# **APPENDIX A-2**

Initial Study

#### SAN BERNARDINO COUNTY INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

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

#### PROJECT LABEL:

APN: Applicant:	0447-091-03; 0447-041-02; 0447-031-11; 0447-101-02 Mitsubishi Cement Corporation 5808 State Hwy 18 Lucerne Valley, CA 92356	USGS Quad:	Big Bear City	v, California	
Community:	Lucerne Valley/S3	T, R, Section:	T3N R1E,	Secs. 14 & 15	
Location:	6 miles south of Lucerne Valley on west side of Hwy 18	Thomas Bros.:			
	AP20100104/SMAR Richard K. Goacher	Planning Area:	Lucerne Valle	ey	
Rep: Proposal:		LUSD:	Federal Land	-	
. roposul.	Quarry limestone mine on San Bernardino National Forest land.	Overlays:	RC (Resource Conservatio		

#### **PROJECT CONTACT INFORMATION:**

Lead agency:	County of San Bernardino Land Use Services Department 385 N. Arrowhead Avenue San Bernardino, CA 92415-0184				
Contact person: Phone No:	Richard K. Goacher (949) 450-0171	Fax No:	(949) 450-0182		
E-mail:	rgoacher@rgpcorp.com				
Project Sponsor:	Mitsubishi Cement Corporation 5808 State Hwy 18 Lucerne Valley, CA 92356				

#### **PROJECT DESCRIPTION:**

Mitsubishi Cement Corporation (MCC) is proposing to develop and reclaim a new high grade limestone quarry to the south of its existing East Pit, its West Pit (under development), and the Cushenbury Cement Plant. The proposed South Quarry is located approximately 6 miles south of the community of Lucerne Valley in San Bernardino County, California (see Figure 1). The South Quarry will total approximately 153.6 acres consisting of a 128-acre quarry, a 2.7 acre landscape berm, a 22.2-acre haul road 1.8 miles in length, and a temporary construction road of 0.7 acres. The South Quarry and haul road would be located almost entirely (147 acres) on 440 acres of unpatented claims owned by MCC on public federal land under the jurisdiction of the San Bernardino National Forest (SBNF) with approximately 6.6 acres of the haul road located on MCC fee land where it enters the existing East Pit.

MCC is required to comply with both Forest Service Minerals Regulations (36 CFR 228, Subpart A) under the jurisdiction of the SBNF and the State of California Surface Mining and Reclamation Act (SMARA) implemented by the County of San Bernardino (County) (Development Code, Chapter 88.03). Therefore, in consultation with both the SBNF and the County, MCC is submitting a Plan of Operations for Mining Activities on National Forest System Lands (FS-2800-5) and a Reclamation Plan per the County's Mine and

Reclamation Plan, Information Sheet and Application. As such, the Proposed Project must comply with both the National Environmental Policy Act (NEPA) through review by the SBNF, the lead agency for the plan of operations review, and the California Environmental Quality Act (CEQA) through the County, the lead agency for the reclamation plan review. A joint NEPA/CEQA environmental document will be prepared by the two agencies.

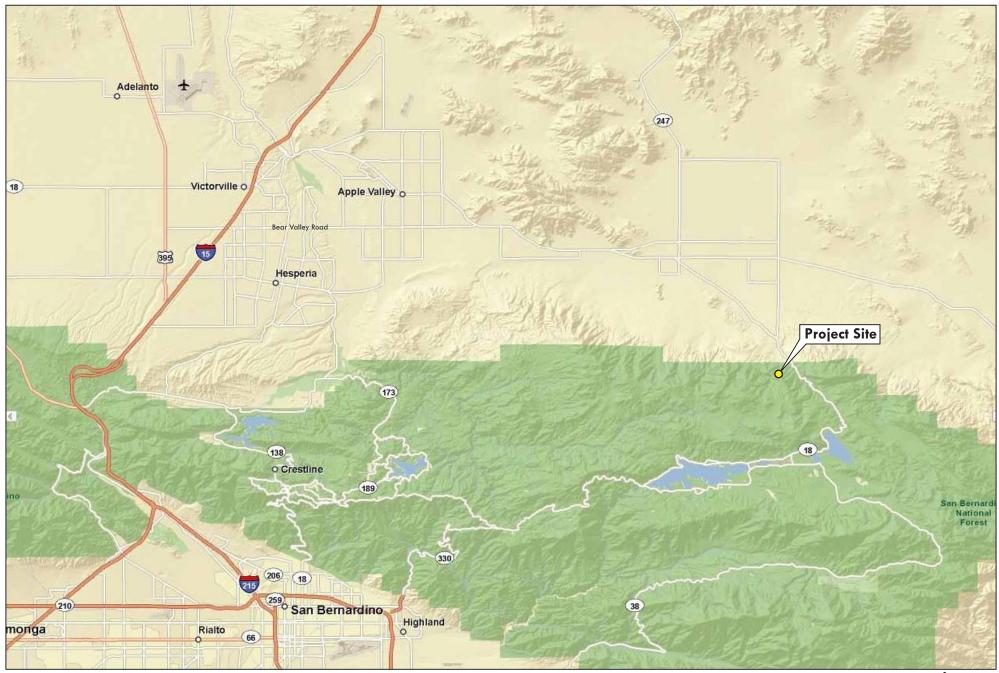
The South Quarry is within portions of Sections 14, 15, 22, and 23 Township 3 North, Range 1 East SBBM. The Cushenbury Cement Plant and related quarries are accessed directly from Highway 18 south of Lucerne Valley (see Figure 2). The extent of MCC's other adjacent holdings include approximately 990 acres of fee lands and 40 acres of unpatented claims (see Figure 3). The Quarry site and the adjacent surrounding land uses consist of vacant public lands administered by the SBNF. MCC currently operates two quarries on private land just north of the proposed South Quarry, the existing East Pit on 214 acres and the West Pit (under development) on 191 acres. Specialty Minerals' Inc. (SMI) Marble Canyon Quarry is located to the west of the proposed South Quarry on 132 acres and other quarries, waste rock stockpiles, and a process plant operated by SMI are located to the northwest of the proposed South Quarry,

Based on drilling conducted during the winter of 2009 and 2010, the site has estimated proven reserves of over 200 million tons of high to medium grade limestone. This higher grade limestone will be blended with lower grade limestone excavated from the East and West Pits at a ratio of approximately 50/50 in order to meet the limestone specifications to feed the adjacent Cushenbury Cement Plant. The Cushenbury Cement Plant requires a limestone feed of approximately 2.6 MTPY. The South Quarry will be mined at an average production rate of 1.3 million tons per year (MTPY) of ore and 150,000 tons of waste rock for up to 120 years. At this time, MCC is requesting a 120-year operations plan (through the year 2131), excavating approximately 1.3 MTPY of ore and 150,000 tons of waste rock. Therefore the overall average limestone production of 2.6 MTPY and 300,000 tons of waste rock at the mining complex will not change from the approved production.

Specific reclamation activities will occur concurrent with excavations and throughout the life of the operations such as slope reduction, stockpile management, erosion control, and revegetation. At the conclusion of excavations, 5 years of active reclamation and revegetation would be implemented followed by revegetation monitoring until revegetation goals are achieved.

The ore will be transported by off-road haul trucks to the existing crushing and screening system at the adjacent Cushenbury Cement Plant for use in the production of cement. It is estimated that there will be approximately 150,000 tons per year or a total of approximately 18 million tons of waste rock excavated not suitable for the manufacture of cement. Note that annual waste rock production will vary based on the location of the excavations and the quality of the rock. Unlike other limestone mines in the area, the waste rock will be deposited within the quarry itself to fill or reduce slopes in Phases 1B, 2, and 3 and will not create any waste rock stockpiles outside the quarry footprint. This will limit impacted areas to the quarry and haul road and eliminate potential visual, slope stability, and erosion impacts of typical waste rock stockpiles.

The Plan proposes excavations to be undertaken in four phases with the development of the main quarry to a maximum depth of 5,365 feet above mean sea level (amsl) or 1,215 feet below the quarry rim on the south (see Figure 4). Elevations at the South Quarry site currently range from 5,555 to 6,675 feet amsl. The planned haul road will access the South Quarry at 5,950 feet amsl and traverse down the north slope for approximately 6,580 feet to an elevation of 5,050 feet amsl at the southwest corner of the existing East Pit. The South Quarry will be generally 1,800 feet northeast to southwest, and 3,600 feet northwest to southeast with an extension along the haul road of 1,450 feet to the northwest.

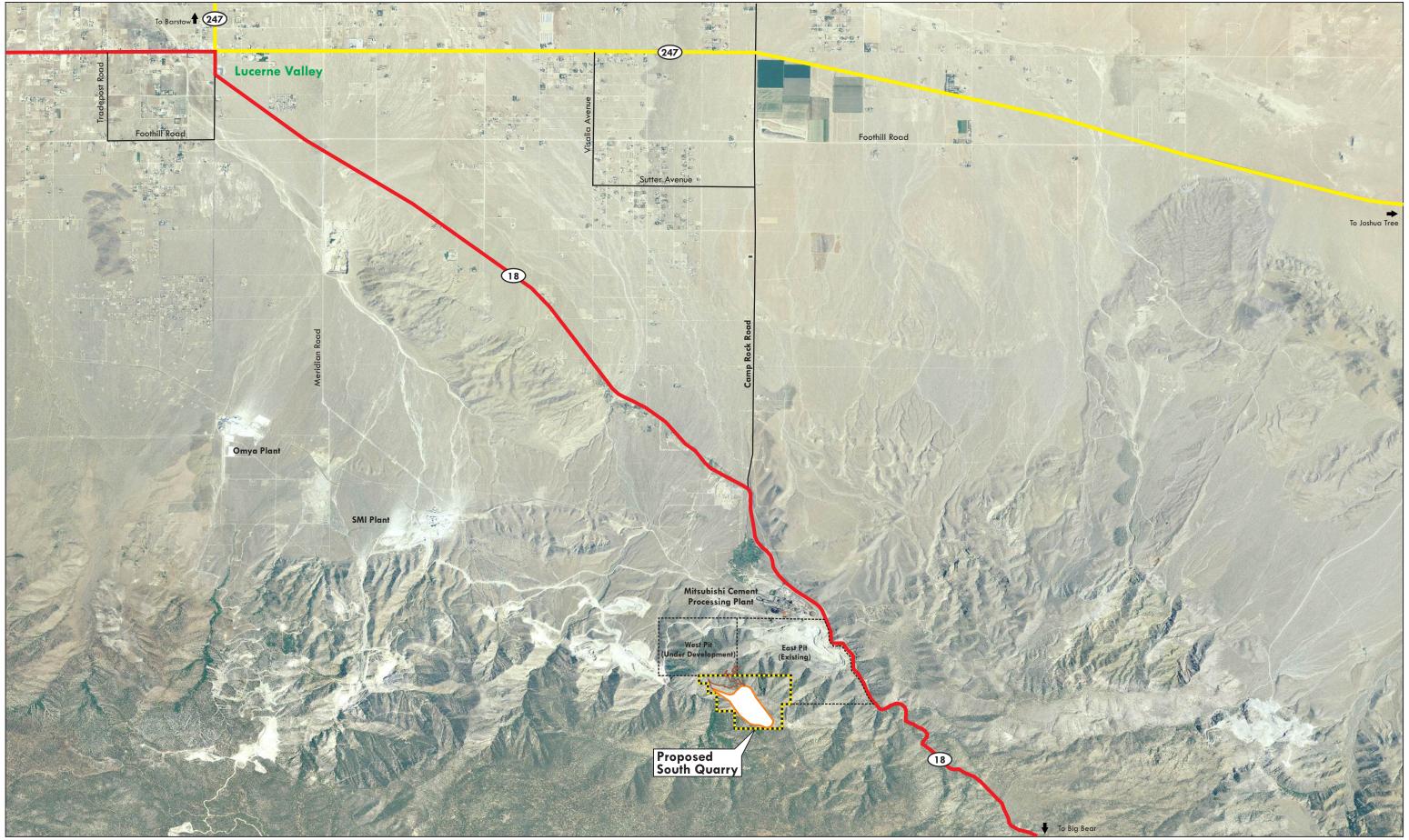


### **Regional Location**

Mitsubishi Cement Corporation - South Quarry County of San Bernardino, California



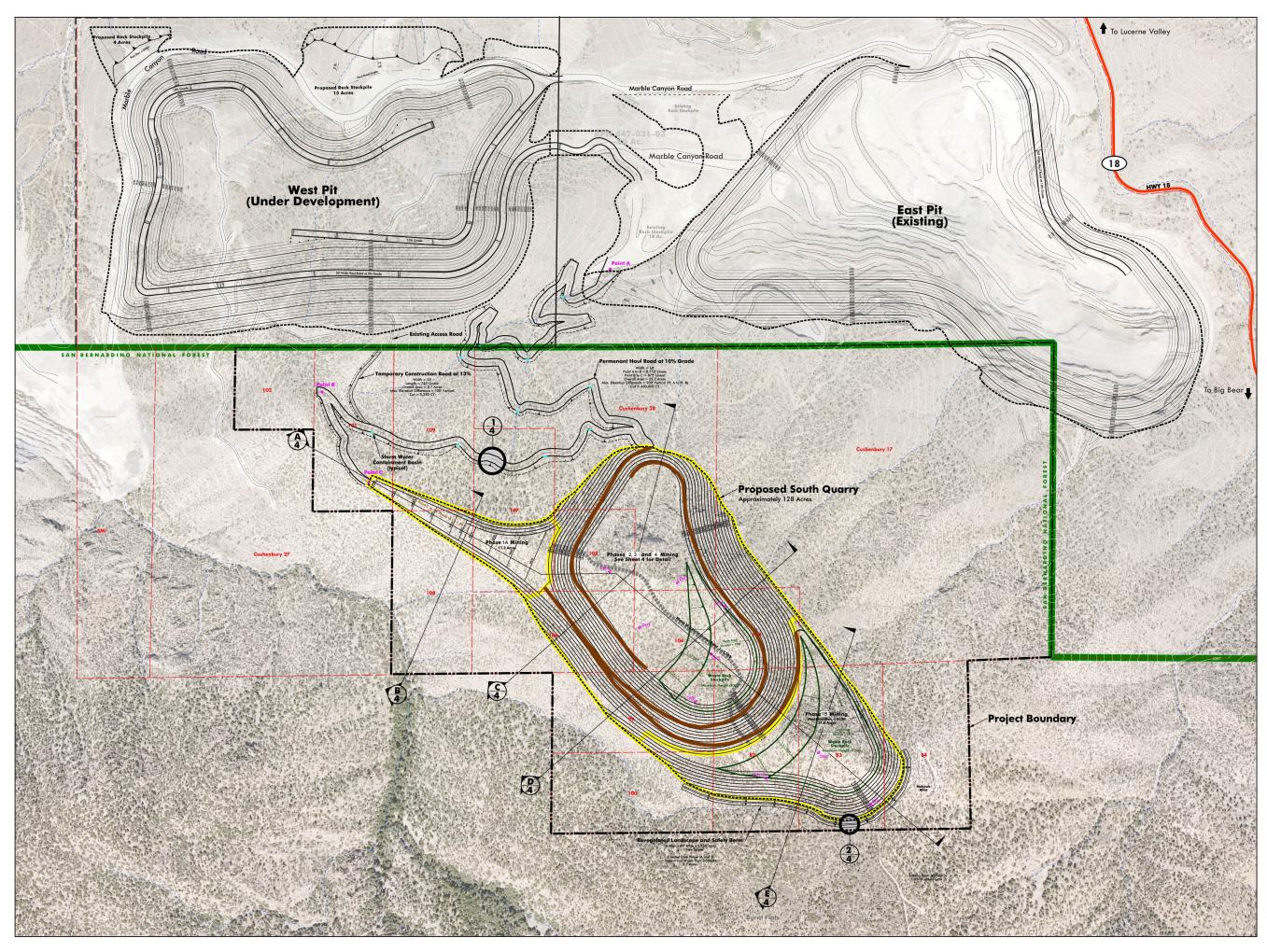






**Project Vicinity** Mitsubishi Cement Corporation - South Quarry County of San Bernardino, California





#### LEGEND

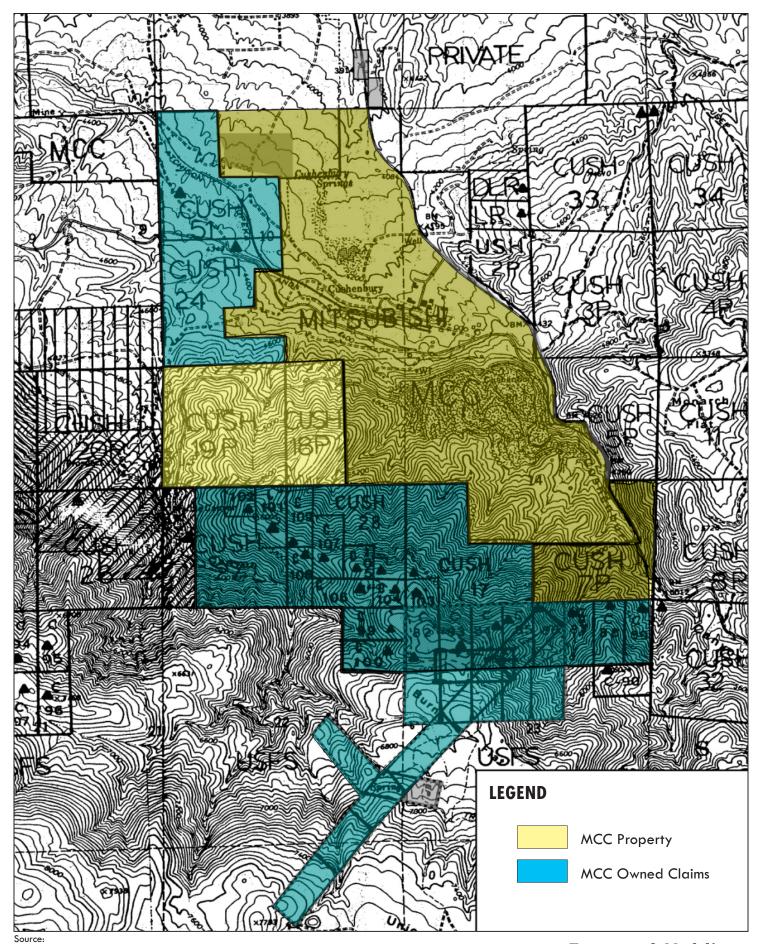
- Proposed South Quarry Project Boundary
  - Phase Boundary
- Proposed South Quarry Limits of Disturbance
- Proposed South Quarry Contours
- ----- Existing Permitted Limits of Disturbance
  - U.S.F.S Boundary
  - --- Claim Boundary
- Note: See Appendix B for list of claims.



# Existing and Planned Operations

Mitsubishi Cement Corporation - South Quarry County of San Bernardino, California







## **Extent of Holdings**

Mitsubishi Cement Corporation - Cushenbury Mine South Quarry Expansion County of San Bernardino, California

#### Figure 4

The phased mining, the haul road, landscape berm, and reclamation with cross-sections, slopes and contours are depicted in the proposed Reclamation Plan. This Proposed Plan was developed with the following objectives:

- To develop a high grade limestone resource to blend with the West and East Pits' limestone to supply the required feed specifications for the adjacent Cushenbury Cement Plant for an extended period;
- To supply cement for construction and other uses in an efficient and environmentally sound manner;
- To continue to realize the economic value from the investment made in the existing Cushenbury mine and cement plant and the limestone resource at the project site;
- To avoid logistical and environmental costs associated with non-contiguous operations;
- To meet the USFS regulations to cause no undue and unnecessary degradation;
- To meet the State's and County's Surface Mining and Reclamation Act (SMARA) requirements;
- To be consistent with the intent of the SBNF's Carbonate Habitat Management Strategy in order to
  provide long-term protection for the sensitive carbonate endemic plants through contribution of lands to
  the Carbonate Habitat Reserve;
- To minimize impacts to sensitive plants and wildlife including the Cushenbury herd of Nelson's bighorn sheep through quarry design and offsite mitigation;
- To reclaim the site for post-mining uses which will include open space habitat;
- To contour mining features and revegetate disturbed areas to minimize aesthetic and erosion impacts; and
- To reclaim and maintain the site as necessary to eliminate hazards to public safety.

Some of the benefits resulting from the expansion of mining operations adjacent to an existing operation and the cement plant include:

- The avoidance of habitat fragmentation that may result from supplying the existing Cushenbury Cement Plant with limestone mined from a carbonate area not adjacent to the existing cement plant;
- The avoidance of increases to truck traffic and safety incidents on public roads and associated increases in combustion and green house gas air emissions, diesel fuel consumption, and road maintenance that may result from supplying the existing cement plant from other limestone mines; and
- Sustain local and regional economic development.

Phase	Area (acres)	Volume (millions of cubic yards)	Weight (millions of tons)	Ore Reserves (millions of tons)	Waste Rock (millions of tons)	Max. Depth (feet amsl)	Years of Operations
1A	11	2.3	5.1	4.5	0.5	5,860	3.5
1B	32	14.6	32.1	28.8	3.2	6,130	22.0
2	85	9.6	21.0	18.8	2.2	6,220	14.5
3	(75) <sup>1</sup>	26.4	58.0	52.0	6.0	5,905	40
4	(65) <sup>1</sup>	26.4	58.0	52.0	6.0	5,365	40
Totals	128	79.3	174.0	156.0	18.0	5,365	120

#### Table 1 Planned Quarry Phasing and Production South Quarry

Notes:

All volumes are estimated.

Area rounded to nearest acre. Totals may be slightly different due to rounding.

Millions of cubic yards and tons rounded to nearest tenth.

In-situ or in-place limestone rock weight to volume ratio estimated at 2.2 tons per 1 cubic yard.

Years of operations based on average production of 1.3 million tons per year for 120 years.

Waste rock estimated at 0.15 million tons per year or approximately 10% which will vary depending on area being excavated.

1 - Phases 3 and 4 areas excavated with depth within Phase 2 area previously disturbed.

#### **ENVIRONMENTAL/EXISTING SITE CONDITIONS:**

AREA	EXISTING LAND USE	OFFICIAL COUNTY LAND USE DISTRICT
Site	Open Space/SBNF	Resource Conservation (RC) (non- County jurisdictional)
North	SBNF, existing East Pit and West Pit (under development) mining operations, and the Cushenbury Cement Plant	RC
South	Open Space/SBNF	RC
East	Open Space/SBNF	RC
West	Open Space/SBNF & SMI's Marble Canyon Quarry	RC

#### Surrounding Land Use

The site is located on the north slope of the San Bernardino Mountains south of Lucerne Valley in southwestern San Bernardino County. The South Quarry and haul road (147 acres) would be located almost entirely on 440 acres of unpatented claims owned by MCC on public federal land under the jurisdiction of the SBNF and approximately 6.6 acres of the haul road would be located on MCC fee land. The Proposed South Quarry site is bounded on the west, south, and east by undisturbed open space (forest lands) and to the north by approximately 800 feet of SBNF land and the existing East Pit and West Pit (under development), and the Cushenbury Cement Plant. SMI's Marble Canyon Quarry is located to the west of the Proposed South Quarry on 132 acres and other quarries, waste rock stockpiles, and a process plant operated by SMI are located to the northwest of the proposed South Quarry.

# Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

- United States Department of Agriculture, Forest Service, San Bernardino National Forest Record of Decision on the Plan of Operations
- U.S. Fish and Wildlife Service Section 7 Consultation with Forest Service through the Carbonate Habitat Management Strategy Plan
- California Department of Fish and Game 1602 Streambed Alteration Agreement
- Regional Water Quality Control Board, Colorado River Region 401 Water Quality Certification

#### **EVALUATION FORMAT**

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) pursuant to Public Resources Code Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations Title 14 Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on seventeen (17) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially	Less than Significant	Less than Significant	No
Significant Impact	With Mitigation Incorporated		Impact

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

- 1. **No Impact**: No impacts are identified or anticipated. Therefore, no mitigation measures are required and analysis in an EIR is not required.
- 2. Less than Significant Impact: No significant adverse impacts are identified or anticipated. Therefore, no mitigation measures are required, and analysis in an EIR is not required.
- 3. Less than Significant Impact with Mitigation Incorporated: Possible significant adverse impacts have been identified or anticipated, but mitigation measures have been identified that will reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures). Provided the mitigation is required as a condition of project approval, no further analysis in an EIR is required.
- 4. **Potentially Significant Impact**: Potentially significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are (Listing the impacts requiring analysis within the EIR).

#### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

#### **DETERMINATION:** (To be completed by the Lead Agency)

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

The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature (prepared Hoacher

Signature: Richard K. Goacher Consultant to: San Bernardino County, Land Use Services Date

February 28, 2012 Date

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

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

a) Potentially Significant Impact. The Proposed Project quarry and haul road would be designed to reduce exposure along the north face of the San Bernardino Mountains. Waste rock would be deposited within the quarry to reduce the visual impact of stockpiling waste rock. A 20- to 25-foot high natural perimeter berm (half a vertical bench height) would be left in-place on the outside ridge until the interior area of the next lower excavation level is completed. A landscape berm would be constructed along the south rim; and reclamation and revegetation would be implemented concurrent with mining to the extent feasible.

The development of internal waste rock stockpiles would reduce the area of disturbance outside the quarry rim, eliminating potential visual impacts to northern viewsheds from the waste rock piles that are typically highly visible. The proposed stockpiling method would also reduce internal slopes to aid in revegetation.

The Proposed Project would however, be visible from Lucerne Valley from the north and from portions of the SBNF to the south. Scenic vistas of the north slopes of the San Bernardino Mountains may be impacted. Potential long-term visual impacts of the proposed South Quarry will be analyzed within the EIR.

- b) **Potentially Significant Impact.** The Proposed Project quarry would be visible from SR 18 which is designated by the State of California as a Scenic Route. Visual impacts of the Proposed Project on scenic highways will be analyzed within the EIR.
- c) Potentially Significant Impact. The Proposed Project would extend the visibility of mining along the north face of the San Bernardino Mountains, and add to the cumulative effect of visual impacts along the mountains as seen from Lucerne Valley and SR 18. Visual impacts of the proposed South Quarry will be analyzed within the EIR.
- d) **No Impact.** The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. No new light sources are proposed and therefore no impacts would occur. This impact will not need to be evaluated further in the EIR.

		Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Π.		AGRICULTURE AND FORESTRY RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
â	a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
k	<b>)</b>	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				$\square$
(	c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
C	d)	Result in the loss of forest land or conversion of forest land to non-forest use?			$\boxtimes$	
e	e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			$\boxtimes$	

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
SUBSTANTIATION:	(Check ] if project is located in the Important Farmlands Overlay):					

a) **No Impact.** The California Resources Agency defines Prime Farmland, Unique Farmland, or Farmland of Statewide Importance for San Bernardino County as farmlands which include dryland grains of wheat, barley, oats, and dryland pasture. The Project Site does not meet these characteristics.

The Project Site is located on the steep northern slopes of the San Bernardino Mountains, where both the topography and the soils are unsuitable for agriculture. The Proposed Project does not Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Therefore, no impact is anticipated, and this impact will not need to be analyzed further in the EIR.

- b) No Impact. The Project Site is not designated as agricultural land use or Williamson Act land. The Proposed Project is consistent with existing on-site uses and would not conflict with current zoning or uses at the site. No impacts would result, and this impact will not need to be analyzed further in the EIR.
- c-e) Less Than Significant Impact. The proposed South Quarry and haul road (147 acres) would be located almost entirely on 440 acres of unpatented claims owned by MCC on public federal land under the jurisdiction of the SBNF and approximately 6.6 acres of the haul road would be located on MCC fee land where it enters the existing East Pit.

MCC is required to comply with both Forest Service Minerals Regulations (36 CFR 228, Subpart A) under the jurisdiction of the SBNF and State of California SMARA implemented by the County (Development Code, Chapter 88.03). Therefore, in consultation with both the SBNF and the County, MCC is submitting a Plan of Operations for Mining Activities on National Forest System Lands (FS-2800-5) and a Reclamation Plan per the County's Mine and Reclamation Plan, Information Sheet and Application.

The "Land Management Plan, Part 2 San Bernardino National Forest Strategy" (USDA September 2005) defines the Proposed Project area as the "Desert Rim." The Desert Rim is described as "a high desert, remote, rugged landscape formed by complex geological faulting. Today, the majority of the land is valued in the production of large quantities of high quality, limestone mineral deposits used in the production of pharmaceuticals and cement. These carbonate deposits are also valuable habitat supporting four species of threatened and endangered plants found nowhere else in the world." An intensive collaborative effort led to the development of the Carbonate Habitat Management Strategy (CHMS) in 2003. The strategy is designed to provide long-term protection for the carbonate endemic plants and also provide for continued mining. Carbonate habitats are protected from mining impacts in perpetuity within the carbonate habitat reserves dedicated and managed as described in the CHMS.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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The Desert Rim Place is maintained as a modified to natural appearing landscape that functions as a sanctuary for several federally listed native plants and a highly valued area for limestone production. SBNF management is expected to center on implementation of the CHMS and to continue mining while preserving and managing habitat for the four federally listed plants.

Although the Proposed Project would result in the conversion of forest land to traditional non-forest use, the mining land use has been included in the SBNF Land Management Plan and in the Carbonate Habitat Management Strategy. Therefore, a potentially less than significant impact related to the conversion of forest lands would result. These impacts will be evaluated in the EIR due to expected agency and public interest.

**III. AIR QUALITY -** Where available, the significance criteria established by the applicable air quality management or air pollution control district might be relied upon to make the following determinations. Would the project:

a)	Conflict with or obstruct implementation of the applicable air quality plan?		$\boxtimes$	
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		$\boxtimes$	
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			
d)	Expose sensitive receptors to substantial pollutant concentrations?		$\boxtimes$	
e)	Create objectionable odors affecting a substantial number of people?			$\boxtimes$

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

a-c) Less than Significant Impact. An air quality study was prepared (*Air Quality Study for Mitsubishi Cement Corporation's South Quarry*, AMEC Geomatrix, Inc. July 2011) as part of the Plan application submittal for the Proposed Project which includes an approximate 50% shift of production from the West Pit (under development) to the proposed South Quarry, without an increase in overall mine throughput.

Criteria pollutant emission calculations were performed for the baseline and post-project mine activities, including both the operational and construction phases, and the Proposed Project operational and construction emissions increases were compared with Mojave Desert Air Quality Management District (MDAQMD) CEQA emissions significance thresholds. Emission calculations incorporated project design measures and compliance with state off-road diesel vehicle requirements and the MDAQMD dust control rules. GHG emission calculations were prepared for the operational and construction phases, and the project GHG emissions were compared with the CEQA GHG significance threshold for industrial projects adopted by the South Coast Air Quality Management District, which is used on an interim basis by the County. The Air Quality Study demonstrates that all air emissions will remain below relevant significance thresholds. Nonetheless, these impacts will be evaluated in the EIR due to expected agency and public interest. All assumptions, emission factors, throughput calculations, and compliance measures shall be discussed in the EIR.

- d) Less than Significant Impact. Toxic air contaminant (TAC) emission calculations were prepared and a project health risk assessment was performed for each of the operational and construction phases and compared with the MDAQMD CEQA health risk significance thresholds. For both the operational and construction phases, based on the project design features, the Proposed Project was found to be below the MDAQMD CEQA emissions and health risk significance thresholds. Nonetheless, these impacts will be evaluated in the EIR due to expected agency and public interest.
- e) **No Impact.** The Proposed Project would not produce any objectionable odors. No impacts would result, and this impact will not need to be analyzed further in the EIR.

#### **IV. BIOLOGICAL RESOURCES -** Would the project:

- a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc...) through direct removal, filling, hydrological interruption, or other means?

$\boxtimes$		
	$\boxtimes$	
		$\boxtimes$

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	$\boxtimes$			
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				

**SUBSTANTIATION:** (Check if project is located in the Biological Resources Overlay or contains habitat for any species listed in the California Natural Diversity Database  $\boxtimes$ ):

a) Potentially Significant Impact. A biological technical report (*Proposed Mitsubishi Cement South Quarry: Preliminary Biological Resources Assessment*, Aspen Environmental Group, August 2010) was prepared for the Proposed Project to analyze biological resources in the vicinity of the Project site and summarize potential impacts to those resources that may occur as a result of project development. The Proposed Project would affect biological resources by removal of soils, vegetation, and habitat throughout the proposed South Quarry footprint and haul road; additional loss of soils, vegetation, and habitat for haul road cut and fill slopes and rock debris roll-down; and the indirect or off-site effects of dust, noise, lighting and other disturbances to adjacent vegetation and wildlife habitat. Potential impacts to biological resources will be evaluated in the EIR.

Four listed threatened or endangered carbonate-endemic plants occur near the Project site. Three of the species (Parish's daisy, Cushenbury buckwheat, and Cushenbury oxytheca) occur on the site. Much of the Proposed Project area is within designated Critical Habitat for one or more of the listed species. These listed carbonate-endemic plants are managed by the SBNF, the County, and other public agencies under the Carbonate Habitat Management Strategy (CHMS, Olson 2003). The CHMS is a collaborative strategy to address the preservation of the carbonate plant species, while providing a method for mining projects to obtain Federal ESA compliance or "Take" of the listed carbonate-endemic plants. The CHMS proposes multiple methods of permanent habitat conservation, which include federal land use designations, relinquishment of unpatented mining claims and/or execution of a conservation easement or surface use restrictions, coupled with a mineral withdrawal. (CHMS, § 10(b)(iii)) MCC proposes to convey conservation easements and relinquish unpatented mining claims to compensate for impacts to carbonate plant species.

Several other special status plants and animals also occur, or could occur, at the Proposed Project site. Nelson's bighorn sheep occur in the area, and habitat near the Proposed Project site has been identified as bighorn sheep lambing habitat. Proposed mining would cause loss of pinyon pine woodland and limestone habitat which are suitable as habitat for listed species and other special-status plants. A mitigation strategy is recommended to minimize project impacts to these species. The recommended strategy includes measures to minimize quarry operation disturbance to adjacent

habitat and to reclaim the proposed expansion area at the completion of mining. Findings of the report and recommended mitigation measures will be evaluated in the EIR.

- b) Less than Significant Impact. There are steep canyons on the Project site, however no evidence of riparian vegetation (e.g., willows, mulefat, or other characteristic montane riparian species) were present and no running water, pools, or moist soils were noted in these canyons during field surveys. A jurisdictional delineation report (Glenn Lukos Associates June 2010) was prepared for the potential jurisdictional drainages that occur near the Project site and that may be crossed by the access road. A 1602 Streambed Alteration Agreement will be required from the CDFG. Although no riparian habitat or similar sensitive natural community was identified, and therefore no significant impact is expected, nonetheless, these impacts will be evaluated in the EIR due to expected agency and public interest.
- c) **No Impact.** The jurisdictional delineation report and the biological resource assessment referenced above did not find any federally protected wetlands as defined by Section 404 of the Clean Water Act.
- d) Potentially Significant Impact. The Project Site is in an area that has been partially fragmented by previous and ongoing mining, and by SH 18. The Proposed Project would contribute to the existing cumulative effects of these alterations to regional wildlife movement, particularly north-south movement by terrestrial species between desert bajadas to the north and montane forests to the south. This potential impact is most important to large mammals such as Nelson's bighorn sheep. A technical report (*Development of the Cushenbury South Quarry: Potential Environmental Impacts to Nelson's Bighorn Sheep and Suggested Mitigation,* Vernon C. Bleich, Eastern Sierra Center for Applied Population Ecology, September 2010) was prepared for the Proposed Project to analyze potential impacts of the Project to a herd of Nelson's bighorn sheep that resides in the vicinity. Potential Project impacts to Nelson's bighorn sheep, including movement, will be analyzed in the EIR.
- e) **Potentially Significant Impact.** The San Bernardino County Native Plant Protection policy (1989) regulates removal of trees greater than 6 inches diameter at breast height (dbh), smoke trees, mesquite, creosote rings, and all plants in the agave family, including Joshua trees. Due to elevation and habitat, no smoke trees, mesquite, or creosote rings would be expected on the site. Three species in the agave family (Joshua trees, Mojave yucca, and chaparral yucca) are expected to occur occasionally on the quarry site, haul road alignment, or potential roll-down area down-slope. Pinyon pines greater than 6 inches dbh are expected to occur throughout the pinyon woodland. The County policy applies legally on private lands, but not on public lands. However, these plant species serve similar ecological function on SBNF lands and impacts of removing them would be similar to removing them from private lands. Potential impacts will be evaluated in the EIR and mitigation measures recommended.
- f) Less than Significant Impact. The Project Site occurs within the area of the Carbonate Habitat Management Strategy (Olson 2003), a Habitat Conservation Plan for carbonate soil types. Implementation of the Proposed Project has been designed to be consistent with the provisions of the adopted plan. Nonetheless, the impacts to carbonate plants, and consistency with the CHMS, will be evaluated in the EIR due to expected agency and public interest.

#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

		Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
V.		CULTURAL RESOURCES - Would the project				
	a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				$\boxtimes$
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				$\boxtimes$
	c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				$\boxtimes$
	d)	Disturb any human remains, including those interred outside of formal cemeteries?				$\boxtimes$
	S	<b>CUBSTANTIATION:</b> (Check if the project is located in Resources overlays or cite results of classical contents			Paleontolo	gic 🗌

a-d) No Impact. No historical, cultural, or paleontological resources are known to occur on the Project site and none are expected to occur due to the topographic and geologic characteristics of the site. The site is on the steep slopes of the San Bernardino Mountains which are dry and exposed historic and prehistoric human uses are expected to have been transient, intermittent and scattered over broad areas. Based on a cultural survey conducted by the USFS, no historical or cultural resources are known to exist on the SBNF portion of the Project site. Portions of the site could not be surveyed, due to extremely rugged terrain and slope steepness from 60 to 100%; however, the steepness and the rugged terrain also make it extremely unlikely that these areas would contain cultural sites. The Bird Spring formation is a metamorphosed limestone that is not known to yield fossils due to the alteration of the calcium carbonate deposits by heat and pressure (*EIR SCH#2001101044 Cushenbury Mine Expansion, Section 2.0 Introduction, page 2-5; Initial Study Appendix A*). Standard measures to address any unforeseen findings of cultural resources or human remains onsite will be included in the project's Record of Decision by the USFS and the County's conditions of approval. The EIR will include the cultural resource report findings.

#### VI. GEOLOGY AND SOILS - Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map Issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

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

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

- a) Less than Significant Impact. (i-iv) A slope stability analysis was performed for the Proposed Project by Golder Associates Inc in July 2010. Several prominent, west-northwest-striking reverse faults were identified within the project area. These faults generally extend northwest to southeast and are sub-parallel to the range front and along the major ridge within the Project site. The Proposed Project would not increase the exposure of people to potential adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction or landslides, beyond what currently exists at the site. Earthquakes, due to their ground acceleration and shifting, can cause major damage to buildings and create dangerous hazards to people through injury or death, but no buildings are proposed as part of the Project, and the Project will result in a total of only 3 additional permanent jobs at MCC. While these impacts are not expected to be significant, nonetheless the slope stability assessment will be further discussed in an EIR.
- b) **Potentially Significant Impact.** Control of surface drainage, erosion, and sedimentation of the proposed haul road and quarry operations would involve the following primary components currently being implemented for existing operations:
  - Limiting surface disturbance to the minimum area required for active operations.
  - Diverting runoff from undisturbed areas around the active operations, where operationally feasible.

Issues Potentially Less the Significant Significant Impact Incorpo	nt Less than No gation Significant Impact
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- Using ditches, sediment basins, and localized control and maintenance measures to intercept and control runoff along the haul road.
- Stabilizing disturbance areas through regrading, revegetation, and other restoration practices.

Erosion control measures for the Proposed Project will be further evaluated in the EIR; additional mitigation measures may be recommended.

- c) Potentially Significant Impact: Based on the slope stability analysis conducted by Golder Associates, proposed excavations would be designed to develop a series of stable rock slopes up to 45 feet in height with horizontal benches 25 feet wide. Each bench would be sloped inward toward the vertical wall at one percent to capture any precipitation or runoff. The overall slope angle will be 60° or a slope of 0.55H:1V. Golder determined that the planned slopes would meet the stability criteria of a factor of safety of at least 1.5 against sliding and a pseudostatic factor of safety of at least 1.1 when subjected to the design earthquake. A geotechnical program of on-going field mapping, drilling and geophysical surveys, and laboratory testing would be established and implemented as the quarry is excavated. This type of site investigation during the mining operation would provide information for detailed slope stability assessment on a continual basis and stabilization of slopes in areas where poor rock and/or adverse geologic structures are present. An annual report discussing the geotechnical program and its mapping would be prepared for the SBNF and County. The Project Site is not located within an area known for land subsidence or liquefaction. Additional discussion of the potential for on- or off site landslides and lateral spreading will be presented in the EIR.
- d) **No Impact**. The Project Site is not located in an area which has been identified by the County Building and Safety Geologist as having the potential for expansive soils. No impacts would result, and this impact will not need to be analyzed further in the EIR.
- e) No Impact. Septic tanks and/or alternative water supply systems are not proposed as part of the project. Therefore, no impacts would result, and this impact will not need to be analyzed further in the EIR.

#### 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?		$\boxtimes$	
b)	Conflict with an applicable plan, policy or regulation		$\boxtimes$	

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

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
SUBSTANTIATION.				

a-b) Less Than Significant Impact. The State of California has determined that global climate change is a threat to the environment and that human activity generating greenhouse gases influences global climate change. Global climate change refers to changes in average climatic conditions on earth as a whole, including temperature, wind patterns, precipitation, and storms.

Global climate change regulation is continuing to evolve. The MDAQMD has not adopted discrete significance thresholds for evaluating the global climate change impacts of a project. However, in the interim, the County applies the interim greenhouse gas significance threshold for industrial projects adopted by the SCAQMD. An analysis was prepared within the Air Quality Study (AMEC Geomatrix, Inc. July 2011) that quantifies the construction and operational emissions of greenhouse gases that will result from the Project. Findings of the analysis determined that impacts from the Proposed Project would be less than significant. Nonetheless, this impact will be evaluated in the EIR due to expected agency and public interest.

- VIII. HAZARDS AND HAZARDOUS MATERIALS Would the project:
  - a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
  - b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
  - c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
  - d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
  - e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
  - f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

	$\square$	
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#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

SUBSTANTIATION:

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				$\boxtimes$
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				

# a, b) Less Than Significant Impact. Proposed mining operations within the new South Quarry would require two blasts per week reducing the number of blasts from the existing mining operations by a similar number. Therefore, the overall current levels of blasting would remain the same. Blasting operations would continue to be conducted by licensed individuals in such a manner as to meet or exceed Cal-OSHA requirements. MCC has four licensed individuals on staff. Blasting would typically be conducted twice each week at the South Quarry between the hours of 10:00 a.m. and 6:00 p.m. Monday through Saturday. Note that during the initial construction of the haul road, more numerous (up to once per day) but smaller blasts would occur. Blasting materials are secured in an appropriate magazine and location at the adjacent cement plant facilities.

Blasting operations would continue to involve drilling along the mining face, placement of charges, and detonation of the charges by a blaster licensed through the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF&E) for handling explosives. All explosives and detonators shall be transported, handled, and stored in accordance with all federal, State, and local regulations and permitted under the San Bernardino County Sheriff's Department and San Bernardino County Fire Department pursuant to Uniform Fire Code adopted by the Department. In compliance with County regulations, blasting shall only be conducted by a licensed blaster upon issuance of a blasting permit and a site-specific blasting permit. Since the Proposed Project will not require additional blasting greater than the existing number of blasts, less than significant impacts would result. Nonetheless, additional discussion related to the blasting and potential risk to the public will be included in the EIR, due to the expected agency and public interest.

c) No Impact. The Proposed Project involves the use of materials common to the mining industry and includes the transport, storage and use of fuels, lubricants and explosives. The operator would continue to comply with all applicable federal and state safety rules and regulations regarding hazardous materials. Potential impacts from the risk of exposure both on-site and off-site are considered less than significant. During construction, diesel exhaust would be generated by heavy construction equipment; however, no existing school facilities or proposed school facilities are located within one-quarter mile radius of the Project Site. The nearest school is the Lucerne Valley Middle School located approximately five miles northwest of the site. No impacts to nearby schools are anticipated.

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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- No Impact. The Project Site is not identified on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. (http://www.envirostor.dtsc.ca.gov/public/search.asp).
- e) **No Impact.** As shown on San Bernardino County General Plan, Hazards Overlay Map FH21B, the Project Site does not occur within an airport influence area. Therefore, the Proposed Project would not result in safety hazard impacts from aircraft-related uses, and this impact will not need to be analyzed further in the EIR.
- f) No Impact. The Project Site is not within the vicinity or approach/departure flight path of a private airstrip. No impacts related to a private airstrip would occur, and this impact will not need to be analyzed further in the EIR.
- g) No Impact. Activities associated with the Proposed Project would not impede existing emergency response plans for the Project Site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. Therefore, implementation of the Proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, and this impact will not need to be analyzed further in the EIR.
- h) Less than Significant Impact. The Proposed Project is located in Fire Safety Review Area (FS-1), which includes areas within the mountains and valley foothills. It also includes all the land generally within the San Bernardino National Forest boundary and is characterized by areas with moderate and steep terrain and moderate to heavy fuel loading contributing to high fire hazard conditions. The Project site includes internal haul roads to allow for emergency egress and safe zones in the event of a wildfire. The Proposed Project would not contribute to or be impacted by surrounding fuel loads and a fuel modification zone would not be required. No human-occupied structures are proposed as part of the project. Potential impacts will be evaluated in the EIR due to expected agency and public interest.
- IX. HYDROLOGY AND WATER QUALITY Would the project:
  - a) Violate any water quality standards or waste discharge requirements?
  - b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?

#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?				
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?				
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			$\boxtimes$	
f)	Otherwise substantially degrade water quality?			$\bowtie$	
g)	Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				$\square$
h)	Place within a 100-year flood hazard area structure which would impede or redirect flood flows?				$\square$
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				
j)	Inundation by seiche, tsunami, or mudflow?				$\bowtie$
S	SUBSTANTIATION:				

- a, f) Less than Significant Impact. Control of surface drainage, erosion, and sedimentation of the proposed haul road and quarry operations will involve the following primary components currently being implemented for existing operations:
  - Limiting surface disturbance to the minimum area required for active operations.
  - Diverting runoff, where operationally feasible, from undisturbed areas around the active operations.
  - Using ditches, sediment basins, and localized control and maintenance measures to intercept and control runoff along the haul road.
  - Stabilizing disturbance areas through regrading, revegetation, and other restoration

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practices.

Storm flows originating on-site would be retained on-site within the quarry. All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water BMPs. NPDES goals are to eliminate unauthorized non-storm water discharges and to monitor storm water discharges requirements. Water applied to roads and active mining areas to reduce fugitive dust will evaporate and, therefore, the Proposed Project will not produce any run-off during normal operations. Impacts related to water quality and erosion control will be evaluated in an EIR.

b) Less Than Significant Impact. Water will be used for road and mine dust control and will be obtained from existing water wells on MCC owned land (also see this Initial Study Section XVII - d). This water will be hauled in a water truck (Cat 773 or Euclid R-50 typical with 13,000 gallon capacity) and sprayed on the haul roads and active mining area to minimize fugitive dust. During operations, the Proposed Project will increase annual water demand for dust control (roads and quarry) by an estimated 61.3 acre-feet or approximately 55,000 gallons per day. The current cement plant operation and dust control water use has averaged 484 acre-feet/year over the past 10 years. Therefore, the Proposed Project would represent a 13% increase over the most recent 10-year average water production for the existing quarry, dust control and cement plant operations. Note that MCC may also utilize MDAQMD-approved chemical dust suppressants to control road dust, which would reduce water spraying frequency (and therefore water demand and ground water extractions), depending on the results of on-site testing of this method.

A technical report was prepared (*Water Supply Assessment For the Proposed Mitsubishi Cement Corporation South Quarry Mine*, Lilburn Corporation, December 2011) to evaluate the impacts of the Proposed Project on water supply in the region. The Project Site is not within the service area of a public water supplier, but is within the boundaries of the Mojave Water Agency (MWA). MWA is a State Water Project contractor, a regional groundwater management agency, and serves as Watermaster for the adjudicated Mojave Basin. MCC owns four on-site wells on their property and six off-site water wells. Five of these wells are presently used to provide water for dust control and plant operations at the existing mine. This water source will be used to meet water demands of the South Quarry operations. The existing operation's and Proposed Project's water demand would total less than 585.3 acre-feet per year and therefore approximately 52% of MCC's current Free Production Allowance (FPA) of 1,116 acre feet.

Accordingly, the Proposed Project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Nonetheless, these impacts will be evaluated in the EIR due to expected agency and public interest.

c-e) Less Than Significant Impact. MCC would limit surface disturbance to those areas required for the proposed haul road and quarrying operations. Surface disturbance areas that would be subject to potential erosion and sediment loss would be limited through long-range planning, effective design practices, phased development of quarry expansion areas, sequencing of soil removal, and reclamation of disturbed areas. An on-site drainage control system will be subject to County and SBNF review, ensuring that less than significant impacts would occur. Nonetheless, these impacts

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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will be evaluated in the EIR due to expected agency and public interest.

- g, h) **No Impact.** The Project Site does not occur within a 100-year flood hazard area, does not include the construction of housing, and would not place housing within a flood plain. No impacts would occur, and this impact will not need to be analyzed further in the EIR.
  - i) No Impact. The Project Site and surrounding area is located outside of any designated dam inundation area. The Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding, as a result of the failure of a levee or dam, because no levee or dam is proposed as part of this project. No impacts would result, and this impact will not need to be analyzed further in the EIR.
  - j) No Impact. A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. Since the Project site is not located adjacent to any body of water that has the potential of seiche or tsunami, no impacts are anticipated, and this impact will not need to be analyzed further in the EIR.

#### X. LAND USE AND PLANNING - Would the project:

a)	Physically divide an established community?			$\boxtimes$
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?		$\boxtimes$	
S	SUBSTANTIATION:			

# a) **No Impact.** The Project Site is currently vacant and surrounded by open space/forest lands. The Proposed Project is consistent with the County General Plan and would not physically divide an established community. No impacts would result.

- b) No Impact. The Proposed Project is consistent with all applicable land use policies and regulations of the County of San Bernardino General Plan. The Proposed Project is consistent with the San Bernardino National Forest Land Management Plan, with the exception of the scenic integrity objectives. Except to the extent that the scenic integrity objectives are addressed in the Aesthetics Section, this impact will not need to be analyzed further in the EIR.
- c) Less than Significant Impact. The Project Site occurs within the Carbonate Habitat Management Strategy (Olson 2003), a Habitat Conservation Plan for carbonate soil types. Implementation of the

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
	Proposed Project has been designed to be consistent win Nonetheless, these impacts will be evaluated in the Biolog described in Section IV of this Initial Study.				
XI.	MINERAL RESOURCES - Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			$\boxtimes$	
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?			$\boxtimes$	

**SUBSTANTIATION:** (Check if project is located within the Mineral Resource Zone Overlay): MRZ-3a

a-b) Less than Significant Impact. Once mined, a measurement of this resource will be depleted; however, the proposed project is consistent with the County's policy that protects the current and future availability of mineral resources. The primary goal in evaluating a land use that does not include mineral extraction activities is to ensure that the mineral potential of land is recognized and that decision-makers do not preclude the conservation, potential for development and use of the valuable mineral resources including water. Regulation and reclamation of the proposed project site as required by the Surface Mining and Reclamation Act of 1975 (SMARA) will permit the continued availability of the mineral resources and provide for the protection and subsequent beneficial use of those mineral resources while minimizing impacts on the public and the environment.

The State's Guidelines for Classification and Designation of Mineral Lands coincides with SMARA by providing the State Geologist with direction in carrying out mineral resource classification of lands in California that are threatened by uses that will be incompatible with, or will preclude development or conservation of mineral resources. Classification is the process of identifying lands containing significant mineral deposits. Designation is the formal recognition by the SMGB, after consultation with lead agencies and other interested parties, of areas containing mineral deposits of regional or statewide significance. The objective of classification and designation processes is to ensure, through appropriate lead agency policies and procedures, that mineral deposits of statewide or of regional significance are available when needed.

Classification is completed by the State Geologist in accordance with the SMGB's priority list, into Mineral Resource Zones (MRZ). Classification is based on geologic and economic factors without regard to existing land use and land ownership. Within the classifications, "MRZ-3a" is defined as areas that contain identified mineral resources of statewide or regional significance.

The California Department of Conservation Division of Mines and Geology has classified the Project area as MRZ-3a for limestone deposits. In order to mine the 153-acre site, MCC proposes to convey conservation easements and relinquish unpatented mining claims on over 400 acres to compensate

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
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for impacts to carbonate plant species (note that the exact areas and acreages will be determined by the SBNF). These compensation lands also contain unknown limestone reserves; some also classified as MRZ-3a that would be withdrawn from future mining and therefore could be considered a significant impact.

Based on the known geology of the region and drilling conducted in 2009 and 2010, the proposed South Quarry has estimated proven and inferred reserves of over 200 million tons of mostly high to medium grade limestone. This higher grade limestone will be blended with lower grade limestone excavated from the East and West Pits to meet limestone specifications to feed the adjacent Cushenbury Cement Plant for up to 120 years. The Proposed Project due to its adjacent location to the cement plant will utilize existing processing plants and infrastructure and also avoids sensitive plant habitat fragmentation and additional truck hauling impacts.

Therefore, the Proposed Project, while being required to compensate for habitat losses through the withdrawal of some unpatented mining claims, would result in the productive use of a known locally important mineral resource that would be of substantial value to the region and the residents of the State for up to 120 years. This would be considered a less than significant impact. Nonetheless, these impacts will be evaluated in the EIR due to expected agency and public interest.

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- **XII. NOISE** Would the project result in:
  - a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
  - b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
  - c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
  - d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
  - e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
  - f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

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$\boxtimes$		
		$\boxtimes$
		$\boxtimes$

1.	ssues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact

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

- a.c,d) **Potentially Significant Impact.** The Proposed Project would expand operations south onto USFS land. Operations are required to conform with all applicable County noise control regulations. However, noise from the Proposed Project may expose persons to and may result in substantial permanent and temporary increases in ambient noise levels above existing noise levels. Potential noise impacts will be evaluated in an EIR.
  - b) Potentially Significant Impact. Blasting operations would continue to be conducted by licensed individuals in such a manner as to meet or exceed Cal-OSHA requirements. MCC has four licensed individuals on staff. Blasting would typically be conducted twice each week at the South Quarry between the hours of 10:00 a.m. and 6:00 p.m. Monday through Saturday. Note that during the initial construction of the haul road, greater number (up to once per day) but smaller size blasts would occur.

Blasting operations would involve drilling along the mining face, placement of charges, and detonation of the charges by a blaster licensed through the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATF&E) for handling explosives. All explosives and detonators shall be transported, handled, and stored in accordance with all federal, State, and local regulations and permitted under the San Bernardino County Sheriff's Department and San Bernardino County Fire Department pursuant to Uniform Fire Code adopted by the Department. In compliance with County regulations, blasting shall only be conducted by a licensed blaster upon issuance of a blasting permit and a site-specific blasting permit.

Since the Proposed Project is extending into USFS lands, noise and vibration from blasting may cause indirect impacts to special status wildlife species. A discussion of the potential effects of blasting noise and vibration on wildlife will be addressed in the Biological Resources Section of an EIR.

e, f) **No Impact.** The Project Site is not located within an airport land use plan nor within two miles of a public airport or public use airport, or within the vicinity of a private airstrip, that would expose people at the Project Site to excessive noise levels. No impacts from airport-related noise would result, and this impact will not need to be analyzed further in the EIR.

#### XIII. **POPULATION AND HOUSING** - Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

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	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				$\boxtimes$
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				
S	UBSTANTIATION:				

- a) **No Impact.** The Proposed Project would create three new jobs at the site. The Proposed Project would not induce substantial population growth in an area either directly or indirectly. No impacts would result, and this impact will not need to be analyzed further in the EIR.
- b) No Impact. The proposed use would not displace substantial numbers of existing housing units, or require the construction of replacement housing, because no housing units are proposed to be demolished as a result of this project. No impacts would result, and this impact will not need to be analyzed further in the EIR.
- c) **No Impact.** Implementation of the South Quarry would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere, because no housing exists at the Project Site, and this impact will not need to be analyzed further in the EIR.

#### XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?		$\boxtimes$
Police Protection?		$\bowtie$
Schools?		$\bowtie$
Parks?		$\bowtie$
Other Public Facilities?		$\boxtimes$

#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
SUBSTANTIATION:				

a) No Impact. The Proposed Project would not result substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services, including fire and police protection, schools, parks or other public facilities. The Proposed Project would not result in a substantial change in mine production levels, employment, population or housing, and therefore demands for services would not increase. Therefore, no impacts would result, and this impact will not need to be analyzed further in the EIR.

#### XV. RECREATION

a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?		
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?		
	SUBSTANTIATION:		

a-b) No Impact. The Proposed Project does include the addition of three permanent new jobs, which are expected to be filled from the existing population in the region. The Project does not include housing which would induce population growth in adjacent areas, and ultimately increase the use of park facilities or other recreational facilities in the region. No impacts are anticipated, and this impact will not need to be analyzed further in the EIR.

#### XVI. TRANSPORTATION/TRAFFIC - Would the project:

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

	Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact		
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?						
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?						
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?						
e)	Result in inadequate emergency access?				$\boxtimes$		
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety facilities?						
S	SUBSTANTIATION:						

- a-b) **No Impact.** Ore from the South Quarry will be transported to the adjacent MCC cement plant without travel on public roads. In addition, when production commences from the South Quarry, typical mining rates will be decreased at the East and West Pits such that there will not be an overall increase in limestone production at the mining complex, or in cement production at the adjacent cement plant; therefore, the Project will not result in an increase in cement transported on public roads. In addition, the Proposed Project would not result in a substantial number of new jobs. No significant changes in the current levels of truck transportation on public roads would result, and the addition of three permanent jobs will not measurably impact area roads. The Project will not affect mass transit, freeways, pedestrian and bike paths because there are none in the vicinity. Therefore, no impacts are anticipated, and these impacts will not need to be analyzed further in the EIR.
  - c) **No Impact.** Approval of the South Quarry would not affect air traffic patterns at any airport or airstrip because there are none in the vicinity, and because the project does not involve the construction of any tall structures or other obstacles to air traffic and navigation. No impacts would result, and this impact will not need to be analyzed further in the EIR.
  - d) No Impact. Development and operations within the South Quarry would not affect public streets. The Proposed Project does not involve any road development or design features that could substantially increase hazards on public roads, or changes in the transportation of rock or other materials on public roads. Therefore, no impacts would result, and this impact will not need to be analyzed further in the EIR.

issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact	
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e-g) **No Impact**. Activities associated with the Proposed Project would not impede existing emergency response plans for the Project site and/or other land uses in the project vicinity. All vehicles and stationary equipment would be staged off public roads and would not block emergency access routes. In addition, no road closures would be required. The Proposed Project would not involve any long-term increase in traffic that would conflict with adopted policies, plans, or programs supporting alternative transportation. No impacts would result, and this impact will not need to be analyzed further in the EIR.

#### XVII. UTILITIES AND SERVICE SYSTEMS - Would the project:

S	UBSTANTIATION:			
g)	Comply with federal, state, and local statutes and regulations related to solid waste?			
f)	Be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			$\bowtie$
e)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded, entitlements needed?			
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?		$\square$	

a) Less than Significant Impact. There will be no wastewater discharged from the quarry operations. Control of surface drainage, erosion, and sedimentation of the proposed haul road and quarry operations will involve the following primary components currently being implemented for existing operations:

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- Limiting surface disturbance to the minimum area required for active operations.
- Diverting runoff, where operationally feasible, from undisturbed areas around the active operations.
- Using ditches, sediment basins, and localized control and maintenance measures to intercept and control runoff along the haul road.
- Stabilizing disturbance areas through regrading, revegetation, and other restoration practices.

Storm flows originating on-site would be retained on-site within the quarry. All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water BMPs. NPDES goals are to eliminate unauthorized non-storm water discharges and to monitor storm water discharges requirements. Water applied to roads and active mining areas to reduce fugitive dust will evaporate and, therefore, the Proposed Project will not produce any run-off during normal operations. Impacts related to water quality and wastewater will be evaluated in an EIR.

- b) No Impact. The Proposed Project's water demands would be met with the use of groundwater pumped from existing MCC wells that serve the existing mine operations. No expansion of a water system would be required. In addition, the project would not generate wastewater. The only water use will be water applied to roads and active mining areas to control fugitive dust. This water is expected to evaporate, and so will not produce wastewater that needs to be treated, or runoff. No impacts to water or wastewater treatment systems would occur and these impacts will not need to be analyzed further in the EIR.
- c) Less Than Significant Impact. Within the quarry, stormwater from on-site precipitation would be directed to on-site retention basins. All operations on-site would comply with a NPDES General Permit for Storm Water Discharges associated with industrial activities and employ storm water Best Management Practices. The Proposed Project's on-site stormwater system would require approval by the County, ensuring that less than significant impacts will occur. Except to the extent stormwater management is addressed in the Hydrology Section, this impact will not need to be analyzed further in the EIR.
- d) Less Than Significant Impact. A Water Supply Assessment (WSA) was prepared for the proposed South Quarry. The Project Site is not within the service area of a public water supplier, but is within the boundaries of the Mojave Water Agency (MWA). MWA is a State Water Project contractor, a regional groundwater management agency, and serves as Watermaster for the adjudicated Mojave Basin. MCC owns four on-site wells on their property and six off-site water wells. Five of these wells are presently used to provide water for dust control at the existing mine and plant operations. This water source would be used to meet water demands of the South Quarry operations.

During operations, the Proposed Project will increase annual water demand for dust control (roads and quarry) by an estimated 61.3 acre-feet. The current operation's water use has averaged

484 acre-feet/year over the past 10 years. Therefore, the Proposed Project would represent a 13% increase over the most recent 10-year average water production for the existing quarry, dust control and cement plant operations. The water supply will be the existing MCC owned wells which use groundwater pumped from the Este Subarea of the adjudicated Mojave Basin.

The Watermaster for the Mojave Basin, the MWA, in its Watermaster Annual Report for Water Year 2009-10 dated May 1, 2011, indicates that water levels in the Este Subarea have remained stable for the past several years, indicating a relative balance between recharge and discharge. The 2010-11 Free Production Allowance (FPA) for the Este Subarea was recommended to be set at 16,164 acre feet; the 2009-10 verified production was 4,848 acre feet. The Production Safe Yield is 4,729 acre-feet.

The Proposed Project's demand (including water usage for the West Pit under development and minus the water usage for the existing East Pit) of 61.3 acre-feet/year would represent 4% of the minimum Este Subarea groundwater deficit of 1,500 acre-feet projected to occur during a single dry year event, and 2% of the maximum deficit of 3,050 acre-feet.

The existing operation's and Proposed Project's water demand would total approximately 585 acrefeet per year and therefore approximately 52% of MCC's current FPA of 1,116 acre- feet. In the event the reliability of water supplies becomes limited due to State-wide or local hydrologic conditions, MCC could maintain a limitation on its water use to be equivalent or less than 50% of its BPA (50% of 1,299 = 649 acre-feet), if imposed by the Watermaster.

The assessment concluded that the Proposed Project would not have a significant impact on water supply. Nonetheless, water supply impacts will be evaluated in the Hydrology Section of the EIR due to expected agency and public interest.

- e) No Impact. The existing MCC Cushenbury operations are not served by a public sewer system and the Proposed Project would not require sewer collection or treatment services and therefore no offsite discharge of treated wastewater would occur. No impacts related to wastewater treatment would occur.
- f, g) **No Impact.** The Proposed Project would not require any additional solid waste services. Office operations would not increase over existing levels associated with operation of the East and West Pits and therefore solid waste generated on-site would not increase. Waste rock, defined as limestone and other rock not suitable for the manufacture of cement, would be stockpiled within the quarry footprint to eliminate the need for off-site waste rock stockpiles. No impacts would result, and so this impact will not need to be analyzed further in the EIR.

#### XVIII. MANDATORY FINDINGS OF SIGNIFICANCE:

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict

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		Issues	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
_		the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
	b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
	c)	Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?				
	S	SUBSTANTIATION.				

- a) Potentially Significant Impact. A biological technical report was prepared for the Proposed Project to analyze biological resources in the vicinity of the Project site and summarize potential impacts to those resources that may occur as a result of project development. The Proposed Project would affect biological resources including listed carbonate plants by removal of soils, vegetation, and habitat throughout the proposed South Quarry footprint and haul road; and the indirect or off-site effects of dust, noise, and other disturbances to adjacent vegetation and wildlife habitat. Potential impacts to biological resources shall be evaluated in an EIR.
- b) Potentially Significant Impact. This Initial Study has identified potentially significant impacts to aesthetics, biological resources, geology/soils, and noise. Impacts to these identified resources in addition to air quality and greenhouse gases could also be cumulative. Potentially significant cumulative effects will be discussed in the EIR.
- c) **Potentially Significant Impact.** An air quality study was prepared as part of the permit application submittal for the Proposed Project which includes a shift of production from the existing West Pit to a new South Quarry, without an increase in overall mine throughput.

Criteria pollutant emission calculations were performed for the baseline and post-project mine activities, including both the operational and construction phases, and the Proposed Project operational and construction emissions increases were compared with MDAQMD CEQA emissions significance thresholds. Toxic air contaminant (TAC) emission calculations were prepared and a project health risk assessment was performed for each of the operational and construction phases and compared with the MDAQMD CEQA health risk significance thresholds. GHG emission calculations were prepared for the operational and construction phases, and the project GHG emissions were compared with the SCAQMD CEQA GHG significance threshold for industrial projects. All emission levels associated with the Proposed Project were less than adopted thresholds and therefore impacts to human health were determined to be less than significant.

#### MITSUBISHI CEMENT CORPORATION'S SOUTH QUARRY January 2012

The Proposed Project would expand operations south onto USFS lands and would increase the use of haul trucks within the existing East Pit and the West Pit under development. Operations are required to conform with all applicable County noise control regulations. However, noise from the Proposed Project may expose persons to and may result in substantial permanent and temporary increases in ambient noise levels above existing noise levels.

#### **GENERAL REFERENCES**

Air Quality Study Mitsubishi Cement Corporation's South Quarry, AMEC Geomatrix, Inc., July 2011.

Alternative Approaches to Analyzing Greenhouse Gas Emissions and Global Climate Change in CEQA Documents, Association of Environmental Professionals, Final - June 29, 2007.

Assessment of Pit Slope Stability and Hydrologic Conditions, Golder Associates, July 2010.

Biological Resource Assessment, Aspen Environmental Group, August 2010.

Carbonate Habitat Management Strategy, San Bernardino National Forest Association, April 2003.

CEQA Guidelines, Appendix G. as updated through 2011

County of San Bernardino Identified Hazardous Materials Waste Sites List, April 1998.

Cultural Survey for the Proposed South Quarry

Environmental Impact Report for the Cushenbury Mine Expansion, LSA & San Bernardino Co., 2004.

*Envirostor,* California Department of Toxic Substances Control, <u>http://www.envirostor.dtsc.ca.gov/public/search.asp</u>

*Jurisdictional Delineation Report for the South Quarry Expansion Project*, an approximate 572-acre Study Area located in Lucerne Valley, San Bernardino County, California, Glenn Lukos Associates, June 18, 2010.

Land Management Plan, Part 2 San Bernardino National Forest Strategy, USDA, September 2005.

*Plan of Operations and Reclamation Plan for Mitsubishi Cement Corporation's South Quarry, Mitsubishi Cement Corporation & Lilburn Corporation, July 2011.* 

Potential Environmental Impacts to Nelson's Bighorn Sheep and Suggested Mitigation, Vernon C. Bleich, Eastern Sierra Center for Applied Population Ecology, September 2010.

Proposed Mitsubishi Cement South Quarry: Preliminary Biological Resources Assessment, Aspen Environmental Group, August 2010.

San Bernardino County General Plan, San Bernardino County (with updates).

Water Supply Assessment for the Proposed Mitsubishi Cement Corporation South Quarry Mine, Lilburn Corporation, December 2011.