

Cope Lake Improvements & Maintenance

LIVERMORE, CALIFORNIA

FINAL

**Environmental Initial Study/
Draft Mitigated Negative Declaration**



Zone 7 Water Agency

January 26, 2012

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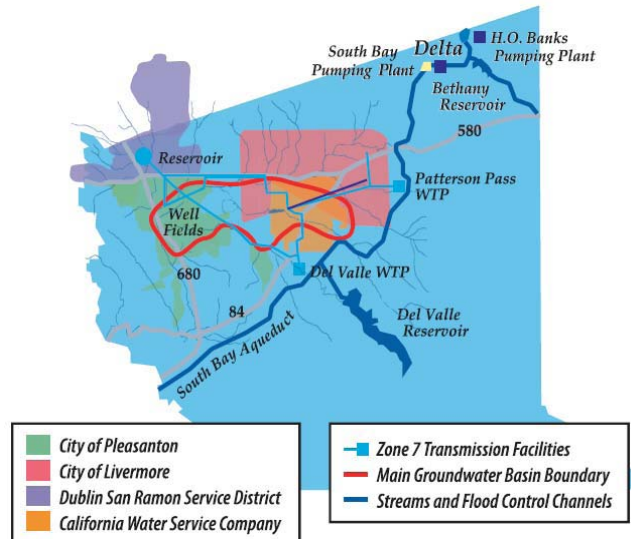
CEQA	California Environmental Quality Act
IS	Initial study
MMRP	Mitigation Monitoring and Reporting Plan
MND	Mitigated Negative Declaration
PPWTP	Patterson Pass Water Treatment Plant
SWPPP	Storm Water Pollution Prevention Plan
Zone 7	Alameda County Flood Control and Water Conservation District, Zone 7

1 INTRODUCTION

1.1 Background

The Alameda County Flood Control and Water Conservation District, Zone 7 (hereinafter “Zone 7 Water Agency” or “Zone 7”) is a wholesale water supplier to the cities of Livermore, Pleasanton, Dublin, and provides flood control in the eastern portion of Alameda County.

Zone 7 regularly undertakes projects involving improvement and maintenance of existing facilities, as well as construction of new facilities, and acts as Lead Agency for projects subject to the California Environmental Quality Act (CEQA). This document is a draft Initial Study /Mitigated Negative Declaration (IS/MND) for the Cope Lake Improvements Project (Project). The Zone 7 Board of Directors will consider the information in the IS/MND at a public meeting, and will decide to adopt or reject the findings.



The Delta supplies Zone 7 with roughly 80% of its water supply, the remaining comes from local rain runoff stored at Lake Del Valle and from groundwater pumped from the Valley’s groundwater basin. Zone 7 serves as the primary manager of the local groundwater basin.

The Livermore-Amador Valley Groundwater Basin is located in Alameda County including the cities of Pleasanton, Livermore, and Dublin. Zone 7 is the groundwater basin manager of the Livermore-Amador Valley Groundwater Basin. In, roughly, the center of the groundwater basin is an area actively being mined for sand and gravel. Pursuant to the 1981 Livermore-Amador Valley Quarry Area Reclamation Specific Plan, the gravel quarries are required to turn over a series of mined pits to Zone 7 as mitigation for removing aquifer material from the groundwater basin. These pits (Lakes A-I and Cope Lake) will be connected to form a chain of lakes that could be used for water management including water storage, conveyance, stormwater detention or groundwater recharge.

Zone 7 currently owns and manages Lake I and Cope Lake. Lake H is scheduled to be dedicated to Zone 7 in November 2014. Zone 7 may lease other lakes within the Chain of Lakes prior to taking ownership. Pursuant to an agreement, Vulcan Materials Company, the gravel mining company, and Zone 7 agreed that the Vulcan would discharge water into Lake I when it has capacity to capture and store such water.

1.2 Purpose and Need for the Project

Cope Lake is a former silt pond that was used by the quarry operator to let fines settle out of the processing water. As a result, the lake bottom and sides are lined with silt and the lake does not communicate with the groundwater. Cope Lake was given to Zone 7 in an “as is” condition because it was not originally part of the established Chain of Lakes. There are some improvements that need to be made to Cope Lake to make it functional for future water management operations. These include:

- Drainage - grading, hydroseeding, concrete lined v-ditches, trenching, installation of drain pipe and drain inlets;
- Upper embankment slope layback – cutting back the slope to 2:1, removing cut material and placing in low lying areas or in lower slope as part of slope repair, hydroseeding; and
- Lower slope repair and stabilization – grading, cutting back slope, placing fill, erosion control measures.

As part of the groundwater basin management, Zone 7 uses surface water to recharge the groundwater basin to store for future pumping. As part of their mining operations Vulcan Materials, Inc. (Vulcan) pumps groundwater from actively mined pits. Vulcan currently discharges this water to the Arroyo Mocho under a National Pollutant Discharge Elimination System (NPDES) permit issued by the California Regional Water Quality Board, San Francisco Bay Region. A small amount of the discharge water is recharged back into the groundwater basin through the stream bottom but most of it flows out of the groundwater basin and out to the Bay. To reduce the amount of water leaving the groundwater basin, a pipeline will be installed from Vulcan's current discharge point, in the Arroyo Mocho, and into Lake H, I or Cope Lake. If this water is discharged into Cope Lake, the water would eventually be transferred to Lake I so that it can percolate through the gravel slopes of Lake I and recharge the groundwater basin.

The Cope Lake improvements and maintenance activities will be phased and coordinated due to their close proximity to each other.

1.3 Environmental Review

Zone 7, acting as the Lead Agency under CEQA, prepared this document to provide information about the potential environmental effects of the Proposed Project.

Pursuant to CEQA, the purpose of an Initial Study is to:

- determine whether the project may have a significant effect on the environment (i.e. whether an Environmental Impact Report (EIR) or a Negative Declaration should be prepared);
- identify measures that mitigate project impacts to a less than significant level (mitigated negative declaration);
- determine scope of the EIR, if one is required;
- justify the lead agency's decision to adopt a Negative Declaration, if one is prepared; and
- determine whether to rely on a previously prepared EIR.

According to CEQA, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

- a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
- b) The initial study identifies potentially significant effects, but:
 - 1) revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review

would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

- 2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have significant effect on the environment.

Upon completion of the Initial Study, Zone 7 identified potentially significant impacts and corresponding mitigation to reduce these impacts to a level that is considered less than significant. Zone 7 prepared this Mitigated Negative Declaration to provide the public, and Responsible and Trustee Agencies reviewing this project, with information about the Project and potential effects on the local and regional environment. This Mitigated Negative Declaration was prepared in compliance with Section 15070 of the CEQA Guidelines of 1970 (as amended). In accordance with Section 15073 of the CEQA Guidelines, this document was circulated to applicable local, state and federal agencies and to interested organizations and individuals who may wish to review and comment on the report.

1.4 Project Approvals

The CEQA review process is intended to provide responsible agencies with an opportunity to provide input into the project in order to assist with their responsibilities. Responsible agencies are those that have some responsibility or authority for carrying out or approving a project; in many instances these public agencies must make a discretionary decision to issue a permit; provide right-of-way, funding or resources to the project.

The following are the permits and approvals (and approving entity) needed for this Project:

- CEQA (Zone 7 Board of Directors)

1.5 Public Review Process

This MND will be circulated to local, state and federal agencies, interested organizations and individuals who may wish to review and provide comments on the project description, the proposed mitigation measures or other aspects of the report. The publication will commence a minimum 30-day public review period consistent with CEQA Guidelines §15105(b) beginning on December 19, 2011 and ending on January 20, 2012.

The draft IS/MND and all supporting documents are available for review at the following locations:

Zone 7 Water Agency
100 North Canyons Parkway
Livermore, CA 94551

Livermore Public Library
1188 South Livermore Avenue
Livermore, CA 94550

It will also be posted online at www.zone7water.com. Written comments or questions regarding the draft IS/MND are due by **5 p.m. on January 20, 2012**, and should be submitted to:

Zone 7 Water Agency
Attn: Mary Lim, Associate Water Resources Planner
100 North Canyons Parkway

Livermore, CA 94551

Or, via e-mail to mlim@zone7water.com

Zone 7 will consider all comments and make any necessary changes to the document prior to adoption of the final Mitigated Negative Declaration by the Board of Directors.

2 PROJECT DESCRIPTION & CONSTRUCTION

2.1 Project Location

The project is located in Alameda County between the cities of Livermore and Pleasanton off the El Charro Road exit, on the south side of Interstate 580 (Figure 1). The entire site is located within the Alameda Creek Watershed. The project area is in Unincorporated Alameda County and is bound to the north, south, east and west, respectively by the Arroyo Mocho, Pleasanton City Limit, Arroyo Mocho, and the quarry haul road. The only major streams in the area are the Arroyo Mocho and its tributary, the Arroyo Las Positas.

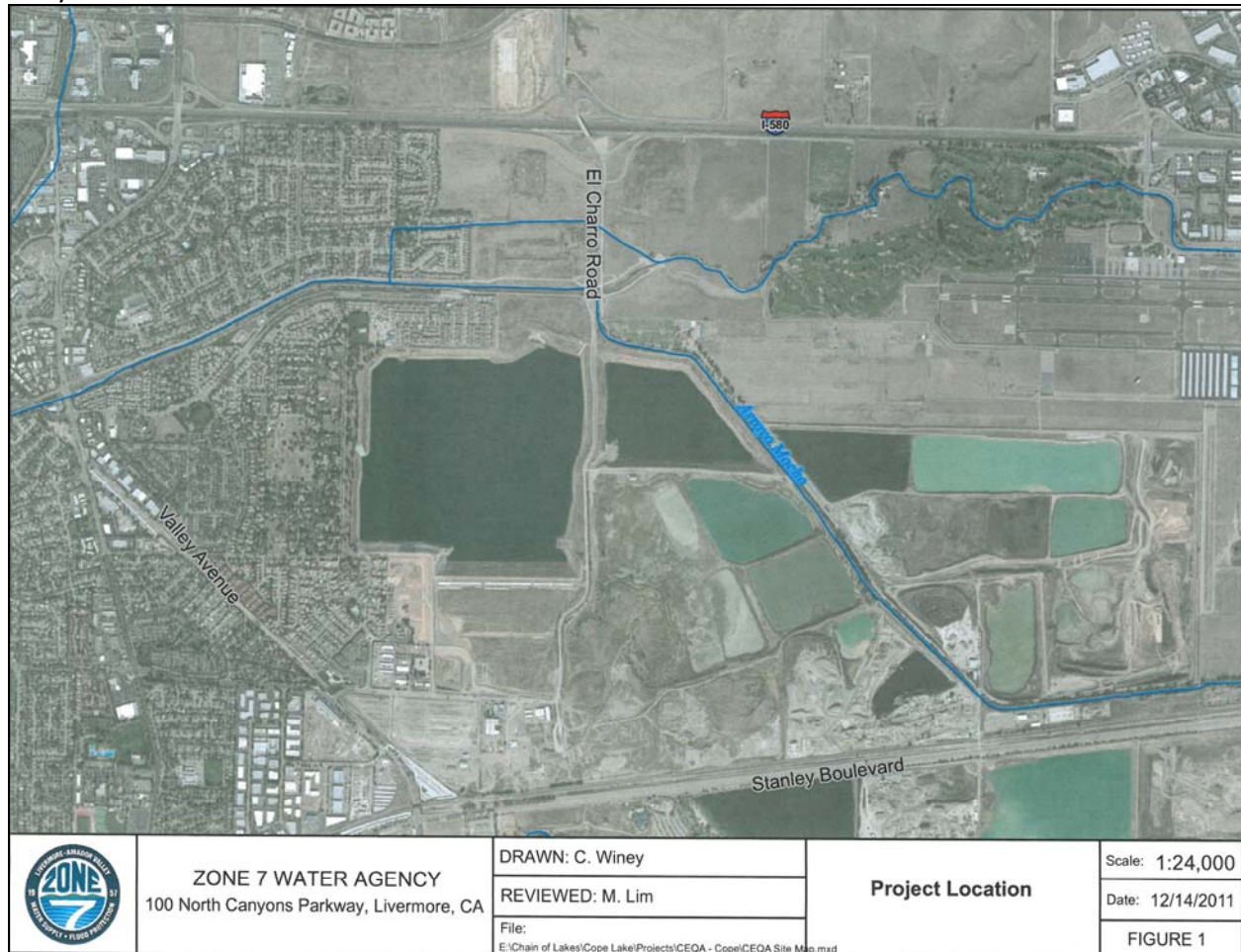


Figure 1. Project Location

2.2 *Proposed Facilities*

The Cope Lake slope repairs portion of the project includes installing concrete lined v-ditches, trenching, up to three 12 to 18-inch high density polyethylene (HDPE) drain pipes and drain inlets to improve drainage. See Figure 2.

The Vulcan discharge pipeline project includes installing a 24-inch HDPE pipeline. This pipeline will be connected to the existing discharge outfall, which is located at the Arroyo Mocho, and will connect to Lake H, I or Cope Lake. The pipeline shall be designed to protect the lake slope from eroding as a result of the discharge flow (e.g. energy dissipater). See Figure 3 for three possible alignments for the discharge pipeline. The chosen alignment and the timing of the pipeline installation will depend upon the timing of the Cope Lake slope repairs and availability of Lake H.

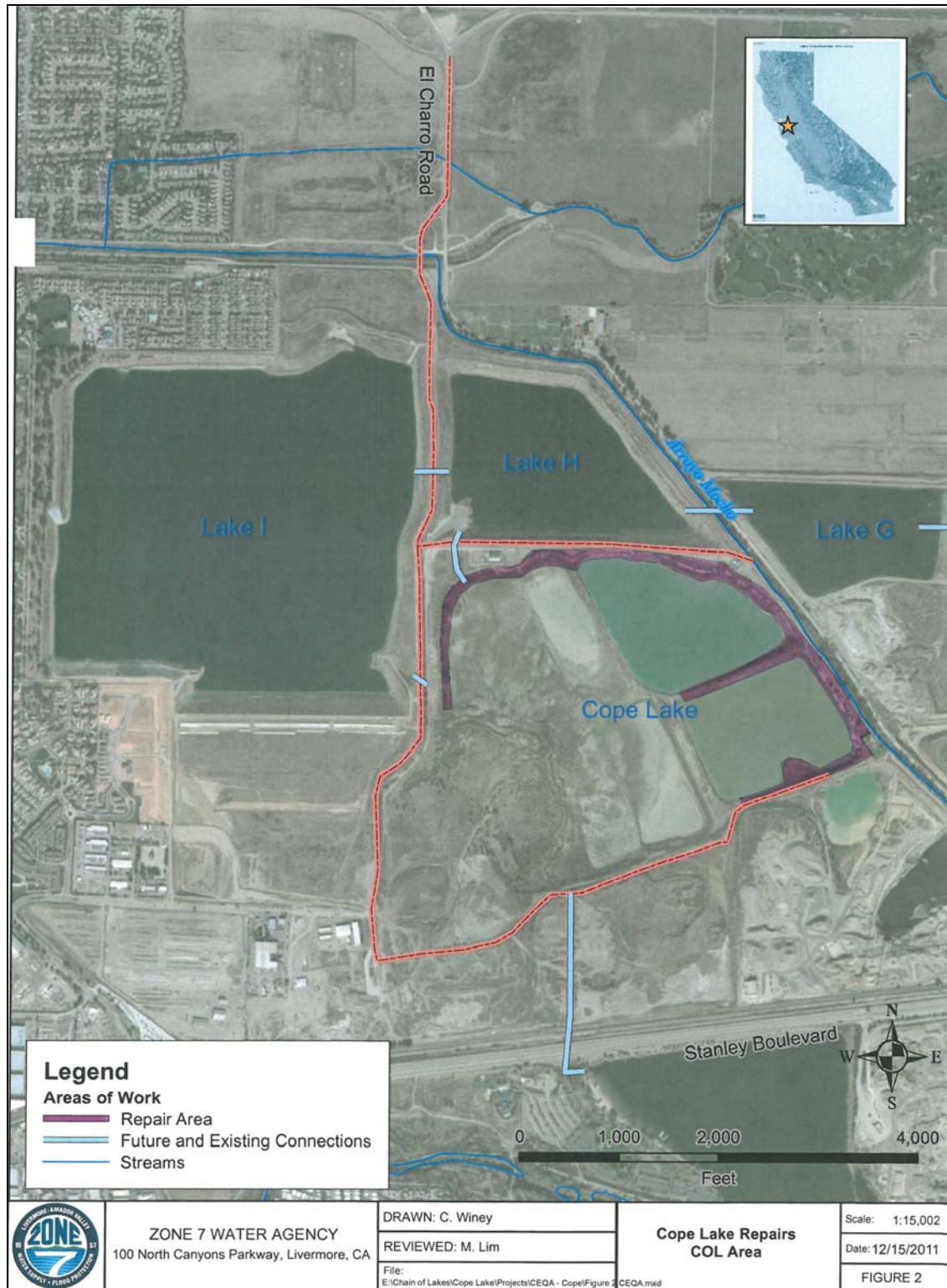
**Figure 2. Cope Lake Slope Repairs**



Figure 3. Vulcan Discharge Pipeline – Proposed Pipeline Routes

2.3 Construction Activities

2.3.1 Project Sequencing and Schedule

Project construction can commence only after adoption of this CEQA document and project approval by Zone 7's Board of Directors. Construction for the Cope Lake slope improvements is anticipated to commence in ~~summer~~May 2012 and could occur in phases depending upon extent of repairs needed around the lake. Slope repairs will take approximately 3 to 6 months, on average. In order to minimize impacts to the resident, located nearby, construction will generally occur during normal working hours, or 8 a.m. to 5 p.m., Monday through Friday. Work on the weekend is not anticipated. Installation of the Vulcan discharge pipeline will depend upon the chosen alignment and would take approximately six weeks to install.

2.3.2 Site Clearing/Grading and Trenching

Cope Lake Slope Repair

The Cope Lake slope repair activities will require that the existing vegetation on the upper surface will be cleared and grubbed for grading. Following clearing and grubbing, the surface will be graded a minimum of 2% towards a constructed concrete curb and gutter, V-ditch, or other drainage conveyance. In areas where there are sink holes, the slope may be laid back 2:1 or filled and compacted, depending on the severity of the sinkhole and proximity to the top of erosion. Once the drainage system is in place, it will convey the runoff to a low point with a flared end section, which will transport the runoff to the discharge line. A portion of the upper slope will be laid back at least 2:1 for the drainage line to run down the upper slope, over the access road and into Cope Lake via an HDPE pipe (up to three 12 – 18" diameter pipes). In order to install the drainage system, a narrow trench will need to be excavated.

Vulcan Discharge Pipeline

A pipeline will be constructed from Vulcan's existing discharge outfall at the Arroyo Mocho and will be connected to Lake H, I and/or Cope Lake. Pipeline installation will involve clearing and grubbing. The pipeline will primarily be aboveground. There will be grading in areas where sharp drops will need to be leveled off to accommodate the pipeline. Trenching will be required for the areas where the pipeline goes underground. In addition, sink holes will be filled in along the pipeline route.

2.3.3 Truck Trips and Haul Route

There will be some soil transport to and from the Project site during the Cope Lake slope repair project. Truck traffic will be minimal since excavated dirt will, as much as possible, be spread out around the project area. There is also the possibility for limited trips to and from the site by concrete trucks for various portions of the work. Site access routes are shown in Figure 2 above.

2.3.4 Construction Equipment and Workers

The following construction equipment is anticipated to be used:

- bulldozer with rippers
- excavator with roller compactor or separate vibratory plate machine
- trencher
- grader
- scraper

In addition, there will be up to 10 construction workers anticipated at the construction site.

2.3.5 Post-Construction Site Cleaning and Restoration

Once the grading and drainage installations are complete on the Cope Lake improvements, the upper slope will be hydroseeded and other slope protection measures (e.g. Geomat, rip rap, etc.) will be installed in the cut section where the discharge line runs down the upper slope. Once the Vulcan discharge pipeline is installed, areas that have been cleared and grubbed will be hydroseeded, when appropriate.

3 ENVIRONMENTAL SETTING

This section provides an overview of key environmental features of the project site. Additional information is included within the topical discussions in section 4.2.

The Project site is located in an aggregate mining area in Township 3 south, Range 1 east, Sections 10, 11, and 14 in unincorporated east Alameda County. Cope Lake and Lake I are located near the south end of El Charro Road, south of Interstate 580 and north of the Western Pacific Railroad tracks, west of the City of Livermore, and east of the City of Pleasanton. The site is currently bounded by a residential development to the west, operational gravel mining to the south and east, and undeveloped land (part of the City of Livermore's El Charro Specific Plan Area) to the north.

Vegetation at the Project site includes riparian scrub, coastal scrub, and annual grassland cover. There are some eucalyptus trees and saplings on the Project site as well.

4 ENVIRONMENTAL IMPACTS AND DISCUSSION

4.1 Basic Project Information

Project Title:	Cope Lake Improvements
Lead Agency Name and Address:	Zone 7 Water Agency 100 North Canyons Parkway Livermore, CA 94551
Contact Person and Phone Number:	Ms. Mary Lim Associate Water Resources Planner, Zone 7 (925) 454-5036

Project Location:	See Section 2.0 – Project Description
General Plan Designation:	Water Management and Large Parcel Agriculture
Zoning:	Agriculture
Property Description:	The site is located in Township 3 south, Range 1 east, Sections 10, 11, and 14 in east Alameda county. Cope Lake, Lake H and Lake I are located near the south end of El Charro Road, south of Interstate 580 and north of the Western Pacific Railroad tracks, west of the City of Livermore, and east of the City of Pleasanton. The site is currently bounded by a residential development to the west, operational gravel mining to the south and east, and undeveloped land (part of the City of Livermore’s El Charro Specific Plan Area) to the north.
Project Description:	The proposed activities include (1) Cope Lake slope repairs; and (2) installing a discharge pipeline from Vulcan’s existing discharge point, over the Arroyo Mocho, and connecting into Lake H, I and/or Cope.
Surrounding Land Uses:	See Section 4 – Environmental Setting
Other Agencies Whose Approval is Required:	None

4.2 Environmental Factors Potentially Affected

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

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

☐ Transportation/Traffic

☐ Utilities/Service Systems

☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation that follows:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

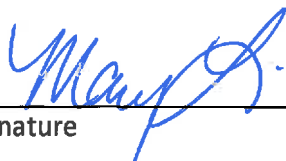
☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that 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. A TIERED ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that 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, no further environmental document is required. FINDINGS consistent with this determination will be prepared.

Signature



Date

Dec. 19, 2011

Printed Name

Mary Lim

5 Evaluation of Environmental Impacts

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

Discussion

a.b.c.d. **No Impact.** The Project will be located in an area that is predominately industrial, specifically sand and gravel mining activities, with open space. Both the Cope Lake slope repairs and the Vulcan discharge pipeline installation will result in short-term visual impacts during construction. Construction activities would require the use of some heavy equipment. The Vulcan discharge pipeline would not alter the aesthetic quality of the surrounding area because the pipeline will lie along the ground through Cope Lake. Since the Project area is already disturbed due to decades of and ongoing mining activities, there will be no potential damage to scenic resources. Therefore, there is no impact to the scenic resources or scenic highways. In addition, there are no proposed lights or building surfaces that would create a new source of substantial light. Therefore, there would be no impact related to light or glare.

II. AGRICULTURE AND FORESTRY RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Less Than Significant with Mitigation Incorporated			
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a.b.c.d.e. **No Impact.** The Project area is considered Other Lands (quarry) in the *Alameda County Important Farmland Map*, which has been mined for gravel. The quarry lakes are part of the larger Chain of Lakes designed for water management activities in the *Reclamation Specific Plan*. Lake I and Cope Lake have already been transferred to Zone 7 as mitigation for the loss of aquifer storage associated with the quarry operations. Due to their current condition as depleted gravel mining pits, and the dedication of these pits to water management, these areas are no longer consistent with the prime agricultural soil definition. As such, there would be no impact related to loss of agricultural lands associated with implementation of the Project.

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:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

e) Create objectionable odors affecting a substantial number of people?

☐☐☒☐

Discussion

a. **No Impact.** The most recently adopted air quality plan for the San Francisco Bay Area is the Bay Area 2010 Clean Air Plan (2010 CAP). The 2010 CAP is an update to the Bay Area Air Quality Management District (BAAQMD)'s 2005 Ozone Strategy to comply with State air quality planning requirements. The 2010 CAP also serves as a multi-pollutant air quality plan to protect public health and the climate. The 2010 CAP control strategy includes revised, updated, and new measures in the three traditional control measure categories, including stationary sources measures, mobile source measures, and transportation control measures. In addition, the 2010 CAP identifies two new categories of control measures, including land use and local impact measures and energy and climate measures (BAAQMD, 2010a). BAAQMD recommends that the agency approving a project where an air quality plan consistency determination is required, analyze the project with respect to the following questions: 1) does the project support the primary goals of the air quality plan; 2) does the project include applicable control measures from the air quality plan; and 3) does the project disrupt or hinder implementation of any 2010 CAP control measures? If all the questions are concluded in the affirmative, BAAQMD considers the project consistent with air quality plans prepared for the Bay Area (BAAQMD, 2010b).

Any project that would not support the 2010 CAP goals would not be considered consistent with the 2010 CAP. The recommended measure for determining project support of these goals is consistency with BAAQMD CEQA thresholds of significance. As presented in the subsequent impact discussions, the proposed project would result in virtually no new long-term operations-related emissions and proposed project-related construction emissions would not exceed the BAAQMD significance thresholds; therefore, the proposed project would support the primary goals of the 2010 CAP. As mentioned above, projects that incorporate all feasible air quality plan control measures are considered consistent with the 2010 CAP. There appear to be no 2010 CAP control measures that would be directly applicable to the proposed project; however, implementation of **Mitigation Measure AIR-1** (see discussion b) below) would ensure that BAAQMD basic construction control measures would be implemented.

The proposed project would support the primary goals of the 2010 CAP and it would not disrupt or hinder implementation of any 2010 CAP control measures. Therefore, there would be no impact associated with conflicting or obstructing implementation of the applicable air quality plan.

b. **Less Than Significant With Mitigation Incorporated.** Based on the following analysis, construction and operation of the proposed project would not result in a violation of an air quality standard or contribute significantly to an existing or projected air quality violation.

Lakes H, I and Cope were previously used for mining operations. There is one residence near the southeast corner of Cope Lake near/on El Charro Road adjacent to the planned improvements to Cope Lake. There are a subdivisions north and on the southeast corner of Lake I in Pleasanton that are about 3400 and 2,900 feet, respectively from the planned location of the Vulcan discharge pipeline into Lake I. Sensitive receptors are limited to these residences any future residences developed as part of the quarry reclamation.

Construction emissions would result from excavation of soil, combustion of fuel to power heavy construction equipment, delivery and haul trucks and construction worker vehicle trips. The primary

pollutants generated from construction would be NO_x (from combustion of diesel fuel) and PM-10 (from grading and excavation and vehicle travel over unpaved surfaces). Heavy-duty construction equipment used during clearing and grading would include a bulldozer with rippers and excavator with roller compactor or separate vibratory plate machine. Fugitive dust emissions would vary from day to day depending upon the level and type of activity, silt content of the soil and prevailing weather. Installation of the Vulcan discharge pipeline is estimated to take approximately six weeks.

Construction emissions would result in a temporary increase in criteria air pollutant emissions. To address this temporary increase, the following mitigation measure shall be implemented:

Mitigation Measure AIR-1: Implement BAAQMD Basic Mitigation Measures. Zone 7 Water Agency and its construction contractors shall control fugitive dust emissions by implementing, as applicable, the following basic control measures based on BAAQMD recommendations:

All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas, and unpaved access roads) shall be watered two times a day.

All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

All visible mud or dirt track-out onto adjacent public roads shall be removed at least once per day.

All vehicle speeds on unpaved roads shall be limited to 15 mph.

All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.

All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

Post a publicly visible sign with the telephone number and person to contact at Zone 7 Water Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Operations: Once construction is complete, the proposed project would result in virtually no sources of air pollutants. Therefore, there would be no net change in long-term proposed project emissions compared to the baseline conditions and there would be no long-term operational impact.

c. **Less Than Significant Impact.** Based on BAAQMD guidance, if a project would result in an increase in ROG, NO_x, PM10, or PM2.5 of more than its respective average daily mass significance thresholds, then it would also be considered to contribute considerably to a significant cumulative impact. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a

project's individual emissions would be cumulatively considerable. If a project would exceed the identified significance thresholds, its emissions would be cumulatively considerable, and if a project would not exceed the significance thresholds, its emissions would not be cumulatively considerable. As presented under discussion b) above, short-term construction emissions would not exceed the applicable significance thresholds and there would be virtually no increase in long-term operational emissions. Therefore, the proposed project would not be cumulatively considerable and cumulative impacts would be less than significant.

d. Less than Significant Impact. The BAAQMD recommends that lead agencies quantitatively assess the incremental toxic air contaminant (TAC) exposure risk to all sensitive receptors within a 1,000-foot radius of a project's fence line. Long-term operations that would be associated with the proposed project would result in no new TAC emissions. However, proposed project construction activities would generate diesel particulate matter (DPM), which is considered to be a TAC. The majority of PM10 and PM2.5 exhaust emissions that would be generated during construction would be DPM due to the use of diesel off-road equipment.

As stated above, there is one residence near the southeast corner of Cope Lake near/on El Charro Road adjacent to the planned improvements to Cope Lake. There are a subdivisions north and on the southeast corner of Lake I in Pleasanton that are about 3400 and 2,900 feet, respectively, from the planned location of the Vulcan discharge pipeline into Lake I. Sensitive receptors are limited to these residences any future residences developed as part of the quarry reclamation. Given the anticipated relatively short period of potential exposure, TAC emissions associated with proposed project construction equipment would be sufficiently diluted and would not be substantial at the nearest residential locations. Impacts would be less than significant.

e. Less than Significant Impact. Diesel equipment used to construct the proposed project may emit objectionable odors associated with combustion of diesel fuel. However, these emissions would be temporary and intermittent in nature, thus odor impacts associated with diesel combustion during construction activities would be less than significant. Regarding long-term operational odors, the sewer pipeline would be located underground in an air tight closed system; therefore, there would be no expected operational odors associated with the proposed project and no long-term impact would occur.

IV. BIOLOGICAL RESOURCES				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☒	☐	☐

b) Have a substantial adverse effect on any riparian aquatic, or wetland 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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local applicable policies 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 applicable habitat conservation plan?	☐	☐	☐	☒

Discussion

The biological study area includes the project area and all accessible areas within 300 feet of aquatic habitat adjacent to the project area. This 300-foot area was included to evaluate project related effects on California red-legged frog (*Rana draytonii*). The 300-foot assessment distance was chosen over the typical 1-mile study distance for California red-legged frog because construction of the proposed project would be limited to the dry season (generally May 1 to September 30), which is a time period when California red-legged frogs typically stay within 300 feet of aquatic habitat.

Existing information on biological resources reviewed for the project includes the following:

- United States Geological Survey (USGS) Livermore 7.5-minute quadrangle (1961, photorevised 1980);
- United States Fish and Wildlife Service (USFWS) list of special-status species in the U.S. Geological Survey (USGS) 7.5-minute Livermore quadrangle (June 24, 2011);
- California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDB) (2011) records search for the Livermore, CA 7.5-minute USGS quadrangle;
- CDFG's CNDDB (2011) records search for special-status plant species occurrences within a 10 mile radius of the project area;
- California Native Plant Society's (CNPS's) Inventory of Rare and Endangered Plants (2011) records search for the Livermore USGS 7.5-minute quadrangle; and
- Biological Reconnaissance Report, Chain of Lakes Site, Alameda County, California (Padre Associates, Inc., 2008).

Survey Date and Personnel

Surveys that were conducted for the Project include a floristic survey, wildlife survey, and habitat mapping. A reconnaissance level survey was conducted by ICF International (formerly Jones & Stokes) biologist and botanist/ecologist on June 7, 2011. This reconnaissance level survey was intended to document existing biological resources and determine the occurrence or potential for special-status species to occur in the study area and provide an initial habitat assessment of the project area.

Existing Conditions

The biological study area is located between the cities of Livermore and Pleasanton within Alameda County, California and can be found on the USGS Livermore, CA 7.5-minute topographic quadrangle within Township 3 South, Range 1 East, Sections 10, 11 and 14. The elevation of the study area ranges from approximately 300 to 380 feet above mean sea level, and is topographically variable due to the construction of the water quality basins (i.e., Cope Lake, Lake H and Lake I), and drains from the roads and levees towards the respective basins.

Habitat Types

Eight habitat types were identified in the study area: perennial stream, riparian woodland, riparian scrub, coyote brush scrub, tamarisk scrub, non-native annual grassland, open water, and disturbed/developed areas. The boundaries of the habitat types are approximations based on visual assessment during the reconnaissance level survey. A list of the plant species observed during the reconnaissance survey of the study area is included in Appendix A.

Perennial Stream

One perennial stream, Arroyo Mocho, runs along the southeastern edge of the study area. Arroyo Mocho is a 34.7 mile long stream that traverses the cities of Livermore and Pleasanton. It is located in the Mocho subbasin of the Livermore Valley Basin, which drains to Alameda Creek, the largest of all local watersheds draining directly into San Francisco Bay (East Bay Regional Park District 2002). Approximately 0.49-acre of perennial stream occurs within the study area only, as the stream is not located within the project area. Arroyo Mocho is one of the major drainages in the Livermore Valley. Within the study area, Arroyo Mocho generally runs northwest and parallel to El Charro Road. The section of Arroyo Mocho within the study area is confined to its current alignment by high levees.

During the reconnaissance level survey conducted on June 7, 2011, Arroyo Mocho was observed flowing within the channel varying in width from 12 to 30 feet. The channel has a low gradient and has a substrate comprised predominantly of silt and sand, with some embedded gravel and cobbles. Signs of high flows were observed in the form of wrack deposition along herbaceous and woody vegetation beyond the banks but within the levees of the stream channel.

Surface water in Arroyo Mocho consists of both natural and artificial flow. Natural flow is often limited to winter and spring (wet) months. Artificial flow includes both releases from the South Bay Aqueduct made for the purposes of groundwater recharge, and releases from mining activities. The artificial releases can be sporadic, made only when water is available for groundwater recharge, or when there is ample mining activity requiring discharge of groundwater.

Riparian woodland

Approximately 3.29 acres and 0.37-acre of riparian woodland occur, respectively, within the study area and project area. The west bank of Arroyo Mocho within the study area is dominated by an overstory of gum trees (*Eucalyptus sp.*) with herbaceous vegetation such as mulefat (*Baccharis salicifolia*), poison

hemlock (*Conium maculatum*), Harding grass (*Phalaris aquatica*), smilo grass (*Piptatherum miliaceum*), and bentgrass (*Agrostis sp.*) commonly occurring in the understory. Other trees and shrubs observed in this community included California walnut (*Juglans californica*), edible fig (*Ficus carica*), and elderberry (*Sambucus nigra ssp. caerulea*). This grove of eucalyptus trees runs above the western bank of Arroyo Mocho and along an old dirt road above the eastern side of Cope Lake. Further up on the bank and above the dirt road the overstory includes Monterey pine (*Pinus radiata*) trees. The understory in this area also changes to predominantly non-native grasses and forbs including wild oat (*Avena sp.*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum ssp. leporinum*), Harding grass, milk thistle (*Silybum marianum*), and Italian thistle (*Carduus pycnocephalus*). The east bank of Arroyo Mocho is dominated by willows (*Salix sp.*) and Himalayan blackberry (*Rubus armeniacus*). Wildlife observed in this habitat type during the field survey includes American crow (*Corvus brachyrhynchos*), house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), red-tailed hawk (*Buteo jamaicensis*), European starling (*Stunrus vulgaris*), and mocking birds (*Mimus polyglottos*).

Riparian Scrub

Approximately 2.70 acres and 2.37 acres of riparian scrub occur, respectively, within the study area and project area. Riparian scrub was observed along the eastern bank of Cope Lake and the banks of the peninsula that begins along the eastern bank of Cope Lake and extends midway across the lake. This vegetative type also occurs in patches along the western edge of Cope Lake. Species commonly observed in this vegetative community include several willow species (*Salix sp.*), tamarisk (*Tamarix ramosissima*), mulefat, Fremont cottonwood (*Populus fremontii*), and scattered coyote brush (*Baccharis pilularis*). In addition to tree and shrub species, several non-native forb species were observed in this vegetative type including wild oat, Harding grass, rattail fescue (*Vulpia myuros*), soft brome (*Bromus hordeaceus*), and Italian thistle. Wildlife observed within this habitat type consists of Pacific tree frog (*Hyla regilla*), snakefly (*raphidopteran*), black-tailed deer (*Odocoileus hemionus*), tree swallow (*Tachycineta bicolor*), and killdeer (*Charadrius vociferus*).

Coyote Brush Scrub

Approximately 1.43 acres of coyote brush scrub occur within project area, which is encompassed by the study area. The coastal scrub vegetative type was observed along the top of the peninsula extending from the eastern edge of Cope Lake and along the western edge of Cope Lake. Coyote brush was the dominant species in this vegetative type. Other species observed in this vegetative type were primarily non-native grasses and forbs including wild oat, Harding grass, red brome (*Bromus madritensis ssp. rubescens*), rattail fescue, wild mustard (*Brassica sp.*), and Italian thistle. Non-native forbs such as wild mustard and milk thistle were particularly dense in the eastern and western edges of the coyote brush scrub habitat along the peninsula. Additionally, the non-native invasive stinkwort (*Didtrichia graveolens*) was abundant in the coyote brush scrub along the western edge of Cope Lake. Wildlife observed within this habitat type consists of house sparrow (*Passer domesticus*), western scrub jay (*Aphelocoma californica*), brewer's blackbird (*Euphagus cyanocephalus*), western fence lizard (*Sceloporus occidentalis*), western dog tick (*Dermacentor occidentalis*), and deerfly (*tabanidae*).

Tamarisk Scrub

Approximately 4.31 acres and 2.36 acres of tamarisk scrub occur, respectively, within the study area and project area. Although tamarisk appears as a component of the riparian scrub vegetative type, an area in the center of the study area consists predominantly of tamarisk. According to Holland (1986), this vegetative type is characterized as a "weedy, virtual monoculture of any of several *Tamarix* species, usually supplanting native vegetation following major disturbance." Two hydrophytic species,

rabbitsfoot grass (FACW) and mulefat (FACW), were also commonly observed in this vegetative type. In 2008, this area was characterized as open water and non-vegetated mud flats (Padre Associates, Inc. 2008). Wildlife observed within this habitat type consists of brown-headed cowbird (*Molothrus ater*), red-winged blackbird (*Agelaius phoeniceus*), western dog tick, house sparrow, and western scrub jay.

Non-native Annual Grassland

Approximately 10.52 acres and 3.89 acres of non-native annual grassland occur, respectively, within the study area and project area. Non-native annual grassland is located along an old road running below the riparian woodland/eucalyptus grove on the eastern shore of Cope Lake, and on the east and west sides of the road running between Cope Lake and Lake I in the western portion of the study area. This vegetative type consists predominantly of non-native grasses and forbs. Dominant non-native grasses observed during the reconnaissance level survey in 2011 included ripgut brome, wild oats, Italian wild rye (*Lolium perenne ssp. multiflorum*), Harding grass, soft brome, and foxtail barley. Non-native forbs commonly observed included Italian thistle, wild mustard, milk thistle, and yellow-star thistle (*Centaurea solstitialis*). Wildlife observed in this habitat type includes black-tailed deer, western scrub jay, northern mocking bird, turkey vulture (*Cathartes aura*), and red-tailed hawk. A small number of sparsely spaced mammal burrows were observed in this habitat type, particularly near concrete structures and concrete-stabilized slopes.

Open Water

Approximately 25.31 acres and 0.49-acre of open water occur, respectively, within the study area and project area. This habitat type occurs adjacent to the study area in the middle of Cope Lake. Water depth of the lake is unknown but relatively shallow. Wildlife observed within this habitat type includes tree swallow, bufflehead (*Bucephala albeola*), mallard (*Anas platyrhynchos*), black phoebe, turkey vulture, great egret (*Ardea alba*), and Canada goose (*Branta canadensis*).

Disturbed/Developed Areas

Approximately 2.34 acres and 0.84-acre of disturbed/developed areas respectively occur within the study area and project area. Developed areas within the study area consist of a paved road and graded road shoulders along the western edge of the study area, a dirt road along the eastern side of Cope Lake, concrete rip-rap along the southeastern and a dirt boat ramp on the western edge of the study area. The developed areas in general do not provide habitat for wildlife, other than upland foraging for birds and basking habitat for reptiles.

a. Less Than Significant With Mitigation Incorporated. Special-status species are plants and animals that are legally protected under the California Endangered Species Act (CESA), the federal Endangered Species Act (ESA), or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For the purposes of this document, special-status species include:

- Species listed or proposed for listing as threatened or endangered under ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the Federal Register [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under ESA;
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 CCR 670.5);

- Animals fully protected in California (California Fish and Game Code Section 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]);
- Animal species of special concern to the California Department of Fish and Game;
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.); and
- Plants considered by CNPS to be “rare, threatened, or endangered in California” (Lists 1B and 2, California Native Plant Society 2005).

Special-Status Plant Species

Based on a search of the CNDDDB (2011), the CNPS Inventory (2011), and species list obtained from the USFWS, a list was compiled with special-status plant species known to occur in the project region. The study area lacks suitable habitat for most of these species, including serpentine soils and/or certain plant communities (e.g., chaparral, seeps, and vernal pools). The remaining 15 special-status plant species for which the study area may support suitable plant communities and soils are summarized in Table A.2, in Appendix A. These species were concluded to have either no potential to occur, due to lack of suitable microhabitat in the study area, or a low potential to occur, due to the highly disturbed nature of the annual grassland habitat and riparian habitat in the study area. No special-status plants were observed during the June 7, 2011 reconnaissance level survey; however, protocol-level surveys were not conducted. Because no special-status plants are likely to occur in the study area due to the lack of suitable habitat and degraded condition of the site, and because no special-status plants were observed in previous surveys, the proposed project would not be expected to affect special-status plants.

Special-Status Wildlife Species

Although much of the study area consists of disturbed habitat, it does provide potential habitat for certain special-status wildlife species. No special-status fish species occur in the project area, although central California coast steelhead have the potential to occur in Arroyo Mocho in the future. A list of potentially occurring special-status species was generated from the CNDDDB records search and from the list obtained from the USFWS. These species were evaluated for their potential to occur in the study area based on the results of previous studies and the reconnaissance level assessment conducted on June 7, 2011. Table A.1, in Appendix A, presents this list of special-status wildlife species, their distributions, their general habitat requirements, and their potential to occur in the study area. Those species that have a moderate to high potential to occur in the study area and have a potential to be affected by the proposed project include the federally threatened California red-legged frog (*Rana draytonii*) and the following California state species of special concern: western pond turtle (*Actinemys marmorata*), pallid bat (*Antrozonus pallidus*), Townsend’s big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), western burrowing owl (*Athene cunicularia*), loggerhead shrike (*Lainus ludovicianus*), tricolored blackbird (*Agelaius tricolor*), ferruginous hawk (*Buteo regalis*); and the California fully protected white-tailed kite (*Elanus leucurus*). The study area also provides habitat for other raptors and for migratory birds protected by the Migratory Bird Treaty Act.

Central California Coast Steelhead

Central California coast steelhead are federally listed as threatened (71 FR 834, January 5, 2006), excluding those behind man-made barriers in this watershed. Historically, steelhead have periodically occurred in Arroyo Mocho, which provides limited suitable spawning and rearing habitat in its upper reaches (Alameda Creek Alliance 2011). Currently, there are many barriers downstream of the project site both in Arroyo Mocho and surrounding tributaries such as Alameda Creek which preclude steelhead migration into the project area, or within the watershed as a whole. Also see discussion under item D.

California Tiger Salamander

The federally and state threatened California tiger salamander (*Ambystoma californiense*) (CTS) is known to occur in the region; however the site is isolated from these occurrences. The nearest occurrence, located approximately 0.69-mile south of the study area, is separated from the project area by Stanley Road, a relatively busy main road, and active quarries. Three CTS occurrences north of the study area are all located north of Interstate 580 (I-580), which is a significant barrier to individuals from these metapopulations. Additionally, in 2008 the USFWS determined that the El Charro Specific Plan Area, located north of the site (east of El Charro Road, immediately south of Interstate 580 and northwest of the Livermore Municipal Airport), did not provide suitable habitat for California tiger salamander and did not warrant coverage under the Biological Opinion issued for that project (USFWS 2008). This determination was based on negative results from drift fence studies conducted in the Specific Plan Area in 2006 and 2007, and the fact that all records for this species are north of I-580, which was identified as a substantial barrier to dispersal to potential aquatic habitat within the El Charro Specific Plan Area. Considering this recent determination and the fact that the study area does not provide suitable aquatic habitat for California tiger salamander, this species is not expected to occur within the study area nor be affected by the proposed project.

Impacts to California Red-Legged Frog

California red-legged frog (CRLF) has been documented at five locations within two miles of the action area (CNDDDB 2011). Most of these occurrences are north of I-580. In August 1997, an adult CRLF was reported in a small pool in Arroyo Las Positas, approximately 1.09 miles northeast of the action area (CNDDDB 2011). No suitable breeding pools were observed in the portion of Arroyo Mocho adjacent to the study area during the June 7, 2011 field survey and the stream flow observed is expected to be too great to provide habitat for CRLF. The water basins (Cope Lake, Lake H and Lake I) within the study area represent potential aquatic habitat for CRLF and adjacent upland areas (within 300 feet) are potential upland dispersal habitat. In addition, the seasonally inundated portions of the water basins in the study area could be used by CRLF as habitat; although these areas would not necessarily be suitable aquatic habitat, they could be used as refugia. These seasonally inundated basins provide ample suitable refugia, namely crevices and soil cracks, for CRLF. In addition, CRLF could disperse throughout most of the action area during the rainy season. If CRLF are present in aquatic and upland habitats in the construction area, construction activities (i.e., staging and excavation) could result in direct impacts (i.e., loss of adult frogs). Impacts to aquatic and upland habitat would be temporary and would occur during the dry season.

Implementation of the proposed action would temporarily disturb approximately 11.25 acres of CRLF upland habitat and 0.49-acre of CRLF aquatic habitat (slope layback along Cope Lake and ground disturbance during pipeline construction). During construction in aquatic and upland areas, there is potential for CRLF to be killed by construction equipment unless avoidance measures are implemented.

Loss of habitat and potential direct effects to individual frogs are considered a potentially significant impact that can be mitigated to a less than significant level through the following mitigation measures:

Mitigation Measure BIO-1: Conduct an Environmental Education Program for all Construction Personnel. Develop and implement an environmental education program for all construction personnel about the importance of on-site biological resources. The program, to be provided to all construction personnel, shall brief them on the need to avoid impacts on biological

resources—including California red-legged frog, as well as the penalties for not complying with biological mitigation requirements. All construction personnel shall be informed about the life history of federally listed species and other special status species that could occur on site; the importance of habitats for these species and the terms and conditions of the biological opinion. The construction supervisor shall ensure that any new personnel arriving to the site are briefed before they begin work.

Mitigation Measure BIO-2: Conduct a Preconstruction Survey for California Red-Legged Frog and Monitor Construction Activities within California Red-Legged Frog Habitat. To avoid and minimize impacts on CRLF, the applicant or its contractor shall retain a qualified wildlife biologist to conduct preconstruction clearance surveys for California red-legged frogs no more than 48 hours before ground disturbance anywhere within the project area. The qualified biologist also shall be responsible for monitoring all construction activities within CRLF aquatic habitat (Cope Lake and Lake I) and adjacent upland habitat (within 100 feet of the aquatic habitat). The biologist shall look for CRLF during grading, excavation, and any ground disturbing construction activities. If a CRLF is encountered during any project activities, construction shall cease until the frog is removed by a USFWS-approved biologist and relocated to nearby suitable aquatic habitat. USFWS and CDFG shall be notified within five (5) working days of any CRLF relocation.

Mitigation Measure BIO-3: Use Exclusion Fencing for Construction Activities (Including Grading) during All Seasons and Avoid Grading Activities within California Red-Legged Frog Upland Habitat during the Wet Season (October 1 to April 30). Exclusion fencing shall be placed around the project area to keep CRLF from entering the work area during all work activities. Exclusion fencing shall be in place at least 48 hours prior to construction. A biological monitor shall be on-site during fence installation. To minimize disturbance of dispersing CRLF, all grading activity within CRLF upland habitat (within 100 feet of aquatic habitat) should be conducted during the dry season (between May 1 and September 30) or before the onset of the rainy season, whichever occurs first.

Mitigation Measure BIO-4: Minimize Ground-Disturbing Activities in California Red-Legged Frog Aquatic and Upland Habitat. To minimize disturbance and mortality of CRLF in Cope Lake and Lake I, and upland habitat (within 100 feet of the aquatic habitat), the applicant or its contractor shall minimize the extent of ground-disturbing activities by minimizing the project footprint and limiting the work area to the minimum area necessary for construction.

Mitigation Measure BIO-5: Avoid and Minimize the Disturbance of Aquatic Habitat. To the extent possible, the applicant or its contractor shall minimize impacts to aquatic habitat by implementing all of the following measures:

- Construction activities in waters during the wet season (October 1 to April 30) shall be avoided.
- During construction, trees, shrubs, debris, or soils that are inadvertently deposited shall be removed in a manner that minimizes disturbance to the aquatic habitat.
- All construction-related activities shall be completed promptly to minimize their duration and resulting impacts.

- Construction inspectors shall routinely inspect protected areas to ensure that protective measures are in place and effective.
- All protective measures shall remain in place until all construction activities near the resource have been completed and shall be removed immediately following construction activities.
- An erosion control plan shall be prepared and implemented. It shall include the following provisions and protocols:
 - Discharge from dewatering operations, if needed, and runoff from disturbed areas shall be made to conform to the water quality requirements of the waste discharge permit issued by the Regional Water Quality Control Board (RWQCB).
 - Material stockpiles shall be located in non-traffic areas only. Side slopes shall not be steeper than 2:1. All stockpile areas shall be surrounded by a filter fabric fence and interceptor dike.
 - Temporary erosion control measures, such as sandbagged silt fences, shall be applied throughout construction of the proposed project and shall be removed after the working area is stabilized or as directed by the engineer. The Storm Water Pollution Prevention Plan (SWPPP) for the project shall detail the applications and type of measures and the allowable exposure of unprotected soils.

Mitigation Measure BIO-6: Inspect Exclusion Fences Daily during Construction. The biological monitor shall inspect the exclusion fences around the work area daily during construction within the action area. If ground disturbance activities are completed and the biological monitor is no longer required to monitor construction activities, an inspector trained by the biologist shall conduct the daily fence inspections for any frogs. If a frog (regardless of species) is found near a fence, work in the area shall stop, the biologist shall be notified, determine the species, and the frog shall be relocated (if found to be CRLF, then a USFWS-approved biologist shall relocate the frog) to suitable habitat outside of the work area. Fences shall be inspected according to this schedule until the fences are removed, as approved by the biological monitor or the resident inspector. The construction contractor monitor shall be responsible for maintaining the exclusion fences. The biological monitor or resident inspector shall immediately report any encroachment on fenced areas to the foreman or engineer, who shall stop construction or notify the contractor of the situation to be addressed. The biological monitor or resident inspector shall document the results of the inspections on construction monitoring log sheets, which shall be kept on file with the applicant.

Impacts to Western Pond Turtle

Western pond turtle has the potential to occur within Cope Lake and Lake I and adjacent upland areas within 300 feet of aquatic habitat. No pond turtles were observed during the June 7, 2011 reconnaissance level survey. Construction activities associated with the proposed project could result in the disturbance to or loss of western pond turtles. This impact is considered potentially significant but would be reduced to a less-than-significant level by implementation of Mitigation Measures BIO-1, BIO-3, BIO-4, BIO-6, BIO-7, and BIO-8 listed above as well as Mitigation Measure BIO-9 below. It should be noted that while Mitigation Measures BIO-1, BIO-3, BIO-4, BIO-6, BIO-7, and BIO-8 are mitigation for

impacts to CRLF, they also significantly benefit western pond turtle and partially mitigate for impacts to this species.

Mitigation Measure BIO-7: Conduct a Preconstruction Survey for Western Pond Turtles. To avoid and minimize impacts on western pond turtles, the applicant or its contractor shall retain a qualified wildlife biologist to conduct a preconstruction clearance survey for western pond turtles no more than 48 hours before ground disturbance in aquatic habitats and after the exclusion fencing is installed. If turtles are observed during the survey, they shall be relocated to suitable habitat outside of the work area or as determined during coordination with CDFG. The person handling turtles shall be permitted to capture and relocate western pond turtle individuals at the time of project initiation or need to amend their CDFG collecting permit to include capture and relocation.

Other Nesting Migratory Birds and Raptors, including Western Burrowing Owl, Loggerhead Shrike, Ferruginous Hawk, Tricolored Blackbird, and White-tailed Kite

Migratory birds and raptors, including loggerhead shrike, ferruginous hawk, tricolored blackbird, western burrowing owl, and white-tailed kite may nest and forage within the study area. No nests were observed in the study area during the reconnaissance level survey conducted on June 7, 2011. The riparian woodland, especially the large eucalyptus trees, and various shrub-dominated habitats within the study area may be used for nesting by raptors and common birds, including white-tailed kites and shrikes. There is marginal nesting habitat for white-tailed kite in the disturbed annual grassland within the study area and potential foraging habitat in this same habitat type. These areas may also be used by other ground nesting migratory birds. A few burrows were observed in the disturbed annual grassland, around concrete structures, and concrete-stabilized slopes that represent suitable burrows for burrowing owl. The proposed project would impact areas of disturbed annual grassland, which may be used by ground nesting birds or western burrowing owl. The project could also disturb birds nesting in the adjacent riparian habitat. These impacts are considered potentially significant but would be reduced to a less-than-significant level by implementation of the following mitigation measure.

Mitigation Measure BIO-8: Conduct a Pre-construction Survey for Nesting Migratory Birds and Raptors. A preconstruction survey for nesting raptors, special-status bird species, and migratory bird species shall be conducted by a qualified biologist. Since burrowing owl can be present during any time of the year, a survey for this species shall be conducted by a qualified biologist. Further, if construction activities are scheduled to occur during the avian breeding season (February 1-August 31), a preconstruction survey for other nesting raptors, special-status bird species, and migratory bird species shall be conducted by a qualified biologist. The survey will cover all potential nesting substrate in the study area relevant to the species being surveyed for and will be conducted no more than two weeks prior to the initiation of construction or ground disturbing activities associated with the project. If no active nests are located, then no further mitigation is necessary. If an active nest is located, a no-disturbance buffer will be established around the active nest site to avoid disturbance or destruction of the nest until after the nesting season is over or a biologist determines that the young have fledged. The extent of such a buffer will be determined by the biologist and will be influenced by the amount of noise and other disturbances, and other topographic or artificial barriers.

If construction activities begin prior to the breeding season (i.e., if construction activity begins between September 1 and February 28), then only a burrowing owl survey is necessary. Once

project initiation begins, construction activities should be in full force, including, at a minimum, grading of the site and development of infrastructure. A minor activity that initiates construction but does not involve the full force of construction activities will not qualify as “pre-existing construction.” Optimally, all necessary vegetation removal should be conducted prior to the breeding season so that there is no potential for nesting birds or raptors to occur in the construction area. If any birds or raptors nest in the vicinity of the project under this pre-existing construction condition, then it is assumed that they are habituating or will habituate to the construction activities. Under this scenario, the preconstruction survey still should be conducted on or after March 1 to identify any active nests in the vicinity, and active sites should be monitored by a wildlife biologist periodically until after the breeding season or after the young have fledged (usually late-June to mid-July). If active nests are identified in or immediately adjacent to the project area, then all nonessential construction activities (e.g., equipment storage, meetings, etc.) should be avoided in the immediate vicinity of the nest site; however, construction activities can proceed. If construction activities stop for more than two weeks during the avian nesting season, an additional nesting raptor and migratory bird survey shall be conducted.

Impacts to Special Status Bat Species

Bats may roost in the large eucalyptus and riparian trees that occur along Arroyo Mocho and the large trees along the maintenance road. Further, a concrete stabilized slope in the eastern portion of the study area contains a crevice that could be a suitable roost for bats. No sign of use by bats (e.g., bat guano) was observed during the field survey and no buildings are in the impact area. Bats typically develop day and maternal roosts under bridges and within buildings that are not subject to frequent and on-going disturbance (e.g., vehicle and pedestrian traffic and construction/maintenance noises from adjacent developed areas). The proposed project could directly impact potential roost sites and result in the loss of individual bats, or result in indirect impacts from the level of noise or vibration disturbance generated by the proposed project. These impacts would be considered significant, but are reduced to less-than-significant impacts to bats with the incorporation of the following mitigation measure.

Mitigation Measure BIO-9: Conduct a Preconstruction Survey for Roosting Bats. To avoid and minimize impacts to roosting bats, the applicant or its contractor shall retain a qualified wildlife biologist to conduct a preconstruction clearance survey for bats no more than 48 hours before ground disturbance associated with project implementation. If bats are observed during the survey, they shall be relocated through humane exclusion methods agreed upon with CDFG. A qualified biologist shall oversee the implementation of the exclusion process. The bat exclusion device installer shall be qualified to perform such activities.

b. Less Than Significant With Mitigation Incorporated. The project area extends into the riparian habitat along either side of the isthmus spanning Cope Lake, the eastern shoreline of the southern quadrant Cope Lake, and along the maintenance road the action area. Construction activities necessary for pipeline construction and slope layback within these areas could encroach on riparian vegetation. If damage to woody riparian vegetation is avoided or is minimal, this impact would be less than significant. However, implementation of Mitigation Measures BIO-1, BIO-4, and the following measures to avoid and minimize damage to riparian vegetation would further ensure that this impact is less than significant.

Mitigation Measure BIO-10: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Habitats. The applicant or its contractor shall install orange construction barrier fencing at the edge of the project area where it abuts or includes water basins and seasonally inundated areas within the project area. The fencing shall be installed before project activities are initiated, maintained throughout the construction portion of the project, and removed after construction completion.

Mitigation Measure BIO-11: Avoid and Minimize Potential Disturbance of Riparian Communities. The applicant or its contractor shall avoid and minimize potential disturbance of woody vegetation in the riparian habitat by implementing the following measures.

- The potential for long-term loss of woody riparian vegetation shall be minimized by trimming vegetation rather than removing entire woody plants. Woody plants that need to be trimmed shall be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting shall be limited to the minimum area necessary within the construction zone. To protect nesting birds, the applicant or its contractor shall not allow pruning or removal of woody riparian vegetation between January 1 and August 31 without preconstruction surveys as required by Mitigation Measure BIO-~~810~~810.
- A certified arborist shall be retained to perform any necessary pruning or root cutting of riparian trees.

c. **No Impact.** The project is located wholly in upland areas and water basins (Cope Lake, Lake H and Lake I) and will not impact jurisdictional wetlands; therefore, implementation of the project would not result in an impact.

d. **Less Than Significant With Mitigation Incorporated.** The proposed project would temporarily interfere with wildlife species that may disperse over the isthmus that runs east-west through Cope Lake. The proposed project would occur during the summer months when upland wildlife migration is not typically active and only dissuade wildlife movement during daytime, minimizing the potential for affecting dispersing wildlife. The implementation of Mitigation Measures BIO-1 through -5, BIO-8, and BIO-9, described above, would reduce any impacts to migratory wildlife to less than significant.

Currently, the Alameda Creek Alliance is encouraging removal of barriers so steelhead can be restored to the Alameda Creek watershed and various tributaries (Alameda Creek Alliance 2011). Therefore, a review of stream gage data both upstream and downstream of the Vulcan discharge point on Arroyo Mocho, as well as on Arroyo Las Positas near its confluence with Arroyo Mocho, was completed in order to assess the role, if any, that Vulcan's mining discharges may have on potential future fish migration, such as steelhead. Complete records for three water years were reviewed (October 2007 through September 2010). Three major points were revealed:

1. Fish migrating up the lower portions of Arroyo Mocho (below the confluence with Arroyo Las Positas) benefit from year-around influx of water from Arroyo Las Positas. While the Vulcan mining discharges do have some limited and sporadic contribution to the perennial flow in lower Arroyo Mocho, this year-round flow also exists without the mining discharges.
2. Assuming they are made during the time-sensitive migration windows, mining discharges may have a limited benefit for migrating fish attempting passage up the Arroyo Mocho fish ladder,

which is just downstream of the Vulcan discharge point. However, the mining discharges are not required for fish passage through the ladder.

3. Data from upstream of both the Arroyo Mocho fish ladder and the Vulcan discharge point indicates that this central section of Arroyo Mocho is often dry (0 cfs) or only slightly wetted (less than 1 cfs) for days or weeks on end, with the exception of short periodic wet spells due to rainfall, artificial recharge, or mining releases.

Vulcan's monthly discharge records from 1974 to 2010 were also reviewed. Most notably, the data reveal many long periods where no discharges were made (e.g., 1987-1992, 1999-2004). Since 2006, Vulcan has been discharging semi-regularly to Arroyo Mocho although, at times, many months go by with no discharge at all. Also, their higher discharges come in the wet months when Arroyo Mocho would already be wetted naturally.

Thus, Vulcan's mining discharges appear to contribute little towards fish migration to the upper reaches of Arroyo Mocho where potential spawning habitat may exist. Therefore, the reduction of water into Arroyo Mocho will not affect steelhead. Steelhead are not currently in the project area and it may take years before the reach is accessible to steelhead. Also, any loss of riparian vegetation will be minimized (Mitigation Measure BIO-13: Avoid and Minimize Potential Disturbance of Riparian Communities). Therefore, there would be no effects on steelhead or their habitat.

e. **No Impact.** The Alameda County Tree Ordinance applies to trees within County road rights of way, and there is no County road right of way within the project area. The proposed project would not conflict with this or other local policies or ordinances.

f. **No Impact.** There are no adopted Habitat Conservation Plans (HCP), Natural Community Conservation Plans (NCCP), or other approved local, regional, or state habitat conservation plans relevant to the project site and thus no conflict would exist. The project and its mitigation measures are consistent with the East Alameda County Conservation Strategy (EACCS) but the Strategy is a voluntary plan and is currently in Draft form only and is not a HCP or NCCP.

References

Alameda Creek Alliance. 2011. Arroyo Mocho. Available: http://www.alamedacreek.org/Fish_Passage/Arroyo%20Mocho/Arroyo%20Mocho.htm. Accessed: July 11, 2011. Web page updated June 30, 2011.

V. CULTURAL RESOURCES				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion

a.b.c.d. **Less Than Significant Impact.** The Project area consists primarily of quarry lands and according to archival resources at the Northwest Information Center (NWIC) and William Self and Associates, there are no known archeological sites within the Project area. In addition, Cope Lake and Lake I have been completely mined and there have been no encounters with cultural resources during reclamation activities. In the event that suspected archeological or paleontological resources are encountered during construction, all work shall cease until an archeologist is consulted and their recommendations are followed. Therefore, the potential impact of the Project on pre-historic and historic resources and archeological remains is less than significant.

VI. GEOLOGY AND SOILS				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

☐☐☐☒

Discussion

a.b.c.d.e. **No Impact.** The Project area is located approximately within five to seven miles of the Alquist-Priolo earthquake fault zones delineated by the State Geologist. The Cope Lake lower slope repair will stabilize the slope that has been oversteepened due to erosion and drainage issues and it will also protect the existing maintenance road. In addition, the upper slope is currently oversteepened due to erosion that could potentially impact the residence located adjacent to this lake. Slope stabilization and drainage installation will address the current erosion issue in order to prevent the potential impact to the residence.

The Vulcan discharge pipeline is non-habitable and would not expose people to injury or death. In addition the Project site not publically accessible. Therefore, this Project will have no impacts to geology or soil.

VII. GREENHOUSE GAS EMISSIONS

Would the project:

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

☐☐☒☐

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

☐☐☐☒

Discussion

a. **Less Than Significant Impact.** The project area is located within an active gravel mining area. In addition, the project area is located just off Interstate 580, which generates significant greenhouse gases due to the number of vehicles traveling on this interstate. The project will involve use of heavy-duty equipment and potentially transporting soil to and from the project site. The Cope Lake repairs portion of the project may be phased depending upon the extent of repairs needed. On average, slope repairs will take three to six months. Installation of the Vulcan discharge pipeline will take approximately six weeks. Within the construction period, there will be a limited amount of vehicle trips. Therefore, there will be some greenhouse gas emissions from the project. However, when the project is completed, there will be no ongoing greenhouse gas emissions generated since the project involves a slope repair and installing a pipeline. Due to the short duration of the construction period and the ongoing gas emissions from the active gravel mining activities and the vehicle traffic on I-580, the limited greenhouse gas emissions from this project will be less than significant.

b. **No Impact.** The project is located in unincorporated Alameda County, which has an adopted Community Climate Action Plan. The project will not conflict with this plan because no structures will be

built as part of the project; therefore, there will not be any permanent greenhouse gas emission. Therefore, this project will have no impact with respect to Alameda County's Community Climate Action Plan.

VIII. HAZARDS AND HAZARDOUS MATERIALS	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

a.b. **Less Than Significant Impact.** The Cope Lake slope repair will require the use of certain potentially hazardous materials such as fuels, oils, and concrete. Fuels and oil would generally be used within excavation equipment and other construction equipment and would be contained within vessels engineered for safe storage. The curb and gutter for drainage will be made with concrete. Storage of

these materials may occur at the construction site. Spills during on-site fueling of equipment or an upset condition, could result in a release of these material into the environment. Inclusion of hazardous materials management/spill prevention measures listed in contractor specifications would reduce impacts from hazardous materials release to a less than significant level.

In the event contaminated materials are encountered, the materials would be classified as hazardous waste, designated waste, or special waste, depending on the type and degree of contaminant. Disposal of contaminated soils as standard demolition waste or use as fill for another construction site would pose a hazard to people, or animal or plant populations. Inclusion of site remediation procedures in contractor specifications, would reduce this impact to less-than-significant.

c. **No Impact.** There are no existing or proposed schools within one-quarter mile of the site. Therefore, there would be no impact on schools within one-quarter mile of the site related to hazardous emissions or materials.

d. **No Impact.** The project is not included on the hazardous materials sites compiled pursuant to Government Code §65962.5. Therefore, there is no impact with respect to this list.

e. **No Impact.** The project site is located approximately one mile from the Livermore Municipal Airport's southern boundary. There is an airport land use plan (Alameda County Airport Land Use Policy Plan) and a General Plan Airport Protection Plan, which restricts new residential land use designations within a 5,000-foot buffer. The project is not within this buffer nor will it result in new structures that would impede airport traffic. In addition, this project is located away from the residential area, with exception of the single residence adjacent to Cope Lake. Therefore, this project will have no impact related to the Livermore Municipal Airport with respect to safety hazards for people residing or working in the project area.

f. **No Impact.** There are no private airstrips within two miles of the project site. Therefore, there would be no impact with respect to private airstrips.

g. **No Impact.** The project would not result in any impediments to existing traffic and circulation routes, which could potentially interfere with implementation of an emergency response or evacuation plan. Therefore, there would be no impact with respect to such emergency plans.

h. **No Impact.** The project site is not located in an extreme or high fire risk area. The project area is a gravel mining area and is adjacent to open water. The project would not result in creation of structures for habitation and would not expose people to wildfires. Therefore, there would be no impact with respect to extreme or high fire risks.

IX. HYDROLOGY AND WATER QUALITY	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?				

i) Is the project tributary to an already impaired water body, as listed in the Clean Water Act Section 303(d) list? If so, will it result in an increase in any pollutant for which the water body is already impaired?	☐	☐	☐	☒
ii) Will the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
i) Review the final approved CWP Hydrograph Modification Plan (HMP) to assess the significance of altering existing drainage patterns.	☐	☐	☐	☒
ii) Potentially cause streambed or bank erosion downstream from the project?	☐	☐	☐	☒
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?	☐	☐	☐	☒
i) Would the proposed project result in increased impervious surfaces and associated increased runoff? Does the project meet the NPDES permit's Group 1 or Group 2 criteria? Note that Provision C.3 requirements need to be met in environmental documents. For projects that do not meet Group 1 or Group 2 criteria, consider incorporating appropriate site design and source control measures.	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?				

i) Would the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity, and other typical stormwater pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).	☐	☐	☐	☒
ii) Would the proposed project result in significant alternation of receiving water quality during or following construction?	☐	☐	☐	☒
iii) Would the proposed project have a potentially significant environmental impact on surface water quality to marine, fresh, or wetland waters?	☐	☐	☐	☒
iv) Would the proposed project have a potentially significant adverse impact on ground water quality?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

a.b. **No Impact.** The Project is located approximately 300 feet from the Arroyo Mocho, which is listed in the Clean Water Act Section 303(d) list as an impaired water body for diazanon. The Project will not result in an increase of this pollutant because there will be no additional discharges into the Arroyo Mocho.

Zone 7 is the groundwater basin manager for the Livermore Valley Groundwater Basin. The water currently being discharged by Vulcan to the Arroyo Mocho is water that would otherwise be considered groundwater, and would help fulfill the Municipal & Industrial (M&I) needs of the approximately 220,000 residents in the Livermore-Amador Valley. The Arroyo Mocho is a major component of Zone 7's groundwater recharge program, which in turn is a critical component of the local water supply. As it is available, Zone 7 purchases water for groundwater recharge purposes that is imported from the Delta via the South Bay Aqueduct. The water is released from the aqueduct into the Arroyo Mocho, and because the middle reaches of the Arroyo Mocho are highly permeable, this water ultimately recharges the Livermore Valley Groundwater Basin. This is important because the Livermore Valley Groundwater

Basin is being depleted by municipal uses, and from activities like gravel mining that requires discharging of groundwater as the mining progresses deeper into the underlying aquifer material. Groundwater wells, mostly in the western end of our service area, allow the Cities to extract groundwater for their M&I needs year-round. Water released to Lake I will support the recharge of the Livermore Valley Groundwater Basin, thereby helping to improve local water supply reliability which may help reduce reliance on the Delta for additional supply. There are no surface water rights holders on Arroyo Mocho; the natural water in this watershed has not been appropriated to downstream users. To ensure groundwater quality is not impacted, Vulcan will obtain the appropriate waste discharge requirements from the California Regional Water Quality Control Board, San Francisco Bay.

Therefore, there will be no impact to water quality standards or waste discharge requirements.

c.d.e.f. **No Impact.** The stormwater runoff generated at this site would be managed by conveying the runoff to unpaved surfaces that surround the site or to Cope Lake. Cope Lake was formerly used as a settling pond for gravel mining operations, and as a result it is essentially isolated from all "waters of the U.S." Therefore, this impact would be considered less than significant.

The acreage of disturbed land would likely exceed one acre and may require coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES No. CAS000002, Order No. 2009-0009-DWQ). Construction activities may result in uncontaminated water discharge to Cope Lake. Discharge of turbid waters into the storm drain and creek systems would constitute a potentially significant impact, but since the discharges will be directed to a former siltation basin having no outlet to local creek(s), the potential for impact is not significant. Compliance with NPDES General Permit requirements would ensure Zone 7 is in compliance with state regulatory policies and minimizes the potential for water quality impacts from the construction activities.

g.h.i.j. **No Impact.** The major stream within the project area is the Arroyo Mocho (north and east boundary). The 100-year floodplain is contained to the north of the Arroyo Mocho (FEMA, 1990). No housing will be built as part of the project. The location of the Vulcan discharge pipeline would not be affected by flooding because of its location in the Chain of Lakes area. In the event that the Arroyo Mocho overflows its south bank, water would sheet flow into one or more of the gravel pits. These excavations have sufficient capacity to contain a 100-year event. In addition, the project area is not in a location affected by seiche, tsunami, or mudflow. Therefore, there is no impact with respect to flooding.

X. LAND USE AND PLANNING				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 LRDP, 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? | ☐ | ☐ | ☐ | ☒ |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Discussion

a. **No Impact.** There is no potential to physically divide an established community; therefore, there would be no impact since there is no established community.

b. **No Impact.** The Project is located in unincorporated Alameda County, between the cities of Pleasanton and Livermore. Currently, the site is within a former aggregate quarry area. As part of its reclamation identified in the *Reclamation Specific Plan*, the gravel pits area would be converted to a "Chain of Lakes" for groundwater management. Zone 7 currently owns Lake I and Cope Lake pursuant to the *Reclamation Specific Plan* and subsequent agreements. Project construction in this area will not impact aggregate resources because production of sand and gravel within this area have ceased.

The Project area consists primarily of industrial (mining) uses, and limited ranchettes along El Charro Road. Both, El Charro Road and the haul road are private roads having limited access. Access impacts to the industrial and residential uses would be reduced to less than significant levels with implementation traffic control measures, where necessary during the slope stability activities and construction of the pipeline. Zone 7 or its contractors shall obtain and comply with encroachment permits, when necessary.

c. **No Impact.** There are no habitat conservation or natural community conservation plans in the project area. Therefore, there is no impact.

XI. MINERAL RESOURCES Would the project:	Less Than			
	Potentially Significant Impact	Significant with Mitigation Incorporated	Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion

a.b. **No Impact.** The Chain of Lakes area is considered as an "Area of Regional Significance" by the California Geological Survey and contains a deposit of minerals in which extraction would be "judged to be of prime importance in meeting future needs for minerals in a particular region of the State within which the minerals are located and which, if prematurely developed for alternative Incompatible Land Uses, could result in the premature loss of minerals that are of more than local significance" (Ordinance No. 0-99-60, Section 6.80-070). This quarry is currently being used for the production of sand and gravel, but the production has ceased in the Project area. Therefore, the project will have no impact with respect to the loss of availability of mineral resources.

XII. NOISE Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a.b.d. **Less Than Significant Impact.** The project is located in an unincorporated area of Alameda County. The gravel pits are currently used for mining operations. As part of the quarry reclamation, the gravel pit area would be converted to a "Chain of Lakes" area for water management and redeveloped for agricultural and recreational use. One residence is located along El Charro Road. Therefore, sensitive receptors are limited to the single residence along El Charro Road and any future residences developed in conjunction with the agricultural uses identified in the *Reclamation Specific Plan*. The noise generated from the project will come from construction equipment used at the project site.

For residential land uses, noise levels less than 60 dBA, Ldn (from the property line) are normally considered acceptable (Alameda County 2002; City of Livermore 2004). A noise level of 60 dBA is similar to noise levels in an average office with normal levels of talking (City of Livermore 2004). This level is identified as Normally Acceptable, in the Livermore Community General Plan Noise Element (2004).

Noise levels generated during construction activities will be periodically above current ambient noise levels at the project site. The noise levels generated by construction activities will be temporary and intermittent in nature and will vary according to construction activity. Construction will only take place during daytime hours (8 a.m. to 5 p.m.), the least-noise sensitive time of the day, and is not expected to occur on weekends. To minimize noise impacts due to construction on the single residence along El Charro Road, Zone 7 shall notify the resident four weeks in advance of the start of construction. The

resident shall receive a brief description of the construction activities and the proposed schedule. Therefore, there will be less than significant impact to sensitive receptors.

c. **No Impact.** There will be no impact with respect to a permanent increase in ambient noise as a result of the project since the Cope Lake slope repair will not generate noise once installed. Water discharged from the Vulcan discharge pipeline and into the selected lake(s) will generate some noise but it is not anticipated that it will be more than the existing noise generated from the existing discharge into the Arroyo Mocho. As such, noise from this project is limited to the noise during the construction phase.

e. **No Impact.** The project site is located approximately one mile from the Livermore Airport, and is in the area encompassed by the Alameda County Airport Land Use Policy Plan. However, there is no impact of the project with respect to noise exposure from the airport because the project would not result in any change in exposure to airport noise or introduce a substantial number of people to airport noise.

f. **No Impact.** There is no impact with respect to noise from a private airstrip, since the project is not within the vicinity of a private airstrip.

XIII. POPULATION AND HOUSING Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a.b.c. **No Impact.** Growth inducement impacts will not occur because the project improves the current condition of Cope Lake. In addition, recapturing groundwater into Lake I will improve local water supplies by reducing reliance on outside water sources. However, this will not increase the water supply. The proposed Project will be constructed within the existing gravel mining area and no existing housing will be displaced necessitating construction of replacement housing. Therefore, there are no impacts with respect to population/housing.

XIV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

No Impact. The Cope Lake slope repair and the Vulcan discharge pipeline installation would be constructed within unincorporated Alameda County. Emergency service providers shall be the Alameda County Sheriff's Department for police services and Alameda County Fire Department for fire services and emergency medical response to this area. There is no water or fire hydrants within the project area because the area is unincorporated. However, water for emergency situations is available from the adjacent quarry ponds. Because there are limited developments within the Project area, water would be provided by Zone 7 through turnouts and pipelines. There are no storm drain facilities at the Project site; therefore, stormwater would be managed onsite with drainage to Cope Lake. As a result, there will be no impact to with respect to existing public services.

XV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a.b. **No Impact.** The proposed project is located within unincorporated Alameda County and in an area currently used for sand and gravel mining. There are no recreational facilities located within the project area. Therefore, this proposed project will have no impact on recreation. Nor should it impact or preclude future recreational opportunities in the area.

XVI. TRANSPORTATION/TRAFFIC				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to a level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity	☐	☐	☐	☒
g) Conflict with applicable policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

Discussion

a.b. **Less Than Significant Impact.** The Project area is located in an area developed for sand and gravel mining. There are no arterial or collector roads within this area. Private access roads around the gravel pits make up the roadway system within the quarry. El Charro Road is an arterial street and is adjacent to the Project site. This portion of El Charro Road does not impact Livermore-Amador Valley Transit Authority (LAVTA) or Bay Area Rapid Transit (BART) Express routes because they do not operate bus services within the project area. The project area is not located near or around an emergency facility, such as a hospital or fire station, or in an area where there is recreation or commercial uses.

Off-site vehicle trips generated by construction would primarily consist of truck movements associated with transporting the heavy equipment to the site, potential transport of soil to and from the project site, and the daily arrival and departure of construction workers. The impact of construction-related traffic would be a temporary since the slope repairs would take on average three to six months and the

installation of the pipeline would take approximately six weeks. As a result, the proposed project would not result in any long-term degradation in operating conditions or level of service on any project roadway.

Alameda County requires construction work that would affect roadway traffic flow on weekdays to be restricted to off-peak hours in order to minimize the number of affected people. However, since quarry operations and other permitted activities generate 24-hour truck traffic through the area, there are no peak or off peak hours. Zone 7 will provide a 24-hour emergency telephone resource to address public questions and complaints during project construction. Therefore, the project will have a less than significant impact on the existing traffic and the level of service.

c. **No Impact.** The project is located within one mile of the Livermore Municipal Airport; however, the project will not impact the air traffic since the project will not involve erecting structures that could impede flight path or radio signals.

d. **Less Than Significant Impact.** El Charro Road is currently being used by truck haulers that haul sand and gravel from the gravel mining area. The project will involve transport of heavy duty equipment and material to and from the project site, which could affect road conditions on the designated haul routes by increasing the rate of road wear. However, the project will be limited in duration. The road is meant to accommodate big trucks hauling heavy equipment. In addition, the project will not require closure of El Charro Road at any time. Thus, El Charro Specific Plan development projects will not be affected by this project. Therefore, the project will have less than significant impact to El Charro Road.

e. **No Impact.** Access to the project site is off of El Charro Road. The project will not impede the existing access; therefore, there is no impact to emergency access.

f. **No Impact.** The project will require parking for construction workers. There is adequate parking to accommodate construction workers within the project area. Therefore, there is no impact with respect to parking.

g. **No Impact.** The project area is not accessible to the public and does not contain any public transit, bicycle, or pedestrian facilities. Therefore, there is no impact on these alternative transportation facilities or plans for the area.

XVI. UTILITIES AND SERVICE SYSTEMS				
Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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 with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

a.b.d.e.f.g. **No Impact.** The Project includes slope repairs on Cope Lake and installing a discharge pipeline for Vulcan Materials from their existing discharge line on the Arroyo Mocho to Lake H, I or Cope. Neither activity will require water or wastewater service onsite. Therefore, no expansion of existing or construction of new water or wastewater facilities would be required, and wastewater treatment requirements would not be exceeded. In addition, there will be no solid waste generated as a result of this project. There would be no impact on water, wastewater, or solid waste disposal services.

c. **No Impact.** Drainage will be installed as part of the Cope Lake slope repairs portion of this Project. This is to protect both the residence located adjacent to Cope Lake and the overall integrity of the lake's function. As such, the project will not have a significant environmental effect.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

☐☐☒☐

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

☐☐☒☐

Discussion

a. **Less Than Significant Impact.** Without mitigation, the proposed project does have the potential to degrade the quality of the environment during construction activities. However, with the mitigation measures included as part of this Initial Study, all potentially significant impacts would be reduced to a less-than significant level.

b. **Less Than Significant Impact.** Potential impacts associated with the proposed project are only related to construction activities. Due to the limited extent and duration of the proposed activities, the proposed project would not contribute to cumulatively considerable impacts. Therefore, potential impacts are considered to be less than significant.

c. **Less Than Significant Impact.** Without mitigation, the proposed project does have the potential to adversely affect human beings, primarily through activities related to project construction. However, these impacts would be temporary (lasting only for the duration of construction) and the mitigation measures included as part of this Initial Study would reduce these potential impacts to a less-than-significant level.

XVIII. FISH AND GAME DETERMINATION

Based on the information above, there is no evidence that the project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends. The presumption of adverse effect set forth in 14 CCR 753.5 (d) has been rebutted by substantial evidence.

☐ Yes (Certificate of Fee Exemption)

☒ No (Pay fee)

6 Public Comments

The Draft Initial Study/ Mitigated Negative Declaration document was mailed to agencies and interested parties, including property owners within an approximately 1000-foot radius of the proposed Project site, on December 19, 2011. It was also made available at the public library in Livermore. A 30-day public review period was held from December 19, 2011 through January 20, 2012, which was noticed in the Valley Times newspaper.

7 Mitigation Monitoring and Reporting Plan

The Mitigation Monitoring and Reporting Plan (MMRP) is included as Appendix B; it identifies the implementation procedure, monitoring and reporting actions, monitoring responsibility, and monitoring schedule for all mitigations measures in the Final IS/MND.

APPENDIX A

Special Status Species – Potential Occurrence Tables

**Table A-1. Plant Species Observed in the Cope Lake Improvements Project Study Area
(June 7, 2011)**

Scientific Name	Common Name	Nativity
<i>Agrostis</i> sp.	bentgrass	non-native
<i>Agrostis viridis</i>	water bent	non-native
<i>Ailanthus altissima</i>	tree of heaven	non-native
<i>Artemisia douglasiana</i>	mugwort	Native
<i>Arundo donax</i>	giant reed	non-native
<i>Avena</i> sp.	wild oat	non-native
<i>Baccharis pilularis</i>	coyote brush	Native
<i>Baccharis salicifolia</i>	mulefat	Native
<i>Bellardia trixago</i>	Mediterranean linseed	non-native
<i>Brassica nigra</i>	black mustard	non-native
<i>Brassica rapa</i>	field mustard	non-native
<i>Bromus diandrus</i>	ripgut brome	non-native
<i>Bromus hordeaceus</i>	soft brome	non-native
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	non-native
<i>Carduus pycnocephalus</i>	Italian thistle	non-native
<i>Centaurea solstitialis</i>	yellow star-thistle	non-native
<i>Cirsium vulgare</i>	bull thistle	non-native
<i>Claytonia</i> sp.	miner's lettuce	Native
<i>Conium maculatum</i>	poison hemlock	non-native
<i>Convolvulus arvensis</i>	field bindweed	non-native
<i>Conyza canadensis</i>	horseweed	native
<i>Cortaderia jubata</i>	pampas grass	non-native
<i>Cyperus</i> sp.	flatsedge	native
<i>Dactylis glomerata</i>	orchard grass	non-native
<i>Dittrichia graveolens</i>	stinkwort	non-native
<i>Erodium botrys</i>	long-beaked filaree	non-native
<i>Erodium cicutarium</i>	redstem filaree	non-native
<i>Eucalyptus camaldulensis</i>	red gum	non-native
<i>Eucalyptus globulus</i>	blue gum	non-native
<i>Ficus carica</i>	edible fig	non-native
<i>Foeniculum vulgare</i>	fennel	non-native
<i>Galium</i> sp.	bedstraw	varies
<i>Gnaphalium luteo-album</i>	common cudweed	non-native
<i>Grindelia camporum</i>	gumplant	native
<i>Heliotropium curassavicum</i>	salt heliotrope	native
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	foxtail barley	non-native
<i>Juglans californica</i>	California walnut	native
<i>Lactuca serriola</i>	prickly lettuce	non-native
<i>Lolium perenne</i> ssp. <i>multiflorum</i>	Italian ryegrass	non-native
<i>Lotus corniculatus</i>	birdsfoot trefoil	non-native
<i>Melilotus indicus</i>	annual yellow sweetclover	non-native

<i>Polygonum lapathifolium</i>	common knotweed	native
<i>Phalaris aquatic</i>	Harding grass	non-native
<i>Picris echioides</i>	bristly ox-tongue	non-native
<i>Pinus radiata</i>	Monterey pine	non-native
<i>Piptatherum miliaceum</i>	smilo grass	non-native
<i>Polypogon monspeliensis</i>	rabbitsfoot grass	non-native
<i>Populus fremontii</i>	Fremont's cottonwood	native
<i>Quercus agrifolia</i>	coast live oak	native
<i>Raphanus sativus</i>	radish	non-native
<i>Rosa</i> sp.	rose	varies
<i>Rubus armeniacus</i>	Himalayan blackberry	non-native
<i>Rumex crispus</i>	curly dock	non-native
<i>Salix exigua</i>	narrow-leaved willow	native
<i>Salix laevigata</i>	red willow	native
<i>Salix lasiolepis</i>	arroyo willow	native
<i>Salsola tragus</i>	Russian thistle	non-native
<i>Scirpus acutus</i>	tule	native
<i>Silybum marianum</i>	milk thistle	non-native
<i>Sonchus asper</i>	spiny sowthistle	non-native
<i>Sonchus oleraceus</i>	common sowthistle	non-native
<i>Tamarix ramosissima</i>	tamarisk	non-native
<i>Tragopogon</i> sp.	salsify	non-native
<i>Trifolium hirtum</i>	rose clover	non-native
<i>Trifolium</i> sp.	clover	non-native
<i>Vicia villosa</i>	hairy vetcy	non-native
<i>Vulpia myuros</i>	rattail fescue	non-native

Table A-2. Special-Status Plants Known to Occur or that May Occur in the Project Area

Species	Status ^a	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area ^c
	Federal/State/CNPS				
<i>Astragalus tener</i> var. <i>tener</i> Alkali milk-vetch	—/—/1B.2	Historically found in western San Joaquin Valley, San Francisco Bay Area, and Monterey County; likely extirpated from all historical occurrences except those in Merced, Solano, and Yolo Counties	Playas and grasslands with adobe clay soils and alkaline vernal pools	March–June	None—no suitable microhabitat within study area; annual grassland habitat is highly disturbed
<i>Atriplex cordulata</i> Heartscale	—/—/1B.2	Western Central Valley and valleys of adjacent foothills.	Alkali grasslands, alkali meadows, alkali scrublands at elevations from MSL to 660 feet.	May–October	Low—annual grassland habitat within study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Atriplex depressa</i> Brittlescale	—/—/1B.2	Western Central Valley and valleys in foothills on west side of Central Valley.	Alkali grasslands, alkali meadows, alkali scrublands, chenopod scrublands, playas, valley and foothill grasslands; on alkaline or clay soils at elevations from MSL to 660 feet.	May–October	Low—annual grassland habitat within study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Atriplex joaquiniana</i> San Joaquin spearscale (saltbush)	—/—/1B.2	West margin of Central Valley from Glenn to Tulare Counties.	Alkali grasslands, alkali scrublands, alkali meadows, saltbush scrublands	April–September	Low—annual grassland habitat within study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i> Big-scale balsamroot	—/—/1B.2	Alameda, Butte, Mariposa, Napa, Placer, Santa Clara, and Tehama Counties.	Cismontane woodland and valley and foothill grassland with serpentine soils	March–June	None—there are no serpentine soils known to occur within the study area

Table A-2. Continued

Species	Status ^a	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area ^c
	Federal/State/CNPS				
<i>California macrophylla</i> Round-leaved filaree	—/—/1B.1	Scattered occurrences in the Great Valley, southern North Coast Ranges, San Francisco Bay Area, South Coast Ranges, Channel Islands, Transverse Ranges, and Peninsular Ranges	Cismontane woodland, valley and foothill grassland on clay soils	March–May	Low—annual grassland habitat within study area is highly disturbed
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon’s tarplant	—/—/1B.2	Eastern San Francisco Bay Area, Salinas Valley, and Los Osos Valley.	Lower slopes, flats, and swales in annual grasslands; locally on alkaline or saline soils at elevations from MSL to 700 feet.	June–November	Low—annual grassland habitat within study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Chloropyron (Cordylanthus) palmatus</i> Palmate-bracted bird’s-beak	E/E/1B.1	Known from seven populations in Livermore Valley and Central Valley from Colusa County to Fresno County.	Alkali grasslands, alkali meadows, and chenopod scrublands	May–October	Low—annual grassland and riverine wetland habitat within the study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Cordylanthus mollis</i> ssp. <i>hispidus</i> Hispid bird’s-beak	—/—/1B.1	Central Valley (Kern, Merced, Placer, and Solano Counties) and Alameda County	Meadows, grasslands, and playas; on alkaline soils	June–September	Low—annual grassland and riverine wetland habitat within the study area is highly disturbed; suitable alkaline soil unlikely within study area
<i>Deinandra bacigalupii</i> Livermore tarplant	—/—/1B.2	Endemic to Alameda County (Livermore Valley)	Alkaline meadows and seeps, not in Jepson Manual	June–October	Low—annual grassland habitat within study area is highly disturbed; minimal suitable wet habitat (seeps pools) exists within study area

Table A-2. Continued

Species	Status ^a	California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area ^c
	Federal/State/CNPS				
<i>Helianthella castanea</i> Diablo helianthella	—/—/1B.2	San Francisco Bay area: Alameda, Contra Costa, Marin ^b , San Francisco ^b , and San Mateo Counties; also reported from San Diego County	At chaparral/oak woodland ecotone, often in partial shade, on rocky soils, also coastal scrub, riparian woodland, broadleafed upland forest, valley and foothill grassland	March-June	Low—annual grassland and riparian habitats within study area is highly disturbed
<i>Hesperolinon breweri</i> Brewer's western flax	—/—/1B.2	Contra Costa, Napa, and Solano Counties.	Chaparral, cismontane woodland, and valley and foothill grasslands; usually on serpentine soils	May – July	None—there are no serpentine soils known to occur within the study area
<i>Plagiobothrys glaber</i> Hairless popcorn-flower	—/—/1A	Coastal valleys from Marin County to San Benito Count.	Alkaline meadows, coastal salt marsh	April–May	Low—annual grassland habitat within the study area is highly disturbed. No coastal salt marsh habitat is present within the study area
<i>Trifolium depauperatum</i> var. <i>hydrophilum</i> Saline clover	—/—/1B.2	Alameda, Colusa, Monterey, Napa, San Benito, Santa Clara, San Luis Obispo, San Mateo, Solano, and Sonoma Counties.	Marshes and swamps, valley and foothill grassland (mesic, alkaline), and vernal pools	April–June	Low—minimal suitable wet habitat (marshes, swamps, vernal pools) exists within study area: annual grassland habitat within study area is highly disturbed

Table A-2. Continued

Species	Status ^a		California Distribution	Habitats	Blooming Period	Likelihood to Occur in Project Area ^c
	Federal/State/CNPS					
<i>Tropidocarpum capparideum</i> Caper-fruited tropidocarpum	–/–/1B.1		Historically known from the northwest San Joaquin Valley and adjacent Coast Range foothills	Grasslands in alkaline hills	March–April	None—no suitable microhabitat (hills) within study area; annual grassland habitat is highly disturbed. Presumed extirpated in Alameda County.

MSL = Mean Sea Level

^a Status explanations:

Federal

E = listed as endangered under the ESA

– = no listing

State

E = listed as endangered under the CESA

– = no listing

California Native Plant Society (CNPS)

1A = List 1A species: presumed extinct in California

1B = List 1B species: rare, threatened, or endangered in California and elsewhere

2 = List 2 species: rare, threatened, or endangered in California but more common elsewhere

CNPS Code Extensions:

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 = fairly endangered in California (20- 80% of occurrences threatened)

^b Populations uncertain or extirpated in the county

^c Definitions of levels of Occurrence likelihood:

Moderate: Plant known to occur in the region from the CNDDDB, or other documents in the vicinity of the project, or habitat conditions are of suitable quality.

Low: Plant not known to occur in the region from the CNDDDB, or other documents in the vicinity of the project; or habitat conditions are of poor quality.

None: Plant not known to occur in the region from the CNDDDB, or other documents in the vicinity of the project; or suitable habitat is not present in any condition.

Table A-3 Special-Status Wildlife Species with Potential to Occur in the Project Region

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Invertebrates				
<i>Branchinecta conservatio</i> Conservancy fairy shrimp	E/–	Disjunct occurrences in Solano, Merced, Tehama, Ventura, Butte, and Glenn Counties	Large, deep vernal pools in annual grasslands	None—no suitable habitat in the study area. There are no occurrences within 2 miles of the site (CNDDDB 2011).
<i>Branchinecta longiantenna</i> Longhorn fairy shrimp	E/–	Eastern margin of central Coast Ranges from Contra Costa County to San Luis Obispo County; disjunct population in Madera County	Small, clear pools in sandstone rock outcrops of clear to moderately turbid clay- or grass-bottomed pools	None—no suitable habitat in the study area. There are no occurrences within 2 miles of the site (CNDDDB 2011).
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	T/–	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County	Common in vernal pools; also found in sandstone rock outcrop pools	None—no suitable habitat in the study area. There are no occurrences within 2 miles of the site (CNDDDB 2011).
Fish				
<i>Hypomesus transpacificus</i> Delta smelt	T/T	Primarily in the Sacramento–San Joaquin Estuary, but has been found as far upstream as the mouth of the American River on the Sacramento River and Mossdale on the San Joaquin River; range extends downstream to San Pablo Bay.	Occurs in estuary habitat in the Delta where fresh and brackish water mix in the salinity range of 2–7 parts per thousand (Moyle 2002).	None – outside of species known range. .
<i>Oncorhynchus mykiss</i> Central California Coastal steelhead	T/-	Coastal drainages along the central California coast.	An anadromous fish that spawns and spends a portion of its life in inland streams, typically maturing in the open ocean	None –downstream barriers to migration from San Francisco Bay.
<i>Oncorhynchus mykiss</i> Central Valley steelhead	T/-	Sacramento and San Joaquin River and their tributaries.	An anadromous fish that spawns and spends a portion of its life in inland streams, typically maturing in the open ocean	None - outside of species known range..

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	T/T	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Sonoma County south to Santa Barbara County	Small ponds, lakes, or vernal pools in grasslands and oak woodlands for larvae; rodent burrows, rock crevices, or fallen logs for cover for adults and for summer dormancy.	None—study area contains suitable upland migration habitat; however, the site has been significantly disturbed by past quarrying and water storage activities. Further, the site is significantly isolated from surrounding areas by residential development, perennial water quality basins, active quarries, and busy roadways (e.g., Stanley and El Charro Roads). The nearest occurrence is ~0.69-mile south of study area (CNDDDB 2011); but the study area is separated from the location of this occurrence by a busy road (Stanley Road) and active quarries.
<i>Rana boylei</i> Foothill yellow-legged frog	--/SSC	Occurs in the Klamath, Cascade, north Coast, south Coast, Transverse, and Sierra Nevada Ranges up to approximately 1,800 meters (6,000 feet).	Creeks or rivers in woodland, forest, mixed chaparral, and wet meadow habitats with rock and gravel substrate and low overhanging vegetation along the edge. Usually found near riffles with rocks and sunny banks nearby.	None – There is currently no potential for foothill yellow-legged frog to occur in the project area, as the portion of Arroyo Mocho that runs through the study area has been significantly altered and channelized. There are no CNDDDB occurrences within 2 miles of the study area (2011).

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
<i>Rana draytonii</i> California red-legged frog	T/SSC	Found along the coast and coastal mountain ranges of California from Mendocino County to San Diego County and in the Sierra Nevada from Butte County to Stanislaus County.	Permanent and semipermanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation; may aestivate in rodent burrows or cracks during dry periods	Moderate—study area represents suitable aquatic habitat within the water quality basins (i.e., Cope Lake and Lake I) and upland dispersal habitat. The nearest occurrence is 1.09 miles northeast of study area (CNDDDB 2011). The site has been historically disturbed by quarrying activities and is relatively isolated by active quarries, commercial development, and a busy road (El Charro Road), which reduces the likelihood for this species to occur within the study area. No breeding habitat (pools) was observed within Arroyo Mocho and the stream has been historically disturbed. Arroyo Mocho could be used as a migration corridor when flows are low
Reptiles				
<i>Emys marmorata</i> Western pond turtle	–/SSC	The western pond turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries.	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests. Nests are typically constructed in upland habitat within 0.25 mile of aquatic habitat.	Moderate— the water quality basins (i.e., Cope Lake and Lake I) and Arroyo Mocho represent suitable aquatic habitat, and suitable upland migration habitat occurs within the uplands of the study area. There are no CNDDDB occurrences within 2 miles of the study area (2011).

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	T/T	Restricted to Alameda and Contra Costa Counties; fragmented into five disjunct populations throughout its range	Valleys, foothills, and low mountains associated with northern coastal scrub or chaparral habitat; requires rock outcrops for cover and foraging	None—no suitable habitat present, and the study area is surrounded by former quarries that have been converted to ponds. There are no CNDDDB occurrences within 2 miles of the site (2011).
Mammals				
<i>Antrozonus pallidus</i> Pallid bat	--/SSC	Widespread throughout California	Roosts in fissures in caves, tunnels, mines, hollow trees, and locations with stable	Low—suitable roosting habitat present within snags in the eastern portion of the study area adjacent to Arroyo Mocho. There are no CNDDDB occurrences within 2 miles of the site (2011).
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/SSC	Widespread throughout California	Roosts in caves, tunnels, mines, crevices, hollow trees, and buildings; usually near water.	Low—suitable roosting habitat present within snags in the eastern portion of the study area adjacent to Arroyo Mocho. There are no CNDDDB occurrences within 2 miles of the site (2011).
<i>Lasiurus cinereus</i> Hoary bat	--/--	Widespread throughout California	Roosts in trees, typically within forests.	Low—suitable roosting habitat present within snags in the eastern portion of the study area adjacent to Arroyo Mocho. There are no CNDDDB occurrences within 2 miles of the site (2011).

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
<i>Taxidea taxus</i> American badger	–/SSC	In California, badgers occur throughout the state except in humid coastal forests of northwestern California in Del Norte and Humboldt Counties	Badgers occur in a wide variety of open, arid habitats but are most commonly associated with grasslands, savannas, mountain meadows, and open areas of desert scrub; the principal habitat requirements for the species appear to be sufficient food (burrowing rodents), friable soils, and relatively open, uncultivated ground	None—the study area is surrounded by residential development, busy roads (e.g., Stanley and El Charro Roads), water quality basins and the undeveloped portion is too small to support this species or a suitable prey-base. There are no CNDDDB occurrences within 2 miles of the site (2011).
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	E/T	Principally occurs in the San Joaquin Valley and adjacent open foothills to the west; recent records from 17 counties extending from Kern County north to Contra Costa County	Saltbush scrub, grassland, oak, savanna, and freshwater scrub	None—the study area is not within species' geographic range, and study area is entirely surrounded by water quality basins, busy roads (i.e., Stanley and El Charro Roads), Arroyo Mocho, and residential development. There are no occurrences of this species within 2 miles of the study area (CNDDDB 2011).
Birds				
<i>Agelaius tricolor</i> Tricolored blackbird	–/SSC	Permanent resident in the Central Valley from Butte County to Kern County; breeds at scattered coastal locations from Marin County south to San Diego County and at scattered locations in Lake, Sonoma, and Solano Counties; rare nester in Siskiyou, Modoc, and Lassen Counties	Nests in dense colonies in emergent marsh vegetation, such as tules and cattails, or upland sites with blackberries, nettles, thistles, and grain fields; habitat must be large enough to support 50 pairs; probably requires water at or near the nesting colony	High—there is suitable marsh habitat immediately adjacent to the study area, species observed ~0.21-mile south of the study area (CNDDDB 2011) on the margin of Cope Lake.

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
<i>Athene cunicularia</i> Western burrowing owl	–/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas; rare along south coast	Level, open, dry, heavily grazed or low stature grassland or desert vegetation with available burrows	Low—the species was observed 0.44-mile northeast of study area (CNDDDB 2011). Very limited habitat is located within the annual grassland habitat in the western and eastern portions of the study area.
<i>Buteo regalis</i> Ferruginous hawk	--/--	Winter migrant to California except north coast	Forages in grasslands and other treeless areas.	Low (foraging habitat only)—there is suitable foraging habitat in the annual grassland in the eastern and western portions of the study area. This species does not nest in California, and foraging habitat is very limited as study area is surrounded by development. There are no occurrences of this species within 2 miles of the study area (CNDDDB 2011).
<i>Elanus leucurus</i> White-tailed kite	–/FP	Lowland areas west of Sierra Nevada from the head of the Sacramento Valley south, including coastal valleys and foothills to western San Diego County at the Mexico border	Low foothills or valley areas with valley or live oaks, riparian areas, and marshes near open grasslands for foraging	Low (foraging and nesting)—nesting habitat in large trees in the eastern and western portions of the study area, and foraging habitat in marsh and grassland habitats in the eastern and western portions of the site. Foraging habitat is limited as it is surrounded by water quality basins (i.e., Cope Lake and Lake I). There are no occurrences of this species within 2 miles of the study area (CNDDDB 2011).

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
<i>Lanius ludovicianus</i> Loggerhead shrike	--/SSC	Throughout California, except north coast	Open pastures and grasslands	Low (foraging and nesting habitat)—trees and shrubs throughout the site represent suitable nesting habitat, and marsh and grassland habitat represent suitable foraging habitat within the study area. There are no occurrences of this species within 2 miles of the study area (CNDDDB 2011).
<i>Sternula antillarum</i> ssp. <i>browni</i> California least tern	E/E	Found along the Pacific Coast of California from San Francisco to Baja California	Nest on open beaches kept free of vegetation by natural scouring from tidal action	None – outside of species geographic range and there is no suitable habitat within the study area. There are no occurrences of this species within 2 miles of the study area (CNDDDB 2011).

Table A-3. Continued

Scientific and Common Names	Status Federal/State	Geographic Distribution	Habitat Requirements	Potential Occurrence in Study Area
Notes:				
Status explanations:				
Federal				
E	=	listed as endangered under the ESA		
T	=	listed as threatened under the ESA		
PT	=	proposed for federal listing as threatened under the ESA		
C	=	species for which USFWS has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded		
D	=	delisted		
–	=	no listing		
State				
E	=	listed as endangered under CESA		
T	=	listed as threatened under CESA		
FP	=	fully protected under the California Fish and Game Code		
SSC	=	species of special concern in California		
D	=	delisted		
–	=	no listing		
Potential Occurrence in the Study Area				
High:	Known occurrences of the species within the study area, or CNDDB, or other documents, records the occurrence of the species within a 2-mile radius of the study area; suitable habitat is present within the study area			
Moderate:	CNDDB, or other documents, records the known occurrence of the species within a 2-mile radius of the study area; poor quality suitable habitat is present within the study area			
Low:	CNDDB, or other documents, does not record the occurrence of the species within a 2-mile radius of the study area; suitable habitat is present within the study area			

APPENDIX B

Mitigation Monitoring and Reporting Plan

APPENDIX B: MITIGATION MONITORING AND REPORTING PLAN

<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/ Frequency</u>
Mitigation Measure AIR-1: Implement BAAQMD Basic Mitigation Measures. Zone 7 Water Agency and its construction contractors shall control fugitive dust emissions by implementing, as applicable, the following basic control measures based on BAAQMD recommendations: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas, and unpaved access roads) shall be watered two times a day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed at least once per day. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. • Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California of Regulations). Clear signage shall be provided for construction workers at all access points. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at Zone 7 Water Agency regarding dust complaints. This person shall respond and take	Construction contractor	Daily inspections and bi-weekly documentation to Zone 7 that measures are being implemented, and identifying any lapses or issues.	Construction contractor	Control measures must be in place at start of construction. Daily inspections and bi-weekly documentation during construction,

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<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/ Frequency</u>
corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.				
Mitigation Measure BIO-1: Conduct an Environmental Education Program for all Construction Personnel. Develop and implement an environmental education program for all construction personnel about the importance of on-site biological resources. The program, to be provided to all construction personnel, shall brief them on the need to avoid impacts on biological resources—including California red-legged frog, as well as the penalties for not complying with biological mitigation requirements. All construction personnel shall be informed about the life history of federally listed species and other special status species that could occur on site; the importance of habitats for these species and the terms and conditions of the biological opinion. The construction supervisor shall ensure that any new personnel arriving to the site are briefed before they begin work.	Zone 7 shall develop environmental education program and train construction personnel at onset of project/construction. Construction supervisor shall train new personnel thereafter.	Document training (i.e. who was trained and when).	Zone 7 retains all training documentation. Construction supervisor responsible to identify new personnel who need training after start of construction.	Training shall occur prior to construction. Train new construction personnel before they begin work on site involving ground disturbance or similar.
Mitigation Measure BIO-2: Conduct a Preconstruction Survey for California Red-Legged Frog and Monitor Construction Activities within California Red-Legged Frog Habitat. To avoid and minimize impacts on CRLF, the applicant or its contractor shall retain a qualified wildlife biologist to conduct preconstruction clearance surveys for California red-legged frogs no more than 48 hours before ground disturbance anywhere within the project area. The qualified biologist also shall be responsible for monitoring all construction activities within CRLF aquatic habitat (Cope Lake and Lake I) and adjacent upland habitat (within 100 feet of the aquatic habitat). The biologist shall look for CRLF during grading, excavation, and any ground disturbing construction activities. If a CRLF is	Zone 7 / Biological Consultant	Preparation of pre-construction survey results report. Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues.	Zone 7/ Biological Consultant	Preconstruction survey to be complete no more than 48 hours prior to start of ground disturbance. Ongoing monitoring during construction. Frequency to be established by

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<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/Frequency</u>
encountered during any project activities, construction shall cease until the frog is removed by a USFWS-approved biologist and relocated to nearby suitable aquatic habitat. USFWS and CDFG shall be notified within five (5) working days of any CRLF relocation.				qualified biologist.
Mitigation Measure BIO-3: Use Exclusion Fencing for Construction Activities (Including Grading) during All Seasons and Avoid Grading Activities within California Red-Legged Frog Upland Habitat during the Wet Season (October 1 to April 30). Exclusion fencing shall be placed around the project area to keep CRLF from entering the work area during all work activities. Exclusion fencing shall be in place at least 48 hours prior to construction. A biological monitor shall be on-site during fence installation. To minimize disturbance of dispersing CRLF, all grading activity within CRLF upland habitat (within 100 feet of aquatic habitat) should be conducted during the dry season (between May 1 and September 30) or before the onset of the rainy season, whichever occurs first.	Zone 7	Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues.	Zone 7	During construction. Frequency to be established by qualified biologist.
Mitigation Measure BIO-4: Minimize Ground-Disturbing Activities in California Red-Legged Frog Aquatic and Upland Habitat. To minimize disturbance and mortality of CRLF in Cope Lake and Lake I, and upland habitat (within 100 feet of the aquatic habitat), the applicant or its contractor shall minimize the extent of ground-disturbing activities by minimizing the project footprint and limiting the work area to the minimum area necessary for construction.	Zone 7	Regular inspections to check that all activities are within the designated work areas.	Zone 7 and Construction Contractor will both ensure that activities remain within the designated work areas.	Prior to and during construction.
Mitigation Measure BIO-5: Avoid and Minimize the Disturbance of Aquatic Habitat. To the extent possible, the	Construction contractor	Prepare SWPPP.	Construction contractor.	Prior to and during

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<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/ Frequency</u>
applicant or its contractor shall minimize impacts to aquatic habitat by implementing all of the following measures: • Construction activities in waters during the wet season (October 1 to April 30) shall be avoided. • During construction, trees, shrubs, debris, or soils that are inadvertently deposited shall be removed in a manner that minimizes disturbance to the aquatic habitat. • All construction-related activities shall be completed promptly to minimize their duration and resulting impacts. • Construction inspectors shall routinely inspect protected areas to ensure that protective measures are in place and effective. • All protective measures shall remain in place until all construction activities near the resource have been completed and shall be removed immediately following construction activities. • An erosion control plan shall be prepared and implemented. It shall include the following provisions and protocols: • Discharge from dewatering operations, if needed, and runoff from disturbed areas shall be made to conform to the water quality requirements of the waste discharge permit issued by the Regional Water Quality Control Board (RWQCB). • Material stockpiles shall be located in non-traffic areas only. Side slopes shall not be steeper than 2:1. All stockpile areas shall be surrounded by a filter		Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues.		construction. Prepare SWPPP and install protective measures prior to construction. All protective measures should be inspected daily. Documentation of corrective actions, as needed

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<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/ Frequency</u>
fabric fence and interceptor dike. Temporary erosion control measures, such as sandbagged silt fences, shall be applied throughout construction of the proposed project and shall be removed after the working area is stabilized or as directed by the engineer. The Storm Water Pollution Prevention Plan (SWPPP) for the project shall detail the applications and type of measures and the allowable exposure of unprotected soils.				
Mitigation Measure BIO-6: Inspect Exclusion Fences Daily during Construction. The biological monitor shall inspect the exclusion fences around the work area daily during construction within the action area. If ground disturbance activities are completed and the biological monitor is no longer required to monitor construction activities, an inspector trained by the biologist shall conduct the daily fence inspections for any frogs. If a frog (regardless of species) is found near a fence, work in the area shall stop, the biologist shall be notified, determine the species, and the frog shall be relocated (if found to be CRLF, then a USFWS-approved biologist shall relocate the frog) to suitable habitat outside of the work area. Fences shall be inspected according to this schedule until the fences are removed, as approved by the biological monitor or the resident inspector. The construction contractor monitor shall be responsible for maintaining the exclusion fences. The biological monitor or resident inspector shall immediately report any encroachment on fenced areas to the foreman or engineer, who shall stop construction or notify the contractor of the situation to be addressed. The biological monitor or resident inspector shall document the results of the inspections on construction monitoring log sheets, which shall be kept on file with the applicant.	Zone 7/ Biological Consultant	Daily inspections and documentation that measures are being implemented, and identifying any lapses or issues.	Zone 7/ Biological Consultant	During construction, conduct daily exclusion fence inspections.

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<u>Mitigation Measure</u>	<u>Implementation Responsibility</u>	<u>Monitoring and Reporting Actions</u>	<u>Monitoring Responsibility</u>	<u>Timing/ Frequency</u>
Mitigation Measure BIO-7: Conduct a Preconstruction Survey for Western Pond Turtles. To avoid and minimize impacts on western pond turtles, the applicant or its contractor shall retain a qualified wildlife biologist to conduct a preconstruction clearance survey for western pond turtles no more than 48 hours before ground disturbance in aquatic habitats and after the exclusion fencing is installed. If turtles are observed during the survey, they shall be relocated to suitable habitat outside of the work area or as determined during coordination with CDFG. The person handling turtles shall be permitted to capture and relocate western pond turtle individuals at the time of project initiation or need to amend their CDFG collecting permit to include capture and relocation.	Zone 7/ Biological Consultant	Preparation of pre-construction survey results report. If relocation is necessary, document relocation.	Zone 7/ Biological Consultant	No more than 48 hours prior to ground disturbance.
Mitigation Measure BIO-8: Conduct a Pre-construction Survey for Nesting Migratory Birds and Raptors. A preconstruction survey for nesting raptors, special-status bird species, and migratory bird species shall be conducted by a qualified biologist. Since burrowing owl can be present during any time of the year, a survey for this species shall be conducted by a qualified biologist. Further, if construction activities are scheduled to occur during the avian breeding season (February 1-August 31), a preconstruction survey for other nesting raptors, special-status bird species, and migratory bird species shall be conducted by a qualified biologist. The survey will cover all potential nesting substrate in the study area relevant to the species being surveyed for and will be conducted no more than two weeks prior to the initiation of construction or ground disturbing activities associated with the project. If no active nests are located, then no further mitigation is necessary. If an active nest is located, a no-disturbance buffer will be established	Zone 7/ Biological Consultant Zone 7/ Biological Consultant	Preparation of pre-construction survey results report. Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues. Frequency to be established by qualified biologist.	Zone 7/ Biological Consultant	Preconstruction survey no more than two weeks prior to construction. During construction, monitoring of buffer zones or active sites (if needed) will occur at a frequency to be established by qualified biologist.

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around the active nest site to avoid disturbance or destruction of the nest until after the nesting season is over or a biologist determines that the young have fledged. The extent of such a buffer will be determined by the biologist and will be influenced by the amount of noise and other disturbances, and other topographic or artificial barriers. If construction activities begin prior to the breeding season (i.e., if construction activity begins between September 1 and February 28), then only a burrowing owl survey is necessary. Once project initiation begins, construction activities should be in full force, including, at a minimum, grading of the site and development of infrastructure. A minor activity that initiates construction but does not involve the full force of construction activities will not qualify as "pre-existing construction." Optimally, all necessary vegetation removal should be conducted prior to the breeding season so that there is no potential for nesting birds or raptors to occur in the construction area. If any birds or raptors nest in the vicinity of the project under this pre-existing construction condition, then it is assumed that they are habituating or will habituate to the construction activities. Under this scenario, the preconstruction survey still should be conducted on or after March 1 to identify any active nests in the vicinity, and active sites should be monitored by a wildlife biologist periodically until after the breeding season or after the young have fledged (usually late-June to mid-July). If active nests are identified in or immediately adjacent to the project area, then all nonessential construction activities (e.g., equipment storage, meetings, etc.) should be avoided in the immediate vicinity of the nest site; however, construction activities can proceed. If construction activities stop for more than two weeks during the avian nesting season, an additional				

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nesting raptor and migratory bird survey shall be conducted.				
Mitigation Measure BIO-9: Conduct a Preconstruction Survey for Roosting Bats. To avoid and minimize impacts to roosting bats, the applicant or its contractor shall retain a qualified wildlife biologist to conduct a preconstruction clearance survey for bats no more than 48 hours before ground disturbance associated with project implementation. If bats are observed during the survey, they shall be relocated through humane exclusion methods agreed upon with CDFG. A qualified biologist shall oversee the implementation of the exclusion process. The bat exclusion device installer shall be qualified to perform such activities.	Zone 7 / Biological Consultant	Preparation of pre-construction survey results report. Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues.	Zone 7/ Biological Consultant	Preconstruction survey more than 48 hours prior to construction. Monitoring during construction, as needed. Frequency to be established by qualified biologist.
Mitigation Measure BIO-10: Install Construction Barrier Fencing around the Construction Area to Protect Sensitive Habitats. The applicant or its contractor shall install orange construction barrier fencing at the edge of the project area where it abuts or includes water basins and seasonally inundated areas within the project area. The fencing shall be installed before project activities are initiated, maintained throughout the construction portion of the project, and removed after construction completion.	Zone 7	Regular inspections and documentation that measures are being implemented, and identifying any lapses or issues.	Zone 7	During construction. Fencing will be inspected once per week or more.
Mitigation Measure BIO-11: Avoid and Minimize Potential Disturbance of Riparian Communities. The applicant or its contractor shall avoid and minimize potential disturbance of woody vegetation in the riparian habitat by implementing the following measures. The potential for long-term loss of woody riparian vegetation shall be minimized by trimming vegetation rather than removing	Zone 7 / Biological Consultant	Document that measures are implemented and identify any lapses or issues.	Zone 7/ Biological Consultant	Prior to construction.

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entire woody plants. Woody plants that need to be trimmed shall be cut at least 1 foot above ground level to leave the root systems intact and allow for more rapid regeneration. Cutting shall be limited to the minimum area necessary within the construction zone. To protect nesting birds, the applicant or its contractor shall not allow pruning or removal of woody riparian vegetation between January 1 and August 31 without preconstruction surveys as required by Mitigation Measure BIO-8. A certified arborist shall be retained to perform any necessary pruning or root cutting of riparian trees.				