing and removal of suitable habitat will occur between July 16 and February 14, outside of the breeding season.

Stephens' kangaroo rat (SKR) is designated as a covered species pursuant to the SKR Habitat Conservation Plan (SKR HCP). VMC has paid the SKR Fee for all areas within the 336-acre Corona Quarry site subject to the SKR Fee assessment. Therefore, the coverage afforded to the SKR (through payment of the SKR Fee) reduces the impacts to SKR to below a level of significance. Besides the impacts to the two listed species discussed above (gnatcatcher and SKR), impacts to other special-status species observed or with the potential to occur onsite would be less than significant due to the low level of sensitivity, and/or the minimal amount of habitat to be affected by the Project.

Raptor Use: The Proposed Project will result in the loss of foraging habitat for special-status raptors, which is potentially significant. The 1989 EIR already concluded the impact would be significant and unavoidable due to the loss of habitat. The Proposed Project's impacts are reduced to less than significant due to its consistency with applicable MSHCP policies.

Jurisdictional Waters: The Proposed Project will impact jurisdictional waters, as analyzed in the Project's Jurisdictional Delineation Report (see Appendix C). Impacts to jurisdictional waters are potentially significant. While no jurisdictional delineation was previously performed, the 1989 EIR analyzed disturbance of the entire area subject to the Proposed Project, and acknowledged the potential loss of riparian habitat that may require authorizations pursuant to Section 1601-3 of the Fish and Game Code and Section 404 of the Clean Water Act prior to disturbance of these areas from regulatory agencies. Furthermore, the Proposed Project incorporates a project design component ensuring that authorizations will be obtained from the regulatory agencies prior to disturbance of such areas. VMC will compensate for Project-specific impacts at a minimum 1:1 ratio for unvegetated streambed/riverine, and a minimum 2:1 ratio for riparian vegetation, ensuring that any impacts are less than significant.

MSHCP Consistency

As outlined above, the Proposed Project will be consistent with all applicable MSHCP policies, specifically pertaining to the Project's relationship to reserve assembly, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection

of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures).

3.3.3 Addendum Conclusions

The Biological Resources Section set forth in the 1989 EIR and the conclusions adopted with certification of the FEIR remain accurate. However, since the 1989 EIR, two regional conservation plans have been adopted: the SKR HCP and the Western Riverside County MSHCP. The Applicant's compliance with applicable policies of these two HCPs provides coverage or compensation that reduces the potential impacts to vegetation, special status animals, and raptor use to less than significant. The Proposed Project will not have any new or substantially greater significant biological resources impacts not previously assessed in the 1989 EIR.

While no jurisdictional delineation was performed, the 1989 EIR analyzed disturbance of the entire area subject to the current Proposed Project, and acknowledged the potential loss of habitat that may require authorizations from regulatory agencies. Furthermore, the Proposed Project incorporates a design component ensuring that authorizations will be obtained from the regulatory agencies. VMC will compensate for Project-specific impacts at a minimum 1:1 ratio for unvegetated streambed/riverine, and a minimum 2:1 ratio for riparian vegetation, ensuring that any impacts are less than significant. The Proposed Project will not have any new significant wetlands impacts not previously assessed in the 1989 EIR.

Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 92-01. Conditions related to payment of Riverside County Ordinance No. 663 or HCP fees, setbacks from riparian areas, protection of the Stephen's kangaroo rate, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit biological resources impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project	EIR Addendum (2013)
Vegetative Type/Land Use	Significant and Unavoidable with Mitigation Incorporated for riparian areas	Reduced Impact
Special-Status Plants	None were noted	No Change
Special-Status Animals	Significant and Unavoidable with Mitigation Incorporated	Reduced Impact
Raptor Use	Significant and Unavoidable	Reduced Impact
Jurisdictional Waters	Less than Significant Impact with Mitigation Incorporated	No Change

3.4 CULTURAL RESOURCES

3.4.1 1989 EIR Conclusions

The 1989 EIR included Environmental Setting/Potential Impacts/Mitigation Measures sections for Cultural, Historical and Prehistorical Resources. The brief description in the Draft EIR is based on a September 19, 1988 Cultural and Paleontological Resources Assessment prepared for the approximate impact of 260 acres within the 336-acre property site by Scientific Resource Surveys, Inc. The recommendations of the report are that no cultural resources were discovered under the three-phased investigation and that the geological units occurring on the subject property have no potential for yielding paleontological specimens.

Although the probability of encountering undetected cultural resources during mining and processing was determined very low, one mitigation measure is included to require the Applicant to file a written plan with the County of Riverside for the protection of such resources should any be unearthed or detected during the mining operations (also included as Condition of Approval No. 36).

The 1989 EIR found that archaeological resources can be avoided or mitigated to a level of insignificance (FEIR, Staff Report, page 6).

3.4.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the project site being disturbed with mining activities similar to the 1989 EIR and extend the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, as well as internal paved and un-paved access and mine roads for transport of materials and equipment. The site also currently supports several portable structures, for office uses and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily or annual production of 5 million tons per year, only to phasing and an extension in the duration of the permit term.

The 1989 EIR assessed impacts to the entire 260-acre planned quarry and the Proposed Project is consistent with this impact area. No new areas will be impacted that were not surveyed for the 1989 EIR. Since certification of the original EIR, the site has continued to be disturbed by ongoing mining activities. To date, no cultural or paleontological resources have been uncovered by mining activities.

Since 1989, there have been no changes to the standards of significance provided in CEQA Appendix G Environmental Checklist regarding analysis of cultural resources. The Proposed Project will not have any new or substantially greater significant cultural resources impacts not previously assessed in the 1989 EIR.

3.4.3 Addendum Conclusions

The Archaeological Resources Section set forth in the 1989 EIR and the conclusions adopted with certification of the FEIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant archaeological/cultural resources impacts not previously assessed in the 1989 EIR. Furthermore, the County of Riverside adopted conditions of approval for SMP 168 and the City of Corona adopted these conditions as well as others for SMP 93-01. Conditions related to filing a written plan with the City for protection of any detected cultural resources, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit archaeological/cultural resources impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Cultural Resources	Less than Significant Impacts	No Change
Historical Resources	Less than Significant Impacts	No Change
Prehistorical Resources	Less than Significant Impacts	No Change

3.5 GEOLOGY AND SOILS

3.5.1 1989 EIR Conclusions

The 1989 EIR did not include a specific Environmental Setting, Potential Impacts or Mitigation Measures sections for Geology and Soils. However, it did include a Geological Slope Stability report in Appendix 5.10. The report, *Engineering Geologic Evaluation, Proposed Slopes for the Corona Quarry*, was prepared by LeRoy Crandall and Associates in June 1988. The report concluded that based on the investigation of site conditions, the site is suitable, from an engineering geologic perspective, for the proposed quarry excavation. Further, analysis of the slope stability using the geologic structural data collected on-site indicated that the dominant joint sets within the bedrock would be grossly supported and that the proposed slopes should not be prone to major instabilities. The planned slopes should not result in instability to adjacent properties. Analysis of wedge failure potential indicated that there may be some potential or unsupported wedges in south-facing slopes; however, the plunge of these wedges is low and failure of these wedges is not likely. Local instability of the interior slopes between individual benches and resultant rockfall should be anticipated; and modification of interior slopes could be considered where encountered.

The 1989 EIR did not list any specific Mitigation Measures for Geology and Soils. Within Section III "Environmental Hazards and Resources Assessment" of the Environmental Assessment Form prepared for the project, the project was not found to be located within a Alquist-Priolo special studies or County fault hazard zone, an area known for expansive soil, or within a liquefaction potential zone. The project site was found to be generally suitable for groundshaking and provisionally suitable for any landslide risk zone. There was a noted potential (as indicated with a "yes" reply within the assessment) for rockfall and slope hazards. As concluded within Section V "Information Sources, Findings of Fact and Mitigation Measures, of the Environmental Assessment Form, according to Riverside County 800 Scale Map #8, the project site occurs within the A_2 designation which indicates low slope instability. Rock types within the area are hard, dense igneous and metamorphic which limits slope instability issues. Further, mining on benches would mitigate potential slope impacts and engineering geologic evaluation for the project indicated some wedge failure potential, but was found not to affect overall gross stability. No mitigation measures were listed or required.

No conclusions for Geology and Soils were presented in the 1989 EIR. Based on statements presented in the Environmental Assessment form, as discussed above, no significant adverse impacts were found and preparation of a geological report was sufficient to document the stability of the proposed engineered slopes on-site.

3.5.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the quarry project site being disturbed with mining activities similar to the 1989 EIR and extend the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mixed asphaltic-

concrete plant, a ready-mixed concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the annual production of 5 million tons, only to phasing and an extension in the duration of the permit term.

The primary document addressing engineering geologic and geotechnical issues and CEQA compliance relative to the Proposed Project amendment is an update report prepared by Haley and Aldrich (H&A), dated May 18, 2012 (see Appendix D). The report was prepared to evaluate the Proposed Project in light of analytical standards of SMARA and determine impacts in relation to the thresholds included in the CEQA Guidelines Appendix G. H&A reviewed geological reports, performed site reconnaissance and geologic mapping to supplement the LeRoy Crandall and Associates report, and performed engineering geological and slope stability analyses. The H&A report includes geologic mapping, static and seismic slope stability calculations, extensive analysis of rock discontinuities, and evaluation of slope stability concerns and hazards.

From a geotechnical and geologic standpoint, the results of the H&A evaluation indicate that the Proposed Project's slope inclination and benching design is acceptable when evaluated in light of SMARA. Supplemental analyses were performed to address the potential effects of groundwater on the stability of cut slopes and concluded that mining operations extending below the groundwater table are feasible and safe, however slope improvements or modifications to slope inclinations may be required where active seeps are present. Seismic design standards are recommended to comply with the 2012 California Building Code.

Regarding slope stability, the H&A evaluation concluded that the current slope design as recommended in the LeRoy Crandall and Associates report, with an overall 45-degree inclination (1 horizontal to 1 vertical) with slopes up to 950 feet in height is conservative and adequate for use under all conditions, including dry slopes, saturated slopes and slopes in standing water. H&A also concluded that the bench and slope design is conservative and adequate for use at the Corona Quarry.

A peer review of the H&A update was provided from engineering geologic and geotechnical standpoints by CHJ Consultants for Lilburn Corporation as part of the preparation of this Addendum. As indicated in Table VIII of the H&A update, the only differences between the proposed conditions under the 1989 EIR analysis and the Proposed Plan amendment are the issues of submerged and saturated slope stability. Submerged and saturated slope stability was addressed by the H&A update. All slopes were found to have satisfactory minimum static and seismic factors of safety as required by SMARA. Geologic and geotechnical impacts would be less than significant and no new or substantially greater significant impacts would occur from the Proposed Project.

3.5.3 Addendum Conclusions

The 1989 EIR, based on statements presented in the Environmental Assessment form incorporated into the EIR, determined that there would be no significant adverse geologic impacts and preparation of a geological report was sufficient to document the stability of the proposed engineered slopes on-site. Soil erosion from steep slopes and slope stability were considered in the EIR section on Hydrology and Drainage.

Conclusions adopted with certification of the 1989 EIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant geologic and soil erosion impacts not previously assessed in the 1989 EIR. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01. Conditions related to building and grading permits, stockpiling, erosion control and drainage, slope stability, blasting, mine safety regulation compliance, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit any potential geology and soils impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project (1989) as noted within Section III Environmental Hazards and Resources Assessment	EIR Addendum (2013)
Alquist-Priolo Special Studies or County Fault Hazard Zone	Not Applicable/No Impact	No Change
Liquefaction Potential Zone	Not Applicable/No Impact	No Change
Groundshaking Zone	Generally Suitable/Less than Significant Impacts	No Change
Slopes	Less than Significant Impacts	No Change
Landslide Risk Zone	Less than Significant Impacts	No Change
Rockfall Hazard	Less than Significant Impacts	No Change
Expansive Soils	No Impact	No Change

3.6 HYDROLOGY AND DRAINAGE

3.6.1 1989 EIR Conclusions

The 1989 EIR included sections for Hydrology and Drainage including erosion, groundwater, and water quality. The potential impacts identified were: 1) Erosion into Temescal Wash from mining operations; 2) Upgrading of the existing access road would occur within the floodway/floodplain of Temescal Wash; and 3) Mining may ultimately reach elevations below groundwater levels.

The 1989 EIR determined that during quarry operations no improvements would be made within the floodway and floodplain of Temescal Wash, except for the upgrading of the existing access road. No adverse impacts were anticipated on drainage patterns as a result of the proposed quarry operations. Since natural drainage patterns typically flow towards the west and into Temescal Wash, it was determined that some erosion into the wash would occur. However as mining progresses, the erosion potential was found to be lessened as silts and sediments would be captured within the open pit. Also, the processing plants would provide a buffer in capturing sediments from unmined portions of the site.

The EIR states that, "The mining operations proposed for the Corona Quarry site will not be detrimental to the quality or quantity of groundwater." Eventually, mining could reach elevation below groundwater levels. However, as stated in the EIR, mining is not normally detrimental to groundwater quality, because such mining activities are active within reservoirs and groundwater recharge basins.

The EIR concluded that although a portion of the subject property is located within the Temesca1 Wash, no significant alteration of streamflow patterns would result, as berming and sediment traps would prevent runoff water from carrying excessive sediments into the wash, and from altering the streamflow patterns.

The 1989 EIR concluded that potential impacts could be mitigated to a level of insignificance (FEIR, Staff Report, page 5).

The mitigation measures adopted as part of the EIR certification included:

1. Drainage and Flooding: The only improvement proposed within the Temescal Wash is the upgrading of the access road to the processing plant. As part of the design process of this road improvement, appropriate analysis shall be prepared to properly address hydraulic issues, maintain existing channel characteristics, while providing for an all-weather access way to and from the processing plant.

2. Erosion: To reduce the erosion potential from the site into Temescal Wash, sediment traps shall be located with the flatter areas outside the floodplain of Temescal Wash to capture sediments and silts which may be displaced. If necessary, similar sediment traps shall be located to capture silts or fines from the processing plant areas. Such measures

would be expected to produce run-off from the site into the Temescal Wash with lower quantities of sediments and silts than would naturally occur.

3. Groundwater: No negative impacts upon groundwater are expected from the proposed operations, and mitigation measures are unnecessary and inappropriate.

4. Surface and Subsurface Water Quality: No detrimental impacts on surface or subsurface water quality are anticipated due to the proposed operation, and mitigation measures are unnecessary.

3.6.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the quarry project site being disturbed with mining activities similar to the 1989 EIR and extend the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mixed asphaltic-concrete plant, a ready-mixed concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily or annual production of 5 million tons per year, only to phasing and an extension in the duration of the permit term.

As stated in the Proposed Plan, surface drainage from the west facing slopes in the central portion of the site will be diverted to the northern portion of the existing impoundment located at the southwest area of the quarry and site near the processing plant area consistent with the 1989 EIR. Surface drainage from the west and from the process plant area will be restricted from directly entering Temescal Wash with the establishment of drainage berms and as necessary, temporary desilting basins constructed in ravines to reduce erosion and minimize sediments. The eastern half of the quarry will drain internally with the development of an elevated quarry pit in Phase 2 that will be gradually expanded and deepened through Phase 6. In addition, the revegetation plan also addresses erosion control through revegetation of the slopes, which reduces the potential for erosion as bare surfaces become covered in vegetation. These conditions are unchanged from the 1989 EIR.

Site operations are regulated by, and comply with, state and local regulations regarding stormwater quality and discharge requirements. Surface and groundwater shall continue to be protected from siltation and pollutants as a result of ongoing operations in accordance with the site's existing Regional Water Quality Control Board (RWQCB) permits under the regulatory guidance of the National Pollutant Discharge Elimination System (NPDES). Pursuant to the NPDES permit requirements, the Reclamation Plan will conform to the current Stormwater Pollution Prevention Plan (SWPPP) and recommended Best Management Practices (BMPs).

Since 1989, there have been no changes to the standards of significance provided in CEQA Appendix G Environmental Checklist regarding analysis of Hydrology and Drainage. No new or substantially greater significant impacts would occur from the Proposed Project because sediments and flows will be captured in the open pit as evaluated in the 1989 EIR.

3.6.3 Addendum Conclusions

The Hydrology and Drainage Section set forth in the 1989 EIR and the conclusions adopted with certification of the EIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant hydrology, drainage or water quality impacts not previously assessed in the 1989 EIR. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01. Conditions related to erosion control and drainage, slope stability, runoff, and reclamation, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit hydrology and water quality impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Erosion	Less than Significant Impact with Mitigation Incorporated	No Change
100-year Floodplain	Less than Significant Impact with Mitigation Incorporated	No Change
Groundwater/ Water Quality	No Impact	No Change

3.7 NOISE AND VIBRATION

3.7.1 1989 EIR Conclusions

The 1989 EIR included sections for Noise and Vibration. The description in the EIR is based on a February 8, 1989 Noise Assessment prepared for the approximate 336-acre quarry site by Mestre Greve Associates. Potential impacts identified included noise impacts generated by mining operations such as blasting, drilling, earth moving, aggregate processing, asphalt plant, concrete batch plant, as well as an increase in traffic on roadways. The area of most concern for off-site impacts is the residential area approximately 3,000 feet west of the site. Potential impacts due to quarry blasting may include structural vibration in some of the residential areas surrounding the quarry site, and project traffic may alter noise levels in surrounding areas.

The analysis of potential noise level increases on local roadways indicates that areas along Cajalco Road (Magnolia Avenue to the site) and Magnolia Avenue (I-15 to Cajalco Road) would experience an increase in noise greater than 3 decibels (dB(A)). However, the resulting existing plus project noise levels would total less than 75 dB(A) and are considered acceptable within the Commercial Industrial designation. The EIR concluded that all residences located along other roadways used for accessing the project would not experience a significant increase in noise due to the project.

Analysis of noise levels indicated that the nearest residential land uses would not be adversely impacted by the noise generated by mining activities. The EIR states that "The noise from the mining operations would not be audible or will be barely audible in the residential areas." Subsequently, vibration from proposed blasting was found not to be significant for the once-a-day event. As concluded in the EIR, "The amount of vibration produced is less than can be noticed by the body. An individual may notice some small sense-of-touch vibration if touching a structure."

The concluding summary table in the EIR states that the nearest residential land uses would not be adversely impacted by the noise generated on-site. Combined mining and processing plant noise levels at the nearest residences would not exceed 55 dB(A). Associated off-site traffic noises would stay below 75 dB(A) (within the "Normally Acceptable" classification), and vibration resulting from blasting would not be significant.

The mitigation measures adopted as part of the EIR certification (and incorporated in Conditions of Approval Nos. 35, 40, and 41) included:

1. A performance condition shall be imposed on the mining site operations. A performance condition shall allow the site operations to proceed as long as specific noise levels (i.e., the Model Noise Ordinance or equivalent) are not, exceeded. Analysis shows that the project would comply with typical noise ordinance levels. However, if problems arise, equipment or operations shall be modified in such a way that acceptable noise levels are maintained in adjacent residential areas. If such mitigation becomes necessary, the following measures shall be implemented as required to reduce noise levels.

- Noise generated by earth moving equipment comes from a variety of sources, including exhaust noise, mechanical and engine noise, and contact with ground. The most significant of these is related to the exhaust system. Several grades of mufflers are available for earth moving equipment. The mufflers are commonly ranked as stock, residential, or hospital, with hospital mufflers resulting in the most quieting. Tuning the engines may also lower noise levels generated.
- Reducing the number and size of equipment can result in lower noise levels. Generally, the smaller the equipment the less noise generated. However, small equipment would require longer operation (and longer periods of impact) than when large equipment is used. The balance of noise levels should be evaluated.
- Installing acoustic blankets around drilling operations can be used to reduce potential drilling noise. These acoustic blankets could reduce the drilling noise by 3 to 5 dB(A). A temporary or permanent noise barrier(s) can be employed around mining site and equipment. The barriers may be walls, berms or stockpiles of processing material.

2. Initial blasting shall be limited to 2,000 pounds of explosive/8 ms blast increment (Note: 8 ms = $8/100^{th}$ of a second). Seismic monitoring at the start of operations shall be completed to determine the actual vibration levels from the blasts. The appropriate amount of explosives that limits potential impacts can be determined from these measurements. Blasting shall be avoided during meteorological conditions (inversions) that result in higher blast levels. Other mitigation measures related to blasting are detailed in this EIR Addendum Section 3.8.1, Public Safety.
3. As required by the Riverside County Zoning Ordinance, all uses of the property, other than maintenance, shall be confined to the hours between 6:00 A.M. and 10:00 P.M., except those operations located not less than 300 feet from the outer boundary of the property.

The 1989 EIR finds that potential noise and vibration impacts can be mitigated to a level of insignificance (FEIR, Staff Report, page 6).

Note that the City revised two Conditions of Approval (Nos. 25 and 27) and added Condition of Approval No. 51 in Resolution No. 93-44 approving SMP 93-01 related to noise. Condition No. 25 states that "on-site operating hours other than for maintenance or emergencies shall be limited to the hours of 6 am to 10 pm in the area of the mine east of the ridge." Condition No. 27 states that "operations will be permitted to operate 24 hours a day, 7 days per week, except in the area of the mine to the east of the ridge, however this condition will be evaluated by the Community Development Director to determine if the mining operations impacts are affecting surrounding residents and property owners." Condition No. 51 requires the Applicant to install the following noise mitigation measures prior to commencing 24-hour operations (these measures have been implemented as applicable):

a. A noise barrier next to the burner on the asphalt plant.
b. A noise barrier next to the shaker on the asphalt plant.
c. A noise barrier next to the silo batcher on the asphalt plant.

d. Rubber line the unloading hopper feeding the asphalt batch plant.
e. Disconnect the "Done Loading" horn on the asphalt plant.
f. Install strobe lights on all plant vehicles. (Note that VMC has installed a "quiet" back-up alarm system on its vehicles in compliance with Mine Safety and Health Administration (MSHA) safety requirements that can be heard in the immediate vicinity of the vehicle).
g. Disconnect telephone bell outside of the dispatch office.
h. Limit hours of operation of the hydraulic hammer used to break over-sized rock from 7 am to 6 pm.

3.7.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the project site being disturbed with mining activities similar to the 1989 EIR and extend the permit to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, as well as internal paved and un-paved access and mine roads for transport of materials and equipment. The site also currently supports several portable structures, for office uses and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily and annual aggregate production of 5 million tons, only to phasing and an extension in the duration of the permit term. Blasting events are directly related to production, therefore the number and frequency of blasting events will not change.

Since certification of the 1989 EIR, development in the vicinity of the project site has not created the potential for an increase in noise impacts. The area's land uses are still dominated by urban development including extensive mining, other industrial uses, commercial, and residential, and highways and roads. The distance to the nearest sensitive residential uses has not changed. The closest homes in 1989 (the homes located in the Bel Air development) were 3,000 feet to the southwest and west from the project and they continue to be the closest homes to the site today. Another housing development is located about 3,000 feet north of the site. These residential areas are partially shielded by intervening hills.

The noise impacts analysis prepared for the 1989 EIR utilized standards contained in the California Model Noise Ordinance. Since the 1989 assessment, the area has been incorporated by the City, and now the Corona Noise Ordinance (Municipal Code 17.84.040) contains the relevant standards. The Corona Noise Ordinance criteria are 5 dB less stringent than the California Model Noise Ordinance. The Model Ordinance used to determine noise level significance in 1989 was 50 dBA for daytime and 45 dBA for nighttime. The current City of Corona noise ordinance sets the L_{50} standard at 55 dBA for daytime and 50 dBA for nighttime. The Noise Assessment for the 1989 EIR determined that the combined mining and processing plant noise levels at the nearest residences would not exceed 55 dBA. Therefore, the 1989 noise study results are within the current City thresholds for significance.

The Applicant submitted a Noise Impact Assessment dated May 25, 2012 which was reviewed by Mestre Greve Associates for Lilburn Corporation (see Appendix E). Mestre Greve's analysis concludes that the differences between the project assessed in 1989 and the project currently proposed are minimal from a noise standpoint. The noise standards that are applicable to the project are less stringent than those used in 1989, and there have not been any significant changes in sensitive receptor locations since the 1989 study.

Since 1989, there have been no changes to the standards of significance provided in CEQA Appendix G Environmental Checklist regarding analysis of noise. Based on review of the revised and amended Corona Quarry Project, no new or greater significant noise impacts would result when compared to noise impacts addressed in the 1989 EIR.

3.7.3 Addendum Conclusions

The Noise and Vibration Section set forth in the 1989 EIR and the conclusions adopted with certification of the 1989 EIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant noise and vibration impacts not previously assessed in the 1989 EIR. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01. Conditions related to noise barriers, noise complaints, hours of operation, blasting, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval is intended to limit noise and vibration impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
On-site Mining Operations	Less than significant with Mitigation Incorporated	No Change
Off-site Traffic Noise	Less than significant with Mitigation Incorporated	No Change
Vibration from Blasting	Less than significant with Mitigation Incorporated	No Change

3.8 PUBLIC SAFETY AND FIRE HAZARDS

3.8.1 1989 EIR Conclusions

The 1989 EIR included sections for Public Safety and Fire Hazards. The potential impacts identified were: 1) public safety related to site access and to blasting; and 2) the project site's location within a regional fire hazard area as identified by the Riverside County General Plan. These two sections of the 1989 EIR have been combined for purposes of the review conducted for this Addendum.

In consideration of the site orientation and principal working faces of the mine, it was determined that the primary blasting impact would be toward the west. The effects from blasting activities would be ground vibration, noise, and dust. Ground vibration impacts were anticipated to not be significant and not result in damage to surrounding facilities or structures, or cause annoyance to anyone living or working in the area. The EIR states that "Impacts will be limited to a slight tactile vibration which may be experienced by persons contacting solid surfaces in the nearby residences."

The effects of noise or air blast from blasting are caused by compressive waves travelling through the atmosphere. The effects noticed most often are rattling windows and startled neighbors. Although a level of significance for noise or air blast effects from blasting was not concluded in the EIR, mitigation measures were provided. Likewise, the dust produced by detonation of explosives was not determined to be either less than significant or significant; only that "small amounts (if any) would be produced". The concluding summary table in the EIR states that ground vibration and air blast caused by blasting activities will be "barely discernible at the nearest residence. No toxic substances or gasses will cause hazards either on- or off-site."

The mitigation measures adopted as part of the EIR certification (and incorporated in Conditions of Approval 39, 40, and 41) included:

1. All laws, regulations, and standards governing the transport, storage, handling, and use of hazardous explosives shall be observed, including those of the Federal Department of Transportation, the Bureau of Alcohol, Tobacco, and Fire Arms, the Occupational Safety and Health Administration, the Mine Safety and Health Administration, California Bureau of Mines, and other federal, state, and local agencies. Included among these are stipulations regarding the acceptable containers for storing explosives, vehicle safety around explosives, driver competence, methods of loading and unloading, safe routes for the transport of explosives, location and construction of storage facilities, quantities of explosives to be stored, security of storage facilities, required inspections, safe handling, and the like. Due to the nature of the material involved, personnel selected to handle explosives on- and off-site should be carefully chosen and fully trained. Only qualified, experienced, State-licensed blasting technicians shall be permitted to design, supervise and detonate explosions.
2. Accurate area and site specific weather data regarding temperature inversions and wind conditions should be obtained, with special attention to time-of-day conditions. Blasting

should be scheduled to reflect these atmospheric conditions and avoid undue disturbances caused by wind diverted or inversion compressed air blast.

3. Initial blast designs should not exceed 2,000 pounds of explosives per 8 ms delay period. Seismic monitoring should be conducted in the nearby residential neighborhoods during these initial blasts to determine how far these limitations can be increased. However, at no time should explosive episodes result in Peak Velocities exceeding one inch per second.
4. Holes should be drilled close to an open bench face and sequential timing techniques should be used to provide direction and confinement of rock movement.
5. Explosives should not be loaded to the top of blast holes and rock ships or similar material should be loaded above the explosives column to reduce "fly rock."
6. Low energy explosives should be used to produce the desired results while reducing the visible effects of the blast.
7. Use down-the-hole initiation of explosive episodes, and avoid the use of high strength detonating cord.
8. Pay particular attention to weak zones within the rock formation which could cause excessive energy release and place non-explosive decks through these zones.
9. Provide sufficient time between adjacent holes to help prevent air blast reinforcement.
10. Just prior to the time of a blast, the site should be cleared of people, warning signals should be sounded and visual inspections should be made to be certain no unauthorized people are in the area. Following an explosive detonation the area should be inspected to insure that the blast proceeded as planned. Only after this inspection should the "all clear" signal be given.
11. The explosives used on-site shall be stored in small quantities on-site, under the conditions established by the Occupational Safety and Health Administration, and the Mining Safety and Health Administration.
12. Public access shall be limited by the use of barriers (fences, gates and locks) and "No Trespassing" signs. Chainlink fencing shall be used along the north, south and west boundaries. Along the eastern quarry face, which is less likely to experience public trespass due to the lack of access routes, 3-strand barbed wire fencing shall be used to deter public access. The posting of "No Trespassing" signs shall be in accordance with local and federal regulations (also Conditions of Approval 10 and 11).
13. The Riverside County Sheriff's office shall be kept informed of the blasting schedule on-site. (Note that measure was revised in Condition of Approval No. 40 to state that "the applicant shall notify the City of Corona Fire Department at least 24 hours in advance of any blasting at the site).

The 1989 EIR documents that the Corona Quarry is within a County-designated fire hazard zone. The proposed quarry operations and improvements would be subject to possible fire damage until the end of the first phase of operation when the mine extraction area would be cleared of all excess vegetation and brush. The proposed expansion of the quarry was determined to have minimal impact on County Fire Department operations in terms of requiring fire protection.

Although impacts were not determined to be significant, the following mitigation measures were adopted as part of the 1989 EIR certification:

1. All flammable materials shall be handled and stored in a safety-conscious manner. Smoking should not be allowed within the presence of such materials (also Condition of Approval No. 31).
2. Blasting shall be accomplished by trained personnel with all precautions taken when handling explosive and flammable materials.
3. When working in vegetated areas, spark arrestors shall be used on all combustion equipment to prevent the threat of wildfires (also Condition of Approval No. 22).
4. The site shall be subject to unannounced fire safety inspections to assure compliance with all applicable fire and safety codes. The site shall be made immediately accessible to credentialed County Fire personnel for all such inspections.

The 1989 EIR finds that public safety and fire hazards impacts can be mitigated to a level of insignificance (FEIR, Staff Report, page 8).

3.8.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the quarry project site being disturbed with mining activities similar to the 1989 EIR and extend the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mixed asphaltic-concrete plant, a ready-mixed concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment. The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily or annual production of 5 million tons per year, only to phasing and an extension in the duration of the permit term. Blasting events are directly related to production, therefore the number and frequency of blasting events will not change.

Since certification of the original EIR, development in the vicinity of the project site has not created the potential for an increase in public safety or fire hazard concerns. The nearest receptors or residences that may be impacted by vibration and noise resulting from blasting activities have not changed. The closest homes in 1989 (the homes located in the Bel Air development) were approximately 3,000 feet to the southwest and west from the project and they continue to be the closest homes to the site today. Another housing development is located about 3,000 feet north of the site. These residential areas are partially shielded by intervening hills.

Since 1989, there have been no changes to the standards of significance provided in CEQA Appendix G Environmental Checklist regarding analysis of Noise and Vibration, or Fire

Hazards. Impacts would be less than significant and no new or substantially greater significant impacts would occur from the Proposed Project as compared to those identified in the 1989 EIR.

3.8.3 Addendum Conclusions

The Public Safety Section set forth in the 1989 EIR and the conclusions adopted with certification of the 1989 EIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant public safety and fire hazard impacts not previously assessed in the 1989 EIR. Furthermore, the County adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01. Conditions related to fire protection, equipment requirements, blasting limitations and reporting, and restrictions to public access; and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit public safety and fire hazards impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Public Safety – Site Access Restriction	Less than Significant Impacts	No Change
Public Safety - Blasting	Less than Significant Impacts with Mitigation Incorporated	No Change
Fire Hazards	Less than Significant Impacts	No Change

3.9 TRAFFIC AND CIRCULATION

3.9.1 1989 EIR Conclusions

The 1989 EIR included a Traffic section. The potential impacts identified included project-related traffic at the full build-out production of 5 million tons per year which would generate approximately 1,750 daily vehicle trips, of which 270 would occur during the morning peak hour and 50 would occur during the evening peak hour. When added to existing traffic conditions, the two-lane segment of Magnolia Avenue west of Cajalco Road would exceed its design capacity.

The EIR determined that the hours of operation and project-generated traffic typically begin prior to the morning peak traffic hour and end before the evening peak traffic hour, in support of off-site construction activities. It was also determined that Cajalco Road would be adequate as a two-lane roadway under the conditions generated by this project.

The mitigation measures adopted as part of the EIR certification include:

1. Improvement of the existing 2-lane segment of Magnolia Avenue in the vicinity of Cajalco Road to a 4- lane divided roadway should be required when the plant production exceeds approximately 2,350,000 tons of aggregate per year.

2. Although a traffic signal is not warranted at the intersection of Magnolia Avenue and Cajalco Road based on projected traffic volumes, other conditions may justify the installation of such a signal in the future. The operation of this intersection should be reviewed periodically by the County to determine if there is a need for a signal.

3. A high level of service along Magnolia Avenue should be maintained by restricting on-street parking and controlling roadway access.

4. Use of the existing railroad tracks shall be encouraged for the transportation of materials.

5. All applicable Riverside County Road Department ordinances and conditions shall be complied with.

The 1989 EIR finds that circulation impacts can be avoided or mitigated to a level of insignificance (FEIR, Staff Report, page 9).

3.9.2 Proposed Project Impacts

The Proposed Project subject to this EIR Addendum review would result in 260 acres of the quarry project site being disturbed with mining activities similar to the 1989 EIR and extend the permit term to the earlier of reserve exhaustion or the year 2113. The mine site includes numerous existing, authorized material processing facilities, such as a hot mixed asphaltic-concrete plant, a ready-mixed concrete plant, crushing and screening equipment, conveyors, aggregate finishing plant, material loadout facilities, and washing and water handling equipment.

The site also supports a number of internal paved and un-paved access and mine roads for transport of materials and equipment, as well as several portable structures and a 4,200 square-foot permanent metal building used for shop and lab functions. No changes are proposed to mining and processing operations or to any of the above facilities and equipment. There are no changes proposed for the maximum daily production limit or annual production of 5 million tons per year, or the resulting truck traffic, only to phasing and an extension in the duration of the permit term.

Since no changes are proposed to the existing processing facilities or allowed maximum daily or annual aggregate production rate of 5 million tons per year throughput as entitled by the existing SMP 93-01 and reclamation plan, no increase in daily or annual vehicle trips would result and therefore no hew or substantially greater significant impacts to the existing roadways are expected.

The distribution of truck traffic is related directly to the locations of construction demand, whether new construction or maintenance of existing infrastructure. The distribution of truck traffic is expected to remain similar on the local street system. The distribution of truck traffic onto the freeway system will vary overtime due to the location of aggregate demand and market as the result of new development in southwest Riverside County; the lack of substantial aggregate sources in Orange County; and competition among aggregate producers in Corona - Temescal Canyon and San Bernardino County. With the rapid development of southwest Riverside County, it is likely that the distribution of truck traffic has increased southward. However, based on the CGS Map Sheet 52 and report "Aggregate Sustainability in California 2012," which provides the current availability of, and future demand for, California's permitted aggregate reserves, Orange County relies on the aggregate resources in the Temescal Valley to supply its aggregate needs; thus the distribution of truck traffic north on the I-15 of up to 65% as stated in the 1989 EIR is still reasonable. Therefore, the conclusions of the EIR regarding trip distribution remain valid, and no new or substantially greater significant impacts to the existing roadways are expected.

Although there have been no substantial changes to CEQA Appendix G, the first listed standard of significance was changed between 1989 and the present from:

> Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e. result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?)

to:

> Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The existing and Proposed Project would not conflict with an applicable plan, ordinance or policy regarding performance of the circulation system within the vicinity of the Project Site. The

Proposed Project does not include a change in site access or an increase in vehicles and therefore would not create an impact to alternative modes of transportation including the existing mass transit system and non-motorized vehicles (i.e., bicycles).

Since certification of the original EIR, the City has verified that Mitigation Measures 1 and 2 above and related conditions of approval have been completed by VMC. The two-lane segment of Magnolia Avenue in the vicinity of Cajalco Road has been improved to a four-lane divided roadway and a traffic signal has been constructed at the intersection of Magnolia Avenue and Cajalco Road. In addition, to meet the existing and projected traffic volumes in the area, the intersection of Magnolia Avenue and I-15 was substantially re-constructed in 2009. The improvements included widening the existing Magnolia Avenue Bridge to 9 lanes including double exclusive left-turn lanes onto the south-bound onramp, adding a new northbound loop on-ramp, modifying the existing northbound on-ramp including an exclusive right-turn lane, widening and realigning the northbound off-ramp, and signal improvements. The Proposed Project will not have any new or substantially greater significant circulation, traffic, or access impacts as compared to those caused by the project analyzed in the 1989 EIR.

3.9.3 Addendum Conclusions

The Traffic Section set forth in the 1989 DEIR and the conclusions adopted with certification of the FEIR remain accurate and are unchanged by this Addendum. The Proposed Project will not have any new significant circulation, traffic, or access impacts not previously assessed in the 1989 EIR. Road improvements required in the 1989 EIR have been completed. Furthermore, the County of Riverside adopted conditions of approval for SMP 168 and the City adopted these conditions as well as others for SMP 93-01. Conditions related to road segment and intersection improvements, and the filing of an annual report with the City demonstrating compliance with EIR mitigation measures and conditions of approval are intended to limit circulation and traffic impacts. All previously identified conditions and mitigation measures will continue to be incorporated into the Proposed Project.

Comparison of Environmental Conclusions Between Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Traffic	Less Than Significant Impact with Mitigation Incorporated	No Change

4.0 CEQA CONCLUSIONS

The Proposed Project, as shown in the discussion above, does not involve substantial changes to the project that was considered in the 1989 EIR, does not involve new significant impacts or more severe significant impacts that were not analyzed in the 1989 EIR, and does not require major revisions to the 1989 EIR. The City of Corona has determined that this CEQA Addendum is appropriate and in compliance with CEQA. Table 4-1 below provides the findings of this Addendum through a comparison of environmental conclusions between the original project 1989 EIR and the 2013 EIR Addendum.

Table 4-1
Comparison of Environmental Conclusions Between
Original Project 1989 EIR and the 2013 EIR Addendum

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Aesthetics		
Aesthetics / Visual Resources	Unavoidable Adverse Impact with Mitigation Incorporated	No Change
Air Quality and Greenhouse Gases		
Air Quality	Less Than Significant with Mitigation Incorporated	No Change
Greenhouse Gas Emissions	Not Applicable / Not Analyzed	Reduced Impact
Health Risk	Not Applicable / Not Analyzed	Reduced Impact
Biological Resources		
Vegetative Type/Land Use	Significant and Unavoidable with Mitigation Incorporated for riparian areas	Reduced Impact
Special-Status Plants	None were noted	No Change
Special-Status Animals	Significant and Unavoidable with Mitigation Incorporated	Reduced Impact
Raptor Use	Significant and Unavoidable	Reduced Impact
Jurisdictional Waters	Less than Significant Impact with Mitigation Incorporated	No Change.
Cultural Resources		
Cultural Resources	Less than Significant Impacts	No Change
Historical Resources	Less than Significant Impacts	No Change
Prehistorical Resources	Less than Significant Impacts	No Change
Geology and Soils		
Alquist-Priolo Special Studies or County Fault Hazard Zone	Not Applicable/No Impact	No Change

Environmental Issue	Original Project EIR (1989)	EIR Addendum (2013)
Liquefaction Potential Zone	Not Applicable/No Impact	No Change
Ground shaking Zone	Generally Suitable/Less than Significant Impacts	No Change
Slopes	Less than Significant Impacts	No Change
Landslide Risk Zone	Less than Significant Impacts	No Change
Rockfall Hazard	Less than Significant Impacts	No Change
Expansive Soils	No Impact	No Change
Hydrology and Water Quality		
Erosion	Less than Significant Impact with Mitigation Incorporated	No Change
100-year Floodplain	Less than Significant Impact with Mitigation Incorporated	No Change
Groundwater/Water Quality	No Impact	No Change
Noise		
On-site Mining Operations	Less than significant with Mitigation Incorporated	No Change
Off-site Traffic Noise	Less than significant with Mitigation Incorporated	No Change
Vibration from Blasting	Less than significant with Mitigation Incorporated	No Change
Public Safety and Hazards		
Public Safety – Site Access Restriction	Less than Significant Impacts	No Change
Public Safety - Blasting	Less than Significant Impacts with Mitigation Incorporated	No Change
Fire Hazards	Less than Significant Impacts	No Change
Traffic and Circulation		
Traffic	Less Than Significant Impact with Mitigation Incorporated	No Change

5.0 REFERENCES

City of Corona General Plan, 2004 with updates, http://www.discovercorona.com/CityOfCorona/media/Media/-CommunityDevelopment/GeneralPlan/GenPlan.pdf

Department of Conservation, California Geologic Survey, Map Sheet 52: Aggregate Availability in California, 2012.

FMA, March 2, 1989, Draft Environmental Impact Report, Corona Quarry, Riverside County SMP No. 168 (Riverside County No. 316); (project developer CalMat Company.)

FMA, January 1990, Final Environmental Impact Report, Corona Quarry, Riverside County SMP No. 168 (Riverside County No. 316).

LeRoy Crandall and Associates, June 17, 1988, Engineering Geologic Evaluation, Proposed Slopes, Corona Quarry Property, T3S, R6W, Section 33, SBB&M, Riverside County, California, Job No. E-88211, prepared for CalMat.

Golder Associates, Inc., June 7, 2007, Draft Plant Highwall Stability Assessment and Stabilization, Vulcan Materials Corona Rock and Asphalt Quarry, Corona, California,

Haley & Aldrich, May 18, 2012, Geotechnical/Geologic Evaluation Update, Vulcan Materials Company, Corona Quarry, Corona, California, File No. 37679-000, prepared for Vulcan Materials Company.

Vulcan Materials Company and RGP, March 2013, Corona Quarry Surface Mining Permit and Revised Reclamation Plan Application package and technical reports, submitted to the City of Corona. Technical Reports included as Appendices to this Addendum:

Appendix A	Visual Impact Assessment, RGP, November 2012.
Appendix B	Air Quality & Climate Change Impact Assessment, Sespe Consulting, Inc., June 2012.
	Memorandum – Corona Quarry Re-Phasing Table with Health Risks, Sespe Consulting, Inc. August 2013.
Appendix C	General Biological Report, CEQA Consistency Analysis, and MSHCP Consistency Analysis, Glen Lukos Associates, Inc., February 2013.
Appendix D	Geotechnical/Geologic Evaluation Update, Haley & Aldrich, Inc., May 2012.
Appendix E	Review of Noise Impact Assessment, RGP, May 2012.