EXECUTIVE SUMMARY

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INTRODUCTION

RMC Pacific Materials, LLC. ("CEMEX") has applied to Alameda County (County) for an amendment to their approved reclamation plan ("approved reclamation plan") (Lone Star Industries, Inc. 1987), the proposed project under the California Environmental Quality Act (CEQA). The proposed project is a modification of the approved reclamation plan and a modification to Surface Mining Permit 23 (SMP-23) for a vested mining operation, at the location identified on Figure ES-1, "Regional Location." Except as specifically described below, the applicant proposes no change to any fundamental element of the existing operation (e.g., mining methods, processing operations, production levels, truck traffic, hours of operation).

The Eliot Quarry site was evaluated in the *Livermore-Amador Valley Quarry Area Reclamation Specific Plan Environmental Impact Report* (LAVQAR EIR) (Alameda County 1980), which was certified by the County in 1981. That 1981 EIR contains information still relevant to the current CEQA review. The proposed project contains revisions to the project that were not analyzed in the LAVQAR EIR. The County has, therefore, determined that it will prepare a subsequent environmental impact report (SEIR). The SEIR will review and update some portions of the LAVQAR EIR because of project revisions, changed circumstances, and availability of new information that was not available in 1981. As a result, the relevant LAVQAR EIR sections will be reevaluated and expanded considering project revisions, new information, and changed circumstances, as required by CEQA. In addition, the SEIR would only replace and update portions of the LAVQAR EIR that pertain to the proposed project area. Other LAVQAR EIR analysis and mitigation for the larger LAVQAR Specific Plan area not owned by CEMEX are not addressed in this EIR and will therefore remain in place.

Pertinent mitigation measures to the project area from the LAVQAR EIR are provided in their relevant topical sections, as outlined in Table ES-1, "LAVQAR EIR Mitigation Measure Locations," below.

TABLE ES-1
LAVQAR EIR MITIGATION MEASURE LOCATIONS

Mitigation Topic	LAVQAR EIR Location	SEIR Location
Aesthetics	Page 45	Subsection 4.1.5.1 in Section 4.1, "Aesthetics and Visual Resources"
Air Quality	Page 41	Subsection 4.2.5.1 in Section 4.2, "Air Quality," and Subsection 4.5.5.1 in Section 4.5, "Greenhouse Gas Emissions"
Biological Resources	Page 40	Subsection 4.3.4.1 in Section 4.3, "Biological Resources"
Geology and Soils	Page 8	Subsection 4.4.5.1 in Section 4.1, "Geology and Soils"
Hydrology and Water Quality	Pages 32 through 35	Subsection 4.6.5.1 in Section 4.6, "Hydrology and Water Quality"
Land Use and Planning	Page 43	Subsection 4.7.5.1 in Section 4.7, "Land Use and Planning"
Noise	Page 49	Subsection 4.8.5.1 in Section 4.8, "Noise"

This Executive Summary provides an overview of the proposed project, describes alternatives to the proposed project, and presents a summary of the environmental impacts and related mitigation identified in the SEIR.

PUBLIC REVIEW

This SEIR is available for public review and comment during the 45-day period identified on the notice of availability/notice of completion (NOA/NOC) of an SEIR, which accompanies this document.

This SEIR and all supporting technical documents and reference documents are available for public review on the Alameda County website at:

http://nps.acgov.org/Eliot.page

The SEIR will not be available at any County office location due to closures relating to Covid-19. Hardcopies may be requested by e-mailing Bruce Jensen, Senior Planner, at bruce.jensen@acgov.org.

During the 45-day public comment period, written comments on the SEIR may be submitted to the Community Development Agency at the following address:

Attn.: Mr. Bruce Jensen, Senior Planner
Alameda County Community Development Agency
224 West Winton Avenue, Suite 111
Hayward, California 94544
Email: bruce.jensen@acgov.org

Oral comments on the SEIR are welcome and may be stated at a public meeting, which shall be held as indicated on the NOA/NOC.[1]

Following the public review and comment period, responses to all written and oral comments received on the environmental analysis in this Draft SIER will receive a response. The responses and any other revisions to the SEIR will be prepared as a response-to-comments document. The SEIR and its appendices, together with the response-to-comments document will constitute the Final SEIR for the proposed project.

OVERVIEW OF THE PROPOSED PROJECT

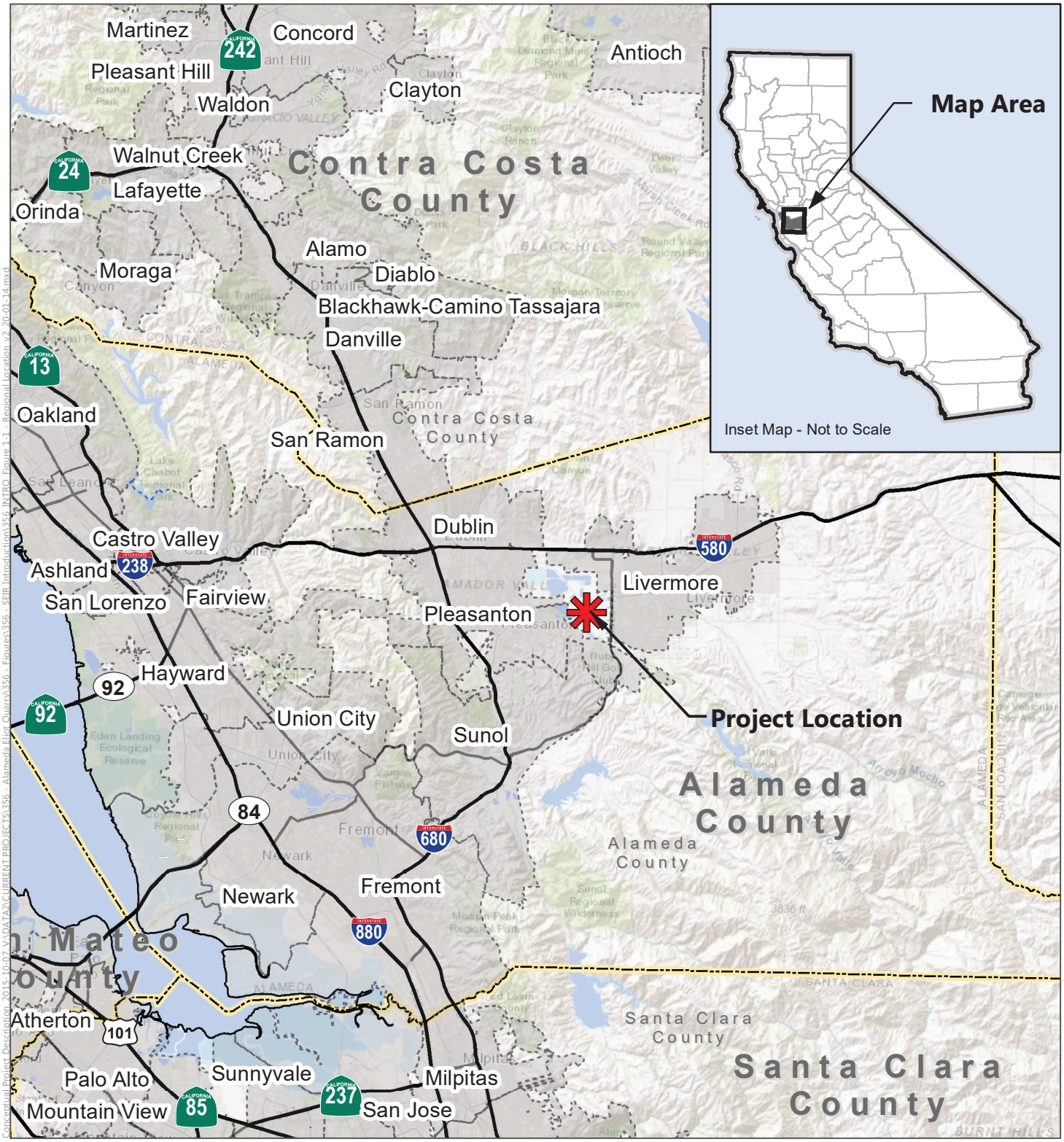
Site Location

The project site is situated between the cities of Pleasanton and Livermore, south of Interstate 580 and Stanley Boulevard in the Livermore-Amador Valley, north of Vineyard Avenue, and both east and west of Isabel Avenue (State Route 84 [SR 84]), as shown on Figure ES-1.

Project Objectives

The project purpose is to revise the approved reclamation plan to accommodate changed circumstances and to reflect regulatory changes. Since 1987, significant changes have occurred in both the regulatory setting that applies to the project site and physical conditions near the project site (e.g., new regulations related to biological resources, residential development in neighboring areas, widening of Isabel Avenue/State Route 84 [SR 84]), and sale of portions of the property.

[1] This is subject to change, based on circumstances and restrictions due to Covid-19, and may involve a virtual hearing via video conference (e.g. Zoom).



SOURCES: ESRI World Shaded Relief accessed Jan. 2020, ESRI World Topographic Map accessed Jan. 2020; ESRI World Streetmap, 2009; compiled by Benchmark Resources in 2020

Project Location
City Boundary
County Boundary
Major Highway
Major Road

BENCHMARK RESOURCES

N

0 2.5 5 10 Miles

Regional Location
ELIOT QUARRY SMP-23 SEIR
Figure ES-1

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The changed circumstances prompted County staff to recommend revising the approved reclamation plan to reflect the changed physical and regulatory conditions and to ensure that reclamation is feasible and carried out consistent with all controlling regulatory requirements. In addition, CEMEX would like to eliminate the two previously approved but not yet built concrete spillways because they are not necessary for the project and are not environmentally sensitive.

The reclamation plan amendment provides site-specific actions designed to meet the applicable statutory and regulatory requirements. The proposed project includes the following objectives:

1) Address the requirements of Condition 7 of County Resolution No. 12-20.
2) Realign and restore an approximately 5,800-foot reach of the Arroyo del Valle (ADV) resulting in an enhanced riparian corridor that flows south of, rather than through (as currently anticipated in SMP-23), Lake B.
3) Maximize the extraction of the remaining available on-site sand and gravel resources through the anticipated reclamation end date of 2056, including a change in the final bottom elevation of excavation in Lake B to 150 feet msl.

   Continue to supply the regional demands for Portland Cement Concrete (PCC) grade aggregate.
4) Reduce Vehicle Miles Traveled (VMT) and the related air emissions by retaining a local source of aggregate.
5) Carry out the objectives of the LAVQAR and Alameda County Flood Control and Water Conservation District, Zone 7 (hereafter referred to as "Zone 7") Agreement for implementation of the Chain of Lakes on the portions of land controlled by CEMEX.
6) Implement a public use pedestrian and bike trail on the southern perimeter of the CEMEX property.
7) Implement the proposed reclamation plan amendment to establish end uses of water management, open space, and nonprime agriculture in accordance with the California Surface Mining and Reclamation Act (SMARA) (Public Resources Code 2710, et seq.).

Project Features

As stated previously, CEMEX has applied to the County for an amendment to their approved reclamation plan (Lone Star Industries, Inc. 1987), the proposed project under CEQA. The project is a modification of an approved reclamation plan and a modification to SMP-23 for a vested mining operation. Except as outlined below, the applicant proposes no change to any fundamental elements of the existing operation (e.g., mining methods, processing operations, production levels, truck traffic, hours of operation).

The 1987 reclamation plan envisions mining Lakes A and B areas to create two large waterbodies for future operation and management by Zone 7. Lakes A and B are to be part of a larger "Chain of Lakes" that consist of a series of reclaimed gravel quarry pits converted into nine lakes (Lakes A through I), linked in a series, and used to store and convey seasonal and flood water and recharge groundwater. Under the approved 1987 reclamation plan, the natural channel of the ADV would be mined out and flow through Lakes A and B via tall concrete spillways at Vallecitos Road and Isabel Avenue and via a concrete and riprap apron at the downstream end of Lake B. The approved 1987 reclamation plan also includes an optional lake (Lake J) near the current processing plant site.

The applicant seeks to amend the approved reclamation plan to include changes that are more sensitive to the environment and surrounding community while fulfilling the intent of the *Specific*

Plan for the Livermore-Amador Valley Quarry Area Reclamation (LAVQAR) (Alameda County 1981). The proposed project serves to adjust reclamation boundaries and contours, enhance drainage and water conveyance facilities, incorporate a pedestrian and bike trail, and achieve current surface mining reclamation standards. The planned postmining end uses are water management, open space, and agriculture (nonprime).

Consistent with prior approvals, the project would develop Lakes A and B, which are the first two lakes in the Chain of Lakes pursuant to the LAVQAR. Upon reclamation, Lakes A and B, along with their appurtenant water conveyance facilities, would be dedicated to Zone 7 to store and convey surface water and manage the recharge of groundwater.

Unlike prior approvals, the ADV would remain separate from the Chain of Lakes. Lake A reclamation would include installation of a surface water diversion from the ADV to Lake A. No further mining would occur in Lake A. A water pipeline conduit would connect water from Lake A to both Lakes B and C. (Lake C is being developed on a neighboring property by another mining operator, Vulcan Materials Company, and is not within the project site.) A conduit would also connect Lake C to Lake B. Lake B would include an overflow outlet to allow water to flow back into the ADV when Lake B water levels are high.

To facilitate the southerly progression of mining within Lake B, the project includes realigning and restoring an approximately 5,800-linear-foot reach of the ADV. The proposed ADV realignment would result in an enhanced riparian corridor that flows around, rather than through Lake B (as currently anticipated under the approved reclamation plan for SMP-23). The ADV realignment was contemplated as a possibility in the LAVQAR and subject to environmental review in 1981.

Outside of Lakes A and B, reclamation treatment for other disturbed areas, including the excavation of a Lake J (not part of the Chain of Lakes), processing plant sites, and process water ponds, would involve backfilling and/or grading to return those areas to open space and/or agriculture. Lake J would be backfilled before final reclamation as part of ongoing mining and processing operations. Post-reclamation, the applicant would own the areas of the property used for open space and/or agriculture.

Required Approvals

As the local land use authority, Alameda County is the public agency with the greatest responsibility for approving the project as a whole and is therefore the lead agency for purposes of environmental review under CEQA. Other agencies may have permitting or approval authority over various aspects of the project. These agencies include the following:

Federal Agencies

- U.S. Army Corps of Engineers (CWA Section 404 permit)
- U.S. Fish and Wildlife Service (ESA Section 7 consultation; incidental take statement)
- U.S. (National) Marine Fisheries Service (ESA Section 7 consultation)

State Agencies

- California Department of Conservation, Division of Mine Reclamation (SMARA reclamation plan amendment review and review and release of financial assurance)
- California Department of Fish and Wildlife (streambed alteration agreement and possibly a California Endangered Species Act permit)

Regional and Local Agencies

- San Francisco Bay Regional Water Quality Control Board (Section 401 certification, waste discharge requirements, and state wetlands permit, as may be applicable)
- Zone 7 (Concurrence on the design of the diversion structure and pipelines)

DRAFT SEIR SCOPE AND ISSUES EVALUATED

Issues Evaluated and Issues Eliminated from Further Consideration

While CEQA does not require preparation of an Initial Study when the lead agency elects to prepare an EIR or SEIR (CEQA Guidelines Section 15060[d]), the County has prepared an Environmental Checklist Form / CEQA Initial Study to substantiate its scoping process in evaluating the potential significance of the project regarding the Appendix G criteria discussed above. The evaluation regarding the significance of those issues that are not discussed in detail in the SEIR is provided in the Initial Study (included as Appendix A-1, "Initial Study," of the SEIR) and discussed further in Chapter 1, "Introduction," of the SEIR.

As an initial step in the environmental review process, issues identified in the Environmental Checklist of Appendix G of the CEQA Guidelines were considered to determine whether the project would have the potential to result in significant impacts associated with each issue. The initial review determined that the project may result in potentially significant adverse impacts associated with the following Appendix G Environmental Checklist resource topics:

- Aesthetics
- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Geology and Soils
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Mandatory Findings of Significance

The initial review determined that the project would not result in significant adverse impacts associated with the following resource topics and eliminated these issues from further consideration in the SEIR:

- Agricultural and Forestry Resources
- Cultural Resources
- Energy
- Hazards and Hazardous Materials
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Services Systems
- Wildfire

Alternatives

The CEQA Guidelines specify that an SEIR must describe a reasonable range of alternatives to the project, or to the location of the project, which could feasibly attain the basic project objectives (Guidelines Section 15126.6). The "no project" alternative, which considers what impacts would occur if conditions continue, must be considered (Guidelines Section 15126.6[e]), and the SEIR must also identify the environmentally superior alternative. If the "no project" alternative is the environmentally superior alternative, the SEIR must identify an environmentally superior alternative from among the other alternatives (Guidelines Section 15126.6[e][2]).

Summary of Alternatives

The alternatives evaluation considered several potential alternatives. Some were eliminated as they were determined to either not have the potential to feasibly achieve the basic project objectives and/or reduce significant project impacts. The following alternatives were selected and analyzed/compared to the project and are evaluated in the SEIR:

Alternative 1: No Project—Reclamation of Existing Conditions Alternative

Under Alternative 1, "No Project – Reclamation of Existing Conditions Alternative," the County would have to approve an alternative Reclamation Plan Amendment that would allow for the reclamation and closure of the Eliot site consistent with the requirements of SMARA and the Alameda County Surface Mining Ordinance (SMO). Under this alternative, mining would cease and the site's water bodies and slope would be reclaimed to meet the minimum requirements of SMARA and the SMO (e.g., ensuring stable slopes, no adverse impacts associated with the reclaimed water bodies at the site, and appropriate post-reclamation vegetation). The end use would remain water management, open space, and agriculture consistent with the underlying LAVQAR requirements.

Alternative 2: Prohibited Nighttime Reclamation Alternative

With Alternative 2, "Prohibited Nighttime Reclamation Alternative," all project-related operations including ADV realignment, construction of the Lake A diversion structure, berm construction, and grading for final reclamation to end use would only be permitted to take place during operating hours of 7:00 a.m. to 7:00 p.m. All reclamation activities would be prohibited between 7:00 p.m. and 7:00 a.m., except for the low-flow diversion pump, which must operate at all hours during the two-year construction period for the ADV realignment. Some nighttime lighting of project facilities would still be required for security and safety purposes under this alternative; however, lighting for the project between 7 p.m. and 7 a.m. would be avoided. Project-related traffic departing and arriving at the site between 7 p.m. and 7 a.m. would also be avoided. The current operational mining activities would not be subject to this restriction. With the exception of prohibited nighttime reclamation operations, this alternative would have the same impacts as the proposed projects with mitigation incorporated (see Mitigation Measure 4.1-1, "Daily Limitation of Construction Hours," in Section 4.1, "Aesthetics and Visual Resources") and would reclaim the site and realign the ADV similarly to the proposed project. This alternative would not affect the operating hours for mining and processing uses at the site.

Alternative 3: Revised ADV Construction Phasing Alternative

Alternative 3, "Revised ADV Construction Phasing Alternative," would alter the reclamation schedule of the realignment and restoration of an approximately 5,800-linear-foot reach of the ADV to flow around, rather than through, Lake B. The altered schedule would extend ADV realignment activities into 2024 or 2025, rather than 2022 or 2023 as currently anticipated under the proposed project. This would slightly delay the implementation of ADV realignment and restoration components of the project. However, delaying the implementation of the realignment until after reclamation activities in Lake A are complete would avoid concurrent reclamation activities of Lake A reclamation and ADV realignment and restoration activities. While this would reduce daily NOx emissions, NOx emissions associated with Alternative 3 would still be significant and unavoidable.

Alternative 4: Reduced Capacity of Lake A Diversion Structure Alternative

Under Alternative 4, "Reduced Capacity of Lake A Diversion Structure Alternative," the diversion structure capacity would be reduced to allow diversion of only the first 200 cfs (as compared to the

500 cfs as required by the existing reclamation plan) of water from the ADV into Lake A. This would allow for significantly more water to be retained in the ADV, which would be beneficial to biological resources in the restored ADV. While the proposed project has a low flow channel to ensure that at least 9 cfs are retained, Alternative 4 would allow for an additional 300 cfs of water during higher water events to be retained in the ADV than envisioned in the proposed project. The current version of the LAVQAR Specific Plan, the approved reclamation plan, and contract between the Applicant and Zone 7 call for a diversion structure of 500 cfs. As a result, consistency of Alternative 4 with Project Objective 6 would require contractual changes to the agreement between Zone 7, the Applicant and the Community Development Agency of Alameda County. Therefore, it is unclear whether Alternative 4 would be able to achieve Objective 6.

Environmentally Superior Alternative

CEQA §15126.6(e)(2) requires that an EIR identify the environmentally superior alternative. CEQA also requires that if the environmentally superior alternative is the No Project Alternative, the EIR must also identify an environmentally superior alternative from the remaining alternatives. In consideration of the alternatives evaluation presented in Chapter 6, the Alternative 1: No Project—Reclamation of Existing Conditions Alternative would result in fewer impacts as compared to the project and the other alternatives considered. As such, the County must identify the environmentally superior alternative from the remaining alternatives.

Based on the analysis above and excluding the No Project Alternative Reclamation of Existing Conditions Alternative, the County concludes that Alternative 3, Revised ADV Construction Phasing Alternative, is the environmentally superior alternative due to reduced impacts to daily NOx emissions and daily noise impacts.

The alternatives analysis and conclusions reached regarding the environmentally superior alternative do not evaluate whether Alternative 4 is a viable option for the Applicant. Nonetheless, for the purposes of the County's CEQA review of the proposed project, Alternative 3 is considered the environmentally superior alternative for the reasons discussed above.

Summary of Impacts and Mitigation Measures

Table ES-2, "Summary of Project Impacts and Mitigation Measures," provides a summary of the project impacts identified and evaluated in the SEIR, presents mitigation measures identified in the SEIR, and lists the impact significance both without and with mitigation applied. As shown in the table, several impacts are found to be less than significant and do not require mitigation. Only two impacts, Impact 4.2-1 and 4.2-2a relating to conflict with the Clean Air Plan and NO_x emissions, are found to be significant and unavoidable. All remaining impacts would be significant or potentially significant prior to the implementation of mitigation measures but would be reduced to less than significant with mitigation applied. The mitigation measures (e.g., Mitigation Measure 4.1-1, "Daily Limitation of Construction Hours") do not apply to the existing, vested mine and processing plant operations which are not part of this project.

The following impacts were found to be significant and unavoidable, as feasible mitigation is either unavailable or would not effectively reduce the severity of the impact to less than significant:

- Impact 4.2-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan (significant and unavoidable);

- Impact 4.2-2a: 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: NO_X (significant and unavoidable);

In addition to evaluating project-specific impacts, an SEIR must also evaluate cumulative impacts. Cumulative impacts are those that would result from project impacts when combined with impacts of other past, present, or reasonably foreseeable projects. The analysis also determined that the project significant and unavoidable impacts would result in the following significant cumulative impacts. (see Chapter 5, "Cumulative Impacts").

- Impact 7-2a: Impacts that are Individually Limited but Cumulatively Considerable: Conflict with Air Quality Plan (significant and unavoidable); and
- Impact 7-2b: Impacts that are Individually Limited but Cumulatively Considerable: Criteria Pollutant NOx (significant and unavoidable).

TABLE ES-2
SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
AESTHETICS/VISUAL RESOURCES			
Impact 4.1-1: Substantial Degradation of the Approved Visual Character or Quality of the Site and Its Surroundings	LS	None required.	LS
Impact 4.1-2: Creation of a New Source of Substantial Light and Glare That Would Adversely Affect Day or Nighttime Views in the Area	PS	**Mitigation Measure 4.1-1:** Daily Limitation of Construction Hours. All construction activities shall be limited to the hours of 7 am – 7 pm Monday through Friday, and 8 am – 5 pm on Saturday and Sunday.[2]	LS
AIR QUALITY			
Impact 4.2-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan	S	**Mitigation Measure 4.2-1**: Off-road Equipment Plan. The Applicant shall implement the following to reduce project NOx emissions: a) Develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in Lake A reclamation and the Lake B realignment of the Arroyo del Valle would achieve a fleet-average 20 percent NOx reduction compared to the most recent ARB fleet average for the duration of these reclamation activities. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as such become available. The Alameda County Community Development Agency would be responsible for ensuring compliance.	SU
Impact 4.2-2a: 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: NO_X	S	**Implement Mitigation Measure 4.2-1** (see Impact 4.2-1).	SU

[2] Applies to reclamation activities; does not apply to vested mining and processing activities.

LS = Less than Significant; **PS** = Potentially Significant; **S** = Significant; **SU** = Significant and Unavoidable

Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.2-2b: 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: ROG, CO, SO_X, PM_{10}, and $PM_{2.5}$	LS	None required.	LS
Impact 4.2-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations	LS	None required.	LS
Impact 4.2-4: Result in Other Emissions Adversely Affecting a Substantial Number of People	LS	None required.	LS
BIOLOGICAL RESOURCES			
Impact 4.3-1a: The Project Could Result in Direct Effects or Loss of Habitat for Special-Status Wildlife Species: Lake A Reclamation and Diversion Structure Construction	PS	**Mitigation Measure 4.3-1a:** Obtain Regulatory Entitlements and Authorizations. The Applicant shall obtain regulatory entitlements and authorizations from the US Army Corps of Engineers ("USACE"), U.S. Fish and Wildlife Service ("USFWS"), National Marine Fisheries Service ("NMFS"), California Regional Water Quality Control Board ("RWQCB"), and California Department of Fish and Wildlife ("CDFW"). **Mitigation Measure 4.3-1b:** Special Status Amphibian and Reptile Species To avoid and minimize impacts to special status amphibian and reptile species, including western pond turtle, Alameda whipsnake (striped racer), California red-legged frog, California tiger salamander, coast horned lizard, San Joaquin whipsnake, and western spadefoot, the following shall apply: 1. No more than 48 hours prior to the commencement of reclamation-related ground disturbing activity (i.e. clearing, grubbing, or grading) associated with the construction of the Lake A diversion structure, realigned Arroyo del Valle, or other areas, a qualified biologist shall conduct a pre-construction survey of suitable habitat in the project reclamation area. The survey shall include aquatic habitat and adjacent uplands surrounding aquatic habitat within the project reclamation area. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. 3. Construction personnel shall receive worker environmental awareness training prior to the commencement of ground disturbing activity. This training instructs workers how to recognize special status amphibian and reptiles species and their habitat. 4. If a special status amphibian or reptile species is encountered during construction, then all construction shall cease until the animal has moved out of the construction area on its own or has been relocated by a qualified biologist in coordination with the California Department of Fish and Wildlife (CDFW). If the animal is injured or trapped, a qualified biologist shall move the animal out of the construction area and into a suitable habitat area. CDFW shall be notified within 24-hours that a special status amphibian or reptile species was encountered. 5. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW for project reclamation activities, as applicable to amphibian and reptile species. If there is a conflict between the terms of mitigation items 1 through 4 above and the Agreement, then the Applicant shall abide by the terms of the Agreement. **Mitigation Measure 4.3-1c:** Nesting Raptors To avoid and minimize impacts to nesting raptors, including bald eagle, golden eagle, American peregrine falcon, prairie falcon, white-tailed kite, Cooper's hawk, ferruginous hawk, and northern harrier, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 500 feet of suitable nesting habitat during the nesting season (e.g., March 1-Sept. 15), then a qualified biologist shall conduct a pre-construction survey for raptor nests. The survey shall cover all potential tree and ground nesting habitat on-site and off-site up to a distance of 500 feet from the construction activity. The survey shall occur within 30 days of the date that reclamation/construction	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		would encroach within 500 feet of suitable habitat. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. 2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. If no active nests are found during the survey, then no further mitigation would be required. 3. If any active nests are found, then the Planning Department and the California Department of Fish and Wildlife (CDFW) shall be contacted to determine appropriate avoidance and minimization measures. The avoidance and minimization measures shall be implemented prior to the commencement of construction within 500 feet of an identified nest. 4. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW for project reclamation activities, as applicable to nesting raptors. If there is a conflict between the terms of mitigation items 1, 2, or 3 above and the Agreement, then the Applicant shall abide by the terms of the Agreement. **Mitigation Measure 4.3-1d:** Nesting Birds To avoid and minimize impacts to migratory nesting birds, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 50 feet of nesting habitat between February 1 and August 31, then a qualified biologist shall conduct a pre-construction survey for active migratory nests within 14 days prior to the commencement of ground disturbing activity. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. 2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. If no active nests are found during the survey, then no further mitigation would be required. 3. If active nests are found in the survey area, then a non-disturbance buffer	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		of a size determined by a qualified biologist shall be established and maintained around the nest to prevent nest failure. All construction activities shall be avoided within this buffer area until a qualified biologist determines that nestlings have fledged, or until September 1, unless otherwise approved by the Planning Department and CDFW. **Mitigation Measure 4.3-1e**: Loggerhead Shrike To avoid and minimize potential impacts to loggerhead shrike, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 200 feet of suitable nesting habitat during the nesting season (February 15-August 31), then a qualified biologist shall conduct a pre-construction survey for loggerhead shrike nests in all suitable shrubs and trees that are within 200 feet from the construction activities. The survey shall occur within 3 days prior to the commencement of ground disturbing activities. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. 2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. If no active nests are found during the survey, then no further mitigation would be required. 3. If nesting individuals are found, then an exclusion zone shall be established within 200 feet of the active nest(s) until a qualified biologist determines that the young of the year are no longer reliant upon the nest. 4. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with the California Department of Fish and Wildlife for project reclamation activities, as applicable to the loggerhead shrike. If there is a conflict between the terms of mitigation items 1, 2, or 3 above and the Agreement, then the Applicant shall abide by the terms of the Agreement.	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		Mitigation Measure 4.3-1f: Tricolored Blackbird To avoid and minimize potential impacts to tricolored blackbird, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of suitable nesting habitat during the nesting season (March 1-July 31), then a qualified biologist shall conduct a pre-construction survey for nesting tricolored blackbirds in suitable habitats that are within 300 feet from the project activities. The survey shall occur within 30 days prior to the commencement of ground disturbing activities. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. 2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. If no tricolored blackbirds are found during the survey, then no further mitigation would be required. 3. If an active tricolored blackbird colony is found within 300 feet of reclamation activity, the applicant may avoid impacts to tricolored blackbird by establishing a 300-foot temporary setback, with fencing that prevents any project activity within 300 feet of the colony. A qualified biologist shall verify that setbacks and fencing are adequate and will determine when the colonies are no longer dependent on the nesting habitat (i.e. nestling have fledged and are no longer using habitat). The breeding season typically ends in July. 4. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW for project reclamation activities, as applicable to tricolored blackbird. If there is a conflict between the terms of mitigation items 1, 2, or 3 above and the Agreement, then the Applicant shall abide by the terms of the Agreement.	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		Mitigation Measure 4.3-1g: Burrowing Owl To avoid and minimize potential impacts to western burrowing owl, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 500 feet of suitable owl burrow habitat, then a qualified biologist shall conduct a pre-construction survey for burrowing owl. The survey shall occur within 30 days prior to the date that reclamation activities will encroach within 500 feet of suitable habitat. Adjacent parcels under different land ownership will be surveyed only if access is granted or if the parcels are visible from authorized areas. Surveys shall be conducted in accordance with the following: a. A survey for burrows and owls shall be conducted by walking through suitable habitat over the entire reclamation construction site and in areas within 500 feet of the project disturbance area. b. Pedestrian survey transects should be spaced to allow 100 percent visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters, and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Surveyors should maintain a minimum distance of 50 meters from any owls or occupied burrows. c. If no occupied burrows or burrowing owls are found in the survey area, then the biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department and no further mitigation is necessary. d. If occupied burrows or burrowing owls are found, then a complete burrowing owl survey is required. This consists of a minimum of four site visits conducted on four separate days, which must also be consistent with the Survey Method, Weather Conditions, and Time of Day sections of Appendix D of the California Department of Fish and Wildlife (CDFW) "Staff Report on Burrowing Owl Mitigation" (March 2012). The applicant shall then submit a survey report to the Planning Department which is consistent with the CDFW 2012 Report. e. If occupied burrows or burrowing owls are found during the	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		complete burrowing owl survey, then the applicant shall contact the Planning Department and consult with CDFW prior to construction and will be required to submit a Burrowing Owl Mitigation Plan (subject to the approval of the Planning Department and CDFW). This plan must document all proposed measures, including avoidance, minimization, exclusion, relocation, or other measures, and include a plan to monitor mitigation success. The CDFW "Staff Report on Burrowing Owl Mitigation" (March 2012) should be used in the development of the mitigation plan. 2. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW for project reclamation activities, as applicable to burrowing owl. If there is a conflict between the terms of mitigation item 1 above and the Agreement, then the Applicant shall abide by the terms of the Agreement. **Mitigation Measure 4.3-1h:** Special Status Bats To avoid and minimize potential impacts to special status bats, including hoary bat, pallid bat, and Yuma myotis, the following shall apply: 1. If reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) is to commence within 300 feet of suitable bat habitat during the winter hibernaculum season (e.g., November 1 through March 31), then a qualified biologist shall conduct a pre-construction survey within 300 feet of the reclamation project footprint on the CEMEX property to determine if a potential winter hibernaculum is present, and to identify and map potential hibernaculum sites. 2. The biologist shall supply a brief written report (including date, time of survey, survey method, name of surveyor and survey results) to the Planning Department prior to the commencement of ground disturbing activity. If no winter hibernaculum sites are found during the survey, then no further mitigation would be required. 3. If potential hibernaculum sites are found, then the applicant shall avoid all areas within a 300-foot buffer around the potential hibernaculum sites until bats have vacated the hibernaculum. Winter hibernaculum habitat shall be considered fully avoided if reclamation-related activities do not impinge on a 300-foot buffer established by the qualified biologist around	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		an existing or potential winter hibernaculum site. The qualified biologist will determine if non-maternity and nonhibernaculum day and night roosts are present on the project site. If necessary, a qualified biologist will use safe eviction methods to remove bats if direct impacts to non-maternity and non-hibernaculum day and night roosts cannot be avoided. If a winter hibernaculum site is present, then reclamation activities shall not occur until the hibernaculum is vacated, or, if necessary, safely evicted using methods acceptable to CDFW.	
Impact 4.3-1b: The Project Could Result in Direct Effects or Loss of Habitat for Special-Status Wildlife Species: ADV Realignment	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1b, 4.3-1c, 4.3-1d, 4.3-1e, 4.3-1f, 4.3-1g, and 4.3-1h** (see Impact 4.3-1a).	LS
Impact 4.3-1c: The Project Could Result in Direct Effects or Loss of Habitat for Special-Status Wildlife Species: Berms and Outflow Between ADV and Lake B	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1b, 4.3-1c, 4.3-1d, 4.3-1e, 4.3-1f, 4.3-1g, and 4.3-1h** (see Impact 4.3-1a).	LS
Impact 4.3-1d: The Project Could Result in Direct Effects or Loss of Habitat for Special-Status Wildlife Species: Northern Reclamation Area	LS	None required.	LS
Impact 4.3-2a: The Project Could Result in Loss of Riparian Habitat or Sensitive Natural Community: Lake A Reclamation and Diversion Structure Construction	PS	**Implement Mitigation Measure 4.3-1a** (see Impact 4.3-1a). **Mitigation Measure 4.3-2a:** Special Status Plants To avoid and minimize potential impacts to special status plants, including Congdon's tarplant, Mt. Diablo buckwheat, and Mt. Diablo fairy-lantern, the following shall apply: 1. Prior to the commencement of reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) in areas identified as having potential special status plant species in the project biological resources assessment report, a qualified botanist or biologist shall conduct a pre-construction survey for special status rare plant occurrences. The survey shall occur within 30 days prior to commencement of ground-disturbing activity. 2. If rare plant occurrences that are listed under the ESA or CESA are found and avoidance is not feasible, then the applicant shall notify the California Department of Fish and Wildlife (CDFW) and/or (as applicable) the U.S.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
		Fish and Wildlife Service (USFWS) for any federally-listed species and comply with any permit or mitigation requirements stipulated by those agencies. 3. Comply with the mitigation requirements and conditions of any Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW for project reclamation activities, as applicable to rare plant occurrences. If there is a conflict between the terms of mitigation items 1 and 2 above and the Agreement, then the Applicant shall abide by the terms of the Agreement. **Mitigation Measure 4.3-2b**: Riparian Habitat Within one year of the commencement of reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) associated with the construction of the Lake A diversion structure, realigned Arroyo del Valle, or other areas identified as riparian habitat in the project biological resources assessment report, the applicant shall mitigate for any permanent riparian impacts at a minimum 1:1 ratio. The implementation of mitigation for the loss of riparian habitat may be addressed separately for each phase of reclamation (e.g., Lake A diversion structure or realigned Arroyo del Valle). Exact acreage per phase shall be determined in consultation with CDFW. Mitigation shall be accomplished by complying with the following: 1. Enter into and comply with the mitigation requirements and conditions of a Section 1600 Lake and Streambed Alteration Agreement (Agreement) with CDFW. 2. If the Agreement results in less than a 1:1 mitigation ratio for loss of riparian habitat, then the applicant shall demonstrate that the riparian habitat which went unmitigated/uncompensated as a result of permitting has been mitigated through other means. Acceptable methods include purchase of credits from a mitigation bank or creation/preservation of on-site or off-site riparian habitats through the establishment of a permanent conservation easement, subject to the approval of the Planning Department.	

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.3-2b: The Project Could Result in Loss of Riparian Habitat or Sensitive Natural Community: ADV Realignment	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1a, 4.3-1b, 4.3-1c, 4.3-1d, 4.3-1e, 4.3-1f, 4.3-1g, 4.3-1h, 4.3-2a, and 4.3-2b** (see Impacts 4.3-1a and 4.3-2a)**.**	LS
Impact 4.3-2c: The Project Could Result in Loss of Riparian Habitat or Sensitive Natural Community: Berms and Outflow Between ADV and Lake B	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1a, 4.3-1b, 4.3-1c, 4.3-1d, 4.3-1e, 4.3-1f, 4.3-1g, 4.3-1h, 4.3-2a, and 4.3-2b** (see Impacts 4.3-1a and 4.3-2a)**.**	LS
Impact 4.3-2d: The Project Could Result in Loss of Riparian Habitat or Sensitive Natural Community: Northern Reclamation Area	LS	None required.	LS
Impact 4.3-3a: The Project Could Have a Substantial Adverse Effect on State or Federally Protected Wetlands: Lake A Reclamation and Diversion Structure Construction	PS	**Mitigation Measure 4.3-3:** 1:1 Wetland Compensation Ratio Prior to the commencement of reclamation-related ground disturbing activity (which includes clearing, grubbing, or grading) associated with the construction of the Lake A diversion structure, realigned Arroyo del Valle, or in other areas identified as containing wetlands in the project aquatic resource delineation report, the applicant shall mitigate for direct and indirect wetland impacts at a 1:1 ratio. The implementation of mitigation for the loss of wetlands may be addressed separately for each phase of reclamation (e.g., Lake A diversion structure or realigned Arroyo del Valle). Exact acreage per phase shall be determined prior to initiating that phase based on the verification of the preliminary jurisdictional determination by the USACE. Mitigation shall be accomplished by complying with the following: 1. Obtain and comply with the mitigation requirements and conditions of a Section 404 Permit(s) and Section 401 Water Quality Certification(s) for reclamation activities, as applicable. 2. If regulatory permitting processes result in less than a 1:1 compensation ratio for loss of wetlands, then the applicant shall demonstrate that the wetlands which went unmitigated/uncompensated as a result of permitting have been mitigated through other means. Acceptable methods include purchase of credits from a mitigation bank or creation/preservation of on-site or off-site wetlands through the establishment of a permanent conservation easement, subject to the approval of the Planning Department.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.3-3b: The Project Could Have a Substantial Adverse Effect on State or Federally Protected Wetlands: ADV Realignment and the Construction of Berms and Overflow Outlet Between ADV and Lake B	LS	None required.	LS
Impact 4.3-3c: The Project Could Have a Substantial Adverse Effect on State or Federally Protected Wetlands: Northern Reclamation Ares	LS	None required.	LS
Impact 4.3-4: The Project Could 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	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1b, 4.3-1c, and 4.3-1d** (see Impact 4.3-1a).	LS
Impact 4.3-5: The Project Could Conflict with Local Policies or Ordinances Protecting Biological Resources	LS	None required.	LS
GEOLOGY AND SOILS			
Impact 4.4-1: Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death as a Result of Rupture of a Known Fault	LS	None required.	LS
Impact 4.4-2: Exposure of People or Structures to Potential Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death as a Result of Strong Seismic Ground Shaking	LS	None required.	LS
Impact 4.4-3: Exposure of People or Structures to Seismic-Related Ground Failure, Including Liquefaction, or Landslides	LS	None required.	LS
Impact 4.4-4: Result in Substantial Soil Erosion or the Loss of Topsoil	PS	**Mitigation Measure 4.4-1:** Erosion Control Plan. The Applicant, and its contractors shall adhere to the Erosion Control Plan for the ADV realignment prepared by Brown and Caldwell in 2019, which shall be incorporated by reference into the conditions of approval for the project.	LS

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		Mitigation Measure 4.4-2: Berm and Embankment Grading. The Applicant shall implement the following measures to control erosion related to berm and embankment grading before ground disturbing activities: a) All earthwork operations shall be observed, and all fills tested for recommended compaction and moisture content by a representative from a County-approved geotechnical specialist. b) Prior to commencing grading, a pre-construction conference with representatives from the Permittee, its grading contractor, if applicable, and County-approved geotechnical specialist shall be held at the site. Site preparation, soil handling and/or the grading plans shall be discussed at the pre-construction conference. c) Prior to commencing grading within embankment and slope areas, surface vegetation shall be removed by stripping to a sufficient depth (2 to 4 inches) to remove roots and organic-rich topsoil. Material generated during stripping that is not suitable for use as embankment or reclamation slope fill shall be stockpiled for future use as topsoil. Any existing trees and associated root systems shall be removed. Roots larger than 1 inch in diameter shall be completely removed. Smaller roots may be left in-place as conditions warrant and at the discretion of on-site field monitor. d) To increase stability and to provide a stable foundation for the berm embankments, the full length of the embankments shall be provided with embankment-width keyways. The keyways shall have a minimum embedment depth of 3 feet into firm, competent, undisturbed soil. The actual depth of the keyway shall be evaluated during construction by a County-approved geotechnical specialist. Keyway back-slopes shall be no flatter than 1 horizontal (H):1 vertical (V). e) Where fill is placed on sloping ground steeper than 5H:1V, the fill shall be benched into the adjacent native materials as the fill is placed. Benches shall roughly parallel slope contours and extend at least 2 feet into competent material. In addition, a keyway shall be cut into the slope at the base of the fill. Keyways shall be at least 15 feet wide and extend at least 2 feet into competent material. Bench and keyway criteria may need revision during construction based on the actual materials encountered	

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		and grading performed in the field. f) Pipe penetrations through the planned berms and embankments shall be avoided, if feasible. If pipe penetrations are unavoidable, the Permittee shall provide concrete cut-off collars at the penetration point to reduce potential for seepage. Reinforced concrete cut-off collars shall completely encircle the pipe and should be sized such that they are 12 to 18 inches larger than the nominal outside diameter of the pipe. Thickness shall be at least 6 inches. Water-tight filler shall be used between collars and pipes. g) Bottoms of keyways and areas to receive fill shall be scarified 12 inches, uniformly moisture conditioned at or above optimum moisture content and compacted to at least 90% relative compaction. Scarification and recompaction operations shall be performed in the presence of a County-approved geotechnical specialist to evaluate performance of the subgrade under compaction equipment loading. h) Engineered fill consisting of onsite or approved import materials shall be compacted in horizontal lifts not exceeding 8 inches (loose thickness) and brought to final subgrade elevations. Each lift shall be moisture-conditioned at or above optimum and compacted to at least 90% relative compaction at least 2% above optimum moisture content. Fills for the eastern Lake B fill embankments and Pond C/D separation shall be compacted to at least 95% relative compaction above optimum moisture content. i) Fill slopes shall be built such that soils are uniformly compacted to at least 90% relative compaction at least 2% above optimum moisture content to the finished face of the completed slope. Fill slopes for the eastern Lake B fill embankments and Pond C/D separation shall be compacted to at least 95% relative compaction above optimum moisture content. The Alameda County Community Development Agency shall be responsible for ensuring compliance. **Mitigation Measure 4.4-3:** Embankment Fill Slope Geometry. Fill slopes for the proposed embankment between Silt Pond C and Silt Pond D, the embankment for overburden and silt storage at the east end of Lake B, and the "shark's fin" embankment of Lake B should be constructed at an inclination of 2:1 or flatter. Mid-height bench(es) should be considered for fill slopes	

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		exceeding 50 feet in height to provide access for slope maintenance. **Mitigation Measure 4.4-4:** Cut Slope of Lake B Adjacent to Realigned ADV. The Permittee, or its contractor, shall implement one of the following two configurations for the cut slope of Lake B below and adjacent to the realigned ADV: 1. 2 ¼:1 slope 2. 40-foot horizontal bench at elevation 260 feet msl within a 2:1 slope.	
Impact 4.4-5: 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	LS	None required.	LS
Impact 4.4-6: 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	LS	None required.	LS
Impact 4.4-7: Directly or indirectly destroy a unique paleontological resource or site or unique geological feature	LS	None required.	LS
GREENHOUSE GAS EMISSIONS			
Impact 4.5-1: Greenhouse Gas emissions generated by reclamation activities could have a significant impact on global climate change.	PS	**Mitigation Measure 4.5-1a:** Idling Times. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all project access points. [Measure applies to idling times for all equipment]. **Mitigation Measure 4.5-1b:** Idling Times for Diesel-powered Equipment. Minimize the idling time of diesel-powered construction equipment to two minutes. [Measure applies to idling times for diesel-powered equipment only]. **Mitigation Measure 4.5-1c:** Equipment Maintenance. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications.	LS

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		Mitigation Measure 4.5-1d: Alternative Fuel Plan. Prior to construction, develop a plan demonstrating that alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment will represent at least 15 percent of the construction fleet if commercially available. **Mitigation Measure 4.5-1e:** Local Building Materials. Use at least 10 percent local building materials in construction (e.g., construction aggregates, concrete pipe). **Mitigation Measure 4.5-1f:** Recycle or Reuse Construction and Demolition Materials**.** Recycle or reuse at least 50 percent of construction waste or demolition materials (e.g., during decommissioning and removal of processing plant facilities). **Mitigation Measure 4.5-1g:** On-site Material Hauling. Perform on-site material hauling with trucks equipped with on-road engines (if less emissive of GHG emissions than off-road engines), if commercially available. **Mitigation Measure 4.5-1h:** Generator Alternative Fuel. Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power, as feasible for each construction site	
Impact 4.5-2: Consistency with applicable GHG plans, policies, or regulations.	LS	None Required	LS
HYDROLOGY AND WATER QUALITY			
Impact 4.6-1a: Violation of Water Quality Standards or Waste Discharge Requirements or Substantial Degradation of Surface Water or Groundwater Quality Regarding Lake A Reclamation and Diversion Structure Construction	PS	**Mitigation Measure 4.6-1:** Development of SWPPP. The Permittee, and its contractors, shall conduct activities consistent with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, which would require development of a stormwater pollution prevention plan (SWPPP) for the reclamation construction activities. The SWPPP and Notice of Intent to comply with the General Permit shall be prepared and filed with the RWQCB before commencement of construction activities. **Implement Mitigation Measure 4.4-1** (see Impact 4.4-4).	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.6-1b: Violation of Water Quality Standards or Waste Discharge Requirements or Substantial Degradation of Surface Water or Groundwater Quality Regarding the ADV Realignment	PS	**Implement Mitigation Measure 4.6-1** (see Impact 4.6-1a). **Implement Mitigation Measure 4.4-1** (see Impact 4.4-4).	LS
Impact 4.6-1c: Violation of Water Quality Standards or Waste Discharge Requirements or Substantial Degradation of Surface Water or Groundwater Quality at the Northern Reclamation Area	LS	None required.	LS
Impact 4.6-1d: Violation of Water Quality Standards or Waste Discharge Requirements or Substantial Degradation of Surface Water or Groundwater Quality Regarding Reclamation of Lake B	PS	**Mitigation Measure 4.6-2:** Implementation of Adaptive Management Program for Iron. The Permittee shall implement the Adaptive Management Program for Iron (see Appendix F-6 to the SEIR), which will be incorporated into conditions of approval. **Mitigation Measure 4.6-3:** Install Lake B Groundwater Monitoring Wells. The Permittee shall install two or three groundwater monitoring wells on Lake B perimeter after consultation on locations with Zone 7 to inform MM 4.6-3 actions.	LS
Impact 4.6-2a: Substantial Depletion of Groundwater Supplies or Interference with Groundwater Recharge Regarding Lake A Reclamation and Diversion Structure Construction	LS	None required.	LS
Impact 4.6-2b: Substantial Depletion of Groundwater Supplies or Interference with Groundwater Recharge Regarding the ADV Realignment	LS	None required.	LS
Impact 4.6-2c: Substantial Depletion of Groundwater Supplies or Interference with Groundwater Recharge at the Northern Reclamation Area	LS	None required.	LS
Impact 4.6-2d: Substantial Depletion of Groundwater Supplies or Interference with Groundwater Recharge Regarding Reclamation of Lake B	LS	None required.	LS
Impact 4.6-3a: Substantially Alter Drainage Patterns Causing Erosion or Siltation, Increase Surface Runoff that would result in Flooding, Provide Substantial Additional Sources of Polluted Runoff, or	LS	None required.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impede or Redirect Flood Flows Regarding Lake A Reclamation and Diversion Structure Construction, Construction of the Infiltration Gallery, and Construction of Conduit from Lake A to Lake C with a Turnout to Lake B			
Impact 4.6-3b: Substantially Alter Drainage Patterns Causing Erosion or Siltation, Increase Surface Runoff that would result in Flooding, Provide Substantial Additional Sources of Polluted Runoff, or Impede or Redirect Flood Flows Regarding ADV Realignment	PS	**Implement Mitigation Measure 4.6-1** (see Impact 4.6-1a).	LS
Impact 4.6-3c: Substantially Alter Drainage Patterns Causing Erosion or Siltation, Increase Surface Runoff that would result in Flooding, Provide Substantial Additional Sources of Polluted Runoff, or Impede or Redirect Flood Flows Regarding the Northern Reclamation Area	PS	**Implement Mitigation Measure 4.6-1** (see Impact 4.6-1a).	LS
Impact 4.6-3d: Substantially Alter Drainage Patterns Causing Erosion or Siltation, Increase Surface Runoff that would result in Flooding, Provide Substantial Additional Sources of Polluted Runoff, or Impede or Redirect Flood Flows Regarding Reclamation of Lake B	PS	**Mitigation Measure 4.6-4:** Conveyance to Avoid Lake B Silt Storage Area. The Permittee, or its contractor, shall implement one of the following two water conveyance options from the end of Lake A to Lake B: 1. Install a high-density polyethylene (HDPE) pipe, connected to the Lake B pipeline turnout, that will be capable of conveying the flow from the end of the Lake A to Lake B pipeline around the silt storage area located in the eastern end of Lake B. 2. Compact the backfill surface of the silt storage facility in the eastern end of Lake B and construct a lined channel across the top of the Lake B fill that will be capable of conveying the flow from the end of Lake A to Lake B pipeline around the silt storage area. This channel shall be lined with gravel or cobbles to minimize the potential for erosion or sediment transport.	LS
Impact 4.6-4a: Release of Pollutants In Flood Hazard, Tsunami, or Seiche Zones Due to Project Inundation Regarding Lake A Reclamation and Diversion Structure Construction, Construction of the Infiltration Gallery, and Construction of Conduit from Lake A to Lake C with a Turnout to Lake B	LS	None required.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.6-4b: Release of Pollutants in Flood Hazard, Tsunami, or Seiche Zones Due to Project Inundation Regarding the ADV Realignment	LS	None required.	LS
Impact 4.6-4c: Release of Pollutants in Flood Hazard, Tsunami, or Seiche Zones Due to Project Inundation at the Northern Reclamation Area	LS	None required.	LS
Impact 4.6-4d: Release of Pollutants in Flood Hazard, Tsunami, or Seiche Zones Due to Project Inundation Regarding Reclamation of Lake B	LS	None required.	LS
Impact 4.6-5: Conflict with or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan	PS	**Implement Mitigation Measure 4.6-1** (see Impact 4.6-1a).	LS
LAND USE AND PLANNING			
Impact 4.7-1: Physically Divide an Established Community	LS	None required.	LS
Impact 4.7-2: Conflict with Land Use Plans, Policies, and Regulations	LS	None required.	LS
NOISE			
Impact 4.8-1: Construction Noise Impacts Relative to Locally Adopted Noise Standards	PS	**Implement Mitigation Measure 4.1-1** (see Impact 4.1-2).	LS
Impact 4.8-2: Construction Noise Impacts Relative to Existing Ambient Conditions	PS	**Implement Mitigation Measure 4.1-1** (see Impact 4.1-2). **Mitigation Measure 4.8-1a:** Notice of Activities. All residences within 500 feet of the conduit and pipeline installation components of the proposed project should be provided notice of the pipeline installation schedule and informed that short-term periods of elevated daytime ambient noise levels could occur during that period. **Mitigation Measure 4.8-1b:** Mufflers. All mobile equipment shall be fitted with mufflers consistent with manufacturers recommendations & shall be well maintained.	LS

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Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation[1]
Impact 4.8-3: Construction Vibration Impacts Relative to Existing Ambient Conditions	LS	None required.	LS
OTHER CEQA TOPICS			
Impact 7-1: Substantially Degrade the Quality of the Environment, Reduce Habitat of a Fish or Wildlife Species, Cause a Fish or Wildlife Population to Drop Below Self-Sustaining Levels, Threaten to Eliminate a Plant or Animal Community, Substantially Reduce the Number or Restrict the Range of a Rare or Endangered Plant or Animal or Eliminate Important Examples of the Major Periods of California History or Prehistory	PS	**Implement Mitigation Measures 4.3-1a, 4.3-1b, 4.3-1c, 4.3-1d, 4.3-1e, 4.3-1f, 4.3-1g, and 4.3-1h** (see Impact 4.3-1a), **4.3-2a, 4.3-2b** (see Impact 4.3-2a), **4.3-3** (see Impact 4.3-3a).	LS
Impact 7-2a: Impacts that are Individually Limited but Cumulatively Considerable: Conflict with Air Quality Plan	S	**Implement Mitigation Measure 4.2-1** (see Impact 4.2-1**).**	SU
Impact 7-2b: Impacts that are Individually Limited but Cumulatively Considerable: Criteria Pollutants ROG, CO, SO_x, PM_{10}, and $PM_{2.5}$	LS	None required.	LS
Impact 7-2c: Impacts that are Individually Limited but Cumulatively Considerable: Criteria Pollutant NOx	S	**Implement Mitigation Measure 4.2-1** (see Impact 4.2-1).	SU
Impact 7-3: Environmental Effects which will Cause Substantial Adverse Effects on Human Beings	PS	**Implement Mitigation Measures 4.1-1, 4.2-1** (see Impact 4.2-1), **4.4-1, 4.4-2, 4.4-3, 4.4-4** (see Impact 4.4-1), **4.5-1a, 4.5-1b, 4.5-1c, 4.5-1d, 4.5-1e, 4.5-1f, 4.5-1g, 4.5-1h** (see Impact 4.5-1), **4.6-1** (see Impact 4.6-1a), **4.6-2** (see Impact 4.6-1d), **4.6-3** (see Impact 4.6-3d), **4.8-1a, and 4.8-1b** (see Impact 4.8-2).	LS

LS = Less than Significant; **PS** = Potentially Significant; **S** = Significant; **SU** = Significant and Unavoidable