

ATTACHMENT A

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 DESCRIPTION:

USGS Quad:

Devore, California

T,R,Section:

Portions of Sections 9,10,15,
16, 21, and 22
T1N, R5W, SBB&M

Thomas Bros:

Pages 544 & 545, San
Bernardino County maps

Planning Area:

Rialto North City Sphere of
Influence

OLUD:

RC (Resource Conservation)
& FW (Floodway)

Improvement Level: 5

<p>APPLICANT: CEMEX USA Construction Materials, Inc.</p> <p>PROPOSAL: Revision to Reclamation Plan (93M-04) to Increase Project from 870 to 932 Acres</p> <p>COMMUNITY: Rialto North/S2</p> <p>LOCATION: East of Riverside Avenue Between Interstate 15 & Highland Avenue</p> <p>FILE/INDEX: SMAW180-41/ 0239-121-16</p> <p>STAFF: Rich Touslee</p> <p>REP(s): Martin Derus - Lilburn Corporation</p>

INTRODUCTION

Cemex USA Construction Materials, Inc. (Cemex) has submitted an amended Reclamation Plan for its Lytle Creek Quarry located adjacent to the Lytle Creek channel and to the City of Rialto in San Bernardino County (see Figure 1). Extraction and processing operations have occurred at this site since 1954, originally by Service Rock, then by Sunwest Materials and currently by Cemex. In accordance with the approved reclamation plan on file with the County, Cemex currently excavates sand and gravel in the Phases A and C pits located on the north and east side of Lytle Creek under the Location and Development Plan originally approved on 3000 acres in 1954. The current Reclamation Plan (93M-04) was approved in 1994 and subsequently amended in July 1999.

The amended Reclamation Plan describes the reclamation of 615 acres of a total project area of 932 acres. The existing reclamation plan covers an area of 870 acres. This project for an amended Reclamation Plan has objectives as described below.

This Initial Study has been prepared and is being submitted to describe and analyze the potential impacts that could result from reclamation activities on an area of 932 acres. The 932-acre site is currently owned and operated by Cemex. The reclamation plan amendment is proposed pursuant to the Settlement Agreement entered into effective May 16, 1997, between C.L. Pharris Sand and Gravel, Inc (dba Cemex USA, formerly Sunwest Materials) and San Bernardino County.

See FIGURE 1, Location Map (Attached)

PROJECT DESCRIPTION

This amended Reclamation Plan proposal has been prepared in compliance with Section 2772 of the California Surface Mining and Reclamation Act of 1975 (SMARA), as amended, and County of San Bernardino

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Development Code, Division 10, Chapter 1. It was submitted to the County on June 27, 2000 and is intended to cover project reclamation on 932 acres. The existing Reclamation Plan (93M-04, revised July 16, 1999) covers an area of 870 acres and was approved by the San Bernardino County Planning Commission in September 1994 with an effective approval date of August 1, 1995 (see Figure 2). The revised Reclamation Plan, approved July 16, 1999, added 16 acres to the excavation and reclamation limits. The current proposal is to obtain approval for a second amendment to the Reclamation Plan which will conform the reclamation plan limits to the north boundary of the 932 acres of land now owned by Cemex. This area is all within the original 3,000-acre Location and Development Plan approved in 1954. The proposed amendment to the Reclamation Plan is the "project" for purposes of the County's CEQA review. The specific elements of the amended Reclamation Plan are set forth in detail below.

Objectives of the Amended Reclamation Plan

The proposed action is an amendment to Reclamation Plan 93M-04 approved by San Bernardino County in September 1994 (effective August 1, 1995) and revised in July 1999. The principal reasons for this amendment are the following:

1. To incorporate changes in the property boundaries for the mining property of 932 acres currently owned by Cemex – including an addition of 177 acres and deletion of 115 acres of undisturbed mining land which is no longer owned by Cemex. (See Figure 2)
2. To increase the overall approved Reclamation Plan (93M-04) area from 870 acres to 932 acres to coincide with the current Cemex property boundaries;
3. To amend the reclamation boundaries for the excavation areas from the currently approved 354 acres to 478 acres;
4. To designate the excavations and reclamation in Phases A and C and the additional vested areas north and east of Lytle Creek as the North Quarry;
5. To include and update measures to reduce adverse effects from aggregate operations adjacent to, and within the City of Rialto; and
6. To incorporate the as-built North Levee alignment completed on September 30, 1999 and the 37-acre conservation easement.

Background

Mining activities were initiated on this site in 1954 under a lease entered into between Owl Rock Company and Fontana Union Water Company (FUWC). The site was subsequently purchased by Sunbelt Corporation with operations conducted by its subsidiary, Cemex USA Construction Materials, Inc. Because Owl Rock Company obtained a Location and Development Plan covering 3,000 acres approved on September 27, 1954, the Lytle Creek operation is considered a legally established vested operation pursuant to SMARA Section 2776 and a Settlement Agreement between Sunwest Materials and the County¹. As a result of this vesting status, no permits are required to continue extractive operations at this site. The requested application is for modification of a reclamation plan to extend mining onto area currently outside of the reclamation plan limits. In addition, the California Department of Conservation, Division of Mines and Geology has designated most of Lytle Creek, including the project area, as an Mineral Resource Zone 2 (MRZ-2), which is defined as an area where adequate information indicates that significant mineral deposits are present (CDMG 1987).

¹ Settlement Agreement, dated 5/16/97

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aside for SBKR avoidance. A total of 21 acres out of this 37-acre conservation area are included in the 177 acres added by the amended Reclamation Plan. The remaining 16 acres are within the boundary of the existing Reclamation Plan. The amended Reclamation Plan recognizes the existence of the total conservation area of 37 acres and the SBKR set aside of 5 acres (see Table 1).

Reclamation shall be conducted to comply with reclamation standards required by SMARA and with appropriate conditions from approved Reclamation Plan 93M-04, as amended. The amended Reclamation Plan would reclaim the disturbed portions of the project site concurrent with, and following excavations. The North Quarry (375 acres) will be mined to a uniform depth of 100 feet and reclaimed with a combination of 2H:1V and 3H:1V slopes. The total area to be reclaimed is approximately 615 acres and includes the North Quarry, the Phase B quarry, the settling ponds, and the process plant area (refer to Table 1 and Figures 3 and 4).

Within the property site are many areas not disturbed by mining nor planned to be disturbed by future mining. Areas not to be actively disturbed by mining related activities and reclaimed by Cemex include the active Lytle Creek flood control channel and levee system, the conservation easement and SBKR set aside for biological resources, the south well field, Well 32/ground water recharge area, the area northwest of Phase B outside the ACOE levee utilized for public water supply wells and surface water recharge, and the southeast end of Phase B not disturbed by mining. These areas total approximately 317 acres and are also listed in Table 1 and Figure 4. The proposed term of the amended Reclamation Plan is 26 years.

**TABLE 1
PLANNED RECLAMATION AREAS**

OPERATIONAL AREAS TO BE RECLAIMED	ACRES
North Quarry	375
Phase B (80 of 103 acres)	80
Settling Ponds	55
Processing Plant Area	105
Total Area To Be Reclaimed	615
AREAS NOT TO BE RECLAIMED	
Conservation Easement ¹	37
SBKR Set Aside ¹	5
South End of Phase B (South of Main Haul Road) ²	23
South Well Field ³	35
Area Northwest of ACOE Levee ⁴	35
Well 32 / Ground Water Recharge Area ⁴	70
Lytle Creek Wash ⁵	112
Total Area Not To Be Reclaimed	317
TOTAL PROPERTY SITE	932

Notes

1. Undisturbed areas set aside for conservation of biological resources.
2. Area undisturbed by mining operations and not planned to be mined in future.
3. Public water supply wells with access roads operated by FUWC; not disturbed by mining operations.
4. Areas used for surface water recharge activities (water spreading basins) and one well by FUWC; not disturbed by mining operations.
5. Active wash channel with seasonal flows; not disturbed by mining operations.

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See FIGURE 4, Reclamation Plot Plan (Attached)

Revegetation of the recontoured final slopes and basin floors, as well as monitoring of revegetation activities and results, will be initiated and completed as areas are mined out in the North Quarry. Reclamation of the recontoured final slopes and basin floors as well as monitoring of reclamation activities and results will be initiated as follows: 25 percent at 50 percent of excavations; 50 percent at 75 percent of excavations; and 100 percent within two years of completion of the final excavations. Slopes and the basin floor will be cross-rippled with rills graded along the contour to allow for collection of seeds and water and to reduce erosion, and then seeded with native species. An alternative revegetation method would be to treat the surface with an imprinter to cover the seeds and provide pockets for water collection in order to aid in seed survival and germination.

Final reclamation will consist of finish contouring of slopes and the pit floor. Equipment and refuse will be removed within six months. Access into the quarries will be restricted by locked gates, rock barricades, fencing and safety berms along the rim. The settling pond area will be allowed to dry and any steep slopes pushed to 2H:1V or less. The area will be covered with one foot of native alluvium material and revegetated. Compacted areas to be revegetated, including the process plant facilities (if closed) and most haul roads, will be scarified to a depth of one foot to promote plant growth and revegetation. The plant site may remain in use after the termination of excavations subject to County regulations at that time.

The reclaimed end use of the project site will be open space and wildlife habitat. The excavated basins will create the potential for future ground water recharge. The Fontana Union Water Company (FUWC) and San Gabriel Valley Water Company (SGVWC) hold "a perpetual easement on the project area to spread water for percolation and to maintain waterworks and facilities in connection therewith" and may or may not exercise these rights in the future. FUWC operations would typically consist of creek water being transported via existing and/or upgraded diversion structures (dikes, pipes, culverts) to the excavated recharge basins. The quantity of water diverted would be controlled so that predictable recharge could occur in keeping with the needs of the FUWC and current and future ground water conditions. Two diversionary structures are incorporated into the levee to allow for low flows from Lytle Creek to enter the post-mining quarry areas for ground water recharge. The water companies would be responsible to operate and maintain present and future water percolation activities. Pursuant to the easement, the project area is available for use for water recharge activities by FUWC, but Cemex will not operate or maintain ground water recharge facilities.

As additional elements to the project, Cemex will provide landscaping, road improvements, and other measures to lessen the effects of ongoing operations on the surrounding community. Because vested mining rights apply to the operations, these additional elements are not subject to County review under this amended Reclamation Plan. Nonetheless, in accordance with the Settlement Agreement between the County and the project applicant dated May 16, 1997, the approval of the amended Reclamation Plan shall be conditioned as follows:

1. Prepare a lighting study and implement recommendations to reduce potential light and glare impacts on surrounding residential development.
2. Widen Riverside Avenue for Approximately 720 feet north of the driveway to accommodate a northbound acceleration lane to a point where Riverside Avenue widens to 4-lanes at Life Tile.
3. Widen southbound Riverside Avenue north of the driveway to provide a left turn pocket lane for 240 feet;
4. Widen northbound Riverside Avenue south of the driveway to accommodate a right turn only lane for approximately 500 feet;

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See FIGURE 2, Property Site and Reclamation Plan boundary Changes (Attached)

Existing Operations

Existing mining and processing operations on the project site have resulted in surface disturbances including several quarries, aggregate process plant operations, ready mix concrete facility, scale house, repair shop, various buildings for offices and employees, and the Lytle Creek flood control channel (Assessor's Parcel Number 239-121-16) within the jurisdiction of San Bernardino County (refer to Figure 1). The project site is located within the Lytle Creek Wash, approximately three miles southwest of the community of Devore and about one-half mile east of the City of Rialto. The project site includes an area of approximately 932 acres on lands owned by Cemex USA with frontage on Riverside Avenue adjacent to the City of Rialto. Current operations at the site include aggregate extraction, material processing, concrete and intermittent asphalt batching, and aggregate recycling. Approximately 735 acres of the site are considered disturbed including the naturally disturbed wash areas, the plant site, levees, dikes, roads, water wells, water conveyance and recharge ponds, and settling ponds. The portions of the site disturbed by mining and processing operations include: the various quarries mined, the process plant area, and the settling ponds which together constitute approximately 412 acres of the total 735 disturbed acres.

Cemex will continue to mine using methods in the manner and progression of activity similar to the ones utilized since the 1950s. Extraction is currently allowed in four phases on approximately 354 acres according to the approved Reclamation Plan. At present, there are four existing quarry areas located within the project site, one on the north side of the Lytle Creek channel (Phases A and C) and three on the south side (Phase B, Phase D, and an un-designated previously mined quarry now used as a settling basin). The planned Phase D area has not been mined in the past and most of this area is now located outside of Cemex ownership.

The current active excavations are located in Phases A and C in the northern and eastern half of the project site, totaling approximately 172 acres (see Figure 3). This area is currently excavated to a maximum depth of approximately 100 feet at its upper or northwestern end and daylighted (mined to grade elevation that matches existing topography) at its lower or southeastern end. These two phases are nearing exhaustion of reserves within the scope of the currently approved Reclamation Plan.

Aggregate materials are mined by front-end loaders and transported by off-road haul trucks along a haul road to a stockpile and processing plant area located in the southwestern portion of the site. Other equipment used in the extraction operation include water trucks, graders, and dozers.

Phase B is located directly southwest of Phase A, across the Lytle Creek channel, and consists of approximately 103.5 acres, of which about 68 acres have been excavated. This rectangular quarry is currently inactive and has been excavated to a depth of approximately 75 feet at its upper end. The previously approved Phase D area (78.6 acres) upstream or to the northwest of Phase B has not been mined and is partially disturbed by flood control facilities and groundwater spreading basins. Approximately 60 acres of this previously approved quarry are now outside of property owned by Cemex. Another previously mined quarry, located south of Phase B, is an undesignated oval shaped quarry of approximately 55 acres. This quarry is inactive and is presently used as settling basins for process water from the aggregate processing plant. Upon settlement, water is recycled from the basins for reuse in the plant.

The existing Lytle Creek flood control channel with the recently completed soil cement North Levee separates Phases A and C from Phases B and D. The channel's bottom width is approximately 600 feet wide (650 feet from levee to levee) and encompasses approximately 112 acres within the project site. Cemex constructed and completed the engineered soil/cement North Levee per Condition # 37 of the approved Reclamation Plan on September 30, 1999.

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The existing processing plant area in the southwestern portion of the site houses a crushing/screening facility, a ready mix concrete plant, occasional asphalt and aggregate recycling operations, shop facility, a scale house, and sales office. This area totals approximately 105 acres.

See FIGURE 3, Existing Conditions and Planned Mining (Attached)

Ongoing Operations

Cemex finished constructing the North Levee on the north/east side of the wash per Condition #37 of the current Reclamation Plan. The North Levee is approximately two miles long, occupying 14 acres, and was completed on September 30, 1999. Cemex has also established a conservation easement on 36.8 acres in the southeast portion of the project site as mitigation required for the 404 and 1603 permits required by the Army COE and the CDFG, respectively. The North Levee and the conservation easement area are included within the 932 acres subject to amended Reclamation Plan.

Extraction operations are ongoing within Phases A and C and will expand to a maximum area of approximately 375 acres, combining the previous Phases A and C (refer to Figure 3). The combined quarry is being renamed the North Quarry and will be excavated to a maximum depth of 100 feet. Estimated reserves for this excavation are approximately 35 million tons, based on 1.8 tons per cubic yard. Setbacks of 100 feet will be established from property northwest of the project site. Pursuant to an existing agreement between Cemex and the neighboring property owner, Lytle Development Company (LDC), LDC has the opportunity to construct a landscape buffer along the northwestern portion of the North Quarry, partially within the 100-foot setback. A 50-foot setback with a 5-foot high safety berm and 3-strand 6-foot high wire fencing will be constructed along the northeast boundary, and along the northwest boundary of the North Quarry if the landscape buffer is not constructed. All slopes will be constructed at 2H:1V (Horizontal:Vertical) except for the northwestern or upstream slope, which will be constructed at 3H:1V. Reclamation of the North Quarry will commence as portions of the slopes are excavated to final grade. Future excavation will continue in the same manner of excavation as historically done, resulting in an open pit configuration that daylight at natural grade at the southeast (downgradient) pit boundary.

At no time will excavations be allowed in standing or exposed groundwater. Mining is restricted to the hours of 7 a.m. until 7 p.m. for excavations conducted within 500 feet of any occupied residential areas. This limitation shall not apply to repair and maintenance operations. The hours may be exceeded for excavations conducted pursuant to federal, state or local government contracts entered into in response to a state of emergency. Normal operations consist of two operational shifts and one maintenance shift.

Elements of the Amended Reclamation Plan

The mining site now owned by Cemex includes a total of 932 acres. As the existing Reclamation Plan covers a total of 870 acres, the requested revision is for a net addition of only 62 acres. The net increase results from the addition of approximately 177 acres on the north/east side of the creek and the deletion of approximately 115 acres of land undisturbed by mining located south/west of the creek, which no longer belong to Cemex. Out of the additional 177 acres, 151 acres will be mined, as 36.8 acres of these areas will be permanently dedicated to open space for habitat conservation. A total of 203 acres will be newly mined on the north/east side of Lytle Creek in accordance with the amended Reclamation Plan, comprised of the 151 acres described above, and 52 acres within the existing Reclamation Plan boundary. This new mining will be reclaimed pursuant to this amended Reclamation Plan, and is located immediately adjacent to the current active aggregate excavations (see Table 1).

Since the approval of the existing Reclamation Plan, and in connection with the construction of the North Levee, Cemex has placed 37 acres of land into a permanent conservation area and 5 acres have been set

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5. Widen southbound Riverside Avenue for approximately 500 feet south of the driveway to provide an acceleration lane;
6. Pave the Cemex driveway from Riverside Avenue northeast for a distance of approximately 400 feet and width of 40 feet.
7. Conduct an acoustical survey annually in areas close to occupied residential areas. Noise emanating from the processing and extraction operations must be in compliance with the noise standards contained in the County's Noise Ordinance. Cemex will take such steps as are necessary to reduce noise levels that exceed the County's Noise Ordinance for any continuous two-hour period.
8. Excavations, processing, and reclamation operations shall be restricted to the hours of 7:00 a.m. until 7:00 p.m. for any operations conducted within 500 feet of any residential dwelling unit. This limitation shall not apply to repair and maintenance operations. The hours may be exceeded for operations conducted pursuant to federal, state or local government contracts entered into in response to a state of emergency, or for periods of peak period power outage, which results from shortfalls in electrical power supply.
9. Plant a windrow of trees approximately 2,000 feet in length beginning at the southeast corner of the property near the entrance and ending at a point midway around the curve of the MWD property, to screen views.
10. Install strobe lights for use during night operations on all off-road equipment as allowed by Mine Safety and Health Administration (MSHA) and California Division of Occupational Safety and Health (Cal OSHA).
11. If development of the Villages at Lytle Creek project is approved, the primary vehicular access to Cemex's property will be relocated to the intersection of Locust Avenue and Riverside Avenue concurrent with street improvements proposed by that project.
12. Following relocation of the primary vehicular access, all commercial trucks exceeding 20,000 pounds gross vehicle weight will utilize Locust Avenue instead of Riverside Avenue. This truck routing plan is contingent upon the following:
 - Completion of street improvements to the extension of Locust Avenue north of Riverside Avenue (to be completed by the Villages at Lytle Creek),
 - Street improvements to Locust Avenue are sufficiently adequate that the Cemex truck traffic would not reduce the LOS on Locust Avenue below the minimum acceptable operating condition acceptable to the City of Rialto.

Exceptions to the revised truck routing plan include:

- Local deliveries in an area bounded by Highland Avenue, Sierra Avenue, and Lytle Creek Channel;
 - Deliveries and returns from north of the plant accessing the I-15 Freeway northbound at Sierra; and
 - Maintenance vehicles.
13. Cemex will contribute to traffic mitigation for Locust Avenue by supplying material to the City of Rialto at a discount rate (if the City makes the improvements to Locust Avenue). Cemex shall pay for signalization and landscape entry improvements of Locust Avenue at Riverside Avenue concurrent with improvements by the Villages at Lytle Creek.

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14. Cemex will participate in a landscape maintenance program for the Locust Avenue/Riverside Avenue intersection. The level of participation will be 25 percent for the maintenance from the intersection to the point of exclusive use, and 100 percent for maintenance of the exclusive use portion.
15. Cemex, at its own expense, will pay for paving of the Locust Avenue access (northeast of Riverside Avenue) from the point of their exclusive use to 100 feet within their mining property boundary in order to reduce the particulate emissions and carryout resulting from trucks using this road. Paving will occur at such time as Cemex relocates its entrance to Locust Avenue.
16. Operational areas west/south of the Lytle Creek channel will be fenced by six-foot chain link fencing. All fencing will include warning signs.
17. An eight-foot high chain link fence topped by a triple strand of barbed wire would be placed within 20 feet of the top of the quarries adjacent to any future residential planning areas.
18. Cemex, in cooperation with LDC, will allow the construction of a landscape buffer within Cemex's 100-foot setback along the northwestern boundary of the North Pit. Cemex will provide a one-time hydroseeding of the slope as part of a landscape buffer upon completion of said berm by LDC.

ENVIRONMENTAL/EXISTING SITE CONDITIONS

Lytle Creek forms a wide wash in the vicinity of the project site, about two miles southeast of where the creek exits the narrow confines of Lytle Creek Canyon. The creek drains an extensive watershed on the eastern slopes of the San Gabriel Mountains. The creek can carry large flood flows during peak runoff.

The project site consists of a series of alluvial terraces that have been deposited, reworked, and dissected by the flood cycles of Lytle Creek. The Wash area has been altered both on- and off-site by man's activities for decades including flood control levees, ground water percolation basins, wells, mining, fire control, and sheep grazing. The construction of I-15 north (upstream) of the project site, along with Army Corps of Engineers and Cemex's flood control levee construction, have permanently altered the hydrologic regime affecting the project site. The flows from upstream are directed to a designed channel leaving much of the project site unaffected by all but the largest flows.

Of the 177 acres added to the Reclamation Plan area outside the existing Plan area, approximately 151 acres have been disturbed by fire and/or clearing brush for fire control, the Sheriff's bomb disposal and training area, dirt access and haul roads, sheep grazing, and to define property limits. 21 acres have been set aside as a conservation easement for habitat preservation of listed species, waters of the United States, and alluvial fan sage scrub. An additional 5 acres adjacent to the conservation easement are also being set aside for potential San Bernardino kangaroo rat habitat as recommended by SJM Biological Consultants. The other 52 acres within the existing Plan area to be added to the amended reclamation area, have also been disturbed in the past as mentioned above. Table 2 lists the disturbed and undisturbed areas within the 932-acre amended Reclamation Plan area. Areas defined as undisturbed have not experienced major land activities such as mining, levees, wells, recharge basins, grading, and active flood channels; however, these areas may have been impacted by fire, grazing, and some roads, with natural revegetation.

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TABLE 2
EXISTING CONDITIONS OF THE
AMENDED 932-ACRE RECLAMATION PLAN AREA

AREA DESCRIPTION	TYPE OF DISTURBANCE	DISTURBED AREAS (Acres)	UNDISTURBED (Acres) ¹
Phase A	Mined	125	---
Phase C	Mined	47	---
Phase B	Mined	80	23
Processing Plant	Plant Operations	105	---
Settling Ponds	Mined, now used as ponds	55	---
SUBTOTAL	Area disturbed by mining operations	412²	---
Area to be added to Phases A & C to form the North Quarry and eventually mined	Disturbed by fire, fire control, grazing, sheriffs' training	203 ²	---
Conservation Easement	Flooding, grazing	---	37
SBKR Set Aside	Flooding, grazing	---	5
South Well Field	Wells, access roads	20	15
Well 32, Recharge Basins	Well, recharge basins, levee, roads	45	25
Lytle Creek Channel	Flooding, levees	112	---
Area Northwest of ACOE Levee	Flooding, recharge basins	15	20
TOTAL AREAS		807	125

Notes:

1. Undisturbed areas partially disturbed by natural flooding, sheep grazing, and roads, with natural revegetation.
2. Areas disturbed (412 acres) and to be disturbed (203 acres) by mining related activities that will be reclaimed under the amended Reclamation Plan or the "project".

On-site activities have resulted in the clearing of vegetation over most of the project site at one time or another. The consequences of the altered hydrologic regime and historic land use practices are the artificial creation of a successional sequence of plant cover reflecting the amount of time since disturbance (flood, fire, clearing). The vegetation on-site does not constitute a true plant community due to the influence of man, but rather is a mosaic of various stands of disturbance adapted plant species. The natural vegetation prior to alteration was a alluvial sage scrub community that developed into a chamise chaparral community in the absence of flooding and fire.

Typical plant species characterizing disturbed areas include: deer weed (*Lotus scoparius*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), mustard (*Brassica* sp.), red-stem filaree (*Erodium cicutarium*), wild oats (*Avena* sp.) pygmy weed (*Crasula connata*), red brome (*Bromus madritensis* ssp. *Rubens*), rip gut (*B. diandrus*), foxtail fescue (*Vulpia myuros*), Mediterranean grass (*Schismus barbatus*), phacelia (*Phacelis* sp.), sun cup (*Camissonia* sp.), and others.

Typical plant species in less-disturbed or undisturbed areas include some combination of following: yerba santa (*Eriodictyon trichocalyx*), chamise (*Adenostoma fasciculatum*), scale broom (*Lepidospartum squamatum*), matchweed (*Gutierrezia californica*), groundsel (*Senecio douglasi*), red berry (*Rhamnus crocea*), California buckwheat, California sagebrush, black and white sage (*Salvia mellifera*, *S. apiana*), yucca (*Yucca* sp.), valley cholla (*Opuntia parryi*), as well as the species described above for disturbed sites.

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Existing surrounding land uses consist of the County Sheriff's training facility, Glen Helen County Rehabilitation Facility, and open space/flood plain/Lytle Creek Wash to the northeast and northwest; scattered industrial activities to the west; housing development approximately 4,500 feet to the southwest of the proposed amendment area, west of Riverside Avenue; and an active sand and gravel operation (CalMat) 2 miles to the southeast (see Table 3 and Figure 5).

LDC had proposed the Villages at Lytle Creek, a mixed use development project, which consisted of approximately 2,700 acres of residential, commercial, and industrial development immediately adjacent to the project site to the west, south and northwest. This mixed use development plan was submitted to the City of Rialto and a Draft Environmental Impact Report was circulated in 1997. An amended Reclamation Plan for the project site was part of this overall project. LDC has since withdrawn the Villages project from the City of Rialto and submitted a planned residential development in the area northwest of the project site to the County of San Bernardino. This project, the Lytle Creek North Planned Development, consists of 2,466 dwelling units, 45 acres of mixed use, public facilities, parks, and open space on 647 acres. A Notice of Preparation of an Environmental Impact Report (EIR) was circulated dated September 3, 1999 by the County Land Services Department and an DEIR is expected to be available in late Spring, 2001.

Existing land uses and designated districts and improvement levels for the area surrounding the project site are shown in the following table (see Table 3).

**TABLE 3
EXISTING LAND USES, DESIGNATED LAND USE DISTRICTS,
AND IMPROVEMENT LEVELS FOR AREAS SURROUNDING
THE LYTLE CREEK WASH AMENDED RECLAMATION PLAN**

Location	Existing Land Use	Official Land Use District	Improvement Level
On-Site	Aggregate Operations	Floodway	5
North	Vacant/Flood Plain & Lytle Creek	Floodway	5
South	Vacant/Flood Plain & Lytle Creek	Floodway	5
East	Glen Helen Rehabilitation Center, & Sheriff's Training Center	Institutional	3
West	Industrial	Within City of Rialto Zoning	NA

See Figure 5, Surrounding Land Uses (Attached)

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

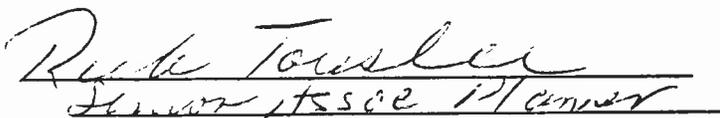
- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Air Quality | <input checked="" type="checkbox"/> Aesthetics | <input type="checkbox"/> Biological Resources |
| <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology /Soils | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use/ Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities / Service Systems |

Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

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

- The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION 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 by)

Date 2/07/01

ATTACHMENT A

For Randy Scott By RT
Advance Planning Chief
Signature
For Land Use Services Director

Date 2/07/01

ATTACHMENT A

Potentially Significant Impact	Less than Significant with Mitigation Incorp.	Less than Significant Impact	No Impact
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ENVIRONMENTAL EVALUATION

I. AESTHETICS — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

SUBSTANTIATION (check X if project is located within the viewshed of any Scenic Route listed in the General Plan):

- a-c) The existing visual environment will not change substantially from current conditions due to the ongoing excavation and reclamation of the site. Cemex will continue to mine using methods similar to the those utilized onsite since the 1950s. Approximately 735 acres of the existing 870-acre existing Reclamation Plan are considered disturbed, of which about 412 acres have been disturbed by mining related activities (refer to Table 2). The excavation area to be reclaimed under the project will increase from 354 acres to 478 acres. The North Quarry will increase by 203 acres. This area has been previously disturbed by fire and the previously existing plant community cleared without proper permits for purposes of brush/fire control. The Sheriff's bomb disposal and training area was established, dirt access roads graded, sheep grazing, and defining of property limits has also occurred. The approval of the amended Reclamation Plan will remedy these prior actions. Phase D (79 acres) will be eliminated and therefore the total net increase of areas to be included in the reclamation plan is 124 acres. The remaining disturbed areas will not change due to the amended Reclamation Plan.

The North Quarry, consisting of Phases A and C, in part, and additional vested lands, is and will be excavated below grade and is not highly visible by the public due to a variety of factors. These factors include its remote location, low relief in the project vicinity, and subgrade nature of the operations. Cemex's plans provide for continued mining in the North Quarry to a maximum depth of 100 feet, also below grade, and not highly visible by the public. The amended Reclamation Plan will serve to reduce the level of potential impacts to open space and scenic resources through slope grading of excavated slopes, reclamation of the settling ponds, and the revegetation program proposed for areas disturbed by mining related activities as listed in Table 1. These reclamation provisions will reduce visual impacts by blending the disturbed areas with the background vegetated areas. Due to the factors listed above, visual impacts resulting from the amended reclamation plan are not considered to be significant.

The Lytle Creek North Planned Development proposes residential uses northwest and adjacent to the North Quarry. As part of its project design and pursuant to an agreement between LDC and Cemex, LDC has agreed to construct a residential-mining landscape buffer prior to development of the residential units as

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shown on Figure 5 in the amended Reclamation Plan. This berm is designed to eliminate visual impacts from the proposed residential project with landscaped setbacks of approximately 140 feet and a 20-foot high berm. LDC would construct the 120-foot wide berm, of which 80 feet at a 4:1 slope would be on Cemex property within the planned 100-foot setback. Cemex would hydroseed the berm one time. Construction of the visual screening berm in advance of residential development would eliminate the potential for significant visual impacts.

- d) Reclamation of the project site will not add new light or glare. Light sources from the existing aggregate processing plant would continue for security, safety and night-time operations. As a standard measure for ongoing operations, lighting sources would be directed away from adjacent properties. Cemex will implement the following measure as part of their updated operational procedures as an element of the project proposal:
- Prepare and implement a lighting plan for the project site. Such lighting plan shall direct fixed lighting away from surrounding uses. Cemex shall submit a lighting plan within 90 days of the amended Reclamation Plan approval. The lighting plan will be implemented within six months of reclamation plan approval.

MITIGATION: None required.

SIGNIFICANCE: The impacts associated with Aesthetics are less than significant.

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

a-c) The project site does not include important soil resources or agricultural uses.

MITIGATION: None is required.

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SIGNIFICANCE: The impacts associated with Agriculture Resources are less than significant.

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

- | | | | | |
|---|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| a) Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

a-d) The existing current excavations and processing activities are legally established ongoing activities that provide the baseline of environmental impacts. The amended Reclamation Plan will not result in an increase in the rate of extraction or processing over existing baseline levels, therefore, no substantial increase in extraction, processing or traffic related emissions are anticipated.

The reclamation activities being considered in this amended Reclamation Plan will contribute to air emissions and cumulatively to deterioration of regional ambient air quality. However, this impact is mitigated to a level of non-significance by implementation of the dust suppressing mitigation from the approved Reclamation Plan included in the Mitigation Monitoring and Compliance Program (MMCP) and with additional mitigation listed below. Mitigation measures are also presented in Section XVIII of this Initial Study.

Specific road improvements related to ongoing operations are discussed in Section XV. Cemex has voluntarily agreed to improve and modify its existing driveway access and the adjoining portion of Riverside Avenue for ongoing trucking operations, subject to approval with the City of Rialto and to its ability to acquire any required right-of-way owned by third parties. These improvements will reduce dust and exhaust emissions by decreasing idling times at the driveway intersection and by providing acceleration and deceleration lanes on Riverside Avenue. The widening of the roadway would eliminate dust from trucks driving onto unpaved shoulders.

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In addition, Cemex shall move stockpiles of fine material from their location adjacent to MWD property to use as backfill for mined out portions of the Phase B mining area. These fine materials will subsequently be subject to reclamation in accordance with the requirements of the approved reclamation plan.

With implementation of the Fugitive Dust Emissions Control Plan in compliance with South Coast Air Quality Management District Rule 403, and other air quality mitigation and operational measures, air quality impacts would be reduced to below a level of significance.

- e) The reclamation of the site is not expected to create objectionable odors because reclamation will consist of short term regrading and revegetation efforts.

MITIGATION:

E-1. To mitigate the short-term effects of the reclamation activity, Cemex shall maintain adequate dust control measures such as regular wet sweeping on paved driveways, and adjacent public streets and/or applying biodegradable dust-binding agents on unpaved roads.

AQ-1. Cemex shall continue to comply with SCAQMD Rule 403 which requires the preparation, approval, and implementation of a fugitive dust emissions control plan.

SIGNIFICANCE: The mitigation above will reduce project impacts to Air Quality to less than significant.

IV. BIOLOGICAL RESOURCES — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

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

Biological resources surveys of the project site have been conducted to comply with existing conditions of approval and the Federal and State Endangered Species Acts. These surveys determined the presence/absence of sensitive plant and wildlife species and were conducted by Michael Brandman Associates in September 1995, by Lilburn Corporation at various times from 1994 through 1998 in compliance with the existing Reclamation Plan conditions, and by Campbell BioConsulting in February – March, 2000 (see Appendix A). Additional biological information is included in the Revegetation Plan and in a Biological Resources Assessment (November 1994). Supplemental surveys for the endangered San Bernardino kangaroo rat and the endangered Quino Checkerspot Butterfly were conducted and these reports are attached. No suitable habitat for these two species occurs on the additional areas planned for excavation and reclamation, subject to mitigation measures prescribed below. As such, no significant impacts would be expected.

- a. Biological resource surveys did not record any listed plant species such as the Santa Ana River woollystar and the slender-horned spineflower. Several Plummer's Mariposa lilies were found in the north central portion of the site and along Sycamore creek in 1997, but were not located in 2000.

The existing and adjacent undisturbed or partially disturbed site vegetation consists of the following plant communities:

- Riversidian alluvial fan sage scrub
- Riversidian sage scrub
- Chamise chaparral
- Mulefat scrub
- Barren wash

The project site supports species typical of the Chamise Chaparral community. On-site disturbed areas have/have had: deer weed, California buckwheat, California sagebrush, mustard, red-stem filaree, wild oats, pygmy weed, red brome, rip gut, foxtail fescue, Mediterranean grass, phacelia and sun cup. Typical species in undisturbed areas include some combination of yerba santa, chamise, scale broom, matchweed, groundsel, red berry, California buckwheat, California sagebrush, black and white sage, yucca, and valley cholla. Sensitive reptilian species that may occur onsite include the coastal western whiptail, San Diego horned lizard, silvery legless lizard, coastal rosy boa, and two-striped garter snake. Onsite habitat for the California gnatcatcher is marginal as the project site is at the northern boundary of the known species range. Site specific surveys for the California gnatcatcher were conducted by Michael Brandman in 1994 and for the levee area by Sweetwater Biological Consultants in March - April 1996. No

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California gnatcatchers were observed in the project area and habitat onsite was rated marginal. No suitable habitat exists for least Bell's Vireo on this site. California horned lark and loggerhead shrike occur onsite.

The San Bernardino kangaroo rat was listed as endangered on September 24, 1998. Subsequently, the proposed amended Reclamation Plan area was surveyed for the presence or absence of SBKR by Stephen Montgomery Associates in May 1998 and again in March 2000 per USFWS protocols. The survey results are included in their report "Results of a Live-Trapping Study for the San Bernardino Merriam's Kangaroo Rat on the 470-acre Lytle Creek Project" (for the North Pit Area) (see Appendix B). The initial survey found that habitat conditions vary greatly depending on the intensity and type of disturbance that has occurred onsite. The report states "most of the property has been disturbed by excavation or grading activities; approximately 5 percent (at most) of the site remains in relatively undisturbed condition." Disturbed areas exhibit some form of disturbed grassland or early stage regrowth of sage scrub or alluvial fan scrub vegetation. Trap lines were established in 14 locations across the property exhibiting at least some potential for SBKR or with obvious kangaroo rat burrows and sign. A total of 1,782 trap-nights was accrued during the six-night effort between May 10 and 17, 1998.

Only one SBKR was captured during the 1,782 trap-night survey effort. The location of the capture was in the extreme northwestern corner of the project, within the wash. This animal was captured only once. The most commonly captured small mammal species at the site were deer mouse and the Pacific kangaroo rat. Other species captured included the San Diego desert woodrat, the cactus mouse, and the Northwestern San Diego pocket mouse. The report concluded that the heavy disturbance over most of the project site renders the habitat unsuitable for the SBKR. The only remaining areas with a potential for this species occur in the eastern end of the site within the 36.8-acre conservation easement (though none were captured despite intensive trapping) and within portions of the active wash channel.

The June 2000 SBKR study included 875 trap nights at seven sites exhibiting suitable habitat or kangaroo rat sign. The report's conclusion is similar to the 1998 report that the heavy disturbance over most of the property renders the habitat unsuitable for the SBKR. Two SBKR were captured offsite to the southeast of the boundary of the excavation area, in the existing conservation area. No SBKR were captured within the excavation area boundary. However, suitable SBKR habitat does exist in the extreme southeastern portion of the survey area immediately adjacent to the conservation easement that produced the two SBKR. Due to the presence of SBKR in the adjacent conservation area and the presence of suitable habitat in that (southeastern) portion of the project area, the latter area is considered occupied by SBKR. Excavation should not occur within 150 feet of the occupied SBKR habitat (see Appendix B, March 2000 Study, Figure 3). Therefore, excavations have been redesigned to avoid an additional five acres or a triangular area 500 feet to the northeast of the northern portion of the conservation easement.

The permitted mining of the additional areas of the amended Reclamation Plan will affect mostly disturbed lands except for scattered pockets of habitat. Within some of these pockets, approximately seven Plummer's mariposa lilies were recorded in 1997. To protect this species, mitigation measure B-1 is recommended prior to clearing undisturbed areas for mining.

The operator must comply with the Federal and State Endangered Species Acts with or without this amended Reclamation Plan. Prior to clearing, Cemex shall survey the unmined areas of the North Quarry deemed to have potentially suitable habitat for the California Gnatcatcher per USFWS protocols. If California gnatcatchers are present, Cemex will be required to comply with the Federal Endangered

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Species Act during all operations onsite as regulated by the USFWS and implement measures required by the USFWS.

In addition, Cemex has designated a portion of the North Quarry excavation and reclamation areas to be left undisturbed in order to avoid potential habitat of the SBKR per recommendations of the SBKR Report by Stephen Montgomery and Associates (Figure 2).

The amended Reclamation Plan requires Cemex to reclaim, stabilize and revegetate disturbed operational areas as stated in the Plan. The additional area to be mined under the amended Reclamation Plan is generally disturbed. SBKR captured onsite were within the Wash or conservation area which will not be mined. The additional 5-acre buffer area has been set aside for potential SBKR habitat. Impacts to potential habitat for the SBKR and the gnatcatcher for the levee construction were compensated through the ACOE 404 permit review and Cemex has set aside 36.8 acres in the northeast portion as a conservation easement. No other listed species occur onsite.

Activities under the amended Reclamation Plan would not have significant impacts on biological resources because of extensive existing surface disturbances, the establishment of the conservation easement and SBKR set aside, the implementation of mitigation measures, and the extensive reclamation and revegetation of the site. In addition, all surface disturbances will occur through the legally established mining operation prior to reclamation. Reclamation and revegetation activities would not contribute to possible impacts to these resources, but instead would enhance the disturbed operational areas creating vegetation favorable for native animal and plant species to re-inhabit.

Measures incorporated in the project design include the establishment of conservation easements to preserve known habitat and areas occupied by endangered species. Through establishment of the conservation easement to protect identified species, impacts are avoided. No other conflicts with endangered species have been identified. Revegetation to native habitats on post mining lands will provide the opportunity for endangered species use following mining. This project feature enhances the long-term utility of the site for wildlife use.

The majority of the area covered by the amended Reclamation Plan has been disturbed in the past years by fire and/or cleared for fire control, sheriffs' training activities, sheep grazing, and illegal dumping. The project site mainly supports disturbed, ruderal vegetation with scattered patches of Riversidean Alluvial Fan Sage Scrub (RAFSS).

The sage scrub occurs in the wash areas and varies greatly in structure and composition (See Appendix A, Figure 2 and Table 2). Active areas of the wash are barren or contain relatively low cover. The existing upper bench areas contain chaparral which is more diverse compared to the sage scrub communities. Disturbed areas found onsite are either barren or contain a transitional sage scrub-chaparral community. Some areas have had the chamisal stands removed historically, to open up areas for sheep grazing and fire prevention.

Reclamation and revegetation efforts will consist of stabilizing and revegetating 615 acres of final quarry slopes and floors within the North Quarry and Phase B, roads, settling pond area, and the plant and other operation areas. The areas planned to be excavated under the amended Reclamation Plan have been previously disturbed. The goal of the revegetation program will be to reduce potential slope erosion and visual impacts, and to re-establish native plant habitat compatible with that currently found surrounding the project site. Only native species which currently occur on or adjacent to the project site will be utilized. The

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final end use of the site is for open space and habitat. The project incorporates revegetation standards to insure adequate reestablishment of habitats on reclaimed mine areas. Incorporation of revegetation requirements, revegetation success criteria, and financial assurances provides measures to restore the habitat value of the site following mining, identifies monitoring criteria to determine revegetation success, and provides a funding source should the applicant default on these obligations. In consideration of the degraded condition of habitat, and measures incorporated into the project design to restore mined lands to habitat and open space uses, no significant impacts will result.

- b) No riparian habitat exists onsite.
- c) Pursuant to Section 404 of the Federal Clean Water Act and Section 1603 of the California Fish and Game Code, the Army Corps of Engineers and the California Department of Fish and Game (CDFG) issued permits and a stream alteration agreement for Cemex to construct the North Levee. A condition of these permits required Cemex to permanently set aside 36.8 acres of high quality habitat for RAFSS and sensitive species. The agreed upon area is located in the northeast portion of the project site and is being incorporated into the amended Reclamation Plot Plan (refer to Figure 4). The amended Reclamation Plan does not impact any ACOE jurisdictional waters or areas subject to state fish and game requirements under PRC 1600. Potential 404 and 1603 areas along Sycamore Creek have been avoided or placed into the conservation easement.
- d) The amended Reclamation Plan will not result in the introduction of exotic animal or plant species nor will reclamation activities affect wildlife corridors. The timely removal of non-native or weed species including Peruvian pepper, Russian thistle, castor bean, horehound, tree tobacco, and mustard is planned in the Revegetation Plan.
- e-f) The amended Reclamation Plan will not be in conflict with any local policies or any adopted conservation plans.

MITIGATION:

- B-1. Prior to clearing acreage for new mining activities, Plummer's mariposa lilies deemed likely to survive by the project biologist shall be located and transplanted to similar habitat along the Sycamore Creek setback area or in areas available for reclamation.
- B-2. The 5-acre area set aside for SBKR avoidance shall be prominently monumented in the field to preclude inadvertent disturbance during operational activity.

SIGNIFICANCE: Incorporation of the above measures will reduce potential impacts to Biological Resources to less than significant.

V. CULTURAL RESOURCES — Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

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|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

- a-b) Cultural Resource surveys were conducted by Archaeological Resource Management Corporation and updated by McKenna for the Draft EIR for the Villages at Lytle Creek Specific Plan/Sunwest Reclamation Plan Amendment (City of Rialto). No cultural resources were recorded in areas to be disturbed; therefore, no impacts to cultural resources are expected. The project site location is considered as very low potential for cultural resources because of its location in a flood plain that has been subject to surface disturbance through natural flood events. Reclamation activities have no potential impact on cultural resources because all surface disturbances will have occurred through the legally established mining operation prior to reclamation.
- c) A field survey conducted by Robert E. Reynolds, Curator, Earth Sciences from San Bernardino County Museum, found that the paleontological and cultural sensitivity is low. According to the paleontological survey, the weathering horizons found at the site appear to be an overprinting coloration on the course-grained sediments instead of fossil soil horizons or paleosols that would have a high potential to produce paleontologic resources; consequently, the paleontologic resources are not expected to be adversely impacted by the proposed project.

MITIGATION: None required.

SIGNIFICANCE: The impacts to Cultural Resources will be less than significant.

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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION (check if project is located in the Geologic Hazards Overlay District):

For a more complete description of the area geology, please refer to the geology section within the "Slope Stability Investigation" prepared by CHJ Incorporated in August 1998, included as Appendix C with an update dated February 18, 2000. Excerpts are included below.

The project site is bound by the San Gabriel Mountains on the northwest and the San Bernardino Mountains on the northeast. Both ranges rise to over 10,000 feet amsl and are composed of uplifted blocks of igneous and metamorphic rocks of pre-Tertiary age. The Quaternary alluvial deposits which cover most of the project site are the result of deposition by Lytle Creek, Cajon Creek, and associated alluvial fans. The Lytle Creek alluvial fan exits at the mouth of Lytle Creek Canyon as it emerges from the San Gabriel Mountains. Material within this fan consists of poorly sorted sand, gravel, clay, and boulders of Pleistocene Older Alluvium, Recent Younger Alluvium, Recent River-Channel Deposits, and Recent Sand Dune. The coarse clasts are most commonly composed of gneissic granite and granodiorite.

The alluvial fan contains significant deposits of suitable construction grade aggregate material. The California Department of Conservation, Division of Mines and Geology, has designated most of Lytle Creek including the project site, as a Mineral Resource Zone 2 (MRZ-2), which is defined as an area where adequate information indicates that significant mineral deposits are present (CDMG 1987).

Three major northwest trending faults traverse the area, the San Jacinto, Loma Linda, and the Rialto-Colton faults. Also present in the area are the Lytle Creek Fault and the Cucamonga Fault. Ten other faults are also located in the area based on water level data. These faults or barriers divide the Upper Lytle Ground Water Basin within the project site into three or four groundwater subbasins.

- a) No human occupancy or occupied structures are associated with the project, therefore, exposure of people and structures to potential adverse effects is minimal.

The site is traversed by at least two potentially active faults and is likely traversed by a trace of the San Jacinto fault. No areas within the project site are currently located within an identified Alquist-Priolo special studies zone. The possibility of ground rupture and shaking due to faulting is considered high. The presence

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Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Incorp.	Less than Significant Impact	No Impact
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of active faulting and the associated hazards of ground rupture and shaking are not considered to be a constraint to the project or to create a significant environmental impact because no occupied structures are associated with the project. No impacts are expected also due to the proposed reclaimed use of the project site as open space and habitat, the designed 2:1 or 3:1 slopes, and the property setbacks of 50 to 100 feet.

- b) The project site would not result in a substantial soil erosion or loss of topsoil, either on or off the site with ongoing control activities and measures. The project site does not contain any valuable soil resources. The top six inches of material will be salvaged for use during the reclamation and revegetation efforts. The amended Reclamation Plan requires stabilizing and revegetating disturbed areas including slopes, basin floors, and other operational areas. The end use of the site is for open space and habitat. Impacts to soils would be less than significant.
- c) The project site would be subject to potential groundshaking resulting from earthquakes on local and regional faults. Slope stability was assessed by CHJ Incorporated in its report, "Slope Stability Investigation" included as Appendix C with an update letter. Soil conditions underlying the project site were explored by means of five exploratory borings drilled to a maximum depth of 150 feet below the ground surface. Slope stability analyses under static and seismic conditions as well as with ponding depths of up to 75 feet were performed for the proposed 3:1, 2:1 cut slopes, and the 2:1 fill over cut slopes. The fill over cut slopes are for areas excavated by previous operators at steeper slopes. CHJ concluded that in all cases the minimum static factor of safety is greater than 1.5 and the minimum seismic factor of safety is greater than 1.1.

During excavation, active slopes in the interior of the pit may temporarily be as steep as 90 degrees. Perimeter slopes will be excavated to the required 3H:1V or 2H:1V slope and will not be backfilled to meet this slope angle but will be mined to the required slope angle. Safety and flood control berms along the quarry rim and revegetation will reduce slope erosion. Upon excavation to the maximum depth and area, all slopes will be 2H:1V adjacent to the channel and along the northeast and east slopes, and 3H:1V along the northwestern slopes adjacent to the upstream properties. Since no structural end use is contemplated, slope compaction will not be needed to maintain slope stability on cut slopes, however, designed slopes will be conducive to reestablishment of natural plant species.

Any previously over steepened slopes greater than 2:1 will be filled and compacted as recommended by the CHJ report or as approved by an onsite soils engineer. This is included as Mitigation Measure G-1 below.

Final perimeter slopes will be inspected as completed and after any large local earthquake, as included in Mitigation Measure G-2 below. Periodic and post-event inspections would enable the identification of potential slope or levee failure and allow for immediate remedial actions to stabilize the area as recommended by a geotechnical engineer or engineering geologist, if necessary. Significant unstable earth conditions would not result from the project.

d-e) These two issues are not applicable to the project.

MITIGATION:

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Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Incorp. Impact	No Impact
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G-1. Fill, and cut and fill slopes constructed onsite shall be no steeper than 2:1. The slope construction (preparation, compaction, and inspection) shall be implemented as recommended by CHJ's "Slope Stability Investigation", dated August 28, 1998, as follows:

Fill Slope Recommendations

- Fill slopes shall be no steeper than 2:1 and no higher than 150 feet.
- Where fill is to be placed against existing cut slopes, the existing slopes must be benched. Benches shall be a minimum of 8 feet in width separated by vertical cuts approximately 2 feet in height or as dictated by topographic conditions but in any case, shall be no higher than 6 feet. In addition, a shear key, a minimum of 15 feet wide, must be constructed across the toe of each fill slope.
- No rocks or similar irreducible material with a maximum dimension greater than 24 inches shall be placed within the fill.
- All fill to be compacted to a minimum relative compaction of 90% in accordance with ASTM standards.
- Construction of fill slopes must be observed and tested by the geotechnical engineer.
- Runoff must be prevented from flowing onto the slopes by the construction of top-of-slope berms and/or levees.
- Slopes must be planted as soon as possible after completion.

Cut Slope Recommendations

- Cut slopes shall be no steeper than 2:1 and no higher than 100 feet.
- Construction of cut slopes must be observed by the engineering geologist.
- Runoff must be prevented from flowing onto the slopes by the construction of top-of-slope berms and/or levees.
- Slopes must be planted as soon as possible after completion.

G-2. Cemex shall inspect the final perimeter basin slopes and levees for ground rupture following any large local quake greater than 6.0. Should ground ruptures be observed, a geotechnical engineer or engineering geologist shall design measures for repair to be implemented by Cemex.

SIGNIFICANCE: The impacts to Geology and Soils will be less than significant with the above measures.

VII. HAZARDS AND HAZARDOUS MATERIALS —

Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

SUBSTANTIATION:

There are no significant impacts associated with the amended Reclamation Plan related to hazards and hazardous materials. Reclamation requires the removal of all hazardous materials from the project site and the site will be gated, bermed, and/or fenced with warning signs with monthly inspections. The amended Reclamation Plan will lower the surface of the North Quarry by 100 feet reducing the potential for wildland fires to spread across the project site. The project site will be reclaimed and revegetated with native species to open space or habitat, thus eliminating the project site from use by a large number of people or for residential development. The County Fire Department requires brush management in order to minimize wildland fires by reducing the fuel load of existing vegetation.

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In addition, Cemex will control the discharge of hazardous materials in the mining area by the following measure which is included as part of standard operational procedures:

- Equipment will only be refueled and maintained in the designated maintenance areas in the processing plant portion of the project.

MITIGATION: None required.

SIGNIFICANCE: The impacts associated with Hazards and Hazardous Materials are less than significant.

VIII. HYDROLOGY AND WATER QUALITY — Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Inundation by seiche, tsunami, or mudflow?

SUBSTANTIATION:

a,b,f) HSI GeoTrans conducted a hydrogeologic assessment of potential impacts to groundwater and other key issues identified by local water purveyors and the County Planning Department, that may occur as a result of implementing the amended Reclamation Plan. This report "Hydrogeologic Assessment Lytle Creek Wash Amended Reclamation Plan" dated October 24, 1997, with update letters (March 2000 and February 2001) are included as Appendix D. Portions of this report are used to respond to this section concerning potential impacts to ground water supply and quality.

To evaluate the potential impacts to ground water, HSI GeoTrans collected existing hydrogeologic data from the FUWC and the Lytle Creek Water Conservation Association (LCWCA) to obtain existing data, well logs, well construction summaries, pumping rates, water level data, water quality data, surface water gauging data and recharge data; conducted research on groundwater impacts at other similar recharge basins; conducted modeling to predict potential impacts to existing wells; and evaluated potential impacts and developed potential mitigation measures.

FUWC currently utilizes seven water production wells in proximity to the planned excavations (refer to Figure 4 for well locations). Table 4 lists the estimated surface elevation, the top of the perforated interval of each well, the vertical distance between the perforations and the bottom of the final pit, the horizontal distance of these wells from the rim of the excavation or recharge basin, and the distance from the bottom of the excavation or recharge basin to each well. Note that the vertical interval and the horizontal distances have been revised from the report, due to the removal of planned excavations under the process plant adjacent to five of the wells and due to the reduction of the planned depth of North Quarry from 150 feet to 100 feet.

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**TABLE 4
SUMMARY OF WELL DATA**

Well Name	Estimated Surface Elevation (feet, msl)	Top of Perforated Interval (feet, msl)	Estimated Depth to Perforation (feet)	Estimated Vertical Interval Between Perforation and Depth of Final Pit ¹ (feet)	Horizontal Distance from Proposed Recharge Basin Bottom (feet)	Horizontal Distance from Recharge Basin Rim (feet)
F28A	1,583	1,473	110	27	3,350	3,100

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F29A	1,591	1,401	190	99	2,700	2,450
F34A	1,591	1,408	183	92	1,500	1,250
F36A	1,550	1,380	170	120	2,600	2,400
F40A	1,577	1,441	139	59	4,125	3,875
F41A	1,597	1,331	269	169	3,800	3,600
F32A	1,720	1,480	245	160 ²	850	650

1. Bottom of proposed final North Quarry configuration = 1,500 feet msl (no change in depth with amended Reclamation Plan).
 2. Bottom of Phase B pit configuration = 1,640 feet msl (no change with amended Reclamation Plan).
- Source: HSI GeoTrans, October 1997, Lilburn Corporation, February 2000.

Ground water levels in this area fluctuate dramatically in direct relationship to precipitation. The adjacent FUWC wells ground water depths ranged from historic highs in 1983 of 43 to 105 feet below the surface to lows in 1991 of 342 to 455 feet below the surface. June 1997 depths ranged from 141 to 234 feet deep. Since ground water levels usually occur, and well perforations do occur, at greater depths than the planned quarries, ground water quantity, flow, and well production would not be affected by the reclamation activities. During high periods of precipitation, surface water and rising ground water may inundate the lower levels of the North Quarry. During these infrequent times, mining will cease in those areas inundated by rising ground water. However, this is not considered an adverse impact since water would percolate downgradient through the pit slopes and eventually would lower as the ground water table lowers.

The proposed project will not substantially reduce the amount of water otherwise available for public water supplies. The final end use of the project site is for the excavated basins to be vacant open space which will allow surface water and precipitation to percolate into the ground.

Water consumption for reclamation activity is limited to dust control and limited revegetation watering and depends on weather conditions. Water is currently supplied by FUWC and is pumped by a booster pump from an adjacent reservoir and or recycled from the settling ponds. About 10,000 gallons per day may be needed for reclamation activities and this amount of water use would be substantially lower than the mining and processing operations now consume.

In addition, potential effects of the pits related to surface water and potential impacts to nearby groundwater production wells was evaluated to address the concerns of local water purveyors and the County Planning Department. California Well Standards require a minimum 50-foot seal (vertical distance) between the ground surface and well perforations. In addition, a minimum horizontal setback of 150 feet is required between the well location and a septic system. Wells F29A and F34A have perforated intervals at least 90 feet below the bottom of the proposed final pit configuration (1,500 feet msl), and are set back approximately 2,700 and 1,500 feet from the pit bottom (refer to Table 3 and Figure 4). Well F41A is located over 3,800 feet from the North Quarry floor and is perforated approximately 170 feet below the bottom of the final pit bottom. Well F28A is perforated at an elevation of 1,473 feet msl, 27 feet below the North Quarry floor elevation. However, Well F28A is 3,350 feet downgradient of the bottom of the North Quarry. Well F40A's upper perforations are at an elevation of 1,441 feet msl, about 60 feet below the quarry bottom; this well is located 3,875 feet downgradient of the North Quarry. Because of the lateral distance and vertical interval of these wells from the North Quarry, no significant adverse direct impact of surface water is anticipated at pumping depths (perforation depths) in these wells.

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Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Incorp. Impact	No Impact
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No adverse direct influence of surface water is anticipated at Well F32A. Recharge operations conducted by FUWC are currently taking place around this well. Maximum excavation depths in the Phase B pit are approximately 1,640 feet msl, with a vertical interval of 160 feet from the perforation of Well 32A.

HSI GeoTrans' results of numerical modeling indicate that under typical or average recharge conditions, production wells located immediately downgradient of the basins would extract less than 10 percent of the water recharged in the basins. Based on literature review, the vertical and horizontal distance between wells and gravel pits provides a more than sufficient buffer zone to filter any significant occurrence of surface water constituents introduced by infiltration, under average recharge conditions. However, local conditions can vary from the generalized conceptual models and, in order to maintain adequate safeguards for the nearby production wells, mitigation measures are recommended.

c-e) The amended Reclamation Plan does not propose any alteration to the existing Lytle Creek channel conditions or drainage patterns. There are no potential impacts associated with altering the course or drainage patterns of the project site or area. The proposed project will not change the amount of surface water or discharge process water in any water body. The existing upgraded North Levee was recently completed to control flows and headcutting, as required by approved Reclamation Plan 93M-04 (and by the October 20, 1998 revised conditions required by the Board of Supervisors) and is not a part of the amended Reclamation Plan. It will result in a more stable, predictable conveyance of flows through the project site, but will not cause a change in course or direction.

The North Levee and the Lytle Creek channel will not be affected by extending excavations and reclamation activities to the north/east of the North Levee. The North Levee will maintain Lytle Creek's sediment equilibrium by not altering the existing channel and configuration that approximates the flow that would form in the non-channelized condition. Flood flows from Lytle Creek and surface runoff will be blocked from potentially flowing into the North Quarry by the North Levee, thus eliminating potential headcut erosion onto adjacent properties.

Any flows or direct rainfall that drains or falls into the excavated North Quarry will percolate rapidly into the porous alluvium material. This is verified by ongoing percolation activities conducted by FUWC and reported by CHJ in its report. Erosion control in the form of berms will be constructed along the northwest and northeast sides of the North Quarry where sheet flow or drainage could enter the North Quarry to eliminate potential slope erosion as recommended in the CHJ report. In addition, excavation activities will setback 50 feet from Sycamore Creek along the northern property boundary and 100 feet on the northwest.

In addition, Cemex will control the discharge of material processing water during operations. The following measure is included as part of standard operational procedures:

- Cemex shall implement measures, as necessary, to insure that material processing water does not flow onto the adjacent property or into the Lytle Creek Flood Control Channel.

Particulate matter would continue to be generated by movement of equipment during reclamation activities. Vehicle maintenance and fueling (though at greatly reduced levels compared to operational activities) would continue at designated approved sites with impervious surfaces. Cemex maintains a Stormwater Discharge Pollution Prevention and Monitoring Plan, which meets guidelines established by the State of California General Industrial Stormwater Discharge Permit, Sections A, B, and C, issued by

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Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant Incorp.	No Impact
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the State Water Resources Control Board. Compliance with this permit prohibits the discharge of sediments and industrial waste into surface waters, thereby reducing any potential impact from siltation or polluted runoff off-site.

- g-i) The proposed project does not include housing or structures.
- j) Seiches are long-period oscillatory standing waves excited by a force acting on a water surface. Seiching may be activated by landslides or earthquakes. Based on CHJ's slope stability analyses, the hazard of landsliding of the basin slopes is considered to be very low under both static and seismic conditions. Since the proposed basins may be used for groundwater spreading and not as retention basins, they are not expected to include significant pond depths. The potential for a large earthquake coinciding with a significant pool of water is considered remote and the hazard of seiching considered minimal. In addition, the North Quarry is isolated from existing developed or occupied properties and will be setback from adjacent properties by 50 to 100 feet from the quarry rim.

MITIGATION:

- WQ-1.** Cemex shall implement a Groundwater Monitoring Program in coordination and agreement with the FUWC. A Groundwater Monitoring Plan has been developed for tracking the effects of recharge during the mining operation. This Plan was prepared by HSI GeoTrans and is included as Appendix D. At least six monitor wells shall be located upgradient and four on the downgradient perimeter of the recharge basins. These wells will provide an early warning should any evidence of surface water impacts on groundwater be detected. The ten monitor wells shall be sampled on a quarterly basis. The seven existing production wells shall be monitored as recharge occurs at progressively lower elevations. In this manner, indications of a potential impact would be observed prior to significant impacts to production wells. In addition, surface water samples shall be collected when surface water or recharging surface water is available. Samples shall be collected where Lytle Creek crosses the Cemex property line and at all active recharge basins. The parameters pH, electrical conductivity, and temperature shall be monitored in the field, and samples collected for laboratory analysis of total suspended solids (TSS), total dissolved solids (TDS), total coliform, total heterotrophic plate count for presence of bacteria and Giardia, and nitrate as nitrogen. A database of all monitoring activities shall be updated on an annual basis to aid in identifying the development of trends in water quality data so that additional mitigation measures may be implemented, if determined necessary. Monitoring reports shall be provided to FUWC on a quarterly basis. Monitoring reports shall be maintained at the site office and reviewed during annual compliance inspections. It shall be the operators responsibility to notify FUWC and the County if groundwater monitoring results identify an exceedance of drinking water standards in any of the monitor wells.
- WQ-2.** Cemex shall cease mining in areas where groundwater is daylighting and where active recharge activities are occurring. At no time shall mining and/or reclamation activities be allowed in standing or exposed water.
- WQ-3.** Cemex shall fence, berm, and/or gate the excavations on the project site for public safety and to reduce the potential for illegal discharges of contaminants into the reclaimed pits.

SIGNIFICANCE: Implementation of the above measures will reduce impacts to Hydrology and Water Quality to less than significant.

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Potentially Significant Impact Less than Significant with Mitigation Incorp. Less than Significant Impact No Impact

IX. LAND USE AND PLANNING — Would the project:

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

SUBSTANTIATION:

The amended Reclamation Plan would not impact existing or adjacent land uses. Implementation of reclamation of completed mined areas will provide a positive effect on surrounding uses through the restoration and reclaimed use of the project site. In addition, the California Department of Conservation, Division of Mines and Geology has designated most of Lytle Creek including the project area, as an Mineral Resource Zone 2 (MRZ-2), which is defined as an area where adequate information indicates that significant mineral deposits are present (CDMG 1987).

The Lytle Creek North Planned Development proposes residential uses northwest and adjacent to the North Quarry. As part of its project design and pursuant to an agreement between LDC and Cemex, LDC has agreed to construct a residential-mining landscape buffer prior to development of the residential units as shown on Figure 5 in the amended Reclamation Plan. This berm is designed to attenuate noise and visual impacts from the proposed residential project with landscaped setbacks of approximately 140 feet wide (of which 100 feet are on Cemex property) and a 20-foot high berm. LDC would construct 80 feet of the berm at a 4:1 slope within the 100-foot setback on Cemex property and Cemex would hydroseed the berm one time.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Land Use and Planning are less than significant.

X. MINERAL RESOURCES — Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

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

The California Department of Conservation, Division of Mines and Geology has designated most of Lytle Creek including the project site, as a Mineral Resource Zone 2 (MRZ-2), which is defined as an area where adequate information indicates that significant mineral deposits are present (CDMG 1987). Excavating aggregate resources identified in the amended Reclamation Plan will be consistent with existing use of the project site and with the beneficial use of the resource.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Mineral Resources are less than significant.

XI. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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 X):

- a-d) The project does not propose any change in land use or rate of excavation that is different than the existing approved onsite activities. The proposed project would not result in an increase in existing noise levels because the rate of excavations and reclamation will not increase above the existing baseline. Onsite reclamation activities are subject to compliance with County noise standards.

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Potentially Significant Impact Less than Significant with Mitigation Less than Significant with Incorp. No Impact

The amended Reclamation Plan would locate short-term below grade reclamation activities closer to the northeastern boundary of the project site and closer to the Sheriff's Training Center and the Glen Helen Rehabilitation Center. Ambient noise levels are affected by the sheriff's shooting range and 100-foot property setbacks and the Sycamore Creek area will separate the sites.

The Lytle Creek North Planned Development proposes residential uses northwest and adjacent to the North Quarry. As part of its project design and pursuant to an agreement between LDC and Cemex, LDC has agreed to construct a residential-mining landscape buffer prior to development of the residential units as shown on Figure 5 in the amended Reclamation Plan. This berm is designed to attenuate noise and visual impacts from the proposed residential project with landscaped setbacks of approximately 140 feet and a 20-foot berm. LDC would construct 80 feet of the berm at a 4:1 slope within the 100-foot setback on Cemex property and Cemex would hydroseed the berm one time.

In addition, the following operational measures are being incorporated into the amended Reclamation Plan to mitigate potential noise impacts from ongoing operations to existing and future land uses.

- Cemex shall conduct an acoustical survey annually in areas close to occupied residential areas. Cemex shall not allow the County's Noise Ordinance thresholds to be exceeded for any continuous two-hour period. The County shall notify Cemex if such standards have been exceeded and Cemex shall take such steps necessary to reduce such noise levels to meet the noise standards within 90 days of receipt of such notice. Monitoring reports shall be maintained at the site office and reviewed annually during County compliance inspections.
- Excavations, processing, and reclamation operations shall be restricted to the hours of 7:00 a.m. until 7:00 p.m. for any operations conducted within 500 feet of any residential dwelling unit. This limitation shall not apply to repair and maintenance operations. The hours may be exceeded for operations conducted pursuant to federal, state or local government contracts entered into in response to a state of emergency, or for periods of peak period power outage, which results from shortfalls in electrical power supply.
- Cemex shall install strobe lights for use at night on all off-road equipment as allowed by Mine Safety and Health Administration (MSHA) and California Division of Occupational Safety and Health (Cal OSHA), within six months of approval of the amended Reclamation Plan.

e-f) The project site is not located near an airport that would expose workers to excessive noise.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Noise are less than significant.

XII. 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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Potentially Significant Impact	Less than Significant with Mitigation Incorp.	Less than Significant Impact	No Impact
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| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

SUBSTANTIATION:

The amended Reclamation Plan would not cause an increase in the number of employees on-site. There are no existing residential structures located on or in the immediate vicinity of the site that will be displaced by the amended Reclamation Plan.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Population and Housing are less than significant.

XIII. 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

SUBSTANTIATION:

The amended Reclamation Plan would not affect or cause an increased need for any public services.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Public Services are less than significant.

XIV. RECREATION —

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Potentially Significant Impact	Less than Significant with Mitigation Incorp.	Less than Significant Impact	No Impact
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| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

SUBSTANTIATION:

The amended Reclamation Plan does not generate an increase in local residents, therefore there will be no impacts on recreation facilities nor will there be any need for new recreational facilities .

MITIGATION: None required.

SIGNIFICANCE: Impacts to Recreation are less than significant.

XV. TRANSPORTATION/TRAFFIC — Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

ATTACHMENT A

Potentially Significant Impact	Less than Significant with Mitigation Incorp.	Less than Significant Impact	No Impact
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g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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SUBSTANTIATION:

The amended Reclamation Plan will not alter existing or future traffic volumes or circulation patterns of the legally established use.

Notwithstanding the foregoing, due to existing road conditions and the continued growth of traffic in the area, Cemex has voluntarily agreed to improve its existing driveway access and the adjoining portion of Riverside Avenue for ongoing trucking operations, subject to approval with the City of Rialto and subject to its ability to acquire any required right-of-way owned by third parties. Under existing conditions, truck traffic from the project site is distributed primarily along Riverside Avenue north to I-15. The following operational measures are identified as elements of the project description and shall be implemented by Cemex and shall be listed as conditions of approval should the project be approved:

- Cemex shall improve its driveway access and the adjoining portion of Riverside Avenue, in coordination with the City of Rialto and subject only to its ability to acquire any required right-of-way owned by third parties. Preliminary road design improvements are as follows (see Figure 4 in the Reclamation Plan report):
 1. Widen Riverside Avenue for approximately 720 feet north of the driveway to accommodate a northbound acceleration lane to a point where Riverside Avenue widens to 4-lanes at Life Tile;
 2. Widen southbound Riverside Avenue north of the driveway to provide a left turn pocket lane for 240 feet;
 3. Widen northbound Riverside Avenue south of the driveway to accommodate a right turn only lane for approximately 500 feet;
 4. Widen southbound Riverside Avenue for approximately 500 feet south of the driveway to provide an acceleration lane; and
 5. Pave the CEMEX driveway from Riverside Avenue northeast for a distance of approximately 400 feet and width of 40 feet.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Transportation/Traffic are less than significant.

XVI. UTILITIES AND SERVICE SYSTEMS —

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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ATTACHMENT A

Potentially Significant Impact Less than Significant with Mitigation Incorp. Less than Significant Impact No Impact

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

SUBSTANTIATION:

No utilities or infrastructure are present within the mining area.

MITIGATION: None required.

SIGNIFICANCE: Impacts to Utilities and Service Systems are less than significant.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE—

- a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a

ATTACHMENT A

Potentially Significant Impact	Less than Significant with Mitigation Incorp.	Less than Significant Impact	No Impact
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project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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SUBSTANTIATION:

This Initial Study/Environmental Checklist identifies potential impacts related to aesthetics, air quality, geologic hazards, and ground water quantity and quality. Mitigation measures are identified to ensure that these potential adverse impacts are sufficiently mitigated to reduce the impacts to below a level of significance. This is being accomplished through revisions to the amended Reclamation Plan, continued implementation of mitigation measures included in the MMCP, and the mitigation and operational measures included in the amended Reclamation Plan and in this document.

DISCUSSION OF ENVIRONMENTAL EVALUATION

Although the project has some potential to result in environmental impacts, mitigation measures are proposed as outlined below which will lessen the identified impacts to less than significant. Additionally, a number of beneficial elements have been proposed for implementation by the applicant as part of the project description to address issues from the vested operation that were identified as part of a separate agreement.

The following beneficial elements are included in the project description and, if the project is approved, will become conditions of project approval:

1. Prepare a lighting study and implement recommendations to reduce potential light and glare impacts on surrounding residential development.
2. Widen Riverside Avenue for Approximately 720 feet north of the driveway to accommodate a northbound acceleration lane to a point where Riverside Avenue widens to 4-lanes at Life Tile.
3. Widen southbound Riverside Avenue north of the driveway to provide a left turn pocket lane for 240 feet;
4. Widen northbound Riverside Avenue south of the driveway to accommodate a right turn only lane for approximately 500 feet;
5. Widen southbound Riverside Avenue for approximately 500 feet south of the driveway to provide an acceleration lane; and
6. Pave the CEMEX driveway from Riverside Avenue northeast for a distance of approximately 400 feet and width of 40 feet.
7. Conduct an acoustical survey annually in areas close to occupied residential areas. Noise emanating from the processing and extraction operations must be in compliance with the noise standards contained in the County's Noise Ordinance. Cemex will take such steps as a necessary to reduce noise levels that exceed the County's Noise Ordinance for any continuous two-hour period. Monitoring reports shall be maintained at the site office and reviewed annually during County compliance inspections.
8. Excavations, processing, and reclamation operations shall be restricted to the hours of 7:00 a.m. until 7:00 p.m. for any operations conducted within 500 feet of any residential dwelling unit. This limitation shall not apply to repair and maintenance operations. The hours may be exceeded for operations conducted pursuant to federal, state or local government contracts entered into in response to a state of emergency, or for periods of peak period power outage, which results from shortfalls in electrical power supply.
9. Plant a windrow of trees approximately 2,000 feet in length beginning at the southeast corner of the property near the entrance and ending at a point midway around the curve of the MWD property to screen views.

10. Install strobe lights for use during night operations on all off-road equipment as allowed by Mine Safety and Health Administration (MSHA) and California Division of Occupational Safety and Health (Cal OSHA).
11. If development of the Villages at Lytle Creek project is approved, the primary vehicular access to Cemex's property will be relocated to the intersection of Locust Avenue and Riverside Avenue concurrent with street improvements proposed by that project.
12. Following relocation of the primary vehicular access, all commercial trucks exceeding 20,000 pounds gross vehicle weight will utilize Locust Avenue instead of Riverside Avenue. This truck routing plan is contingent upon the following:
 - Completion of street improvements to the extension of Locust Avenue north of Riverside Avenue (to be completed by the Villages at Lytle Creek),
 - Street improvements to Locust Avenue are sufficiently adequate that the Cemex truck traffic would not reduce the LOS on Locust Avenue below the minimum acceptable operating condition acceptable to the City of Rialto.

Exceptions to the revised truck routing plan include:

- Local deliveries in an area bounded by Highland Avenue, Sierra Avenue, and Lytle Creek Channel;
 - Deliveries and returns from north of the plant accessing the I-15 Freeway northbound at Sierra; and
 - Maintenance vehicles.
13. Cemex will contribute to traffic mitigation for Locust Avenue by supplying material to the City of Rialto at a discount rate (if the City makes the improvements to Locust Avenue). Cemex shall pay for signalization and landscape entry improvements of Locust Avenue at Riverside Avenue concurrent with improvements by the Villages at Lytle Creek.
 14. Cemex will participate in a landscape maintenance program for the Locust Avenue/Riverside Avenue intersection. The level of participation will be 25 percent for the maintenance from the intersection to the point of exclusive use, and 100 percent for maintenance of the exclusive use portion.
 15. Cemex, at its own expense, shall pay for paving of the Locust Avenue access (northeast of Riverside Avenue) from the point of their exclusive use to 100 feet within their mining property boundary in order to reduce the particulate emissions and carryout resulting from trucks using this road. Paving will occur at such time as Cemex relocates its entrance to Locust Avenue.
 16. Operational areas west/south of the Lytle Creek channel will be fenced by six-foot chain link fencing. All fencing will include warning signs.

17. An eight-foot high chain link fence topped by a triple strand of barbed wire would be placed within 20 feet of the top of the quarries adjacent to any future residential planning areas.
18. Cemex, in cooperation with LDC, will allow the construction of a landscape buffer within Cemex's 100-foot setback along the northwestern boundary of the North Pit. Cemex will provide a one-time hydroseeding of the slope as part of a landscape buffer upon completion of said berm by LDC.
19. Establish a 5-acre conservation easement for the San Bernardino Kangaroo Rat on the east end of the North Quarry as shown on Figure 4.
20. The amended Reclamation Plan shall be revised to provide improved scheduling that will reduce the time delay between mining and reclamation. Implementation of this measure will require slope grading along the southwestern perimeter of the North Quarry and substantial areas of Phase B. Revegetation for future disturbance areas will also be subject to reduced delays between mining and reclamation. As such, potential effects to the environment are generally beneficial. Reclamation must be accomplished in accordance with the following schedule:
 - Once mining has been completed on approximately 50% of the north quarry, approximately 25% of reclamation shall occur;
 - When 75% of mining is completed, 50 percent of the reclamation shall occur;
 - Once all mining has been completed, the remaining 25% of reclamation shall be completed within 2 years.

XVIII. MITIGATION MEASURES

During preparation of the initial study, a number of potentially significant impacts were identified. Through further analysis, as supported by technical studies, the following mitigation measures were identified for implementation to reduce the potential impacts to less than significant, should the project be approved:

- G-1.** Fill, and cut and fill slopes constructed onsite shall be no steeper than 2:1. The slope construction (preparation, compaction, and inspection) shall be implemented as recommended by CHJ's "Slope Stability Investigation", dated August 28, 1998, as follows:

Fill Slope Recommendations

- Fill slopes shall be no steeper than 2:1 and no higher than 150 feet.
- Where fill is to be placed against existing cut slopes, the existing slopes must be benched. Benches shall be a minimum of 8 feet in width separated by vertical cuts approximately 2 feet in height or as dictated by topographic conditions but in any case, shall be no higher than 6 feet. In addition, a shear key, a minimum of 15 feet wide, must be constructed across the toe of each fill slope.

- No rocks or similar irreducible material with a maximum dimension greater than 24 inches shall be placed within the fill.
- All fill to be compacted to a minimum relative compaction of 90% in accordance with ASTM standards.
- Construction of fill slopes must be observed and tested by the geotechnical engineer.
- Runoff must be prevented from flowing onto the slopes by the construction of top-of-slope berms and/or levees.
- Slopes must be planted as soon as possible after completion.

Cut Slope Recommendations

- Cut slopes shall be no steeper than 2:1 and no higher than 100 feet.
 - Construction of cut slopes must be observed by the engineering geologist.
 - Runoff must be prevented from flowing onto the slopes by the construction of top-of-slope berms and/or levees.
 - Slopes must be planted as soon as possible after completion.
- G-2.** Fill, and cut and fill slopes constructed onsite shall be no steeper than 2:1. The slope construction (preparation, compaction, and inspection) shall be implemented as recommended by CHJ's "Slope Stability Investigation", dated August 28, 1998.
- E-1.** To mitigate the short-term effects of the reclamation activity, applicant shall maintain adequate dust control measures such as regular wet sweeping on paved driveways and adjacent public streets and/or applying biodegradable dust-binding agents on unpaved roads, such as Westlig 120.
- B-1.** Prior to clearing the unmined areas of the North Quarry, Plummer's mariposa lilies deemed likely to survive by the project biologist shall be located and transplanted to similar habitat.
- B-2.** The 5-acre area set aside for SBKR avoidance shall be prominently monumented in the field to preclude inadvertent disturbance during operational activity.
- AQ-1.** Cemex shall comply with SCAQMD Rule 403 which requires the preparation, approval, and implementation of a fugitive dust emissions control plan.
- WQ-1.** Cemex shall implement a Groundwater Monitoring Program in coordination and agreement with the FUWC. A Groundwater Monitoring Plan has been developed for tracking the effects of recharge during the mining operation. This Plan was prepared by HSI GeoTrans and is included as Appendix D. At least six monitor wells shall be located upgradient and four on the downgradient perimeter of the recharge basins. These wells will provide an early warning should any evidence of surface water impacts on groundwater be detected. The ten monitor wells shall be sampled on a quarterly basis. The seven existing production wells shall be monitored as recharge occurs at progressively lower elevations. In this

manner, indications of a potential impact would be observed prior to significant impacts to production wells. In addition, surface water samples shall be collected when surface water or recharging surface water is available. Samples shall be collected where Lytle Creek crosses the Cemex property line and at all active recharge basins. The parameters pH, electrical conductivity, and temperature shall be monitored in the field, and samples collected for laboratory analysis of total suspended solids (TSS), total dissolved solids (TDS), total coliform, total heterotrophic plate count for presence of bacteria and Giardia, and nitrate as nitrogen. A database of all monitoring activities shall be updated on an annual basis to aid in identifying the development of trends in water quality data so that additional mitigation measures could be implemented, if determined necessary. Monitoring reports shall be provided to FUWC on a quarterly basis. Monitoring reports shall be maintained at the site office and reviewed during annual compliance inspections. It shall be the operators responsibility to notify FUWC and the County if groundwater monitoring results identify an exceedance of drinking water standards in any of the monitor wells.

- WQ-2.** Cemex shall cease mining in areas where groundwater is daylighting and where active recharge activities are occurring. At no time shall excavations and/or reclamation activities be allowed in standing or exposed water.
- WQ-3.** Cemex shall fence, berm, and gate the excavation on the project site for public safety and to reduce the potential for illegal discharges of contaminants to recharging water.

REFERENCES:

Alquist-Priolo Special Studies Zone Act Map Series (PRC 27500)

CEQA Guidelines, Tenth Edition, 1999

County Museum Archaeological Information Center

County Museum Paleontologic Information Center

County of San Bernardino Development Code (Revised 10/00)

County of San Bernardino General Plan, adopted 1989 (Revised 8/99)

County of San Bernardino Identified Hazardous Materials Waste Sites List, July 1996

Federal Emergency Management Agency Flood Insurance Rate Map and Flood Boundary Map

Amended Reclamation Plan for the Lytle Creek Wash, Lilburn Corp, November, 2000

South Coast Air Quality Management District, CEQA Air Quality Handbook, September 1992