Initial Study/Mitigated Negative Declaration

Encanto Park Regional Stormwater Capture Project

MAY 2025

Prepared for:

RIO HONDO/SAN GABRIEL RIVER WATERSHED MANAGEMENT JOINT POWERS AUTHORITY
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
APRMI	ArchaeoPaleo Resource Management, Inc
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CFC	California Fire Code
CH_4	methane
City	City of Duarte
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO2 equivalent
dB	decibel
DPM	diesel particulate matter
EO	Executive Order
EWMP	Enhanced Watershed Management Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
ips	inches per second
IS	Initial Study
JPA	Rio Hondo/San Gabriel River Watershed Management Joint Powers Authority
LAFD	Los Angeles Fire Department
L_{eq}	outdoor energy-equivalent sound level
LST	localized significance threshold
MM	Mitigation Measure
MND	mitigated negative declaration
MS4	Municipal Separate Storm Sewer System
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
PM_{10}	course particulate matter
$PM_{2.5}$	fine particulate matter
ppm	parts per million
PPV	peak particle velocity

Acronym/Abbreviation	Definition
PRC	California Public Resources Code
project	Encanto Park Regional Stormwater Capture Project
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SEA	Significant Ecological Area
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound
WEAP	Worker's Environmental Awareness Program
WQG	Rio Hondo/San Gabriel River Water Quality Group

1 Introduction

The Rio Hondo/San Gabriel River Watershed Management Joint Powers Authority (JPA) has prepared this mitigated negative declaration (MND) to assess and disclose the potential impacts on the environment of the Encanto Park Regional Stormwater Capture Project (Project) in the City of Duarte (City) pursuant to the California Environmental Quality Act (CEQA) (PRC Section 21000, et. Seq). This section of the MND provides information on project background, explains the project's purpose and need, and describes the JPA's CEQA obligations associated with approving and implementing the project. Project background information and the project description presented in this section and throughout the MND is based on the Preliminary Design Report prepared for the project by Craftwater Engineers in November 2021 (Craftwater 2021).

1.1 Project Background and Overview

Prior to the official formation of the JPA, a watershed group, the Rio Hondo/San Gabriel River Water Quality Group (WQG), was created. It was composed of the County of Los Angeles, Los Angeles Flood Control District, and the contiguous cities of Arcadia, Bradbury, Duarte, Monrovia, and Sierra Madre, which are located in the northern part of the San Gabriel Valley. The group's territory covers approximately 42 square miles of predominately residential and open space land use, with the western part of the territory in the Los Angeles River watershed, and the eastern part in the San Gabriel River watershed (WQG 2016). WQG was formed in 2013 to foster a multi-jurisdictional approach to improving the quality of water discharged from their municipal stormwater systems into the Los Angeles River and San Gabriel River. The group's formation was in response to obligations of the Los Angeles County Municipal Separate Storm Sewer System (MS4) permit issued in 2012 by the Los Angeles Regional Water Quality Control Board (RWQCB) (Order No. R4-2012-0175). The MS4 permit sets effluent and receiving water limitations for municipal drainage systems in the Los Angeles County, and requires permittees to establish plans to meet specific total maximum daily load requirements for discharge of pollutants in their respective receiving waters.

In 2016, WQG finalized their Enhanced Watershed Management Program (EWMP) for the area, establishing the group's water quality priorities and outlining a program of physical improvements aimed at meeting their MS4 permit obligations. Metals, and specifically zinc, were identified in the EWMP as the highest priority pollutants for the San Gabriel watershed. These pollutants affect stormwater and runoff during dry weather. Common sources of metals in runoff include industrial activities, motor vehicle operation, and building materials. The EWMP was revised and expanded in 2019 to include multi-benefit regional best management practice (BMP) projects, in addition to enhanced minimum control measures and non-structural BMPs. In the EWMP and subsequent revisions, the WQG aimed to identify opportunities that maximized community and water supply benefits, in addition to implementing improvements that would help meet the MS4 pollution reduction goals. Four regional BMP projects were proposed in the revised WMP, one of which is a stormwater capture project at Encanto Park located in the city of Duarte that is the subject of this MND. The five WQG cities officially formed the JPA in 2022 with the specific purpose to coordinate the planning, implementation, and maintenance of EWMP projects.

Encanto Park is a public recreational facility maintained by the City of Duarte's Parks and Recreation Department and located adjacent to the San Gabriel River. Additional information on Encanto Park is provided in Section 2.2, Project Characteristics. The park features a series of three City storm drain pipelines that converge into a single pipe running beneath Encanto Parkway and discharge to the river at an outfall on the northern bank of the channel. The project would capture, divert, and treat this stormwater runoff, pumping it into a subterranean concrete basin proposed beneath the park's turf field. Water would infiltrate beneath the basin, allowing physical filtration into

permeable earth materials to remove solids and trap sediment. An outflow pipe and filtration unit would be installed to accommodate water during periods of heavy flow when the reservoir fills to its capacity, treating the water before discharging it into the existing San Gabriel River outfall. In addition to the proposed stormwater infrastructure, the JPA also intends to implement other park improvements as part of this project to benefit community members and the environment. These include renovating the parking area and ballfield surface, adding educational signage, and installing a water bottle filling station.

The JPA is implementing the project in their capacity as an MS4 permittee, and would be responsible for operating and maintaining the project facilities. The JPA has initiated the design process and would issue a construction contract for project implementation.

1.2 Purpose and Need

The project's purpose is to decrease the amount of pollutants in stormwater and dry-weather runoff entering the San Gabriel River. The JPA members, as permittees under the Los Angeles County MS4 permit, are required to meet stormwater standards established in the permit. Metals, and specifically zinc, are the highest priority pollutants addressed by the EWMP, and the JPA is implementing projects to treat these metals in storm flows within their watershed.

The JPA's objectives in implementing the project are the following:

- Improve water quality in the San Gabriel River
- Divert stormwater runoff to local groundwater aquifers via infiltration
- Update/improve existing park surfaces and amenities
- Educate the public on the local water supply and demands

1.3 California Environmental Quality Act Compliance

1.3.1 Authority to Prepare an MND

Approval by the JPA Board Members to award a construction contract to build the project constitutes a discretionary action that triggers environmental review requirements pursuant to CEQA, with the JPA serving as lead agency under CEQA. The JPA and their consultant prepared a CEQA Initial Study (IS) to analyze and consider the environmental impacts of implementing the project, which is included as Section 3 of this document. Based on the results of the IS, the JPA determined that an MND is the appropriate environmental document for compliance with CEQA. As stated in Section 21064 of the CEQA statute, an MND may be prepared for a project subject to CEQA when an IS has identified no potentially significant effects on the environment when mitigation is identified that can reduce impacts to less than significant levels.

1.3.2 Public Review and Final MND Process

The MND is being made available for public review and comment pursuant to Section 15073 of the CEQA Guidelines. A copy of the MND and related documents are available for review on the JPA's website (www.rhsgrwma.org.). The JPA has identified a 30-day review and comment period for the MND commencing May 27, 2025, and terminating June 25, 2025.

Comments on the MND may be submitted to the JPA in writing before the end of the public review period. In reviewing and commenting on the MND, interested public agencies and members of the public should focus on the adequacy of the document in identifying and analyzing the project's potential impacts on the environment. Written comments on the MND will be accepted in hard copy or email format, and should be received at the following street address or email address by 5:00 p.m., June 25, 2025:

Rio Hondo/San Gabriel River Watershed Management
Joint Powers Authority
Attn: Grace Kast
600 Winston Avenue
Bradbury, California 91008
Email: encantoparkceqa@dudek.com

Following the close of the public comment period, the JPA and its consultant will review all comments and may revise the MND if necessary to clarify the document's content. The JPA and its consultant will then prepare a final MND for adoption and consideration in their decision to approve the project.

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2 Project Description

2.1 Project Location and Environmental Setting

The proposed project is located on the eastern side of the City of Duarte (Figure 1, Project Location), which sits on the northern side of the San Gabriel Valley at the base of the San Gabriel Mountains, and had a recorded population of 21,001 residents at the 2020 census (U.S. Census Bureau 2020). As shown on Figure 2, Project Site and Components, the project site is within the western portion of Encanto Park, an active recreation facility maintained by the City. The park is in a developed area along the City's eastern boundary with the City of Azusa that mostly features single-family residential uses. The park is trapezoid-shaped and is bounded by Encanto Parkway on the southeast and by single-family residential properties on all other sides. The San Gabriel River runs northeast to southwest on the other side of Encanto Parkway from the project. The span of the San Gabriel River in the vicinity of the project site is a soft-bottom channel maintained by the Los Angeles County Flood Control District. In addition to predominating single-family residential uses, other land uses in the vicinity of the park include a senior residential complex, commercial development, and the Rancho Duarte golf course southwest of the site, and mining uses and industrial development east of the site across the San Gabriel River.

Encanto Park has an area of approximately 11 acres. It features a grass-covered multipurpose field on the western side that is used for recreation league soccer and baseball. On the eastern side of the park are two fenced tennis courts, a basketball court, and two sand volleyball courts. The park also features children's play equipment, a picnic area with canopy shelters and barbecues, and a gazebo picnic shelter. There are paved walking paths, benches, and picnic tables throughout the park. An unpaved nature trail follows a vegetated bioswale on the park's western and northern edge. The bioswale collects and conveys local stormwater runoff. Mature trees of native and ornamental varieties occur throughout the park, in addition to younger specimen more recently planted. The Duarte Historical Museum, which houses the Duarte Historical Society, is located on the park's southern end. A paved parking lot with 98 parking stalls, ornamental box hedges, and mature trees is located along the park's eastern side, adjacent to Encanto Parkway. An irrigation system with underground pipes and sprinkler heads is in place throughout the park.

The San Gabriel River Trail, a multiuse path maintained by the Los Angeles County Department of Parks and Recreation, is an asphalt-paved facility located on the San Gabriel River's eastern bank in the vicinity of the project. The Puente Largo Bridge, which provides a river crossing for non-motorized vehicles connecting the trail to Encanto Parkway, is located just south of Encanto Park. Because of this proximity to the river crossing, Encanto Park's parking lot is a common staging site for cyclists and other recreational users of the San Gabriel Trail.

Encanto Park is used by the Los Angeles County Fire Department for landing helicopters to refill water tanks during fire fights. Helicopters land and takeoff from the multiuse field on the park's western side. Helicopters' water tanks are filled from a City hydrant located along Encanto Parkway adjacent to the park's southern driveway.

Three underground storm drainpipes enter the park at separate locations at the north and east sides of the park and converge in the park's southwest corner, then cross beneath Encanto Parkway and let out into the San Gabriel River. These pipes, which are shown on Figure 2, are referred to as MTD 1267 Line A (72-inch reinforced concrete pipe), Line B (54-inch reinforced concrete pipe), and Line C (21-inch reinforced concrete pipe). Line B connects to Line A northwest of the multipurpose field, and Line C connects to Line A downstream of there, southwest of the field. These storm drains convey runoff from the residential development upstream of the park. Line C, which runs

beneath the Encanto Park parking lot and adjacent to the Duarte Historical Museum, includes inlets to capture runoff from the parking lot.

2.2 Project Characteristics

The project entails constructing and operating a stormwater capture and treatment facility on the western side of Encanto Park, as well as other ancillary park improvements to benefit park users, shown on Figure 2. The treatment facility would intercept stormwater and dry-weather flow from existing underground storm drain pipelines within the park and pump the water to a shallow underground reservoir beneath the multi-use field for infiltration into the groundwater basin. An outflow pipe would be installed to convey excess water from the reservoir during heavy storms when all the water is not able to infiltrate. This water would pass through a treatment unit before discharging to the San Gabriel River at the existing outfall that conveys water from the storm drain pipelines beneath the park. The project would not affect function of the existing bioswale, which captures surface runoff from the park and is not connected to the existing storm drain system associated with the proposed project. Additional detail on the various project features is provided below. The proposed stormwater facilities are described here in the sequence of the system's operation.

2.2.1 Diversion Structure and Stormwater Pretreatment Device

A diversion structure will be constructed along MTD 1267 Line A downstream of the existing Line C connection. This will divert water from Line A via gravity through an 18-inch diameter pipe to a small electric pump that will lift the water to an elevation higher than the existing storm drain. The pump will be placed underground, approximately 20 feet beneath the surface, accessed through a hatch for maintenance purposes. Electrification of the pump requires establishing an additional connection to Southern California Edison's distribution facilities that currently serve the park's lights and irrigation system. The lifted water will travel through a pretreatment device and then into the reservoir described below. The pretreatment device will remove sediment, trash, and debris to prevent them from entering the reservoir and compromising its performance, which will reduce maintenance frequency and extend the system's lifespan.

The pretreatment system would either be a hydrodynamic separator or a debris-separating baffle box, as subject to further project design considerations. This would be located in an underground vault with personnel access through a surface hatch. A typical hydrodynamic separator directs water through a screen to filter out large debris and into a cylindrical separation chamber where water swirls and forces particles out of the runoff, settling them in an isolated sump. Hydrocarbons float to the top of the water surface and are prevented from being transported downstream. Baffle boxes use screens suspended above sedimentation chambers that capture and store trash and debris. Sediment is removed by routing water through a triple-chambered system. An oil skimmer with hydrocarbon booms traps and absorbs oil.

2.2.2 Storage Reservoir

After pretreatment, water would continue into an underground storage reservoir that would be installed as part of the project beneath a portion of the Encanto Park multi-use field. The reservoir is anticipated to have an estimated area of 4,400 square feet and a capacity of 0.6 acre-feet according to preliminary design information. The field surface would be removed, and earth material would be excavated, removed, and hauled off site for reuse or disposal. The excavation is anticipated to be 6 feet deep. The reservoir would be built of modular precast concrete units that would be hauled to the site on flatbed trucks, lowered into place by a crane, and grouted together to form

a single chamber. Once the system is installed and tested, the multi-use field surface would be replaced and would continue to function as under current conditions. The reservoir would feature one aboveground manway for maintenance access with a 30-inch diameter cover located outside the multiuse field area.

A geotechnical evaluation of the project site concluded that Encanto Park features soils with high permeability (Craftwater 2021). As a result, the reservoir will be designed to facilitate infiltration of captured stormwater, allowing water to seep into the underlying aquifer and providing natural filtration through the soil. To reduce the size of the reservoir and maximize treatment capacity, the system would not be designed to handle all captured storm flows solely through infiltration; during periods of heavy flow, some water would be pumped out of the basin and filtered for discharge back into the storm drain, as described below.

2.2.3 Discharge Treatment Filter

When the water level in the reservoir reaches a predetermined elevation during heavy storm flow, excess inflow would enter a discharge pipeline and be carried by gravity to a filter unit for final pollutant removal prior to reentering the storm drain system and discharge into San Gabriel River. Discharge filtration units would either be designed as cartridge filters or up-flow media filters, as subject to additional project design. After moving through the discharge treatment filter, water would continue in a short pipeline that would be connected to Line A.

2.2.4 Park Improvements

The project also proposed the following improvements to Encanto Park, in addition to the stormwater capture and treatment infrastructure described above. Park improvement design will be undertaken in consultation with the City Parks and Recreation Department, as manager of the City's Encanto Park property and assets.

Multi-use Field Surface Replacement

Because the project would require removal and replacement of some of Encanto Park's multi-use field surface, the City has elected to expand the surface replacement to encompass approximately 65,000 square feet (1.5 acres), or approximately 60,000 square feet beyond the area needed solely to replace turf over the reservoir. The original park design did not envision this area used as a full-size soccer field, and under existing conditions the field features minor topographical slopes that exceed the optimum standards of such a playfield. The project would regrade the surface to provide a more level playing field and proper drainage, and would improve soil conditions to optimize health of the replacement sod by amending the existing material and/or bringing in new soil. Removal and replacement of the field surface would also entail removal and replacement of the existing irrigation pipes and sprinkler heads.

Parking Lot Improvements

The project proposes replacement of Encanto Park's parking lot surface. The City anticipates that staging and construction access in the parking lot will require resurfacing at the end of the project. Parking lot improvements to comply with the Americans with Disabilities Act are also anticipated, including restriping to provide appropriate access aisles and parking stall widths, regrading parking stalls to ensure a maximum 2% slope, and reconstructing sidewalks to provide compliant accessible routes and ramps.

The project also entails landscape replacement and improvement within the parking lot. Some outside edges of the existing parking lot are heavily vegetated with shrubs and a mixture of new and mature trees. Some shrubs would

be replaced with native and drought-tolerant species to reduce irrigation usage and increase biodiversity. A conceptual landscape plan is shown on Figure 3. The proposed planting will be irrigated with the parking lot's existing irrigation system, with equipment upgrades as needed.

Maintenance Path

A new maintenance path would be constructed west of the proposed stormwater capture infrastructure, connected to the park's existing maintenance road in the south and a walking path in the north. This path would feature a decomposed granite surface to support maintenance personnel and vehicle access to the system components, as well as being available to pedestrian users of the park. Landscaping and groupings of benches and picnic tables would be installed adjacent to the maintenance path.

Tree Replacement

The project is anticipated to require removal of up to five trees to accommodate proposed improvements. As part of the project's park improvements, the City will replace all trees removed as part of construction at a 2:1 ratio, planting replacement trees on site in Encanto Park.

Ancillary Park Improvements

The project proposes to install an educational kiosk that fosters public understanding of the project's stormwater infrastructure. This may be installed as a standalone kiosk or in combination with a replacement kiosk for the existing nature walk kiosk. A water bottle filling station is also proposed, which will be installed at the edge of the parking lot to replace the existing drinking fountain.

2.2.5 Project Staging and Access

Access to the construction site is from Encanto Parkway and the Encanto Park parking lot. Construction staging, including equipment storage, material laydown, and worker parking is anticipated to occur in the Encanto Park parking lot. A portion of the parking lot would be fenced off for safety and security purposes and made unavailable for public use during the project. As described in Section 2.2.4, the project would entail repair and resurfacing of the parking lot as part of this project following contractor demobilization.

2.3 Construction Phasing and Schedule

Table 2-1 presents the anticipated construction phasing, equipment usage, and duration assumed for the project for purposes of environmental impact analysis in this MND. These assumptions were developed in consultation with the project design engineers for consideration in the air quality, greenhouse gas (GHG), energy, and noise subsections of Section 3. The total duration of project construction is anticipated to be 8 months. Typical construction work hours would be Monday through Friday, 7 a.m. to 5 p.m. Night work is not anticipated.

The project will require compliance with the California Water Resources Board Construction General Permit, Order 2009-0009-DWQ to control runoff during construction. With an anticipated impact area exceeding 1 acre, the project construction contractor will be required to prepare, implement, and abide by a project-specific Stormwater Pollution Prevention Plan (SWPPP). Additional information regarding the SWPPP process and SWPPP requirements is provided in Section 3.10, Hydrology and Water Quality, of this MND. The project is also subject to compliance with the South Coast Air Quality Management District (SCAQMD) Rule 403 to prevent, reduce, or mitigate fugitive

dust emissions from construction activities. Additional information regarding compliance with Rule 403 is provided in Section 3.3, Air Quality, of this MND.

Table 2-1. Anticipated Construction Phasing and Equipment

Construction Phase	Anticipated Equipment (per work area)	Estimated Duration
Site mobilization, clearing, grubbing, and vegetation removal	Dozer (1) Loader (1) Skid Steer Loader (1)	4 weeks
Reservoir excavation	Excavator (1) Skid Steer Loader (1) Dump Truck (1) Bulldozer (1)	6 weeks
Reservoir construction	Crane (1) Bulldozer (1) Skid Steer Loader (1) Dump Truck (1)	6 weeks
Pipe and treatment facility installation	Excavator (1) Bulldozer (1) Skid Steer Loader (1) Dump Truck (1) Crane (1)	6 weeks
Field surface replacement	Grader (1) Bulldozer (1) Skid Steer Loader (1)	4 weeks
Parking lot resurfacing and ancillary improvements	Paver (1) Grinder (1) Excavator (1) Roller (1) Dump Truck (1)	6 weeks

2.4 Project Operation

Once construction is complete, project operation is anticipated to entail routine maintenance activities at the stormwater capture facility performed by the JPA. Activities would include removal of debris and pollutant constituents from the treatment devices, pump testing and calibration, monitoring/sampling of treatment, and cleaning the storage reservoir. Most major maintenance activity would occur underground, within the reservoir and the vaults containing the filter and pump. Because of its small size and underground location, pump operation is not anticipated to be audible from the park or adjacent residences. Occasional power-washing of the parking lot surface is also anticipated.

2.5 Permits, Approvals, and Agency Coordination

The JPA is the CEQA lead agency and will hold primary responsibility for approving the project and issuing a construction contract. The State Water Resources Control Board (SWRCB) will serve as a responsible agency

under CEQA for their approval of a SWPPP in compliance with the Construction General Permit. There are no other responsible agencies who will issue permits to construct or operate the project, however a Memorandum of Agreement between the JPA and the City of Duarte will be executed for the construction, operation, and use of the facility.

The JPA will continue to coordinate with other interested public agencies as the project progresses, including the City of Duarte and the Los Angeles County Fire Department.

3 Initial Study Checklist

1. **Project title:**

   Encanto Park Regional Stormwater Capture Project

2. **Lead agency name and address:**

   Rio Hondo San Gabriel River JPA
   600 Winston Avenue
   Bradbury, California
   91008

3. **Contact person:**

   Grace Kast

4. **Project location:**

   The project is located on the eastern side of the City of Duarte within a portion of the existing Encanto Park.

5. **Project sponsor's name and address:**

   Same as lead agency

6. **General plan designation:**

   Open Space (OS)

7. **Zoning:**

   Open Space (O)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   The project entails the construction of a stormwater capture and treatment facility and improvements to Encanto Park, which include the resurfacing of the multi-use field and the replacement of the park's parking lot surface.

9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**

   The project will be located in a public park adjacent to the San Gabriel River. The park is surrounded by existing residential development on the western side of the river, and by open space, commercial development, mining uses, and industrial development on the east side of the river.

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

    None

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    Refer to Sections 3.5 and 3.18, below

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	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ 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. An 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project**:**				
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)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

a) Would the project have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. Scenic vistas generally refer to views of expansive open space areas or other natural features, such as mountains, undeveloped hillsides, large natural water bodies, or coastlines. Certain urban settings or features, such as a striking or renowned skyline, may also represent a scenic vista. Scenic vistas generally refer to views that are accessible from public vantage points, such as public roadways and parks. The City's General Plan Open Space and Conservation Element does not designate scenic vistas or identify specific scenic resources within the City. Although the General Plan does not identify any scenic resources, the San Gabriel Mountains and foothills are visible from the project site. Project construction would result in temporary visual changes to affected portions of the park, including the presence of excavated areas, materials staging, and construction equipment. Upon completion of construction, these temporary visual changes would cease. This would not block views from the park to the foothills and mountains in the distance. Project features would primarily be located underground and would not be visible during project operation. Other project components would include the resurfacing of the multi-use field, park parking lot and landscaping improvements, which would visually enhance the park. Once operational, the project would not obstruct views of the San Gabriel Mountains and foothills. Therefore, impacts on scenic vistas would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no designated state scenic highways in the vicinity of the project site. The nearest eligible scenic highway is the State Route (SR) 39 segment from SR 210 near Azusa to SR 2, located approximately 1.66 miles east of the project site (Caltrans 2021). Due to intervening development and distance, the project site is not visible from this segment of SR 39. Therefore, the project would not substantially damage scenic resources within a state scenic highway and no impact would occur.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. Per PRC Section 21071, an "urbanized area" is defined as "(a) An incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons. [or] (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." The project site is located in the incorporated City of Duarte, which has a population of 21,001 persons as of 2020 (U.S. Census Bureau 2020). Combined with the populations of contiguous cities such as the City of Monrovia, which has a population of 37,771, and the City of Azusa, which has a population of 49,238 persons, the project site would be located in an urbanized area (U.S. Census Bureau 2020).

The project site is visible from the San Gabriel River Trail located approximately 0.2 miles east of the project site, and more distantly from elevations on the Van Tassel Trail. Temporary visible elements associated with the project include construction equipment, staging activities, and temporary fencing to be included for safety and security purposes. Visual impacts resulting from construction activities would be temporary, ceasing upon completion of construction, and would not be considered a significant impact based on the duration of construction and the park's location in a developed area. The proposed stormwater capture facility would be located primarily underground and would not be visible during operation. Views from the San Gabriel River Trail and Van Tassel Trail would resume similar to existing conditions.

The project site is not subject to overlay zones or other such designations specific to scenic resources or quality. The proposed stormwater capture and treatment facility would be located primarily underground and would not affect visual quality of the site. In addition, the project would include project components such as the resurfacing of the multi-use field and improvements to the park parking lot, which would likely be perceived to park users as enhancements of the park's visual quality. Implementation of the project would not conflict with the existing zoning of the park and would not result in the substantial degradation of the existing scenic character of Encanto Park. Impacts would be less than significant.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. The project is located in an urban area with existing sources of nighttime lighting from roadways, residences, and the existing Encanto Park. Existing lighting at Encanto Park consists of lighting within parking lots and facilities for safety and security. No nighttime work would occur during construction of the project. No new light sources are proposed as a component of the project. As such, the project would not introduce a new

source of light to the project area. The materials that would be used for the project would not be reflective in nature and would not serve as a new source of glare. Therefore, no impact would occur.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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. 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:				
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?	☐	☐	☐	☒

a) Would the project 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?

No Impact. According to the California Important Farmland Finder database, the project site and its immediate surroundings are classified as both "Urban and Built-Up Land" and "Grazing Land" (DOC 2022a). The project would not be located on land classified as Farmland pursuant to the Farmland

Mapping and Monitoring Program and would therefore not convert any Farmland to non-agricultural use. No impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is zoned Open Space (O). Surrounding Encanto Park and the project site are areas also zoned O, as well as Low-Density Residential (LDR), and Specific Plan (SP) (City of Duarte 2018a). The project site is surrounded by existing residences and open space. The City of Duarte does not contain any lands zoned for agricultural use. As such, there are no existing lands under a Williamson Act contract within the City (DOC 2017). Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c) Would the project 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))?

No Impact. The project site and surrounding areas are not zoned for and do not contain any forest land or timberland. Therefore, the project would not conflict with or cause the rezoning or conversion of forest land or timberland. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to response Threshold 3.2(c). No impact would occur.

e) Would the project 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?

No Impact. Refer to responses 3.2(a) through 3.2(d). The project site is located in an urbanized area with no existing agricultural uses, Farmland, or forest lands in the vicinity. As previously discussed, the City does not contain any lands zoned for agricultural uses. Therefore, the project would not involve other changes that could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. No impact would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

This section is based on technical analysis conducted by Dudek, including quantitative estimates of air pollutant emissions based on assumptions developed in consultation with the project design engineers. The results of the emissions estimates are provided as Appendix A to this MND, Air Quality and Greenhouse Gas Emissions California Emissions Estimator Model (CalEEMod) Output Files.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes all of Orange County and the western, non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The site is within the jurisdictional boundaries of the SCAQMD.

The SCAQMD administers the SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP for the SCAB is the 2016 AQMP (SCAQMD 2017).[1] The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional air quality strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

[1] The SCAQMD has initiated the development of the 2022 AQMP to address the attainment of the 2015 8-hour ozone standard (70 parts per billion) for the SCAB and the Coachella Valley. The SCAQMD is in the process of developing the 2022 AQMP, which is currently undergoing public review and is expected to be adopted in 2022, including control measures developed through Residential and Commercial Buildings and Mobile Source Working Groups.

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2016 AQMP, and if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files. As presented in that analysis and summarized in Section 3.3(b), the proposed project would not generate construction or operational criteria air pollutant emissions that exceed the SCAQMD's thresholds, and the project would therefore be consistent with Criterion No. 1.

The second criterion regarding the potential of the proposed project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the proposed project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)[2] (SCAG 2016). SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2017).[3] The SCAG RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans. The relevant local plan for the proposed project is the City of Duarte General Plan.

The project does not include a change in zoning designation, no housing is proposed, and no additional employees would be required. Furthermore, the proposed project would serve an existing need in the City and would decrease the amount of pollutants in stormwater and dry-weather runoff entering the San Gabriel River. Accordingly, the project does not conflict with the SCAG RTP/SCS forecasts used in the

2 SCAQMD is currently working on the next iteration of the AQMP, the 2022 Air Quality Management Plan. The 2022 AQMP will incorporate the recently adopted SCAG's 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS). However, until the adoption of the 2022 AQMP, project AQMP consistency will be analyzed off the 2016 AQMP and the RTP/SCS that was adopted at the time, the 2016–2040 RTP/SCS.

3 Information necessary to produce the emissions inventory for SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), California Department of Transportation, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy are integrated in the 2016 Air Quality Management Plan (SCAQMD 2017).

SCAQMD AQMP development and does not propose activities that would induce additional population in the project area. No mitigation is required.

b) Would the project 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?

Less-than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

A quantitative analysis was conducted to determine whether the proposed project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}; course particulate matter), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$; fine particulate matter), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O_3, as well as CO, sulfur oxides, PM_{10}, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[4] the SCAB is designated as a nonattainment area for federal and state O_3 and $PM_{2.5}$ standards (CARB 2019; EPA 2021). SCAB is also designated as a nonattainment area for state PM_{10} standards; however, it is designated as an attainment area for federal PM_{10} standards. The SCAB is designated as an attainment area for federal and state CO and NO_2 standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[5]

The proposed project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in April 2019, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS. Table 3.3-1 lists the revised SCAQMD Air Quality Significance Thresholds (SCAQMD 2019).

[4] An area is designated as in attainment when it is in compliance with the National Ambient Air Quality Standards and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the U.S. Environmental Protection Agency and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

[5] Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

Table 3.3-1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds (lbs/day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
Sox	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead	3	3
Toxic Air Contaminants and Odor Thresholds		
Toxic air contaminants[b]	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.
[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] Toxic air contaminants include carcinogens and noncarcinogens.

A project would result in a cumulatively considerable net increase for O_3, which is a nonattainment pollutant, if the proposed project's construction or operational emissions would exceed the SCAQMD VOC or NO_x thresholds shown in Table 3.3-1. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (i.e., VOCs and NO_x) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods.

CalEEMod Version 2020.4.0 was used to estimate emissions from construction and operation of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects, including residential development. The following discussion summarizes the quantitative project-generated construction and operational emissions and impacts that would result from implementation of the proposed project. Detailed assumptions and results of this analysis are provided in Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files.

Construction Emissions

Construction of the proposed project would include demolition, site preparation, grading, trenching, modular building installation, landscaping, paving, and application of architectural coatings. These construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul

trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$. Application of architectural coatings, such as exterior paint and other finishes, and application of asphalt pavement would also produce VOC emissions. Construction emissions can vary substantially from day to day depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions.

Proposed project construction emissions were estimated using a combination of CalEEMod default assumptions, and information provided the project engineer. It was assumed that approximately 2.02 acres of the project site would require grading, with a total of 1,528 cubic yards of soil exported over the construction duration. The existing parking lot would be resurfaced requiring the removal of milled asphalt, generating approximately 375 cubic yards of material that would be hauled off site. For the purposes of air quality emissions modeling, it is assumed that construction of the project would commence in January 2023 and would last approximately 8 months. Default values for horsepower and load factor provided in CalEEMod were used for all construction equipment while the equipment mix was provided by the City. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week, up to a maximum of 8 hours per day, in accordance with the City's municipal code. Detailed construction equipment modeling assumptions are provided in Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files.

Emissions generated during construction (and operation) of the project are subject to the rules and regulations of the SCAQMD. Rule 403 (Fugitive Dust)[6] requires the implementation of measures to control the emission of visible fugitive/nuisance dust, such as wetting soils that would be disturbed. It was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55% reduction of fugitive dust (CalEEMod default value), to represent compliance with SCAQMD standard dust control measures in Rule 403. The application of architectural coatings, such as the application of asphalt pavement would produce VOC emissions; however, the contractor is required to procure architectural coatings that comply with the requirements of SCAQMD's Rule 1113 (Architectural Coatings).[7]

Table 3.3-2 shows the estimated maximum daily construction emissions associated with the construction of the project occurring in 2023.

6 SCAQMD Rule 403 requires implementation of various best available fugitive dust control measures for different sources for all construction activity sources within its jurisdictional boundaries. Dust control measures include, but are not limited to, maintaining stability of soil through pre-watering of site prior to clearing, grubbing, cut and fill, and earth-moving activities; stabilizing soil during and immediately after clearing, grubbing, cut and fill, and other earth-moving activities; stabilizing backfill during handling and at completion of activity; and pre-watering material prior to truck loading and ensuring that freeboard exceeds 6 inches. While SCAQMD Rule 403 requires fugitive dust control beyond watering control measures, compliance with Rule 403 is represented in CalEEMod by assuming twice daily watering of active sites (55% reduction in PM_{10} and $PM_{2.5}$ [CAPCOA 2017]).

7 SCAQMD Rule 1113, Architectural Coatings, requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Table 3.3-2. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Construction Year	VOCs	NO_x	CO	SO_x	PM_{10}[a]	$PM_{2.5}$[a]
	Pounds per Day					
2023	1.35	13.54	13.13	0.02	4.07	2.13
SCAQMD threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2019.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District.
See Appendix A for detailed results.
[a] These estimates reflect control of fugitive dust (watering twice daily) required by SCAQMD Rule 403.

As shown in Table 3.3-2, the proposed project's maximum daily construction emissions would not exceed SCAQMD thresholds for any criteria pollutant and impacts would be less than significant.

Operation Emissions

Once construction associated with the stormwater facilities is complete, operational activities associated with the project (e.g., routine maintenance vehicle trips) would be required. Vehicle trips associated with maintenance activities would be infrequent and would not generate daily vehicle-exhaust emissions that could exceed the SCAQMD significance thresholds and impacts would be less than significant.

Cumulative

Cumulative localized impacts would potentially occur if a project were to occur concurrently with another off-site project. Schedules for potential future projects near the project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.[8] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all sites in the SCAQMD.

Therefore, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact. The project would not expose sensitive receptors to substantial pollutant concentrations as evaluated below. Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to

[8] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

The closest off-site sensitive receptors to the project site are single-family residences located approximately 17 meters (55 feet) west of the project site. On-site sensitive receptors would include the playground and park users.

Localized Significance Thresholds

The SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project as a result of proposed project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2008a). The project is located within Source-Receptor Area 9 (East San Gabriel Valley). Although the closest residences to the project site are located at a distance of 17 meters (55 feet), the closest and most stringent receptor distance available in the SCAQMD LST Methodology is 25 meters (82 feet) and is what was assumed for this analysis.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with off-road equipment exhaust and fugitive dust generation. According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2008a). Trucks and worker trips associated with the proposed project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Therefore, off-site emissions from trucks and worker vehicle trips are not included in the LST analysis. The maximum daily on-site emissions generated from construction of the proposed project are presented in Table 3.3-3 and are compared to the SCAQMD localized significance criteria for Source-Receptor Area 3 to determine whether project-generated on-site emissions would result in potential LST impacts. As shown, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts of the proposed project would be less than significant.

Table 3.3-3. Construction Localized Significance Thresholds Analysis

Construction Year	NO_x	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day			
2023	12.64	7.75	3.38	1.97
SCAQMD LST Criteria[a]	*128*	*953*	*7*	*5*
Threshold exceeded?	No	No	No	No

Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
The total values may not add up exactly due to rounding.
See Appendix A for detailed results.

[a] Localized significance thresholds are shown for a 2-acre disturbed area and interpolated for a sensitive receptor distance of 25 meters in Source-Receptor Area 9 (East San Gabriel Valley).

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed "CO hotspots." The transport of CO is extremely limited, as it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (LOS E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. CO concentrations at congested intersections would not exceed the 1-hour or 8-hour CO CAAQS unless projected daily traffic would be at least over 100,000 vehicles per day. The project's estimated vehicle trips anticipated during construction is minimal, and is not of a magnitude expected to raise the traffic volumes at intersections within proximity of the project to the 100,000 vehicles per day that could result in a CO hotspot.

Additionally, ambient CO levels are monitored at the SCAQMD Azusa air quality monitoring station which is approximately 0.9 miles southeast of the project site and represents ambient air quality in the project area. Ambient CO levels monitored at this representative monitoring station indicate that the highest recorded 1-hour concentration of CO is 2.4 parts per million (ppm) (the State standard is 20 ppm) and highest 8-hour concentration is 2.0 ppm (the State standard is 9 ppm) during the past 3 years of available data (2019–2021) (EPA 2022). As discussed above, the highest CO concentrations typically occur during peak traffic hours, so CO impacts calculated under peak traffic conditions represent a worst-case analysis. Even if combined with the concentrations presented in the 2003 AQMP for the four worst-case intersections in the SCAB with ADT of approximately 100,000 vehicles per day, the CO concentrations at the Azusa air quality monitoring station would not exceed the 1-hour or 8-hour standards or result in a CO hotspot.

Given the considerably low level of CO concentrations in the project area, and the minimal increase in daily trips, project-related mobile emissions are not expected to contribute significantly to CO concentrations, and a CO hotspot is not anticipated to occur. This conclusion is supported by the analysis in Section 3.17, which demonstrates that transportation impacts would be less than significant. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. The project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the closest sensitive receptors to the project site are single-family residences located approximately 17 meters (55 feet) west of the project site.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of

Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. The SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects. The greatest potential for TAC emissions during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and use of heavy-duty trucks.

DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts; however, no short-term, acute relative exposure level has been established for DPM. Total project construction would last approximately 8 months, after which project-related TAC emissions would cease. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual receptor; however, such assessments should also be limited to the period/duration of activities associated with the project. An 8-month construction schedule represents a short duration of exposure (2% of a 30-year exposure period), while cancer and chronic risk from DPM are typically associated with long-term exposure. Thus, the project would not result in a long-term source of TAC emissions.

Exhaust PM_{10} is typically used as a surrogate for DPM, and as shown in Table 3.3-2, which presents total PM_{10} from fugitive dust and exhaust, project-generated construction PM_{10} emissions are anticipated to be minimal, and well below the SCAQMD threshold. In addition, sensitive receptors are located approximately 150 feet from the active project construction areas, which would reduce exposure to TACs as TAC emission dispersion increases with distance. Due to the relatively short period of exposure and minimal DPM emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks. Impacts would be less than significant.

Health Effects of Criteria Pollutants

Construction and operation of the project would generate criteria air pollutant emissions. However, due to the nature of the project and the short duration of construction, which would last approximately 8 months, the project would not exceed the SCAQMD mass-emission thresholds, as shown in Table 3.3-2.

The SCAB is designated as nonattainment for O_3 for the NAAQS and CAAQS. Thus, existing O_3 levels in the SCAB are at unhealthy levels during certain periods. Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2021). The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. Because the project would not involve activities that would result in O_3 precursor emissions (i.e., VOCs or NO_x) that would exceed the SCAQMD thresholds, as shown in Table 3.3-2, the project is not anticipated to substantially contribute to regional O_3 concentrations and its associated health impacts during construction or operation.

In addition to O_3, NO_x emissions contribute to potential exceedances of the NAAQS and CAAQS for NO_2. Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2021). As shown in Table 3.3-2, project construction and operations would not exceed the SCAQMD NO_x threshold, and existing ambient NO_2 concentrations would be below the NAAQS and CAAQS. Thus, the project is not expected to result in exceedances of the NO_2 standards or contribute to associated health effects.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2021). CO hotspots were discussed previously as a less-than-significant impact. Thus, the project's CO emissions would not contribute to the health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM_{10} under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Health effects associated with PM_{10} include premature death and hospitalization, primarily for worsening of respiratory disease (CARB 2021). As with O_3 and NO_x, and as shown in Table 3.3-2, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause an increase in related regional health effects for this pollutant.

In summary, the project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health effects associated with those pollutants. Therefore, impacts would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-Than-Significant Impact**.** The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source, the wind speeds and direction, and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, and architectural coatings. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). Once construction associated with the stormwater facilities are completed, operational activities associated with the project would include routine maintenance vehicle trips. Vehicle trips associated with maintenance activities would be minimal and would not represent a significant source of operational impacts associated with odors. The proposed pump is electrically powered and would not generate odor. Impacts would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (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 policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Dudek conducted a literature review and field visit to determine the existing biotic and abiotic conditions, and the presence of sensitive biological resources within the project site and a 100-foot buffer (study area).

Literature Review

The following data sources were reviewed to assist with the analyses:

- California Department of Fish and Wildlife California Natural Diversity Database (CDFW 2022a)

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2022a)
- California Native Plant Society's Online Inventory of Rare and Endangered Vascular Plants (CNPS 2022)
- USFWS Wetland Mapper online viewer (USFWS 2022b)
- U.S. Department of Agriculture Web Soil Survey (USDA 2022)
- California Department of Fish and Wildlife Biogeographic Information and Observation System (CDFW 2022b)
- Current and historical aerial imagery and topographic maps (Google 2022; NETR 2022)

Field Visit

Dudek biologist Tracy Park performed a field survey on January 29, 2022. Temperatures during the survey were between 69°F –72°F, with 20%-40% cloud cover, and wind speeds ranging between one and 5 miles per hour. The biological survey included vegetation mapping, the mapping of sensitive biological resources (if present) within the project site plus survey buffer (biological study area), and an evaluation of the potential for special-status species to occur.

a) ***Would the project 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?***

Less-Than-Significant Impact with Mitigation Incorporated. There are 90 special-status plant species and 44 special-status wildlife species with recorded occurrences in the U.S. Geologic Survey's Azusa, California 7.5-minute topographic quadrangle, in which the project is located, and surrounding eight quadrangles (CDFW 2022a; CNPS 2022; USFWS 2022a). The biological study area supports two land cover types (ornamental plantings and urban/developed), as shown on Figure 4, Existing Vegetation Mapping, so most of the species with recorded occurrences are not expected due to the lack of suitable habitat associated with each. Special-status bats and birds, as well as nesting birds protected by federal and state regulations, could be directly impacted if ornamental vegetation within the study area is removed. The San Gabriel River channel to the east of the study area supports coastal sage scrub and riparian habitat that is known to support federal and state protected species, so nesting by these wildlife species could be indirectly impacted by proposed project activities (such as construction noise). Additionally, designated critical habitat for southwestern willow flycatcher (*Empidonax traillii extimus*) is located within the San Gabriel River (USFWS 2022a); however, habitat for the species is absent or marginal within 500 feet of the proposed project and direct and indirect impacts are not expected.

Direct Impacts

Special-Status Bats

One special-status bat species, western red bat (*Lasiurus blossevillii*), has a moderate potential to roost and forage within the biological study area. The biological study area contains trees and shrubs that could provide suitable roosts for this species and, if roosting, the species would forage over nearby vegetation and opens areas. Vegetation trimming or removal associated with the project could cause mortality to nursing tree roosting bats if they are present. Impacts to foraging bats are not expected to occur as construction activities would occur during daytime hours. Implementation of Mitigation Measure (MM) BIO-1, which requires maternity roosting season avoidance or a preconstruction bat survey, would reduce potential direct impacts to special-status bats to a less-than-significant level.

Nesting Birds

The trees and shrubs within the biological study area provide suitable nesting habitat for bird species protected under the Migratory Bird Treaty Act (16 USC 703-712) and California Fish and Game Code Sections 3503.5, 3503, and 3513. Vegetation trimming or removal associated with the project could cause mortality to young or breeding adults and/or destruction of eggs or active nests if occurring during the general nesting season of February 1 through August 31. Implementation of MM-BIO-2, which requires nesting bird avoidance, would reduce potential direct impacts to nesting birds to a less-than-significant level.

Special-Status Birds

One special-status bird species, Cooper's hawk (*Accipiter cooperii*), has a moderate potential to nest in trees located within the biological study area. The species is designated as a California Department of Fish and Wildlife Watch List species. Due to the presence of suitable nesting habitat within the vicinity of the project site, there is potential for the species to occur and nest on site. Direct impacts may occur to nesting Cooper's hawk (i.e., direct impacts to individuals, active nests, eggs, or young) if project-related vegetation removal occurs during the general nesting season of February 1 through August 31. Implementation of MM-BIO-2, which requires nesting bird avoidance, would reduce potential direct impacts to special-status birds (Cooper's hawk) to a less-than-significant level.

Indirect Impacts

Potential short-term indirect impacts to special-status wildlife could result from noise generated by construction activities conducted during the avian breeding season (February 1 through August 31). Construction-related noise has the potential to disrupt reproductive and feeding activities for nesting birds, including Cooper's hawk, potentially causing mortality due to the abandonment of an active nest. These indirect impacts would be considered significant, absent mitigation. Project implementation of MM-BIO-2 (nesting bird avoidance) would reduce these potential indirect impacts to nesting birds including Cooper's hawk and merlin to a less-than-significant level. Nighttime construction would not occur, so indirect impacts to foraging special-status bats would not occur as a result of the project.

Least Bell's Vireo

Least Bell's vireo is not expected to occur in the biological study area due to lack of suitable riparian habitat; however, there are known records of this species occurring in riparian habitat of the San Gabriel River, located approximately 120 feet southeast of the project site, across Encanto Parkway. Noise related to construction activities could potentially disrupt reproductive and feeding activities if nesting least Bell's vireo is present within 500 feet of the project. Potential temporary indirect impacts during construction may cause mortality due to the abandonment of an active nest and would be considered significant, absent mitigation. In order to determine if nesting least Bell's vireo is present, and to avoid impacts, MM-BIO-3 (least Bell's vireo avoidance and minimization) would reduce potential direct impacts to a less-than-significant level.

Coastal California Gnatcatcher

Coastal California gnatcatcher is not expected to occur in the biological study area due to lack of suitable sage scrub habitat; however, there are known records of this species from the San Gabriel River, located

approximately 120 feet southeast of the project site, across Encanto Parkway. Noise related to construction activities could potentially disrupt reproductive and feeding activities if nesting coastal California gnatcatcher are present within 500 feet of the project. Potential temporary indirect impacts during construction may cause mortality due to the abandonment of an active nest and would be considered significant, absent mitigation. In order to determine if nesting coastal California gnatcatcher are present, and to avoid impacts, mitigation measure MM-BIO-4 (coastal California gnatcatcher avoidance and minimization) would reduce potential direct impacts to a less-than-significant level.

MM-BIO-1 Preconstruction Bat Survey. Vegetation removal shall occur outside of the bat maternity roosting season to avoid impacts to nursing tree roosting bats. If the project requires that work be initiated during the maternity season for tree roosting bats (March 1–August 31), a preconstruction emergence and acoustic monitoring survey shall be conducted during the preferred emergence period for western red bat (between sunset and 2 hours after) in the study area by a qualified biologist (someone who has more than 2 years of experience of conducting bat surveys) within 3 days prior to project activities in order to avoid direct impacts on potentially roosting special-status bats. If western red bat or any other special-status bats are not detected during the preconstruction bat survey, vegetation clearing/construction work shall be allowed to proceed without any potential impacts to the species. If western red bat is detected, then vegetation removal activities shall not be allowed to proceed until the bat maternity roosting season is over. The results of the preconstruction bat survey shall be documented in a field form that will be submitted to the City.

MM-BIO-2 Nesting Bird Avoidance. Project construction shall be conducted in compliance with the conditions set forth in the Migratory Bird Treaty Act and California Fish and Game Code to protect active bird/raptor nests. Vegetation removal shall occur during the non-breeding season for nesting birds and nesting raptors (October 1–January 31) to avoid impacts to nesting birds and raptors. If the project requires that work be initiated during the breeding season for nesting birds (March 1–September 30) and nesting raptors (February 1–June 30), in order to avoid direct impacts on active nests, a preconstruction survey shall be conducted in the study area by qualified biologists (someone who has more than 2 years of experience of conducting nesting bird surveys in the project region) for nesting birds and/or raptors within 3 days prior to project activities. If the biologist does not find any active nests within or immediately adjacent to the impact areas, the vegetation clearing/construction work shall be allowed to proceed.

If the biologist finds an active nest within or immediately adjacent to the construction area and determines that the nest may be impacted or breeding activities substantially disrupted, the biologist shall delineate an appropriate buffer zone around the nest depending on the sensitivity of the species and the nature of the construction activity. To protect any nest site, the following restrictions to construction activities shall be required until nests are no longer active, as determined by a qualified biologist (someone who has more than 3 years of experience of conducting nesting bird surveys and monitoring active nests during construction): (1) clearing limits shall be established within a buffer around any occupied nest; and (2) access and surveying shall be restricted within the buffer of any occupied nest, unless otherwise determined by a qualified Biologist (someone who has

more than 5 years of experience of conducting nesting bird surveys and monitoring active nests during construction). The buffer shall be 100–300 feet for non-raptor nesting birds (excluding least Bell's vireo and coastal California gnatcatcher), 300–500 feet for nesting raptors (including Cooper's hawk), and 500 feet for least Bell's vireo and coastal California gnatcatcher. Construction can proceed into the buffer when the qualified biologist has determined that the nest is no longer active.

MM-BIO-3 Least Bell's Vireo Avoidance and Minimization. Project activities shall be initiated outside the least Bell's vireo nesting season, March 15 through July 15. If activity must be initiated during the nesting season for least Bell's vireo, three surveys shall be conducted for the species by a qualified biologist (someone with at least 3 years of experience with conducting surveys for the species). The surveys will be conducted within all suitable habitat (riparian scrub or woodland) within 500 feet of the project site. The first survey shall be conducted 6 weeks prior to the commencement of construction, the second 3 weeks prior, and the third 1 week prior. The field survey methodology shall be conducted using the protocol issued by U.S. Fish and Wildlife Service (USFWS) (2001). The results of the surveys shall be documented in letter report that will be submitted to the City. If project activities commence outside the least Bell's vireo breeding season (July 16 to March 14), then these surveys are not needed. Should project activities continue until the next least Bell's vireo breeding season, then a qualified biologist would conduct a survey on April 10 (the first date of the USFWS guideline breeding season surveys) and would document the results in letter report that shall be submitted to the City.

If this species is absent, then project activities can continue without any potential impacts to the species. If least Bell's vireo is detected, on-site noise monitoring shall be required to ensure that project-related activities do not result in average noise levels increasing above 60 decibels (dB) within the San Gabriel River corridor. If any project activities exceed 60 dB, or the on-site monitor determines project activities are resulting in harassment of the species, the monitor shall have the authority to halt activities until additional measures (such as a sound wall) can be implemented. If an active least Bell's vireo nest is confirmed within 500 feet of the project, work activity within 500 feet of the detected nest shall not be allowed to proceed/continue. Project activities outside of the 500-foot buffer may proceed, but twice a week monitoring visits shall be conducted by a qualified biologist (someone who has more than 3 years of experience of monitoring active nests during construction) until the biologist has determined that the nest is no longer active. The City shall notify the USFWS to determine if additional avoidance and minimization measures to prevent or minimize impacts to the species. If project activities commence outside the least Bell's vireo breeding season (July 16 to March 14), then these surveys and monitoring are not needed.

MM-BIO-4 Coastal California Gnatcatcher Avoidance and Minimization. Project activities shall be initated outside the breeding season for the coastal California gnatcatcher, February 15 to July 15. If activity must be initiated during the nesting season for coastal California gnatcatcher, three surveys shall be conducted for the species by a biologist that holds a USFWS-issued permit for conducting protocol surveys for the species. The surveys will be conducted within all suitable habitat (coastal scrub) within 500 feet of the project site. The

first survey shall be conducted 6 weeks prior to the commencement of construction, the second 3 weeks prior, and the third 1 week prior. The field survey methodology shall be conducted using the protocol issued by USFWS (1997). The results of the surveys shall be documented in letter report that will be submitted to the City. If project activities commence outside the coastal California gnatcatcher breeding season (July 16 to February 14), then these surveys are not needed. Should project activities continue until the next coastal California gnatcatcher breeding season, then a permitted Biologist would conduct a survey on March 15 (the first date of the USFWS protocol breeding season surveys) and would document the results in letter report that shall be submitted to the City.

If this species is absent, then project activities may continue without further avoidance measures. If coastal California gnatcatcher is detected, on-site noise monitoring shall be required to ensure that project-related activities do not result in average noise levels increasing above 60 dB within the San Gabriel River corridor. If any project activities exceed 60 dB, or the on-site monitor determines project activities are resulting in harassment of the species, the monitor shall have the authority to halt activities until additional measures (such as a sound wall) can be implemented. If an active coastal California gnatcatcher nest is confirmed within 500 feet of the project, work activity within 500 feet of the detected nest shall not be allowed to proceed/continue. Project activities outside of the 500-foot buffer may proceed, but twice a week monitoring visits shall be conducted by a qualified biologist (someone who has more than 3 years of experience of monitoring active nests during construction) until the biologist has determined that the nest is no longer active. The City shall notify the USFWS to determine if additional avoidance and minimization measures to prevent or minimize impacts to the species. If project activities commence outside the coastal California gnatcatcher breeding season (July 16 to February 14), then these surveys and monitoring are not needed.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The study area supports two land cover types (ornamental plantings and urban/developed), as shown on Figure 4, and the proposed project site is within upland areas. The biological study area does not contain any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or USFWS. As such, impacts to these biological resources would not occur as a result of the project.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Direct Impacts

No Impact. The biological study area supports two land cover types (ornamental plantings and urban/developed), as shown on Figure 4, and the proposed project site is within upland areas. The study area does not contain any state or federally protected wetlands as described above (USFWS 2022b). As such, direct impacts to state or federally protected wetlands would not occur as a result of the project.

Indirect Impacts

Less than Significant. Potential temporary indirect impacts to the San Gabriel River may result from construction activities and could include impacts from the generation of fugitive dust and the introduction of chemical pollutants (including herbicides). Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect wetlands/jurisdictional waters. The release of chemical pollutants can reduce the water quality downstream and degrade adjacent habitats.

Erosion-control measures would be implemented as part of the SWPPP for the project. Prior to the start of construction activities, the project is required to file a Permit Registration Document with the SWRCB in order to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with the Construction and Land Disturbance Activities (Order No 2009-009-DWQ, NPDES No. CAS000002) or the latest approved general permit. This permit is required for earthwork that results in the disturbance of one acre or more of total land area. The required SWPPP will mandate the implementation of BMPs to reduce or eliminate construction-related pollutants in the runoff, including sediment. Therefore, temporary indirect impacts would be less than significant due to compliance with regulations.

d) Would the project 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?

Less-Than-Significant Impact with Mitigation Incorporated. The biological study area supports two land cover types (ornamental plantings and urban/developed), as shown on Figure 4, and is surrounded residential development to the north, south, and west. It is expected that the San Gabriel River is used by numerous wildlife species for up and downstream movement; however, the proposed project is not expected to impede this movement because of limited work in the channel. The biological study area and project site does not function as a wildlife corridor or habitat linkage and does not occur within any designated wildlife corridors of habitat linkages. Therefore, impacts to wildlife corridors and habitat connectivity would not occur as a result of the project.

Western red bat has a moderate potential to roost within trees and shrubs on site. Therefore, the project could potentially impact nursing western red bats if vegetation removal activities occur during the maternity bat roosting season (March 1–August 31). Project implementation of MM-BIO-1 (Preconstruction Bat Survey) would reduce these potential impacts to a less-than-significant level. As discussed previously, project construction could potentially impact nesting/migratory bird protected under the Migratory Bird Treaty Act. Project implementation of MM-BIO-2, MM-BIO-3, and MM-BIO-4 (i.e., seasonal recommendations, preconstruction survey, avoidance buffers, and monitoring) would reduce these potential indirect impacts to a less-than-significant level.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less-Than-Significant Impact with Mitigation Incorporated**.** Applicable local ordinances protecting biological resources within the biological study area include the City of Duarte Tree Preservation and Protection Ordinance and the County of Los Angeles Significant Ecological Area (SEA) Ordinance.

The City of Duarte Tree Preservation and Protection Ordinance

The City of Duarte Tree Preservation and Protection Ordinance, Duarte Municipal Code Chapter 13.12, provides means of regulating impacts and conservation of native trees (all native California oak species, including, but not limited to, *Quercus agrifolia*, *Q. chrysolepis*, *Q. engelmannii*, *Q. kelloggii*, *Q. lobata*, and *Q. wislizeni*; California bay laurel [*Umbellularia californica*]; California black walnut [*Juglans californica*]; California sycamore [*Platanus racemosa*]; and toyon [*Heteromeles arbutifolia*]) greater than 12 inches in diameter at breast height and specimen trees (non-native ornamental trees greater than 24 inches in diameter at breast height) within the City limits (City of Duarte 2018b). Mature native and ornamental trees occur throughout the project site. Up to five trees occurring within the project footprint would be removed and replaced on site at a 2:1 ratio. These trees include one 3-inch diameter, three 10-inch diameter, and one 12-inch diameter. Although none of the trees to be removed currently meet the size requirements, should the currently 12-inch diameter tree be determined to meet the size requirement for protection under the City's Tree Preservation and Protection Ordinance at the time of construction, the project would obtain appropriate permits for its removal. Therefore, direct and indirect impacts on protected trees under the City's Tree Preservation and Protection Ordinance would be less than significant due to compliance with regulations.

County of Los Angeles Significant Ecological Area Ordinance

The project site is not located within a County of Los Angeles designated SEA; however, the eastern boundary of the biological study area marginally overlaps with the San Gabriel Canyon SEA (County of Los Angeles 2022). The portion of the San Gabriel Canyon SEA that occurs within the vicinity of the project site is under the jurisdiction of incorporated cities; therefore, SEA ordinance regulations do not apply, and a Conditional Use Permit with the County of Los Angeles is not required. The project impact area does not overlap with the San Gabriel Canyon SEA. Therefore, direct impacts to Los Angeles County SEAs would not occur as a result of the project.

The San Gabriel Canyon SEA does contain habitat for bird species protected under the Migratory Bird Treaty Act and California Fish and Game Code, as well as special-status wildlife species such as Cooper's hawk, merlin, least Bell's vireo, and coastal California gnatcatcher. Potential short-term indirect impacts to biological resources within the San Gabriel Canyon SEA could result from noise generated by construction activities conducted during the avian breeding season (February 1 through August 31). Noise related to project activities has the potential to disrupt reproductive and feeding activities for nesting birds, including special-status species such as Cooper's hawk, least Bell's vireo, and coastal California gnatcatcher. Project implementation of MM-BIO-2 (nesting bird avoidance), MM-BIO-3 (least Bell's vireo Avoidance and Minimization), and MM-BIO-4 (Coastal California Gnatcatcher Avoidance and Minimization) would reduce these potential indirect impacts to biological resources within the SEA to a less-than-significant level.

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

No Impacts. The biological study area is not within any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (CDFW 2019). As such, the project would not conflict with the provisions of an adopted conservation plan and no impact would occur.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The evaluation of potential impacts on cultural resources is based on the findings of a Phase I Archaeological and Paleontological Cultural Resources Assessment Report (Cultural Report) prepared by ArchaeoPaleo Resource Management, Inc. (APRMI) in May 2022. The Cultural Report is included as Appendix B to this IS/MND. Background research conducted to inform this analysis includes a California Historical Resources Information (CHRIS) records search, archival research, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, and a field reconnaissance survey of the project site,

Methods

A CHRIS records search was requested on February 3, 2022, from the South Central Coastal Information Center (SCCIC) to identify any cultural resources near or within the project site. Results for this request were received on March 18, 2022. A 0.25-mile search radius was utilized to located prehistoric, historic, and the historic built environment and historic buildings near and within the project site.

A Built Environment Resource Directory was reviewed for information of current inventories of the National Register of Historic Places, California Historical Landmarks, California Points of Historical Interest, the California State Historic Resources Inventory for Los Angeles County, and the California Register of Historical Resources (CRHR) in order to determine any previously identified historic resources. Archival records of the project site were also reviewed for additional background information regarding cultural resources.

APRMI requested a NAHC SLF search of the project site on February 3, 2022. The SLF consists of a database of known Native American resources. These resources may not be included in the CHRIS database. The NAHC replied

via email on March 28, 2022, stating that the SLF search was completed with positive results. Positive results indicate the presence of Native American cultural resources within one mile of the project site and not necessarily directly within the project site. Along with the results of the SLF search, the NAHC provided a list of Native American tribes and individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in the area. Informal tribal outreach letters were mailed on April 11, 2022, to all California Native American Tribal representatives included on the NAHC contact list.

APRMI conducted a field reconnaissance survey of the project site on January 27, 2022, to identify the presence or absence of cultural and paleontological resources to determine if development of the project would have significant adverse impacts on cultural or paleontological resources.

Results

The CHRIS records search results concluded that no previously recorded prehistoric archaeological sites or isolates have been identified within the project site or 0.25-mile radius. However, a previous Cultural Assessment conducted on Encanto Park in 2007, states that an archaeological resource (P-19-000241) is located 0.5 miles north of the project. P-19-000241 is characterized as a prehistoric lithic scatter and was recommended ineligible for listing on the CRHR. As such, the implementation of the project would not affect this resource.

The CHRIS records search results identified one previously recorded historic-era archaeological site within a 0.25-mile radius of the project site (P-19-001368). P-19-001368 is a characterized as a historic-era refuse scatter, and is located to the southeast of the project site, across the San Gabriel River. As such, the implementation of the project would not affect this resource.

The CHRIS records search results identified one previously recorded historic-era structure located within a 0.25-mile radius of the project site, to the north. The structure is the Pacific Electric Bridge (P-19-190993), historically known as the Puente Largo. The bridge was originally constructed in the early 1900s and has been rehabilitated since. Today, the bridge operates as a pedestrian and bicycle path. In 1986, the California Department of Transportation designated the bridge as a non-significant historic structure; thus it is not eligible for listing in the National Register of Historic Places. Implementation of the project would not result in impacts to this structure.

Additionally, APRMI reviewed the Historic Preservation element of the City's General Plan. The General Plan states that in 2002 a survey was conducted to identify possible historic structures located within the City. Results of the survey are not public. However, the General Plan does not identify any historic buildings or structures that have been listed.

APRMI reviewed the U.S. Geologic Survey Historic Topographic Map Collection for the project area. Historic topographic maps reviewed were from 1897, 1939, 1953, 1958, 1966, and 1976. Development near the boundaries of the project site began during the 1950s. By 1976, a fully developed residential neighborhood has present to the north, west, and south of the project site. In addition, historic aerial imagery was reviewed from 1994, 2007, and 2011. By 1994, Duarte Historical Museum, Encanto Park, and park amenities had been established. Additionally, more residences have been built near the park since 1976. By 2011, a few trees had been removed on the northwest portion of the park, but no major changes within the park or surrounding area had occurred, and no historic-era structures were observed within the project site.

APRMI's NAHC SLF search request yielded positive results for Native American cultural resources within one mile of the project site. Along with the results of the SLF search, the NAHC provided a list of Native American tribes and

individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in the area. Informal tribal outreach letters were mailed on April 11, 2022, to all California Native American Tribal representatives included on the NAHC contact list. Responses are detailed in Section 3.18, Tribal Cultural Resources, in this IS/MND.

The field reconnaissance survey identified no new cultural resources within the project site. However, the absence of cultural resources does not preclude that cultural resources do not exist within the project site, as the survey only observed surficial sediments. Observations of vegetation, topography, and wildlife were photographed and noted for any potential significant adverse impacts that may result from project implementation.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less-Than-Significant Impact. A historical resource is one that meets the eligibility criteria for the CRHR. This includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]). The significance of an historic resource is impaired when a project demolishes or materially alters those physical characteristics that convey its significance.

The project site and surrounding area has been previously distributed by the development of the existing Encanto Park and surrounding residences. As discussed in the Cultural Report, no known historical resources are present within the project site. Impacts to historical resources would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less-Than-Significant with Mitigation Incorporated**.** A CHRIS records search, archival research, and a field reconnaissance survey of the project site and 0.25-mile radius did not identify cultural resources within the project site.

The project site is located within an urbanized area and has been previously disturbed by the development of the existing Encanto Park. As such, no known significant cultural resources will be affected as a result of the project's ground disturbing activities. However, while there are no known prehistoric or historic artifacts, sites, or features within the project area, there remains the possibility for subsurface archaeological resources to be present. Therefore, to mitigate potential impacts to unidentified archaeological resources, the project would implement **MM-CR-2a** through **MM-CR-2g**.

MM-CR-2a Prior to the commencement of construction, a professional archaeologist shall be retained by the contractor, and he/she shall create a Worker's Environmental Awareness Program (WEAP) pamphlet that shall be provided as training to construction personnel to understand regulatory requirements for the protection of cultural resources. This training shall include examples of archaeological cultural resources to look for and protocols to follow if discoveries are made. The archaeologist shall develop the training and any supplemental materials necessary to execute said training.

MM-CR-2b Archaeological resources monitoring shall be conducted by an archaeological resource monitor, during project related earth-disturbing activities under the supervision of a qualified Lead Archaeologist. Monitoring shall entail visual inspection of project related earth-disturbing activities (i.e., trenching, shoring, utility installation, storm drain diversion, pre/post-treatment units, and an underground storage facility, etc.)

MM-CR-2c An approved Native American monitor(s), with documented ancestral ties to the area consistent with the standards of the Native American Heritage Commission shall be present for all ground disturbing activities that involve excavation of previously undisturbed soil. Monitoring will entail visual inspection of project related earth-disturbing activities.

MM-CR-2d If an archaeological resource is encountered during construction when a monitor is not on site, all construction shall cease within at least 50 feet of the discovery and the Principal Investigator and Lead Archaeologist must be notified. Work cannot resume in the direct area of the discovery until the it is assessed by the Principal Investigator and/or Lead Archaeologist and indicates that construction can resume.

MM-CR-2e If an archaeological discovery cannot be preserved in situ and requires an excavation team or requires additional time to collect cultural resources, a Discovery and Treatment Plan will be developed and the area will be cordoned off and secured so that an archaeological resources excavation team, led by the Principal Investigator and Lead Archaeologist, may recover the cultural resources out of that contained area. Once the Principal Investigator has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area.

MM-CR-2f All significant cultural resources collected will be prepared in a properly equipped laboratory to a point ready for curation. Following laboratory work, all cultural resources will be identified, catalogued, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Any cultural resources collected shall be donated to a public or non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or local museum. Accompanying notes, maps, and photographs shall also be filed at the repository. The cost of curation is assessed by the repository and is the responsibility of the project proponent

MM-CR-2g At the conclusion of laboratory work, but prior to museum curation, a final findings report will be prepared describing the results of the cultural mitigation monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the cultural background within the project vicinity, a list of cultural resources recovered (if any), an analysis of cultural resources recovered (if any) and their scientific significance, and recommendations. A copy of the report will be sent to the JPA and be submitted to the designated museum repository.

Therefore, with incorporation of MM-CUL-2a through MM-CR-2g, impacts associated with archaeological resources would be less than significant.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-Than-Significant Impact. The site is not within a known cemetery or burial ground. In the highly unlikely event that human remains are uncovered during ground-disturbing activities, there are regulatory provisions to address the handling of human remains in California Health and Safety Code Section 7050.5, PRC Section 5097.98, and CEQA Guidelines Section 15064.5(e). Pursuant to these codes, in the event that human remains are discovered, disturbance of the site shall remain halted until the County coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The County coroner is required to make a determination within 2 working days of notification of the discovery of the human remains. If the County coroner determines that the remains are not subject to his or her authority, and if he or she recognizes or has reason to believe the human remains to be those of a Native American, he or she shall consult with the Native American Heritage Commission by telephone within 24 hours, to designate a Most Likely Descendant who shall recommend appropriate measures to the landowner regarding the treatment of the remains. If the owner does not accept the Most Likely Descendant's recommendations, the owner or the Most Likely Descendant may request mediation by the Native American Heritage Commission. Therefore, with compliance with this existing state law, impacts associated with human remains would be less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-Than-Significant Impact. Project implementation would result in energy use for construction and operation, including use of electricity, natural gas, and petroleum-based fuels. The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption.

The proposed project's impact on energy resources is discussed separately below for construction and operation. Dudek estimated energy consumption (electricity, natural gas, and petroleum consumption) using CalEEMod data from the air quality and GHG assessment, which in turn was based on assumptions developed in consultation with the project design engineers. For further detail on the assumptions and results of the energy analysis, please refer to the Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files.

Construction Energy Use

Electricity

Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities would require electricity, including the conveyance of water that would be used for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Southern California Edison (SCE) is the electricity provider to the project site and provided approximately 81,000 Gigawatt-hours of electricity in 2019 (CEC 2022). Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available SCE electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Petroleum-Based Fuels

Petroleum-based fuel usage represents most energy consumed during construction. Petroleum fuels would be used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g., hauling of material to disposal facilities).

Fuel consumption from construction equipment and vehicles was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. All off-road equipment and hauling and vendor trucks are assumed to be diesel, while worker vehicles are assumed to be gasoline. For the purposes of energy estimation, construction is anticipated to occur in 2023, over an 8-month duration. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2021). The estimated diesel fuel usage from construction equipment for Phase I and Phase II of the project are shown in Table 3.6-1.

Table 3.6-1. Estimated Construction Fuel Use

Construction Year	Fuel Use (gallons)		
	Off-Road Equipment (Diesel)	On-Road Trucks (Diesel)	On-Road Workers (Gasoline)
2023	12,616	752	1,249

Source: Conversion factors from The Climate Registry (2021).
See Appendix A for complete results.

As shown in Table 3.6-1, construction of the project is anticipated to consume 1,249 gallons of gasoline and 14,617 gallons of diesel over construction of the proposed project. The proposed project would be required to comply with the CARB's Airborne Toxics Control Measure, which restricts heavy-duty diesel vehicle idling time to 5 minutes. Furthermore, the proposed project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that requires the vehicle fleet to reduce emissions by retiring, replacing, repowering older engines, or installing Verified Diesel Emissions Control Strategies. Therefore, impacts associated with construction would be less than significant.

Operational Energy Use

The proposed project would require electricity for the small electric pump that will lift the water to an elevation higher than the existing storm drain. Electrification of the pump requires establishing an additional connection to SCE's distribution facilities, which currently serve the park's lights and irrigation system. Furthermore, facility operations and maintenance would be performed by City Public Works Division staff. It is anticipated that the maintenance staff will perform activities including the removal of debris and pollutant constituents from the treatment devices, pump testing and calibration, monitoring/sampling of treatment, and cleaning the storage reservoir. Operation may also require occasional power-washing of the parking lot surface. In addition, energy used for maintenance purposes would decrease over time, as staff vehicles and equipment become increasingly efficient, in accordance with the energy efficiency and GHG reduction standards. Thus, the project would result in minimal energy consumption during operation, including petroleum consumption from staff vehicle trips and electricity consumption from operation of maintenance equipment, and the project's operational energy use would be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-Than-Significant Impact. The proposed project would follow applicable energy standards and regulations during the construction phases. Worker vehicles would meet the applicable standards of Assembly Bill (AB) 1493 (vehicles manufactured 2009 or later) and, as a result, would likely consume less energy as fuel efficiency standards are increased and vehicles are replaced. In addition, the proposed project would be built and operated in accordance with all existing, applicable regulations at the time of construction. Impacts related to the project's potential to conflict with plans for renewable energy and energy efficiency would be less than significant.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 direct or indirect 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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) Would the project directly or indirectly cause 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.

and

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. The project site, like all of southern California, is located within a seismically active region that contains major active faults. The project would likely be exposed to seismic ground shaking at multiple points in the future. The intensity of ground shaking at any specific location within the region depends on the characteristics of the earthquakes, the distance from the earthquake epicenter, and the local geologic and soil conditions. Earthquake fault zones are delineated boundaries encompassing active faults that constitute potential hazards to structures from surface faulting or fault creep (DOC 2022c. The project site is not located within an Alquist-Priolo Earthquake Fault Zone; the nearest fault zone (Sierra Madre Fault Zone) is mapped at the northern portion of Encanto Park, outside of the proposed project site (USGS 2022). Per the project's preliminary geotechnical investigation, two known fault splays (a branch of the Sierra Madre Fault Zone) are in the vicinity of the project improvements; one fault splay crosses the north portion of Encanto Park (mentioned previously) and the other is located approximately 570 feet south of the proposed storage facility (Craftwater 2021). Project construction entails routine and standard practices which would not increase or exacerbate the potential for fault rupture to occur. The project would also operate passively beyond the small pump to divert stormwater flows into the storage facility, which would not directly or indirectly increase or exacerbate the potential for fault rupture. The project would contain no habitable structures or other structural development intended for human occupancy. Compliance with applicable seismic design requirements would reduce the potential risk to both people and structures with respect to strong seismic ground shaking. As part of the project design process, continued geotechnical investigations would be performed to inform final design of the project relative to potential geotechnical risks. Therefore, the project would not directly or indirectly cause potential adverse effects involving rupture of a known earthquake fault, and impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Liquefaction occurs when a buildup of pore water pressure in the affected soil layer to a point where a total loss of shear strength may occur during a seismic event, causing the soil to behave as a liquid. The project site is located within a liquefaction zone, as mapped by the California Department of Conservation (DOC 2022c). Although the site is mapped in an area that could be subject to the hazard of liquefaction, the project's geotechnical investigation determined that the native alluvium materials are dense to very dense and possess higher shear wave velocities where liquefaction is not likely or known to occur. Therefore, liquefaction is not considered to be a hazard on the proposed development. Additionally, the project would continue through full project design, which would include engineering design standards associated with liquefaction potential and the incorporation of pertinent geotechnical information to provide for the stabilization of soils. Therefore, the project would not increase the risk from seismic-related ground failure, including liquefaction, and impacts would be less than significant.

iv) Landslides?

No Impact. Landslides typically occur on moderate to steep slopes that are affected by such physical factors as slope height, slope steepness, shear strength, and orientation of weak layers in the underlying geologic units contribute to landslide susceptibility. The project site and surroundings generally flat and not located in a landslide zone, as mapped by the California Department of Conservation (DOC 2022c). As such, no impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-Than-Significant Impact. Construction of the project would require earthwork activities that could potentially contribute to soil erosion or loss of topsoil if not properly implemented. Construction of the project would result in more than 1 acre of land disturbance; therefore, the project contractor would prepare and implement a site-specific SWPPP in accordance with SWRCB Order No. 2009-0008-DWQ NPDES General Permit No. CAS00002 (Construction General Permit), amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ. One of the purposes of the SWPPP is to address potential pollutants and their sources, including sources of sediment and site erosion. Conditions of these existing regulations would include adherence to sediment and stormwater pollutant control BMPs, such as covering of exposed soil stockpiles, sediment barriers, storm drain protection, and various other measures designed to minimize potential for soil erosion and loss of topsoil. Disturbed areas would be returned to existing conditions or stabilized by new field replacement, asphalt, or landscape plantings. Operation of the proposed stormwater capture and treatment facility would not affect erosion. Therefore, the project would not result in substantial soil erosion of the loss of topsoil and impacts would be less than significant.

c) Would the project 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?

Less-Than-Significant Impact**.** As previously discussed, the project site has been mapped indicating that underlying soils are considered to be susceptible to liquefaction; however, project-specific geotechnical investigations have determined that liquefaction is not likely to occur (Craftwater 2021; DOC 2022c). The project would continue through full project design, which would include continued geotechnical investigations to inform final design and construction of the project relative to minimization of potential geotechnical risks, including soil stability. Therefore, the project would not exacerbate geotechnical hazards related to unstable soils and impacts would be less the significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. Expansive soils are clay-based and tend to increase in volume due to water absorption and decrease in water volume due to drying. A review of the U.S. Department of Agriculture Soil Map indicates that 100% of the soils found within the project site is Urban land-Soboba (USDA 2022). Soboba soils generally consist of gravelly, very cobbly, and extremely cobbly sand (USDA 2022). As such, no expansive soils are present within the project site and soil expansion would not pose a potential concern for project implementation. If such conditions are encountered, the project would employ standard engineering protocols to limit the potential effects on project-related infrastructure. Therefore, impacts would be less than significant.

e) Would the project 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?

No Impact. The project would not involve the use of septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less-Than-Significant with Mitigation Incorporated. APRMI requested a paleontological resources records check on February 3, 2022, from the Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County. This records search consisted of a review of the museum's paleontology collection records of recorded fossil sites within the project area. Results of the records search determined that no known vertebrate fossil localities are located within the project area (Appendix C).

Project construction would include ground-disturbing activities which would have the potential to destroy a unique paleontological resource or site. The project site and underlying soils have been previously disturbed by the development of the existing Encanto Park, underlying infrastructure, and surrounding development. Thus, it is unlikely that project construction would encounter previously undisturbed soils that could contain previously unknown paleontological resources. The City's General Plan does not identify unique paleontological or geological resources within the City. Although no known paleontological resources are located within the project site, fossil localities have been discovered in similar sedimentary deposits that are found within the project site. As such, project construction could result in a significant impact in the event a previously unidentified paleontological resource is uncovered. Therefore, to mitigate potential impacts to unidentified paleontological resources, the project would implement MM-PAL-1a through MM-PAL-1f.

MM-PAL-1a Prior to the commencement of construction, a qualified paleontologist shall be retained by the contractor, and he/she will create a Worker's Environmental Awareness Program (WEAP) pamphlet that will be provided as training to construction personnel to understand regulatory requirements for the protection of paleontological resources. This training shall include examples of paleontological resources to look for and protocols to follow if discoveries are made. The paleontologist shall develop the training and any supplemental materials necessary to execute said training.

MM-PAL-1b Paleontological resources monitoring shall be conducted during excavation for the project by a qualified paleontological resource monitor, per Society for Vertebrate Paleontology (SVP 2010) standards, under the supervision of a qualified Lead Paleontologist. Monitoring will entail the visual inspection of excavation or grading area and trench sidewalls, and during the stormwater infiltration and retention system excavation. The qualified paleontological resources monitor shall periodically assess monitoring results in consultation with the Lead Paleontologist. If no (or few) significant fossils have been exposed, the Lead Paleontologist may determine that full time monitoring is no longer required, and periodic spot checks or no further monitoring may be recommended. During construction monitoring, the monitor should process soil samples for micro-fauna per SVP guidelines.

MM-PAL-1c In the event that paleontological resources are encountered when a monitor is not on site, all construction shall cease within at least 50 feet of the discovery and the Principal Investigator and Lead Paleontologist must be notified immediately. If the monitor is present at the time of discovery, then the monitor will have the authority to temporarily divert the construction equipment around the find and notify the Principal Investigator and Lead Paleontologist until it is assessed for scientific significance. Work cannot resume in the direct area of the discovery until the it is assessed by the Principal Investigator and/or Lead Paleontologist indicates that construction can resume.

MM-PAL-1d If a paleontological discovery requires an excavation team or requires additional time to collect specimens, the area will be cordoned off and secured so that a paleontological resources excavation crew, led by the Principal Investigator and Lead Paleontologist, may retrieve the remains out of that localized area of in situ deposits while excavation, monitored by a paleontological resource monitor, can continue in other areas. Once the Principal Investigator and Lead Paleontologist has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area. If the fossil site is too large and requires an excavation team, a Paleontologic Mitigation Plan (PMP) must be written and must be approved by the JPA prior to the onset of work.

MM-PAL-1e All significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are accessioned to a locally recognized repository. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level, catalogued, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials within Los Angeles County or other local repository. Accompanying notes, maps, and photographs shall also be filed at the repository. The cost of curation is assessed by the repository and is the responsibility of the project proponent.

MM-PAL-1f At the conclusion of laboratory work, but before museum curation, a final report will be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the geology and paleontology in the project vicinity, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. A copy of the report will be submitted to the JPA and the designated museum repository.

Therefore, with incorporation of MM-CUL-PAL-1a through MM-PAL-1f, impacts associated with archaeological resources would be less than significant.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

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

Less-Than-Significant Impact. GHGs are those that that absorb infrared radiation (i.e., trap heat) in the Earth's atmosphere. The trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere), is referred to as the "greenhouse effect", and is a natural process that contributes to the regulation of the Earth's temperature, creating a livable environment on Earth. The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. Human activities that generate and emit GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. This rise in temperature has led to large-scale changes to the Earth's system (e.g., temperature, precipitation, wind patterns, etc.), which are collectively referred to as climate change. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5). The primary GHGs that would be emitted by project-related construction and operations include CO_2, CH_4, and N_2O.[9]

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare each GHG's ability to trap heat in the atmosphere relative to another gas. The reference gas used

[9] Emissions of hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are generally associated with industrial activities, including the manufacturing of electrical components and heavy-duty air conditioning units and the insulation of electrical transmission equipment (substations, power lines, and switch gears.). Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the project would not include these activities or components and would not generate hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride in measurable quantities.

is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO_2 equivalent (CO_2e). Consistent with CalEEMod Version 2020.4.0, this GHG emissions analysis assumed the GWP for CH_4 is 25 (i.e., emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, Air Quality, the proposed project is located within the jurisdictional boundaries of the SCAQMD. In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b). This document, which builds on the California Air Pollution Control Officers Association's previous guidance, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (SCAQMD 2010). The 10,000 MT CO_2e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land-use development projects. The most recent proposal issued by SCAQMD, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1. Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2. Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3. Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects (1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4. Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per-service population for project-level

analyses and 6.6 MT CO_2e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5. Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the proposed project's potential to generate GHG emissions that would have a significant impact on the environment, its GHG emissions were compared to the SCAQMD 3,000 MT CO_2e per year screening threshold recommended for non-industrial projects. Construction Greenhouse Gas Emissions

Construction of the project would result in GHG emissions, which are primarily associated with off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. The SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b) recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies." Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 3,000 MT CO_2e per year. Therefore, the determination of significance is addressed in the operational emissions discussion following the estimated construction emissions.

CalEEMod Version 2020.4.0 was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3, Air Quality. For the purposes of GHG emissions modeling, construction of the project is anticipated to commence in January 2023, and would last approximately 8 months. On-site sources of GHG emissions include off-road equipment, and off-site sources include haul trucks, vendor trucks, and worker vehicles. Table 3.8-1 presents the GHG emissions resulting from construction of the project. For further detail on the assumptions and results of this analysis, please refer to Appendix A, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files.

Table 3.8-1. Estimated Annual Construction GHG Emissions

Construction Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2023	148.45	0.04	<0.01	148.89
			Amortized Emissions (30-year project life)	4.96

Notes: GHG = greenhouse gas; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; <0.01 = value less than reported 0.01.
See Appendix A for complete results.

As shown in Table 3.8-1, the estimated total GHG emissions in 2023 would be approximately 150 MT CO_2e. Amortized over 30 years, construction GHG emissions would be approximately 5 MT CO_2e per year. In addition, as with project-generated construction criteria air pollutant emissions, GHG emissions generated during proposed construction activities would be short term, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

Once project construction is complete, the project would result in minimal maintenance activities consisting of use of worker vehicles. Furthermore, the proposed project would generate GHG emissions from the operation of a small electric pump that will lift the water to an elevation higher than the existing storm drain. However, GHG emissions from these emission sources are expected to be minor and thus, operational emissions would be less than significant.

As shown in Table 3.8-1, amortized project-generated construction emissions would not exceed the 3,000 SCAQMD threshold. Therefore, GHG emissions impacts would be less than significant.

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

Less-than-Significant Impact. The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. Applicable plans for the proposed project site include the SCAG 2020-2045 RTP/SCS, CARB's 2017 Scoping Plan, Senate Bill (SB) 32 and Executive Order (EO) S-3-05. Each of these plans is described below along with an analysis of the proposed project's potential to conflict with the related GHG emission reduction goals.

Project Consistency with SCAG's 2020 RTP/SCS

On September 3, 2020, the Regional Council of SCAG formally adopted the 2020–2045 RTP/SCS as a regional growth management strategy, which targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California Region pursuant SB 375. In addition to demonstrating the Region's ability to attain the GHG emission-reduction targets set forth by CARB, the 2020–2045 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands (SCAG 2020). Thus, successful implementation of the 2020–2045 RTP/SCS would result in more complete communities with various transportation and housing choices while reducing automobile use.

The primary objective of the RTP/SCS is to provide guidance for future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the region, as stipulated under SB 375. Given that the proposed project involves constructing and operating a stormwater capture and treatment facility, the goals and strategies of the RTP/SCS are not directly applicable. As such, the proposed project would not conflict with the goals and policies of the RTP/SCS.

Project Consistency with CARB's Scoping Plan

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific

projects, nor is it intended to be used for project-level evaluations.[10] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. To the extent that these regulations are applicable to the proposed project, the proposed project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

Project Consistency with Senate Bill 32 and Executive Order S-3-05

The proposed project would not impede the attainment of the most recent state GHG reduction goals identified in SB 32 and EO S-3-05 and. SB 32 establishes a statewide goal of reducing GHG emissions to 40% below 1990 levels by 2030, while EO S-3-05 establishes a statewide goal of reducing GHG emissions to 80% below 1990 levels by 2050. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014, p. ES2). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014):

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, EO B-30-15, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states the following (CARB 2017):

> The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and

[10] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

The proposed project would not conflict with CARB's 2017 Scoping Plan and with the state's trajectory toward future GHG reductions. In September 2018, EO B-55-18 was signed which commits the state to total carbon neutrality by 2045. However, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional reduction measures for the proposed project would be speculative and cannot be identified at this time. The proposed project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California.

With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, adhesive materials, grease, solvents, and architectural coatings would be used during construction. Similarly, operation and maintenance of the proposed project would also require routine use of common hazardous substances. These materials are not considered extremely hazardous and are used routinely throughout urban environments for both construction projects and structural improvements. Further, these materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or environment. With adherence to state and local regulations, impacts associated with routine transport, use, and disposal of hazardous materials would be less than significant.

b) Would the project 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?

Less Than Significant Impact. As discussed under Section 3.9(a), construction and operation would involve relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, grease, adhesive materials, solvents, and architectural coatings. These materials are not considered acutely hazardous and are used routinely throughout urban environments for both construction and operation of projects and small-scale structural improvements. Further, these materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials.

The U.S. Environmental Protection Agency released a partial ban on asbestos-containing materials in 1989, but a full ban on the use and marketing of asbestos-containing materials did not occur until April 2019. While there are no buildings scheduled for demolition on the project site, there is scheduled construction and connections to the existing concrete water pipes. Concrete water pipes have historically been known to contain asbestos (known as asbestos-cement pipes). Underground asbestos cement pipes/transite pipes may be encountered during the construction phase. Improper removal, transport, and/or disposal of such pipes would have the potential to cause release of asbestos to the environment, potentially resulting in exposure of workers and/or the public to asbestos. In accordance with SCAQMD Rule 1403, piping would be surveyed for asbestos prior to demolition activities, and piping and materials that contain asbestos would be removed, handled, transported, and disposed of in accordance with appropriate procedures defined in SCAQMD Rule 1403. With implementation of the requirements of SCAQMD Rule 1403, adherence to all appropriate federal, state, and local rules and regulations regarding asbestos containing materials, impacts would be less than significant.

With adherence to state and local regulations, impacts associated with reasonably foreseeable upset and accident conditions would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No active or pending schools were identified within 0.25 miles of the project site (CDE 2022; GreenInfo Network 2022). As there are no schools located within 0.25 miles of the project site, the proposed project would not emit or handle hazardous materials within 0.25 miles of a school. No impact would occur.

d) Would the project be located on a site that 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?

No Impact.

Contaminated Sites

Dudek completed a database review of sites that use or have been impacted by hazardous materials (contaminated sites) within 1 mile of the project site which may be impacted by the proposed project (except Leaking Underground Storage Tank sites, for which the search distance is 0.50 miles). These sites are discussed in two categories, Cortese List sites, and non-Cortese List sites. Cortese List sites are those which are listed under California Government Code Section 65962.5, as described below. Non-Cortese List sites are contaminated sites which do not fall under California Government Code Section 65962.5 but are still impacted by hazardous materials and are undergoing cleanup under the oversight of a regulatory agency, such as voluntary cleanup sites and military cleanup sites.

Cortese List Sites

California Government Code Section 65962.5 requires that information regarding environmental impacts of hazardous substances and wastes be maintained and provided at least annually to the Secretary for Environmental Protection. Commonly referred to as the Cortese List, this information must include the

following: sites impacted by hazardous wastes, public drinking water wells that contain detectable levels of contamination, underground storage tanks with unauthorized releases, solid waste disposal facilities from which there is migration of hazardous wastes, and all cease and desist and cleanup and abatement orders. While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control EnviroStor database (Health and Safety Codes 25220, 25242, 25356, and 116395)
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from the SWRCB GeoTracker database (Health and Safety Code 25295)
- List of solid waste disposal sites identified by the Water Board with waste constituents above hazardous waste levels outside the waste management unit (Water Code Section 13273 subdivision [e] and California Code of Regulations Title 14 Section 18051)
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from the Water Board (Water Code Sections 13301 and 13304)
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by Department of Toxic Substances Control.

Dudek conducted a search of the online databases that provide information on Cortese List sites. The project site was not identified in any of the Cortese List databases. One closed Leaking Underground Storage Tank site was identified within 0.50 miles of the project site. The release impacted soils only, and was closed in 1994. As such, based on the status and distance (almost 0.50 miles to the southwest), it is unlikely this site has impacted the environmental condition of the project site.

Non-Cortese List Sites

Nearby properties were identified on the Department of Toxic Substances Control and SWRCB databases and are discussed in the subsections below.

Department of Toxic Substances Control EnviroStor Database

Dudek identified two sites located within 1 mile of the project site.

- Criterion Catalysts & Technologies, is located approximately 0.65 miles southeast of the project site and was identified as a closed hazardous waste RCRA site. A Remedy Construction document was signed off by a Department of Toxic Substances Control Coordinator in June 2015, identifying the site's Remedy Construction was Complete (DTSC 2015). The remediation of this site was referred to the RWQCB, and the case was closed in 2012 (SWRCB 2022).
- "Azusa Dump Owl 4X J09CA0025", is a Former Used Defense Site that is located approximately 0.72 miles northeast of the project site and is listed as a Military Evaluation site that is "Inactive – Needs Evaluation as of October 2018". A brief site history on EnviroStor identifies it as a production facility of tear gas and chemical agents that has potential soil and groundwater contamination from that production. A preliminary site assessment was conducted in September 1987 that identified TDS, arsenic, chromium, iron, and manganese in the groundwater along with high pH values and elevated levels of cyanide, chromium, iron, and lead in soil and sludge samples (FUDS 1991). As this site is greater than 0.50 miles from the project site, site impacts appear to be limited to soils

and onsite media, and no further required remediation has been warranted, it is unlikely it has impacted the environmental condition of the project site.

Water Board GeoTracker Database

Dudek identified two additional cleanup sites located within 1 mile of the project site.

- American Cyanamid is located approximately 0.57 miles east of the project site. This site was identified by Los Angeles RWQCB as a potential contributor to groundwater contamination in the San Gabriel Valley Superfund Site. A Pre-Closure Notice was submitted by the Los Angeles RWQCB in January 2018, identifying ongoing monitoring due to historical operations, and determining that no further cleanup is required for soils on the site (RWQCB 2018). While the case letter does not identify closure for groundwater, it does indicate ongoing monitoring has been conducted and further confirms no further actions are required. While it is still an open case, the recommendation for closure and distance from the project site indicates this site does not likely impact the environmental condition of the project site.
- The Azusa Owl Dump 4X, which was also identified on EnviroStor, has an open military cleanup file with RWQCB. The site has a status of "Open – Inactive" as of October 2009. As noted above, based on the distance and regulatory status of this stie, it is unlikely that it has impacted the environmental condition of the project site.

Online Regulatory Records Search

In addition to the Cortese List databases, Dudek consulted available online databases that provide environmental information on facilities and sites in the State of California. These databases include the California Environmental Protection Agency Regulated Site Portal (CalEPA 2022); National Pipeline Mapping System (NPMS 2022); and California Geologic Energy Management Division (CalGEM 2022) online well finder.

Three sites were identified on the California Environmental Protection Agency Site Portal within 1 mile of the Project site. Of these sites, one was identified as a chemical storage facility adjacent to the project site. California American Water Company, 779 Encanto Parkway, stores sodium hypochlorite (a water treatment chemical) and diesel fuel (likely for a generator). There is no indication of a release of hazardous materials to the environment. The other two listings represent a closed former landfill appear to be for administrative purposes and does not necessarily indicate a release of hazardous materials to the environment.

No findings were identified on the National Pipeline Mapping System database within one mile of the project site. No findings were identified on the California Geologic Energy Management Division well finder within 1 mile of the project site.

Conclusion

The project site is not located on, nor is impacted by, a hazardous materials site. As such, no significant hazard to the public or environment would be present. No impact would occur.

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 or excessive noise for people residing or working in the project area?

No Impact. The nearest airport is the San Gabriel Valley Airport, located approximately 6.43 miles southwest in El Monte, California. The project site does not fall within the airport land use plan for this nearby airport (ALUC 2004). The project is not located within 2 miles of a public use airport, nor is it located within an airport land use plan. As such, there would be no excessive noise or safety hazards affecting the project, and no impact would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Construction of the proposed project would occur completely within the boundaries of Encanto Park, and is not anticipated to require road construction or closure of adjoining roads. As the proposed project would be uninhabited, future emergency response and evacuation planning would not change from current conditions. As discussed in Section 3.15 (a), during construction the Los Angeles Fire Department (LAFD) would temporarily not be able to use the multi-use field for landing during emergencies. Prior to construction activities, LAFD would be notified of the temporary closure of Encanto Park to allow the fire department to locate other landing locations in the event of an emergency. Upon completion of construction, use of the multi-use field for the LAFD helicopter would resume under existing conditions. As such, the project would not interfere with adopted emergency response and emergency evacuation plans. Impacts would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site is located within a Very High Fire Hazards Severity Zone in a Local Responsibility Area (CAL FIRE 2022). Fire response services for the project site are provided by LAFD. Construction and operation of the project would comply with Chapter 15.04 of the City's Municipal Code which adopts the California Fire Code (CFC) by reference. Chapter 33 of the CFC outlines general fire safety precautions during construction and demolition that are intended to maintain minimum levels of fire protection and limit the spread of fire (CFC 2019). The project would not include structures intended for long-term occupancy or include development that could exacerbate fire risk. Furthermore, the project site is relatively flat and would not influence prevailing winds or other factors that could exacerbate wildfire risk. As such, people and structures would not be exposed to a significant risk of loss, injury or death involving wildfires. No impact would occur.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) 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; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-Than-Significant Impact. The project site is located within the boundaries of the Rio Hondo/San Gabriel River Watershed Management Joint Powers Authority. The Rio Hondo San Gabriel River EWMP outlines the water quality objectives, and includes measures to reduce discharge pollutants, and protect and improve the Rio Hondo/San Gabriel River water bodies (SWRCB 2019).

Construction of the project would involve ground-disturbing activities for grading that could result in sediment discharge in stormwater runoff. Additionally, construction would involve the use of oil, lubricants, and other chemicals that could be discharged from leaks or accidental spills. These potential sediment and chemical discharges during construction would have the potential to impact water quality in receiving water bodies. However, the project would be required to prepare and implement a SWPPP, which would include water quality BMPs to ensure that water quality standards are met, and that runoff from the construction work areas do not cause degradation of water quality in receiving water bodies. Through the incorporation of BMPs through implementation of SWPPP requirements, impacts associated with water quality standards during construction would be less than significant.

The purpose of the project is to decrease the amount of pollutants in stormwater and dry-weather runoff entering the San Gabriel River. The project would be implementing identified improvements in the WQG's EWMP for pollution reduction. Upon operation, existing stormwater flows would be diverted and treated prior to infiltration and/or discharge, resulting in water quality benefits compared to existing conditions. Ongoing maintenance and sampling would ensure that the project is performing as expected in terms of treatment of stormwater. Therefore, impacts during operation would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-Significant Impact. Groundwater was not encountered during subsurface borings as part of the project-specific geotechnical investigation (Craftwater 2021). The geotechnical evaluation also concluded that Encanto Park features soils with high permeability (Craftwater 2021). The storage reservoir would facilitate infiltration of captured stormwater, allowing water to seep into the underlying aquifer and providing natural filtration through the soil. The project would not otherwise result in an increase in impervious surfaces that would affect groundwater infiltration. Additionally, the project would not entail temporary or permanent use of groundwater and, thus, would not deplete groundwater within the project vicinity. Therefore, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge and impacts would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

and

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

and

iii) 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?

and

iv) Impede or redirect flood flows?

Less-than-Significant Impact. Once operational, the majority of the disturbed area would be returned to existing conditions (i.e., field surface replacement and parking lot resurfacing) with similar surface drainage patterns. New minor above ground features would be developed related to maintenance access to project components which would not substantially alter overall drainage patterns of the project site. Subsurface stormwater flows through existing infrastructure would continue flowing into the San Gabriel River, similar to existing conditions, but at a reduced rate and through water quality treatment filters with implementation of the project. Additionally, the project would not result in an increase in impervious surfaces within the project site. Therefore, implementation of the project would not substantially alter the existing drainage pattern of the site or area that would cause substantial erosions, flooding, polluted runoff, or changes to flood flows. Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less-than-Significant Impact. According to Federal Emergency Management Agency flood maps, the project is not located within a designated high risk or special flood hazard area (FEMA 2022). Additionally, the project site is not located within a tsunami inundation zone and seiches do not pose a hazard to the project site (DOC 2022c). Therefore, the impacts associated with the risk of release of pollutants due to project inundation in a flood hazard, tsunami, or seiche zone would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact*.* As discussed in Section 1, Introduction, the proposed project is identified in the WQG's EWMP as a regional BMP project that would help meet regional pollution reduction goals. The project would implement the applicable water quality control plan for the region. The project would allow for infiltration of captured stormwater into the underlying soils to improve groundwater conditions, and

would not interfere with groundwater supplies. Therefore, the project would not conflict with a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

3.11 Land Use and Planning

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI.	**LAND USE AND PLANNING** – Would the project:				
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) Would the project physically divide an established community?

No Impact. The entire project would be located within the existing Encanto Park. The project would not create a physical division of an existing community, like what could occur with the development of a freeway or large linear infrastructure. The project would not result in a removal of an existing means of access, such as a road or bridge, that would impede mobility with an existing community and other areas. Upon completion, recreational use of the affected portion of the park would resume under existing conditions. Therefore, the project would not physically divide an established community and no impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project site is zoned as O and has a General Plan land use designation of Open Space (OS). The project would include the construction of a stormwater capture and treatment facility, primarily located underground, and improvements to the existing Encanto Park. Upon completion, recreational use of the affected portion of the park would resume under existing conditions. Implementation of the project would not result in a change to land uses. Potential environmental impacts associated with the implementation of the project shall be analyzed throughout this MND. The project will incorporate applicable mitigation measures to reduce environmental impacts. Therefore, the project would not be in conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, no impacts would occur.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a) ***Would the project 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?***

and

b) ***Would the project 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?***

Less-than-Significant Impact **a) – b).** According to maps obtained through the California DOC and California Geological Survey, the project site is located within in an area designated as Mineral Resource Zone (MRZ) 2, which are areas where geologic data indicate that known important and valuable mineral resources are present (DOC 2022b). The project site contains regionally significant Portland cement concrete-grade aggregate resources, which are commonly used construction purposes (DOC 2022b). However, the project site is already developed as the existing Encanto Park, which is zoned as O (City of Duarte 2018a). Operation of mineral extraction uses (i.e., heavy machinery and rock processing equipment) would be incompatible with the underlying land use designations of Encanto Park and surrounding existing residences. As such, the project would not result in any further loss of availability of the identified resources. Therefore, impacts would be less than significant.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or 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?	☐	☐	☐	☒

This section is based on a technical analysis of the project's potential noise impacts conducted by Dudek. Data and other relevant information related to the noise analysis is provided in Appendix C of this MND.

Existing Setting

Dudek recorded existing outdoor ambient noise levels in the vicinity of the project site on March 16, 2022. Noise measurement locations are indicated by ST1, ST2, and ST3 (shown on Figure 5) in Table 3.13-1. Collected noise measurements at these locations, along with documented observations regarding perceived sound sources in the existing noise environment, appear in Table 3.13-1 and are also intended to be representative of the backyards of existing single-family homes adjoining the project area (i.e., noise sensitive receptors). Photographs, tagged survey positions, and instrument details can be found in Appendix C.

Table 3.13-1. March 16, 2022 Measured Samples of Existing Outdoor Ambient Sound Level

Survey Position	Description/ Address	Time (hh:mm)	L_{eq} (dBA)	L_{max} (dBA)	L_{min} (dBA)	Notes (perceived sound sources)
ST1	100 feet west of the Duarte Historical Museum	1:16 p.m. – 1:31 p.m.	47.2	60.2	40.9	nearby and distant roadway traffic (Encanto Pkwy., I-210), birds, park visitor footsteps, distant helicopter
ST2	135 feet south of Royal Oaks Drive and 145 feet west of the Encanto Park tennis courts	1:55 p.m. – 2:10 p.m.	42.5	59.3	39.5	nearby and distant roadway traffic (Encanto Pkwy., I-210), birds, park visitor footsteps
ST3	200 feet east of Gardi Street *cul de sac*	1:36 p.m. – 1:51 p.m.	45.8	58.8	41.4	nearby and distant roadway traffic (Encanto Pkwy., I-210), birds, park visitor footsteps

Source: Appendix C
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); L_{max} = maximum sound level during the measurement interval; L_{90} = sound pressure level exceeded 90% of the measured time period; dBA = A-weighted decibels; CNEL = community noise equivalent level.

The measured outdoor energy-equivalent sound level (L_{eq}) values appearing in Table 3.13-1 are less than 50 dBA and consistent with expectations for the environment. The project site is located in an existing park, largely surrounded by residential development. The project site is the large distance from major roadways such as the Interstate-210 highway (over 4,700 feet away) and the San Gabriel River (over 1,000 feet wide) separates the project sire from industrial and commercial land uses further east and south. For instance, guidance from the Federal Transit Administration (FTA) on estimating outdoor ambient sound level indicates that noise from an interstate highway more than 800 feet from a receptor would be no greater than 50 dBA L_{eq} during daytime hours (FTA 2018).

Regulatory Setting

Local Noise Ordinance and General Plan Guidance

Section 9.68.120 of the City of Duarte noise regulations (i.e., Chapter 9.68 of the Municipal Code) does not quantify allowable construction noise levels; however, it prohibits construction without a permit between 10 p.m. and 7 a.m. for any work on or within 500 feet of a residential zone. Section 9.68.160 prohibits pump and other machinery operation that is "attended by loud or unusual noises." Section 9.68.050 sets ambient base noise levels that are 55 dBA daytime (7 a.m. – 9 p.m.) and 45 dBA nighttime (9 p.m. – 7 a.m.) for the R-1A zoned properties on Treefern Drive, Gardi Street, Freeborn Street, and Royal Oaks Drive that adjoin the park (City of Duarte 2021b). These exterior noise limits from the City's Municipal Code also appear in Table N-2 of its General Plan Noise Element, along with the following relevant policies:

> Noise 2.1.4 Prohibit significant noise generating activities from locating adjacent to residential neighborhoods and near schools.
>
> Noise 3.1.3 Ensure that construction noise does not cause an adverse impact to the residents of the City.

The General Plan Noise Element also identifies Encanto Park itself as a noise-sensitive use per its Exhibit N-2 (City of Duarte 2007)

Federal Guidance

Lacking quantified noise limits for construction noise at the local level, this assessment uses the FTA-based guidance of 80 dBA 8-hour L_{eq} at a residential receptor to determine impact significance.

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Less-Than-Significant Impact. Table 3.13-2 presents the estimated construction noise level (8-hour L_{eq}) for each anticipated phase of project construction activity based on equipment and location. Refer to Appendix C for additional detail regarding the expected noise generated from each type of operating construction equipment for each phase.

Table 3.13-2. Estimated Per-Phase Construction Noise Levels

Project Construction Activity Phase	Horizontal Distance to Nearest Noise-sensitive Receptor (feet)	Predicted 8-hour L_{eq} (dBA)
Site Mobilization	110	74.2
Reservoir Excavation	200	66.3
Reservoir Construction	200	65.4
Pipeline and Treatment Facility Installation	110	72.8
Field Surface Replacement	90	76.7
Parking Lot Resurfacing and Other Improvements	160	69.2

L_{eq} = energy-equivalent sound level; dBA = A-weighted decibel

The predicted aggregate noise levels for all six studied construction activity phases are greater than the samples of baseline outdoor ambient noise levels appearing in Table 3.13-1, and would represent an audible change to the environment; however, all predicted levels are less than the 80 dBA 8-hour L_{eq} FTA-based standard. Noise generated by construction would be temporary, ceasing after 8 months. Therefore, noise impacts during construction would be less than significant.

Operation

Less-Than-Significant Impact. Upon completion of construction, the project would feature underground infrastructure to convey stormwater. While these on-site features include a submersible pump station, operation of its powered mechanical systems would be enclosed in a concrete “wet well” below grade. Therefore, noise from operation of pump would be isolated by the enclosure resulting in predicted noise levels that are less than 30 dBA at a radius of over 40 feet from the pump location (Appendix C). When compared to the existing noise levels shown in Table 3.13-1, operational project noise from the pump station is anticipated to be less than the existing outdoor ambient level at the nearest existing homes, and thereby unlikely to be considered “loud” or “unusual” per Section 9.68.160 of the Municipal Code.

Maintenance needs for the project would generate less or similar noise when compared to overall existing park maintenance and park use (such as landscaping, sporting events, etc.). For these reasons, operational noise would result in a less than a significant impact.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less-Than-Significant Impact. Vibration is oscillatory movement of mass (typically a solid) over time. Depending on their distances to a sensitive receptor, operation of large bulldozers, graders, loaded dump trucks, or other heavy construction equipment and vehicles on a construction site have the potential to cause high vibration amplitudes.

The City's Municipal Code does not have a vibration threshold against which project construction-related groundborne vibration impacts to the community can be assessed. For purposes of this impact assessment, a vibration velocity level of 0.2 inches per second (ips) peak particle velocity (PPV) is used as the standard for evaluating human annoyance (to perceived groundborne vibration within an occupied residence) and the potential risk for residential building damage due to "continuous" or frequently occurring groundborne vibration events (Caltrans 2021).

Groundborne vibration attenuates rapidly, even over short distances. The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock can be estimated with expressions found in FTA and the California Department of Transportation guidance. By way of example, for a bulldozer or grader operating as close as 90 feet to the nearest receiving residential land use during the Field Surface Replacement construction phase as shown in Table 3.13-2, the estimated vibration velocity level would be 0.013 ips per the equation as follows (FTA 2018):

$$PPV_{rcvr} = PPV_{ref} * (25/D)^{1.5} = 0.013 \text{ ips } PPV = 0.089 * (25/90)^{1.5}$$

In the above equation, PPV_{rcvr} is the predicted vibration velocity at the receiver position (i.e., residence), PPV_{ref} is the reference value at 25 feet from the vibration source (the bulldozer), and D is the actual horizontal distance to the receiver from the source.

During parking lot resurfacing, operation of a vibratory roller is anticipated and could be as close as 160 feet to an existing home. Because the roller exhibits more vibration than the previous dozer or grader example, having a reference PPV (PPV_{ref}) of 0.21 ips at 25 feet, its groundborne vibration would attenuate to 0.013 ips PPV. Both predicted groundborne vibration velocity PPV values associated with project construction are well below the 0.2 ips PPV threshold for building occupant annoyance and building damage risk, and would be considered less than significant impacts.

After completion of project construction, operation of the pump station and other project components are unlikely to cause vibration at the nearest offsite homes. Powered mechanical systems like the submersible pump is designed with reciprocating and/or rotating components that are balanced well and machined to high tolerances of precision that consequently minimize vibration and help sustain long operational life. Furthermore, vibrational energy from pump operation would be attenuated by both the pump enclosure and the surrounding soils. For this reason, project operation groundborne vibration at off-site receptors would be considered less than significant.

c) ***For a project located within the vicinity of a private airstrip or 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?***

No Impact. There are no public airports or private airfields within 2 miles of the project, and the project area is far from any aviation traffic noise contour greater than 65 dBA community noise equivalent level. Construction workers and park users would not be exposed to significantly aviation noise levels. No impact would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) ***Would the project induce substantial unplanned 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)?***

No Impact. Construction of the project would result in a temporary direct increase in a small number of construction jobs in the area. However, given the relatively small nature of project construction and schedule anticipated, the demand for construction employment would likely be met within the existing and future labor market in the City and in the greater Los Angeles County area. If construction workers live outside of the City, these workers would likely commute during the temporary construction period. Operationally, the project does not contain land uses that typically result in direct population growth, such as new homes or large commercial/business centers. The project would not change the use of the existing Encanto Park. Upon completion, the project would improve Encanto Park to further serve the existing and anticipated future demand for recreational uses within the City. Additionally, the project is consistent with underlying land use and zoning designations. Therefore, the project would not directly result in substantial unplanned population growth in the area.

The project is located in an area served by existing roads and infrastructure. The project does not include the extension of utility infrastructure, such as sewer lines or roads, into previously undeveloped areas that

may indirectly induce growth. Therefore, the project would not indirectly result in substantial unplanned population growth in the area. No impact would occur.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site does not contain any existing housing or provide other means of housing people. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impact would occur.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☐	☒

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

Less-than-Significant Impact. During emergency fire fights, LAFD uses Encanto Park's multi-use field for landing their helicopters and refilling water. During construction, a portion or all of LAFD's landing area would be temporarily unavailable. Prior to construction activities, LAFD would be notified of the temporary closure of portions of Encanto Park to allow the fire department to locate other landing locations, either elsewhere in the park or at alternate sites. Upon completion of construction, use of the multi-use field for emergency use of the LAFD helicopter would resume under existing conditions. Construction of the project and the temporary interruption of LAFD use of the multi-use field is not anticipated to result or require construction of another emergency landing location. Once operational, the project would have no impact on fire facilities, services, or response times. Therefore, impacts would be less than significant.

Police protection, schools, and other public facilities

No Impact. As discussed in Section 3.14, Population and Housing, the project would not induce substantial unplanned population growth in the area. As such, construction, operation, and maintenance of the project would not require new or physically altered facilities associated with police protection, schools, or other public facilities. Therefore, no impacts would occur.

Parks

Less-than-Significant Impact. The project is located within Encanto Park and would result in the physical alteration to an existing park. The total duration of project construction is anticipated to last 8 months, and would require temporary partial closure of the park and parking lot. During construction a portion of the parking lot would be fenced off for safety and security concerns. The proposed stormwater capture and treatment facility would be located primarily underground and would not affect park use. The project would also include the resurfacing of the existing multi-use field, which would enhance the quality of the park. Upon completion of construction, recreational use of the affected portion of the park would resume under existing conditions. As such, implementation of the project would not require the provision of new parks. Therefore, impacts to parks as a result of the project would be less then significant.

3.16 Recreation

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

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?

Less-than-Significant Impact. The total duration of project construction is anticipated to last 8 months and would require the temporary partial closure of Encanto Park and the parking lot. This closure may result in the temporary increase in use of other nearby parks. However, upon completion of construction, recreational use of the affected portion of the park would resume under existing conditions. The temporary increase in other parks would not be of a scale that would result in substantial physical deterioration of those facilities. As such, impacts to recreational facilities would be less than significant.

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?

Less-than-Significant Impact**.** The project would include improvements to the existing Encanto Park, which include resurfacing of the multi-use field and the replacement of the asphalt within a portion of the park parking lot. As discussed in response to Threshold 3.16 (a), the temporary partial closure of the park and parking lot may result in an increase in use of other parks in the City. However, upon completion of construction, recreational use of the affected portion of the park would resume under existing conditions. Furthermore, as discussed in section 3.14, Population and Housing, implementation of the project would not induce population growth. As such, the project would not require the construction or expansion of recreational facilities. Potential environmental impacts associated with the implementation of the project shall be analyzed throughout this MND. Impacts would be less than significant.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

This section analyzes the potential impacts of the proposed project based on CEQA Guidelines Section 15064.3(b), which focuses on vehicle miles traveled (VMT) for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changed from level of service or vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. This methodology was required to be used statewide beginning July 1, 2020. The proposed project site is located in the City of Duarte, therefore, for the purposes of this section, the City of Duarte Transportation Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment, September 2020, and the Governor's Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) have been used.

Dudek estimated trip generation related to project construction for informational purposes in this section. The Institute of Transportation Engineers' Trip Generation Manual does not contain trip rates for construction-related activities associated with the proposed project, therefore, the estimate presented in this section is primarily based on the number of construction employees or workers as well as the quantity of vendor and haul related truck

estimate provided by the City and used in the proposed project's air quality analysis. Each worker and truck are assumed to generate two daily trips, one inbound and one outbound. The construction work shift would occur between 7:00 a.m. and 4 p.m. Therefore, majority of the workers would arrive and depart outside of the AM peak hour (generally occurs between 7:00 a.m.–9:00 a.m.) and PM peak hour (generally occurs between 4:00 p.m.–6:00 p.m.) of the adjacent street network. However, to show a conservative estimate, it is assumed that approximately 50% of the workers would travel during the peak hours. The majority of the vendor truck traffic would occur during the reservoir construction phase. The majority of the haul truck traffic would occur during the reservoir excavation and parking lot resurfacing phases. Vendor and haul truck traffic would be evenly distributed through duration of the construction phase and the 8-hour workday.

The project's construction comprises of six phases. Construction related trip generation was calculated for the peak phase which would occur during reservoir excavation. As shown in Table 3.17-1, the proposed project would generate 22 total daily trips, 5 AM peak hour trips and 5 PM peak hour trips during this peak phase.

Table 3.17-1. Peak Phase Construction Trip Generation

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Trip Generation[1]								
Workers	8 workers	16	4	0	4	0	4	4
Haul Trucks	3 trucks	6	1	0	1	0	1	1
	Total	**22**	**5**	**0**	**5**	**0**	**5**	**5**

Source: Appendix A
Notes:
[1] Trip generation is estimated for reservoir excavation phase which would occur for 30 days and during which the maximum number of haul trucks would be required.

The following describes the project's potential impacts to programs, plans and policies, VMT, hazards related to geometric design, and emergency access

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less-than-Significant Impact. The Circulation Element of the City's General Plan 2005–2020 establishes a program that is intended to provide a balanced circulation system that will support the anticipated growth in local and regional land uses. The following goals are included in the City's General Plan Circulation Element:

Goal 1: To provide a sustainable, convenient, efficient, and cost-effective circulation system to serve the present and future transportation needs of the Duarte community.

Goal 2: To protect local residential neighborhoods from the impacts of through traffic and trucks.

Goal 3: To increase the use of alternative modes of transportation for traveling to, from, or through Duarte.

Encanto Park is accessed via Encanto Parkway, a two-lane local street between Huntington Drive and Markwood Street. Access to the site is provided via three driveways located along Encanto Parkway which also leads to the parking lot for the park. There are no marked bike lanes near the project; however, the project's parking lot is a common staging site for cyclists and other users of the San Gabriel Trail, a multiuse

path which runs just south of Encanto Parkway. Curbside parking is allowed on weekends and holidays along the stretch of Encanto Parkway. The posted speed limit is 40 mph near the project. There is a meandering paved sidewalk along the project's frontage along Encanto Parkway. Foothill Transit Route 860 provides service along this roadway and services the Encanto Park. The nearest transit stop is located along the project frontage.

As shown in Table 3.17-1, the construction of the project would generate temporary trips. Maintenance of the project would require nominal trips which not cause a measurable effect to the circulation system or warrant any traffic analysis. As discussed above, the proposed project would be served by existing roadway, transit, bicycle and pedestrian facilities and not conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less-than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The proposed project is not a land use or transportation project, and therefore neither Section 15064.3(b)(1) nor Section 15064.3(b)(2) of the CEQA Guidelines apply. Instead, the proposed project would be categorized under Section 15064.3(b)(3) for qualitative analysis.

The project would involve construction that would generate temporary construction-related traffic for approximately 8 months and nominal operations traffic. Even though worker and vendor trips would generate VMT, once construction is completed, the construction-related traffic would cease and would return to pre-construction conditions. Measures to reduce the VMT generated by workers and trucks are limited, and there are no thresholds or significance criteria for temporary, construction-related VMT. The project construction would be generally consistent with construction activities in terms of the temporary nature of activities, trip generation characteristics, and the types of vehicles and equipment required. The increase in VMT associated with projects' construction is expected to be temporary and would therefore not cause a significant VMT impact.

Once construction is complete, project operation is anticipated to entail routine maintenance activities at the stormwater capture facility performed by City Public Works Division staff. Activities would include removal of debris and pollutant constituents from the treatment devices, pump testing and calibration, monitoring/sampling of treatment, and cleaning the storage reservoir. The operation of the proposed project can be considered "small project" per the City's Transportation Study Guidelines and Governor's Office of Planning and Research Technical Advisory given that it would not generate greater than 110 daily trips[11] and would therefore be presumed to have a less than significant VMT impact.

[11] This threshold ties directly to the OPR technical advisory and notes that CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, Section 15301[e][2]). Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3), and impacts would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-Significant Impact. The proposed project would not include any new roadway design features, nor would it alter any existing geometric design features along Encanto Parkway. Access for construction related traffic (workers and trucks) to the site would be from the existing driveways along Encanto Parkway. As such, nominal trips generated by passenger cars and trucks entering and exiting the project site would be able to do so safely and without causing congestion at the driveways, during construction or operation of the project. Therefore, project would not substantially increase hazards due to a roadway design feature or introduce incompatible uses. Impact would be less than significant.

d) Would the project result in inadequate emergency access?

Less-than-Significant Impact. The project site is located in an established, developed area with ample access for emergency service providers. Construction activities would occur on the project site and no lane closures in the public right-of-way or driveway closures are anticipated that would impact adopted emergency access or response plans. The contractor would follow standard construction practices and ensure adequate on-site circulation and access is always maintained for all users. The project would not alter Encanto Parkway or access to the project's parking area and therefore would not create significant impediments for emergency access. As such, the project would have a less-than-significant impact related to emergency access. A discussion regarding LAFD's use of the multi-use field as an emergency helicopter landing area for fire fighting is found in Sections 3.9, 3.15, and 3.20 of this MND.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

The evaluation of potential impacts on tribal cultural resources (TCRs) is based on the findings resulting from tribal consultation conducted by the JPA, as the lead agency, as well as the findings of Section 3.5, Cultural Resources, in this IS/MND. Background research conducted to inform this analysis includes a CHRIS records search, archival research, a NAHC SLF search, informal tribal outreach, a field reconnaissance survey of the project site, and the results of formal tribal consultation completed by the JPA pursuant to California Assembly Bill (AB) 52.

Native American Heritage Commission Sacred Lands File Search

APRMI requested a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search of the project site on February 3, 2022. The SLF consists of a database of known Native American resources. These resources may not be included in the CHRIS database. The NAHC replied via email on March 28, 2022, stating that the SLF search was completed with positive results. Positive results indicate the presence of Native American cultural resources within one mile of the project site and not necessarily directly within the project site. Along with the results of the SLF search, the NAHC provided a list of Native American tribes and individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in the area. Informal tribal outreach letters were mailed on April 11, 2022, to all California Native American Tribal representatives included on the NAHC contact list. APRMI received three responses to this information request. These responses are paraphrased below:

On May 2, 2022, Chairperson Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council responded to APRMI through personal (verbal) communication. Mr. Dorame stated that he wants to be involved in

all project related updates and is interested in being a Native American monitor for the project. He stated this region is considered a sacred area for him and his ancestors.

On May 05, 2022, Christina Conley the Tribal Consultant and Administrator of the Gabrielino Tongva Indians of California Tribal Council responded to APRMI via email communication and stated that the project site is considered culturally sensitive and is recommending that one of their tribal monitors be present for all ground disturbances.

On May 09, 2022, Bonnie Bryant, Cultural Resources Technician for the San Manuel Band of Mission Indians responded to APRMI via email communication and stated that they appreciate the opportunity to review the project documentation but that the project is located outside of Serrano ancestral territory and that they will not be requesting to receive consultation from the lead agency or participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

Assembly Bill 52

AB 52 of 2014 amended California Public Resources Code Section 5097.94 and added California Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that TCRs must be considered under CEQA and provided for additional Native American consultation requirements for the lead agency. California Public Resources Code Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American tribe. A TCR may be defined as a resource that is:

- On the CRHR or a local historic register
- Eligible for the CRHR or a local historic register
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in California Public Resources Code Section 5024.1(c)

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, MND, or EIR by contacting those tribal groups who have previously provided formal written request for notification of projects under the agency's jurisdiction.

Section 1(a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the California Public Resources Code, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation shall include those topics (California Public Resources Code Section 21080.3.2[a]). Finally, the environmental document on which the tribal consultation is focused, as well as the mitigation monitoring and reporting program (where applicable) developed in consideration of information provided by tribes during the formal consultation process, shall include any mitigation measures that are adopted (California Public Resources Code Section 21082.3[a]).

Assembly Bill 52 Consultation

The project is subject to compliance with AB 52 (California Public Resources Code Section 21074), which requires consideration of impacts to TCRs as part of the CEQA process and that the lead agency notify California Native American tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the project. As lead agency, the JPA sent notification letters pursuant to AB 52 via email on February 19, 2025, and March 26, 2025, to all California Native American tribal representatives identified on the NAHC contact list. The notification letters contained a project description, a project location map, outline of AB 52 timing, an invitation to consult, and contact information for the appropriate lead agency representative. Table 3.18-1 summarizes the results of the AB 52 consultation efforts for the project thus far.

Table 3.18-1. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Consultation Record
Andrew Salas, Chairperson Gabrieleno Band of Mission Indians – Kizh Nation	No response has been received to date.
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians	No response has been received to date.
Sandonne Goad, Chairperson Gabrieleno/Tongva Nation	No response has been received to date.
Christina Conley, Tribal Consultant and Administrator Gabrieleno Tongva Indians of California Tribal Council	**February 19, 2025** Email from Christina Conley, on behalf of the Gabrieleno Tongva Indians of California Tribal Council, to the JPA indicating that the Gabrieleno Tongva Indians of California Tribal Council have no comment on the proposed project.
Robert Dorame, Chairperson Gabrieleno Tongva Indians of California Tribal Council	No response has been received to date.
Charles Alvarez Gabrielino-Tongva Tribe	No response has been received to date.
Alexandra McCleary Yuhaaviatiam of San Manuel Nation (formerly San Manuel Band of Mission Indians)	**April 1, 2025** Email from Raylene Borrego, on behalf of the Yuhaaviatiam of San Manuel Nation (YSMN), to the JPA indicating that the proposed project is located outside YSMN tribal territory and that the YSMN do not wish to consult on the project or participate in the scoping, development, or review of documents pursuant to AB 52. **April 4, 2025** Email from Eunice Ambriz-Aguilar, on behalf of the YSMN, to the JPA indicating that the proposed project is located outside YSMN tribal territory and that the YSMN do not wish to consult on the project or participate in the scoping, development, or review of documents pursuant to AB 52.
Lovina Redner, Tribal Chair Santa Rosa Band of Cahuilla Indians	No response has been received to date.
Isaiah Vivanco, Chairperson Soboba Band of Luiseno Indians	No response has been received to date.

Table 3.18-1. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Consultation Record
Joseph Ontiveros, Cultural Resources Department Soboba Band of Luiseno Indians	No response has been received to date.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

As discussed in Section 3.5, no previously recorded archaeological resources of Native American origin or TCRs listed in the CRHR or a local register were identified within the project site as a result of the CHRIS records search, although one prehistoric archaeological resource has been identified 0.5 miles north of the project site (P-19-000241). P-19-000241 is characterized as a prehistoric lithic scatter and was recommended ineligible for listing on the CRHR. A NAHC SLF search was also requested, and results were positive for Native American cultural resources within one mile of the project site. Although the NAHC SLF search results are positive, it is important to note that the SLF file is maintained at a public land survey system section level, meaning that positive results are respective of a general area covering approximately 1 square mile (640 acres), rather than the exact area of study; therefore, a positive result does not necessarily equate to the existence of resources within the specific area occupied by the project site. Archival research also indicates that the project site is located within an urbanized area and has been previously disturbed by the development of the existing Encanto Park. The field reconnaissance survey identified no new cultural resources within the project site, though the absence of cultural resources does not preclude that cultural resources do not exist within the project site, as the survey only observed surficial sediments.

As a result of APRMI's informal outreach efforts, one California Native American tribe expressed interest in the project: The Gabrielino Tongva Indians of California Tribal Council. Following the JPA's follow-up AB 52 notification, Christina Conley, on behalf of the Gabrielino Tongva Indians of California Tribal Council indicated that they have no comment on the proposed project. No other California Native American tribe expressed interest in the proposed project as a result of the JPA's AB 52 notification efforts.

Through informal outreach and AB 52 consultation efforts to date, no information has been provided to support the presence of specific, geographically defined TCRs that could be affected by project-related construction or operation. No known cultural resources of Native American origin or association have been identified within areas that would be affected by the project. While the JPA acknowledges that the landscape surrounding the project was traditionally used by indigenous peoples, no substantial evidence was presented demonstrating that the project has the potential for affecting known TCRs, as defined by PRC Section 21074(a). There would be no impact.

b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

Less Than Significant Impact**.** Under AB 52, TCRs are defined as resources that the lead agency determines to be a TCR with a substantial burden of evidence. To date, no known TCRs have been identified through informal outreach or consultation that would be impacted by the project. However, the unanticipated discovery of unknown TCRs during project construction is a possibility. With implementation of **MM-CR-2a** through **MM-CR-2g**, which provide for archaeological and Native American monitoring during project related earth-disturbing activities and inadvertent discovery protocols, potentially significant impacts to unknown TCRs would be reduced to less than significant.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. Resurfacing of the multi-use field would require reconstruction of minor existing water infrastructure in the removal and replacement of the existing irrigation pipes and sprinkler heads. The proposed stormwater facility would intercept stormwater from existing storm drains within the park and into the treatment facility before infiltrating into the underlying soils or discharging into the San Gabriel River. The proposed pump associated with the treatment facility would be electrically powered, thus requiring an additional connection to SCE's distribution facilities, which currently serve the park's lights and irrigation system. Connection to these existing distribution facilities would be sufficient for providing power to the project and would not require any other relocation or construction of electrical power facilities.

The overall impacts of project construction and operation are discussed throughout this MND and are not anticipated to result in significant environmental effects with incorporation of mitigation measures. Furthermore, the project would not require or result in the relocation of water, wastewater, natural gas, or telecommunication facilities. Impacts would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less-than-Significant Impact. Project construction would temporarily require a minor amount of water primarily associated with dust control in compliance with SCAQMD Rule 403. Once construction is complete, potential operational changes in water use would be limited to the proposed water bottle filling station (to replace the existing drinking fountain) and minor irrigation changes. Other existing components of the park which require water would not change their existing usage. Additionally, the project includes drought tolerant landscaping, which would reduce irrigation demand. As such, operation of the project would not demand additional water use. Therefore, impacts would be less than significant.

c) Would the project 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?

No Impact. Construction and operation of the project would not generate wastewater demand. Furthermore, the project would not include changes the existing park restrooms. Therefore, no impacts would occur.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. During construction, the project would generate solid waste such as asphalt, residual wastes, plastics, and soils. Construction-generated solid waste would be temporary and would cease once construction is completed. Solid waste generated by project construction would be properly disposed of at designated landfill facilities. Operation of the project would not generate any additional solid waste beyond current park conditions. The project would be served by the Azusa Landfill (1211 West Gladstone Street, Azusa, California 91702), approximately 2.2 miles southeast of the project

site. As such, solid waste generated by the project would not exceed State or local standards, or the capacity of local infrastructure. Impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. As discussed in response to Threshold 3.19(d), construction-generated solid waste would be temporary, and operation of the project would not generate solid waste. Solid waste generated by the project construction would be disposed of at designated landfill facilities under federal, state, and local regulation. Additionally, the City is required to comply with relevant solid waste reduction and diversion requirements, including AB 939, AB341, and AB1327. Collectively, these regulations set statewide waste diversion goals as well as established solid waste and recycling governing standards for local agencies. Waste diversion and reduction during project construction would be completed in accordance with City diversion requirements. As a result, the project would comply with federal, state, and local management and reduction statuses and regulations related to solid waste. Impacts would be less than significant.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. According to the California Department of Forestry and Fire Protection Fire Hazard Severity Zone Viewer, the project is located within a Very High Fire Hazard Severity Zone within a Local Responsibility Area (CAL FIRE 2022). The City has prepared a Local Hazard Mitigation Plan. The hazard mitigation plan is a document that contains information to assist in planning for the occurrence of natural and man-made hazards; it contains action items that address multiple hazards including earthquakes, floods, hazardous materials, severe weather, and wildfires (City of Duarte 2020). Construction of the proposed project would occur completely within the boundaries of Encanto Park, and is not anticipated to require road construction or closure of adjoining roads. As the proposed project would be uninhabited, future emergency response and evacuation planning would not change from current conditions.

As discussed in Section 3.15, Public Services, during emergency fire fights, the LAFD uses Encanto Park's multi-use field for landing their helicopters and refilling water. During construction, LAFD would temporarily not be able to use the multi-use field for landing. Prior to construction activities, LAFD would be notified of the temporary closure of Encanto Park to allow the fire department to locate other landing locations in the event of an emergency. Upon completion of construction, use of the multi-use field for emergency use of the LAFD helicopter would resume under existing conditions. Construction of the project and the temporary interruption of LAFD use of the multi-use field is not anticipated to result or require construction of another emergency landing location. Once operational, the project would have no impact on fire facilities, services, or response times. Therefore, impacts would be less than significant.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. Construction of the project would comply with Chapter 15.04 of the City's Municipal Code, which adopts the CFC by reference. Chapter 33 of the CFC outlines general fire safety precautions during construction and demolition that are intended to maintain minimum levels of fire protection and limit the spread of fire (CFC 2019). The project would not include structures intended for long-term occupancy. Furthermore, the project site is relatively flat and would not influence prevailing winds or other factors that could exacerbate wildfire risk. As such, the project would not exacerbate wildfire risks such that project users would be exposed to pollutants concentrations. Impacts would be less than significant.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less-than-Significant Impact. As discussed previously, the project overall would not exacerbate fire risk. Construction would comply with CFC requirements to manage and minimize fire risk during construction. Operation of the project would not contain potential sources for fire risk. As such, the project would not result in installation or maintenance of associated infrastructure that may exacerbate fire risk. Impacts would be less than significant.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-Than-Significant Impact. For reasons described previously in responses the Thresholds 3.9(g) and 3.20(a), (b), and (c), the project would not pose a substantial risk for wildfire. The project would be located on relatively flat land within Encanto Park. As such, implementation of the project would not expose people or structures to significant risks from post-fire slope instability or drainage changes. Impacts would be less than significant.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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?	☐	☒	☐	☐

a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. Potential impacts related to sensitive and special-status habitat, wildlife species, and plant species are discussed in Section 3.4, Biological Resources. As discussed in Section 3.4, all potentially significant impacts to biological resources would be reduced to a level below significance with incorporation of mitigation measures. The proposed project would not substantially degrade the quality of the environment, impact fish or wildlife species, or plant communities. As discussed in Section 3.5, Cultural Resources, potential impacts to cultural resources and tribal cultural resources would be reduced to a level below significance with incorporation of mitigation measures. The proposed project would not eliminate important examples of the major periods of California history or prehistory. Overall, Impacts would be less than significant with incorporation of mitigation measures.

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.)

Less than Significant with Mitigation Incorporated. As revealed in the analysis presented throughout Chapter 3, Initial Study Checklist, of this MND, the proposed project would not result in significant impacts in any issue area. Mitigation measures recommended for biological resources, cultural resources, and geology and soils would reduce impacts to below a level of significance.

Due to the location of the proposed project, the potential for construction to overlap with construction of other projects would be reduced. Additionally, the proposed project, as with potential cumulative projects, would incorporate mitigation measures to reduce impacts, as applicable. Upon completion of construction, the proposed project would have no potential to contribute to a cumulative impact. Impacts would be less than significant with incorporation of mitigation measures.

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

Less-Than-Significant with Mitigation Incorporated. The potential for adverse direct or indirect impacts to human beings was considered throughout Chapter 3 of this MND. Based on this evaluation, there is no substantial evidence that construction or operation of the project with the proposed mitigation measures incorporated would result in a substantial adverse effect on human beings. Impacts would be less than significant with incorporation of mitigation measures.

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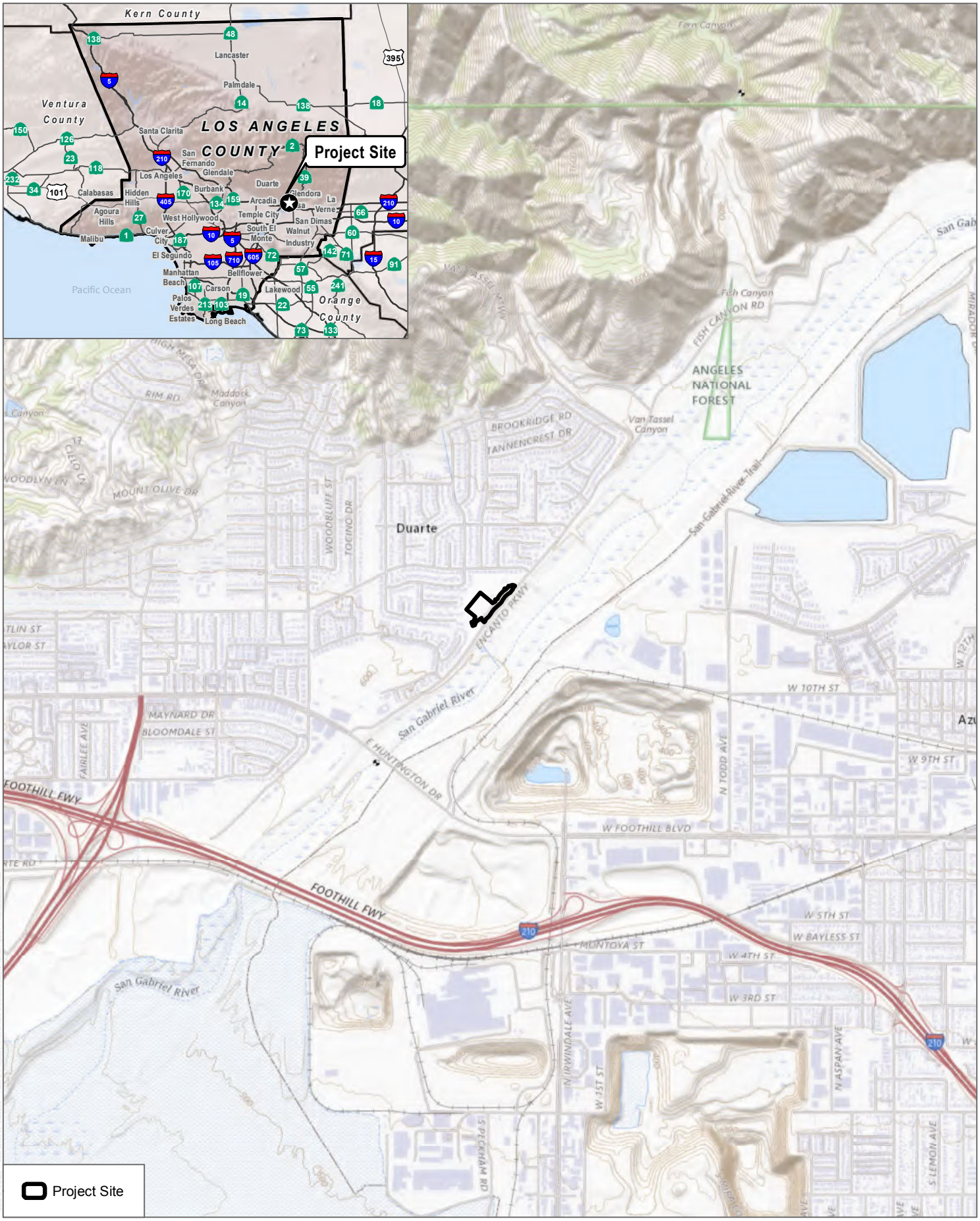

SOURCE: USGS 7.5-Minute Series Azusa Quadrangle

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Encanto Park Regional Stormwater Capture Project Mitigated Negative Declaration

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SOURCE: Bing Maps, Craftwater Engineering 2025

DUDEK

0 50 100 Feet

FIGURE 2

Project Site and Components

Encanto Park Regional Stormwater Capture Project Mitigated Negative Declaration

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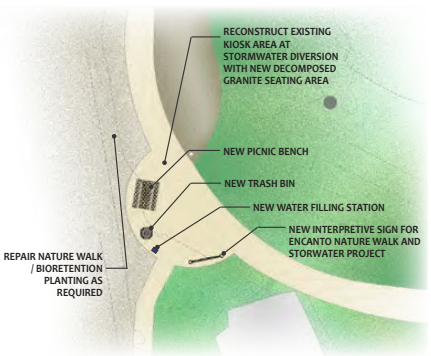
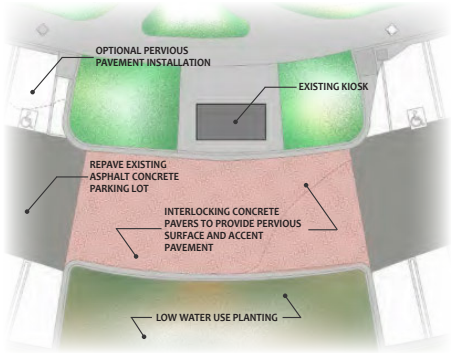
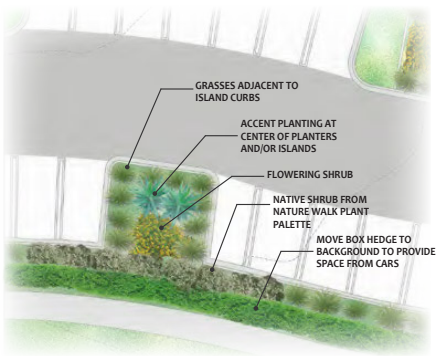


Kiosk and Seating Area



Enhanced Pavement



Low Water Use Planting

Landscape Plant List

Trees

Coast Live Oak
(Quercus agrifolia)

Mondell Pine
(Pinus eldarica)

African Sumac
(Rhus lancea)

London Plane Tree
(Platanus acerifolia)

Low Water Use Vegetation

Variegated Smooth Agave
Agave desmettiana 'Variegata'

Red Yucca
Hesperaloe parviflora

Deer Grass
Muhlenbergia rigens

Our Lord's Candle
Yucca Whipplei

Berkeley Sedge
Carex divulsa

Alkali Dropseed
Sporobolus airoides

California Buckwheat
Eriogonum fasciculatum

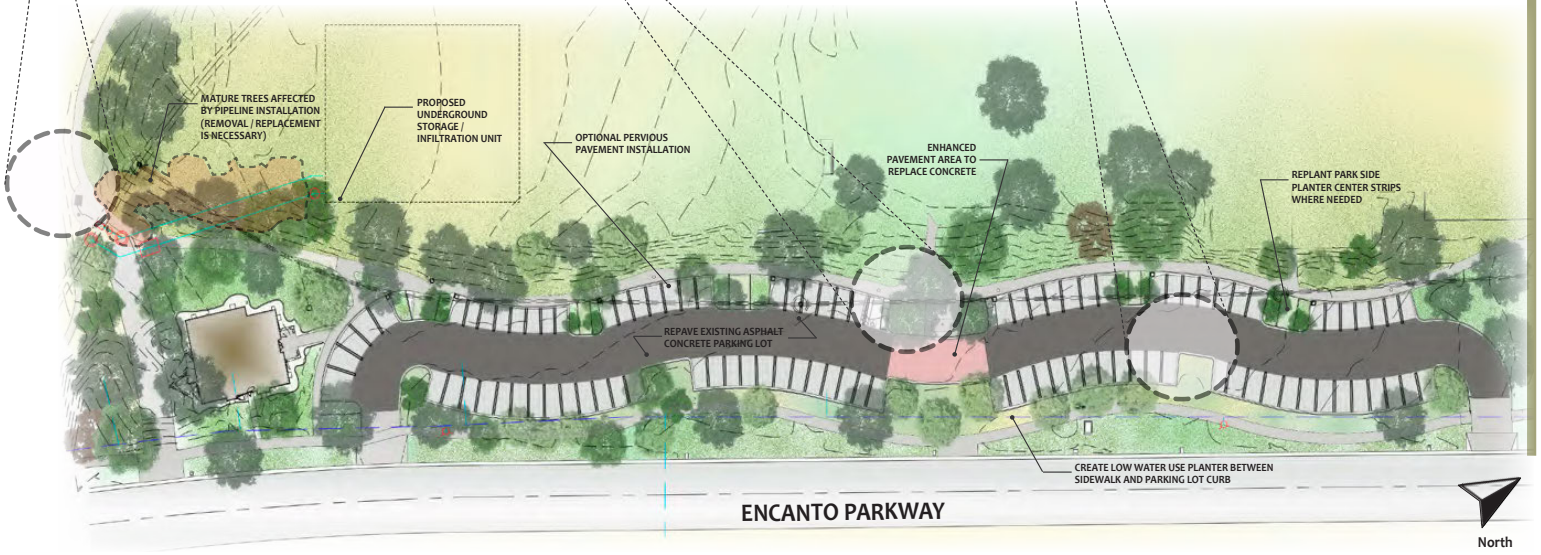
California Sagebrush
Artemisia californica

Scale Broom
Lepidospartum squamatum

White Sage
Salvia apiana

India Hawthorne
Rhaphiolepis indica

New Gold Lantana
Lantana 'New Gold'



SOURCE: Craftwater Engineering 2021

DUDEK

FIGURE 3

Conceptual Landscape Plan

Encanto Park Regional Stormwater Capture Project Mitigated Negative Declaration

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SOURCE: Bing Maps 2022

DUDEK

0 70 140 Feet

FIGURE 4

Existing Vegetation Mapping

Encanto Park Regional Stormwater Capture Project Mitigated Negative Declaration

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Appendix A

Air Quality and Greenhouse Gas Emissions
CalEEMod Output Files

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/30/2022 9:44 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Encanto Park Regional Stormwater Capture Project

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	88.00	User Defined Unit	2.02	88,000.00	0
Parking Lot	59.00	1000sqft	1.35	59,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Encanto Park Regional Stormwater Capture Project. SCAQMD.

Land Use - 2.02 acre area disburbed. 1.35 acres paved.

Construction Phase - Construction would begin January 2023 and completion by August 2023.

Off-road Equipment -

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

CalEEMod Version: CalEEMod.2020.4.0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Trips and VMT - Updated per appplicant. Converted total vendor trips to approximate daily rate.

Grading - Update per applicant.

Construction Off-road Equipment Mitigation - Compliance with SCAQMD Rule 403 - water twice daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	18.00	30.00
tblGrading	AcresOfGrading	15.00	8.00
tblGrading	AcresOfGrading	15.00	30.00
tblGrading	AcresOfGrading	21.00	7.50
tblGrading	AcresOfGrading	22.00	33.00
tblGrading	MaterialExported	0.00	1,400.00
tblGrading	MaterialExported	0.00	118.00
tblGrading	MaterialExported	0.00	10.00
tblLandUse	LandUseSquareFeet	0.00	88,000.00
tblLandUse	LotAcreage	0.00	2.02
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	HaulingTripNumber	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	47.00
tblTripsAndVMT	VendorTripNumber	24.00	1.33
tblTripsAndVMT	VendorTripNumber	0.00	0.33
tblTripsAndVMT	VendorTripNumber	0.00	0.36
tblTripsAndVMT	VendorTripNumber	0.00	0.67
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	62.00	16.00
tblTripsAndVMT	WorkerTripNumber	10.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/30/2022 9:44 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0951	0.9340	0.7203	1.6700e-003	0.3679	0.0399	0.4078	0.1793	0.0369	0.2162	0.0000	147.4485	147.4485	0.0400	1.4900e-003	148.8931
Maximum	**0.0951**	**0.9340**	**0.7203**	**1.6700e-003**	**0.3679**	**0.0399**	**0.4078**	**0.1793**	**0.0369**	**0.2162**	**0.0000**	**147.4485**	**147.4485**	**0.0400**	**1.4900e-003**	**148.8931**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0951	0.9340	0.7203	1.6700e-003	0.1744	0.0399	0.2143	0.0830	0.0369	0.1199	0.0000	147.4483	147.4483	0.0400	1.4900e-003	148.8930
Maximum	**0.0951**	**0.9340**	**0.7203**	**1.6700e-003**	**0.1744**	**0.0399**	**0.2143**	**0.0830**	**0.0369**	**0.1199**	**0.0000**	**147.4483**	**147.4483**	**0.0400**	**1.4900e-003**	**148.8930**

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/30/2022 9:44 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	52.60	0.00	47.45	53.68	0.00	44.52	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/6/2023	2/5/2023	5	21	
2	Reservoir Excavation	Grading	2/6/2023	3/17/2023	5	30	
3	Reservoir Construction	Building Construction	3/20/2023	4/28/2023	5	30	
4	Pipeline and Treatment Facility Installation	Grading	5/1/2023	6/9/2023	5	30	
5	Field Surface Replacement	Site Preparation	6/15/2023	7/14/2023	5	22	
6	Parking lot Resurfacing/Ancillary Improvements	Paving	7/15/2023	8/25/2023	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

CalEEMod Version: CalEEMod.2020.4.0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Reservoir Excavation	Excavators	1	8.00	158	0.38
Reservoir Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Excavation	Skid Steer Loaders	1	8.00	65	0.37
Reservoir Construction	Cranes	1	8.00	231	0.29
Reservoir Construction	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Construction	Skid Steer Loaders	1	8.00	65	0.37
Pipeline and Treatment Facility Installation	Cranes	1	8.00	231	0.29
Pipeline and Treatment Facility Installation	Excavators	1	8.00	158	0.38
Pipeline and Treatment Facility Installation	Rubber Tired Dozers	1	8.00	247	0.40
Pipeline and Treatment Facility Installation	Skid Steer Loaders	1	8.00	65	0.37
Field Surface Replacement	Graders	1	8.00	187	0.41
Field Surface Replacement	Rubber Tired Dozers	1	8.00	247	0.40
Field Surface Replacement	Skid Steer Loaders	1	8.00	65	0.37
Parking lot Resurfacing/Ancillary Improvements	Crushing/Proc. Equipment	1	8.00	85	0.78
Parking lot Resurfacing/Ancillary Improvements	Excavators	1	8.00	158	0.38
Parking lot Resurfacing/Ancillary Improvements	Pavers	1	8.00	130	0.42
Parking lot Resurfacing/Ancillary Improvements	Rollers	1	8.00	80	0.38

CalEEMod Version: CalEEMod.2020.4.0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	10.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Excavation	3	16.00	0.00	175.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Construction	3	16.00	1.33	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline and Treatment Facility Installation	4	16.00	0.33	15.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Field Surface Replacement	3	12.00	0.36	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Parking lot Resurfacing/Ancillary	4	20.00	0.67	47.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0672	0.0000	0.0672	0.0352	0.0000	0.0352	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0119	0.1328	0.0649	1.8000e-004		5.2600e-003	5.2600e-003		4.8400e-003	4.8400e-003	0.0000	15.8917	15.8917	5.1400e-003	0.0000	16.0202
Total	**0.0119**	**0.1328**	**0.0649**	**1.8000e-004**	**0.0672**	**5.2600e-003**	**0.0725**	**0.0352**	**4.8400e-003**	**0.0400**	**0.0000**	**15.8917**	**15.8917**	**5.1400e-003**	**0.0000**	**16.0202**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0583	0.0583	0.0000	1.0000e-005	0.0612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	3.5800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9159	0.9159	2.0000e-005	2.0000e-005	0.9236
Total	**3.3000e-004**	**4.0000e-004**	**3.6200e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9742**	**0.9742**	**2.0000e-005**	**3.0000e-005**	**0.9847**

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Date: 3/30/2022 9:44 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0302	0.0000	0.0302	0.0158	0.0000	0.0158	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0119	0.1328	0.0649	1.8000e-004		5.2600e-003	5.2600e-003		4.8400e-003	4.8400e-003	0.0000	15.8917	15.8917	5.1400e-003	0.0000	16.0202
Total	**0.0119**	**0.1328**	**0.0649**	**1.8000e-004**	**0.0302**	**5.2600e-003**	**0.0355**	**0.0158**	**4.8400e-003**	**0.0207**	**0.0000**	**15.8917**	**15.8917**	**5.1400e-003**	**0.0000**	**16.0202**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.4000e-004	4.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0583	0.0583	0.0000	1.0000e-005	0.0612
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.6000e-004	3.5800e-003	1.0000e-005	1.1500e-003	1.0000e-005	1.1600e-003	3.1000e-004	1.0000e-005	3.1000e-004	0.0000	0.9159	0.9159	2.0000e-005	2.0000e-005	0.9236
Total	**3.3000e-004**	**4.0000e-004**	**3.6200e-003**	**1.0000e-005**	**1.1700e-003**	**1.0000e-005**	**1.1800e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.9742**	**0.9742**	**2.0000e-005**	**3.0000e-005**	**0.9847**

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Date: 3/30/2022 9:44 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Reservoir Excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0947	0.0000	0.0947	0.0501	0.0000	0.0501	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.1431	0.1162	2.4000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	20.7871	20.7871	6.7200e-003	0.0000	20.9552
Total	**0.0141**	**0.1431**	**0.1162**	**2.4000e-004**	**0.0947**	**6.3900e-003**	**0.1010**	**0.0501**	**5.8800e-003**	**0.0560**	**0.0000**	**20.7871**	**20.7871**	**6.7200e-003**	**0.0000**	**20.9552**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	0.0120	3.0600e-003	5.0000e-005	1.5100e-003	7.0000e-005	1.5800e-003	4.1000e-004	7.0000e-005	4.8000e-004	0.0000	5.1036	5.1036	2.8000e-004	8.1000e-004	5.3522
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**9.4000e-004**	**0.0126**	**0.0112**	**7.0000e-005**	**4.1400e-003**	**9.0000e-005**	**4.2300e-003**	**1.1100e-003**	**8.0000e-005**	**1.1900e-003**	**0.0000**	**7.1970**	**7.1970**	**3.4000e-004**	**8.6000e-004**	**7.4632**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0426	0.0000	0.0426	0.0226	0.0000	0.0226	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0141	0.1431	0.1162	2.4000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003	0.0000	20.7871	20.7871	6.7200e-003	0.0000	20.9552
Total	**0.0141**	**0.1431**	**0.1162**	**2.4000e-004**	**0.0426**	**6.3900e-003**	**0.0490**	**0.0226**	**5.8800e-003**	**0.0284**	**0.0000**	**20.7871**	**20.7871**	**6.7200e-003**	**0.0000**	**20.9552**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	0.0120	3.0600e-003	5.0000e-005	1.5100e-003	7.0000e-005	1.5800e-003	4.1000e-004	7.0000e-005	4.8000e-004	0.0000	5.1036	5.1036	2.8000e-004	8.1000e-004	5.3522
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**9.4000e-004**	**0.0126**	**0.0112**	**7.0000e-005**	**4.1400e-003**	**9.0000e-005**	**4.2300e-003**	**1.1100e-003**	**8.0000e-005**	**1.1900e-003**	**0.0000**	**7.1970**	**7.1970**	**3.4000e-004**	**8.6000e-004**	**7.4632**

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3.4 Reservoir Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0165	0.1771	0.0949	2.5000e-004		7.6400e-003	7.6400e-003		7.0300e-003	7.0300e-003	0.0000	21.5861	21.5861	6.9800e-003	0.0000	21.7606
Total	**0.0165**	**0.1771**	**0.0949**	**2.5000e-004**		**7.6400e-003**	**7.6400e-003**		**7.0300e-003**	**7.0300e-003**	**0.0000**	**21.5861**	**21.5861**	**6.9800e-003**	**0.0000**	**21.7606**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	8.1000e-004	3.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3636	0.3636	1.0000e-005	5.0000e-005	0.3795
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**7.8000e-004**	**1.4100e-003**	**8.4800e-003**	**2.0000e-005**	**2.7600e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**2.4569**	**2.4569**	**7.0000e-005**	**1.0000e-004**	**2.4905**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0165	0.1771	0.0949	2.5000e-004		7.6400e-003	7.6400e-003		7.0300e-003	7.0300e-003	0.0000	21.5861	21.5861	6.9800e-003	0.0000	21.7606
Total	**0.0165**	**0.1771**	**0.0949**	**2.5000e-004**		**7.6400e-003**	**7.6400e-003**		**7.0300e-003**	**7.0300e-003**	**0.0000**	**21.5861**	**21.5861**	**6.9800e-003**	**0.0000**	**21.7606**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	8.1000e-004	3.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.3636	0.3636	1.0000e-005	5.0000e-005	0.3795
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**7.8000e-004**	**1.4100e-003**	**8.4800e-003**	**2.0000e-005**	**2.7600e-003**	**2.0000e-005**	**2.7800e-003**	**7.4000e-004**	**1.0000e-005**	**7.5000e-004**	**0.0000**	**2.4569**	**2.4569**	**7.0000e-005**	**1.0000e-004**	**2.4905**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Pipeline and Treatment Facility Installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1063	0.0000	0.1063	0.0514	0.0000	0.0514	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2003	0.1438	3.2000e-004		8.7800e-003	8.7800e-003		8.0800e-003	8.0800e-003	0.0000	28.3914	28.3914	9.1800e-003	0.0000	28.6210
Total	**0.0194**	**0.2003**	**0.1438**	**3.2000e-004**	**0.1063**	**8.7800e-003**	**0.1150**	**0.0514**	**8.0800e-003**	**0.0595**	**0.0000**	**28.3914**	**28.3914**	**9.1800e-003**	**0.0000**	**28.6210**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.0300e-003	2.6000e-004	0.0000	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4375	0.4375	2.0000e-005	7.0000e-005	0.4588
Vendor	1.0000e-005	2.0000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0908	0.0908	0.0000	1.0000e-005	0.0948
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**7.9000e-004**	**1.8300e-003**	**8.5200e-003**	**2.0000e-005**	**2.7900e-003**	**3.0000e-005**	**2.8200e-003**	**7.5000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.6217**	**2.6217**	**8.0000e-005**	**1.3000e-004**	**2.6646**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0478	0.0000	0.0478	0.0231	0.0000	0.0231	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2003	0.1438	3.2000e-004		8.7800e-003	8.7800e-003		8.0800e-003	8.0800e-003	0.0000	28.3914	28.3914	9.1800e-003	0.0000	28.6209
Total	**0.0194**	**0.2003**	**0.1438**	**3.2000e-004**	**0.0478**	**8.7800e-003**	**0.0566**	**0.0231**	**8.0800e-003**	**0.0312**	**0.0000**	**28.3914**	**28.3914**	**9.1800e-003**	**0.0000**	**28.6209**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.0300e-003	2.6000e-004	0.0000	1.3000e-004	1.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.4375	0.4375	2.0000e-005	7.0000e-005	0.4588
Vendor	1.0000e-005	2.0000e-004	8.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0908	0.0908	0.0000	1.0000e-005	0.0948
Worker	7.6000e-004	6.0000e-004	8.1800e-003	2.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0934	2.0934	6.0000e-005	5.0000e-005	2.1110
Total	**7.9000e-004**	**1.8300e-003**	**8.5200e-003**	**2.0000e-005**	**2.7900e-003**	**3.0000e-005**	**2.8200e-003**	**7.5000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.6217**	**2.6217**	**8.0000e-005**	**1.3000e-004**	**2.6646**

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3.6 Field Surface Replacement - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0837	0.0000	0.0837	0.0383	0.0000	0.0383	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.1391	0.0680	1.9000e-004		5.5100e-003	5.5100e-003		5.0700e-003	5.0700e-003	0.0000	16.6484	16.6484	5.3800e-003	0.0000	16.7831
Total	**0.0125**	**0.1391**	**0.0680**	**1.9000e-004**	**0.0837**	**5.5100e-003**	**0.0893**	**0.0383**	**5.0700e-003**	**0.0434**	**0.0000**	**16.6484**	**16.6484**	**5.3800e-003**	**0.0000**	**16.7831**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.6000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0728	0.0728	0.0000	1.0000e-005	0.0760
Worker	4.2000e-004	3.3000e-004	4.5000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1514	1.1514	3.0000e-005	3.0000e-005	1.1611
Total	**4.2000e-004**	**4.9000e-004**	**4.5600e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2242**	**1.2242**	**3.0000e-005**	**4.0000e-005**	**1.2370**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0377	0.0000	0.0377	0.0172	0.0000	0.0172	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0125	0.1391	0.0680	1.9000e-004		5.5100e-003	5.5100e-003		5.0700e-003	5.0700e-003	0.0000	16.6484	16.6484	5.3800e-003	0.0000	16.7830
Total	**0.0125**	**0.1391**	**0.0680**	**1.9000e-004**	**0.0377**	**5.5100e-003**	**0.0432**	**0.0172**	**5.0700e-003**	**0.0223**	**0.0000**	**16.6484**	**16.6484**	**5.3800e-003**	**0.0000**	**16.7830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	1.6000e-004	6.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0728	0.0728	0.0000	1.0000e-005	0.0760
Worker	4.2000e-004	3.3000e-004	4.5000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1514	1.1514	3.0000e-005	3.0000e-005	1.1611
Total	**4.2000e-004**	**4.9000e-004**	**4.5600e-003**	**1.0000e-005**	**1.4800e-003**	**1.0000e-005**	**1.4900e-003**	**3.9000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.2242**	**1.2242**	**3.0000e-005**	**4.0000e-005**	**1.2370**

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3.7 Parking lot Resurfacing/Ancillary Improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1204	0.1848	2.9000e-004		6.1100e-003	6.1100e-003		5.8100e-003	5.8100e-003	0.0000	25.5004	25.5004	5.8600e-003	0.0000	25.6470
Paving	1.7700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.1204**	**0.1848**	**2.9000e-004**		**6.1100e-003**	**6.1100e-003**		**5.8100e-003**	**5.8100e-003**	**0.0000**	**25.5004**	**25.5004**	**5.8600e-003**	**0.0000**	**25.6470**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	3.2300e-003	8.2000e-004	1.0000e-005	4.0000e-004	2.0000e-005	4.2000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.3707	1.3707	8.0000e-005	2.2000e-004	1.4374
Vendor	1.0000e-005	4.0000e-004	1.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1819	0.1819	1.0000e-005	3.0000e-005	0.1899
Worker	9.5000e-004	7.6000e-004	0.0102	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6167	2.6167	7.0000e-005	7.0000e-005	2.6388
Total	**1.0100e-003**	**4.3900e-003**	**0.0112**	**4.0000e-005**	**3.7500e-003**	**4.0000e-005**	**3.7900e-003**	**1.0000e-003**	**4.0000e-005**	**1.0400e-003**	**0.0000**	**4.1693**	**4.1693**	**1.6000e-004**	**3.2000e-004**	**4.2661**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1204	0.1848	2.9000e-004		6.1100e-003	6.1100e-003		5.8100e-003	5.8100e-003	0.0000	25.5004	25.5004	5.8600e-003	0.0000	25.6470
Paving	1.7700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0165**	**0.1204**	**0.1848**	**2.9000e-004**		**6.1100e-003**	**6.1100e-003**		**5.8100e-003**	**5.8100e-003**	**0.0000**	**25.5004**	**25.5004**	**5.8600e-003**	**0.0000**	**25.6470**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	3.2300e-003	8.2000e-004	1.0000e-005	4.0000e-004	2.0000e-005	4.2000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.3707	1.3707	8.0000e-005	2.2000e-004	1.4374
Vendor	1.0000e-005	4.0000e-004	1.5000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.1819	0.1819	1.0000e-005	3.0000e-005	0.1899
Worker	9.5000e-004	7.6000e-004	0.0102	3.0000e-005	3.2900e-003	2.0000e-005	3.3100e-003	8.7000e-004	2.0000e-005	8.9000e-004	0.0000	2.6167	2.6167	7.0000e-005	7.0000e-005	2.6388
Total	**1.0100e-003**	**4.3900e-003**	**0.0112**	**4.0000e-005**	**3.7500e-003**	**4.0000e-005**	**3.7900e-003**	**1.0000e-003**	**4.0000e-005**	**1.0400e-003**	**0.0000**	**4.1693**	**4.1693**	**1.6000e-004**	**3.2000e-004**	**4.2661**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Encanto Park Regional Stormwater Capture Project

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	88.00	User Defined Unit	2.02	88,000.00	0
Parking Lot	59.00	1000sqft	1.35	59,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Encanto Park Regional Stormwater Capture Project. SCAQMD.

Land Use - 2.02 acre area disburbed. 1.35 acres paved.

Construction Phase - Construction would begin January 2023 and completion by August 2023.

Off-road Equipment -

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

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Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Trips and VMT - Updated per appplicant.

Grading - Update per applicant.

Construction Off-road Equipment Mitigation - Compliance with SCAQMD Rule 403 - water twice daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	18.00	30.00
tblGrading	AcresOfGrading	15.00	8.00
tblGrading	AcresOfGrading	15.00	30.00
tblGrading	AcresOfGrading	21.00	7.50
tblGrading	AcresOfGrading	22.00	33.00
tblGrading	MaterialExported	0.00	1,400.00
tblGrading	MaterialExported	0.00	118.00
tblGrading	MaterialExported	0.00	10.00
tblLandUse	LandUseSquareFeet	0.00	88,000.00
tblLandUse	LotAcreage	0.00	2.02
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	HaulingTripNumber	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	47.00
tblTripsAndVMT	VendorTripNumber	24.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	62.00	16.00
tblTripsAndVMT	WorkerTripNumber	10.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.3444	13.5337	13.1268	0.0238	7.7598	0.5872	8.2619	3.5213	0.5403	4.0186	0.0000	2,318.6134	2,318.6134	0.6819	0.0632	2,339.9990
Maximum	**1.3444**	**13.5337**	**13.1268**	**0.0238**	**7.7598**	**0.5872**	**8.2619**	**3.5213**	**0.5403**	**4.0186**	**0.0000**	**2,318.6134**	**2,318.6134**	**0.6819**	**0.0632**	**2,339.9990**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.3444	13.5337	13.1268	0.0238	3.5727	0.5872	4.0749	1.6062	0.5403	2.1349	0.0000	2,318.6134	2,318.6134	0.6819	0.0632	2,339.9990
Maximum	**1.3444**	**13.5337**	**13.1268**	**0.0238**	**3.5727**	**0.5872**	**4.0749**	**1.6062**	**0.5403**	**2.1349**	**0.0000**	**2,318.6134**	**2,318.6134**	**0.6819**	**0.0632**	**2,339.9990**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.96**	**0.00**	**50.68**	**54.39**	**0.00**	**46.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/6/2023	2/5/2023	5	21	
2	Reservoir Excavation	Grading	2/6/2023	3/17/2023	5	30	
3	Reservoir Construction	Building Construction	3/20/2023	4/28/2023	5	30	
4	Pipeline and Treatment Facility Installation	Grading	5/1/2023	6/9/2023	5	30	
5	Field Surface Replacement	Site Preparation	6/15/2023	7/14/2023	5	22	
6	Parking lot Resurfacing/Ancillary Improvements	Paving	7/15/2023	8/25/2023	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Reservoir Excavation	Excavators	1	8.00	158	0.38
Reservoir Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Excavation	Skid Steer Loaders	1	8.00	65	0.37

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Reservoir Construction	Cranes	1	8.00	231	0.29
Reservoir Construction	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Construction	Skid Steer Loaders	1	8.00	65	0.37
Pipeline and Treatment Facility Installation	Cranes	1	8.00	231	0.29
Pipeline and Treatment Facility Installation	Excavators	1	8.00	158	0.38
Pipeline and Treatment Facility Installation	Rubber Tired Dozers	1	8.00	247	0.40
Pipeline and Treatment Facility Installation	Skid Steer Loaders	1	8.00	65	0.37
Field Surface Replacement	Graders	1	8.00	187	0.41
Field Surface Replacement	Rubber Tired Dozers	1	8.00	247	0.40
Field Surface Replacement	Skid Steer Loaders	1	8.00	65	0.37
Parking lot Resurfacing/Ancillary Improvements	Crushing/Proc. Equipment	1	8.00	85	0.78
Parking lot Resurfacing/Ancillary Improvements	Excavators	1	8.00	158	0.38
Parking lot Resurfacing/Ancillary Improvements	Pavers	1	8.00	130	0.42
Parking lot Resurfacing/Ancillary Improvements	Rollers	1	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	10.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Excavation	3	16.00	0.00	175.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Construction	3	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline and Treatment Facility Installation	4	16.00	2.00	15.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Field Surface Replacement	3	12.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Parking lot Resurfacing/Ancillary	4	20.00	2.00	47.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4009	0.0000	6.4009	3.3511	0.0000	3.3511			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609		1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**6.4009**	**0.5009**	**6.9018**	**3.3511**	**0.4609**	**3.8120**		**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	0.0124	3.3200e-003	6.0000e-005	1.6700e-003	8.0000e-005	1.7500e-003	4.6000e-004	7.0000e-005	5.3000e-004		6.1206	6.1206	3.4000e-004	9.7000e-004	6.4186
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0320	0.0223	0.3614	9.9000e-004	0.1118	6.7000e-004	0.1125	0.0296	6.2000e-004	0.0303		100.0075	100.0075	2.5200e-003	2.3100e-003	100.7583
Total	**0.0322**	**0.0347**	**0.3647**	**1.0500e-003**	**0.1135**	**7.5000e-004**	**0.1142**	**0.0301**	**6.9000e-004**	**0.0308**		**106.1281**	**106.1281**	**2.8600e-003**	**3.2800e-003**	**107.1770**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8804	0.0000	2.8804	1.5080	0.0000	1.5080			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609	0.0000	1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**2.8804**	**0.5009**	**3.3813**	**1.5080**	**0.4609**	**1.9689**	**0.0000**	**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	0.0124	3.3200e-003	6.0000e-005	1.6700e-003	8.0000e-005	1.7500e-003	4.6000e-004	7.0000e-005	5.3000e-004		6.1206	6.1206	3.4000e-004	9.7000e-004	6.4186
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0320	0.0223	0.3614	9.9000e-004	0.1118	6.7000e-004	0.1125	0.0296	6.2000e-004	0.0303		100.0075	100.0075	2.5200e-003	2.3100e-003	100.7583
Total	**0.0322**	**0.0347**	**0.3647**	**1.0500e-003**	**0.1135**	**7.5000e-004**	**0.1142**	**0.0301**	**6.9000e-004**	**0.0308**		**106.1281**	**106.1281**	**2.8600e-003**	**3.2800e-003**	**107.1770**

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3.3 Reservoir Excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3102	0.0000	6.3102	3.3416	0.0000	3.3416			0.0000			0.0000
Off-Road	0.9384	9.5405	7.7495	0.0158		0.4260	0.4260		0.3919	0.3919		1,527.5926	1,527.5926	0.4941		1,539.9439
Total	**0.9384**	**9.5405**	**7.7495**	**0.0158**	**6.3102**	**0.4260**	**6.7361**	**3.3416**	**0.3919**	**3.7335**		**1,527.5926**	**1,527.5926**	**0.4941**		**1,539.9439**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0127	0.7612	0.2032	3.4100e-003	0.1021	4.8000e-003	0.1069	0.0280	4.5900e-003	0.0326		374.8851	374.8851	0.0207	0.0595	393.1419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0639**	**0.7969**	**0.7814**	**4.9900e-003**	**0.2810**	**5.8800e-003**	**0.2868**	**0.0754**	**5.5800e-003**	**0.0810**		**534.8971**	**534.8971**	**0.0247**	**0.0632**	**554.3552**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8396	0.0000	2.8396	1.5037	0.0000	1.5037			0.0000			0.0000
Off-Road	0.9384	9.5405	7.7495	0.0158		0.4260	0.4260		0.3919	0.3919	0.0000	1,527.5926	1,527.5926	0.4941		1,539.9439
Total	**0.9384**	**9.5405**	**7.7495**	**0.0158**	**2.8396**	**0.4260**	**3.2656**	**1.5037**	**0.3919**	**1.8956**	**0.0000**	**1,527.5926**	**1,527.5926**	**0.4941**		**1,539.9439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0127	0.7612	0.2032	3.4100e-003	0.1021	4.8000e-003	0.1069	0.0280	4.5900e-003	0.0326		374.8851	374.8851	0.0207	0.0595	393.1419
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0639**	**0.7969**	**0.7814**	**4.9900e-003**	**0.2810**	**5.8800e-003**	**0.2868**	**0.0754**	**5.5800e-003**	**0.0810**		**534.8971**	**534.8971**	**0.0247**	**0.0632**	**554.3552**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Reservoir Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1012	11.8074	6.3262	0.0164		0.5095	0.5095		0.4688	0.4688		1,586.3062	1,586.3062	0.5130		1,599.1323
Total	**1.1012**	**11.8074**	**6.3262**	**0.0164**		**0.5095**	**0.5095**		**0.4688**	**0.4688**		**1,586.3062**	**1,586.3062**	**0.5130**		**1,599.1323**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0535**	**0.1125**	**0.6080**	**1.9500e-003**	**0.1917**	**1.4700e-003**	**0.1931**	**0.0511**	**1.3600e-003**	**0.0525**		**200.0686**	**200.0686**	**5.3700e-003**	**9.4500e-003**	**203.0196**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1012	11.8074	6.3262	0.0164		0.5095	0.5095		0.4688	0.4688	0.0000	1,586.3062	1,586.3062	0.5130		1,599.1323
Total	**1.1012**	**11.8074**	**6.3262**	**0.0164**		**0.5095**	**0.5095**		**0.4688**	**0.4688**	**0.0000**	**1,586.3062**	**1,586.3062**	**0.5130**		**1,599.1323**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0535**	**0.1125**	**0.6080**	**1.9500e-003**	**0.1917**	**1.4700e-003**	**0.1931**	**0.0511**	**1.3600e-003**	**0.0525**		**200.0686**	**200.0686**	**5.3700e-003**	**9.4500e-003**	**203.0196**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Pipeline and Treatment Facility Installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0830	0.0000	7.0830	3.4248	0.0000	3.4248			0.0000			0.0000
Off-Road	1.2898	13.3560	9.5839	0.0216		0.5853	0.5853		0.5385	0.5385		2,086.4118	2,086.4118	0.6748		2,103.2815
Total	**1.2898**	**13.3560**	**9.5839**	**0.0216**	**7.0830**	**0.5853**	**7.6684**	**3.4248**	**0.5385**	**3.9633**		**2,086.4118**	**2,086.4118**	**0.6748**		**2,103.2815**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0800e-003	0.0652	0.0174	2.9000e-004	8.7500e-003	4.1000e-004	9.1600e-003	2.4000e-003	3.9000e-004	2.7900e-003		32.1330	32.1330	1.7700e-003	5.1000e-003	33.6979
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0546**	**0.1777**	**0.6254**	**2.2400e-003**	**0.2004**	**1.8800e-003**	**0.2023**	**0.0535**	**1.7500e-003**	**0.0553**		**232.2016**	**232.2016**	**7.1400e-003**	**0.0146**	**236.7174**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1874	0.0000	3.1874	1.5412	0.0000	1.5412			0.0000			0.0000
Off-Road	1.2898	13.3560	9.5839	0.0216		0.5853	0.5853		0.5385	0.5385	0.0000	2,086.4118	2,086.4118	0.6748		2,103.2815
Total	**1.2898**	**13.3560**	**9.5839**	**0.0216**	**3.1874**	**0.5853**	**3.7727**	**1.5412**	**0.5385**	**2.0797**	**0.0000**	**2,086.4118**	**2,086.4118**	**0.6748**		**2,103.2815**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0800e-003	0.0652	0.0174	2.9000e-004	8.7500e-003	4.1000e-004	9.1600e-003	2.4000e-003	3.9000e-004	2.7900e-003		32.1330	32.1330	1.7700e-003	5.1000e-003	33.6979
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0512	0.0357	0.5782	1.5800e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		160.0121	160.0121	4.0300e-003	3.6900e-003	161.2134
Total	**0.0546**	**0.1777**	**0.6254**	**2.2400e-003**	**0.2004**	**1.8800e-003**	**0.2023**	**0.0535**	**1.7500e-003**	**0.0553**		**232.2016**	**232.2016**	**7.1400e-003**	**0.0146**	**236.7174**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Field Surface Replacement - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6128	0.0000	7.6128	3.4820	0.0000	3.4820			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609		1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**7.6128**	**0.5009**	**8.1138**	**3.4820**	**0.4609**	**3.9429**		**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0407**	**0.1035**	**0.4634**	**1.5600e-003**	**0.1469**	**1.2000e-003**	**0.1481**	**0.0393**	**1.1100e-003**	**0.0404**		**160.0655**	**160.0655**	**4.3700e-003**	**8.5300e-003**	**162.7162**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4258	0.0000	3.4258	1.5669	0.0000	1.5669			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609	0.0000	1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**3.4258**	**0.5009**	**3.9267**	**1.5669**	**0.4609**	**2.0278**	**0.0000**	**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0384	0.0268	0.4337	1.1900e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		120.0090	120.0090	3.0300e-003	2.7700e-003	120.9100
Total	**0.0407**	**0.1035**	**0.4634**	**1.5600e-003**	**0.1469**	**1.2000e-003**	**0.1481**	**0.0393**	**1.1100e-003**	**0.0404**		**160.0655**	**160.0655**	**4.3700e-003**	**8.5300e-003**	**162.7162**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Parking lot Resurfacing/Ancillary Improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9845	8.0257	12.3197	0.0195		0.4073	0.4073		0.3871	0.3871		1,873.9608	1,873.9608	0.4309		1,884.7336
Paving	0.1179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1024**	**8.0257**	**12.3197**	**0.0195**		**0.4073**	**0.4073**		**0.3871**	**0.3871**		**1,873.9608**	**1,873.9608**	**0.4309**		**1,884.7336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4000e-003	0.2044	0.0546	9.2000e-004	0.0274	1.2900e-003	0.0287	7.5200e-003	1.2300e-003	8.7500e-003		100.6834	100.6834	5.5500e-003	0.0160	105.5867
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0640	0.0446	0.7228	1.9800e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		200.0151	200.0151	5.0400e-003	4.6200e-003	201.5167
Total	**0.0697**	**0.3258**	**0.8071**	**3.2700e-003**	**0.2638**	**3.0200e-003**	**0.2668**	**0.0705**	**2.8400e-003**	**0.0733**		**340.7550**	**340.7550**	**0.0119**	**0.0264**	**348.9096**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9845	8.0257	12.3197	0.0195		0.4073	0.4073		0.3871	0.3871	0.0000	1,873.9608	1,873.9608	0.4309		1,884.7336
Paving	0.1179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1024**	**8.0257**	**12.3197**	**0.0195**		**0.4073**	**0.4073**		**0.3871**	**0.3871**	**0.0000**	**1,873.9608**	**1,873.9608**	**0.4309**		**1,884.7336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.4000e-003	0.2044	0.0546	9.2000e-004	0.0274	1.2900e-003	0.0287	7.5200e-003	1.2300e-003	8.7500e-003		100.6834	100.6834	5.5500e-003	0.0160	105.5867
Vendor	2.3000e-003	0.0768	0.0297	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.0565	40.0565	1.3400e-003	5.7600e-003	41.8062
Worker	0.0640	0.0446	0.7228	1.9800e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		200.0151	200.0151	5.0400e-003	4.6200e-003	201.5167
Total	**0.0697**	**0.3258**	**0.8071**	**3.2700e-003**	**0.2638**	**3.0200e-003**	**0.2668**	**0.0705**	**2.8400e-003**	**0.0733**		**340.7550**	**340.7550**	**0.0119**	**0.0264**	**348.9096**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Encanto Park Regional Stormwater Capture Project

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	88.00	User Defined Unit	2.02	88,000.00	0
Parking Lot	59.00	1000sqft	1.35	59,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Encanto Park Regional Stormwater Capture Project. SCAQMD.

Land Use - 2.02 acre area disburbed. 1.35 acres paved.

Construction Phase - Construction would begin January 2023 and completion by August 2023.

Off-road Equipment -

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Off-road Equipment - Updated per applicant.

Trips and VMT - Updated per appplicant.

Grading - Update per applicant.

Construction Off-road Equipment Mitigation - Compliance with SCAQMD Rule 403 - water twice daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	230.00	30.00
tblConstructionPhase	NumDays	8.00	30.00
tblConstructionPhase	NumDays	5.00	22.00
tblConstructionPhase	NumDays	18.00	30.00
tblGrading	AcresOfGrading	15.00	8.00
tblGrading	AcresOfGrading	15.00	30.00
tblGrading	AcresOfGrading	21.00	7.50
tblGrading	AcresOfGrading	22.00	33.00
tblGrading	MaterialExported	0.00	1,400.00
tblGrading	MaterialExported	0.00	118.00
tblGrading	MaterialExported	0.00	10.00
tblLandUse	LandUseSquareFeet	0.00	88,000.00
tblLandUse	LotAcreage	0.00	2.02
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00

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tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblTripsAndVMT	HaulingTripNumber	1.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	47.00
tblTripsAndVMT	VendorTripNumber	24.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	8.00	16.00
tblTripsAndVMT	WorkerTripNumber	62.00	16.00
tblTripsAndVMT	WorkerTripNumber	10.00	16.00
tblTripsAndVMT	WorkerTripNumber	8.00	12.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.3481	13.5439	13.0700	0.0237	7.7598	0.5872	8.2619	3.5213	0.5403	4.0186	0.0000	2,310.2793	2,310.2793	0.6820	0.0635	2,331.7473
Maximum	**1.3481**	**13.5439**	**13.0700**	**0.0237**	**7.7598**	**0.5872**	**8.2619**	**3.5213**	**0.5403**	**4.0186**	**0.0000**	**2,310.2793**	**2,310.2793**	**0.6820**	**0.0635**	**2,331.7473**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.3481	13.5439	13.0700	0.0237	3.5727	0.5872	4.0749	1.6062	0.5403	2.1349	0.0000	2,310.2793	2,310.2793	0.6820	0.0635	2,331.7473
Maximum	**1.3481**	**13.5439**	**13.0700**	**0.0237**	**3.5727**	**0.5872**	**4.0749**	**1.6062**	**0.5403**	**2.1349**	**0.0000**	**2,310.2793**	**2,310.2793**	**0.6820**	**0.0635**	**2,331.7473**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.96**	**0.00**	**50.68**	**54.39**	**0.00**	**46.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/6/2023	2/5/2023	5	21	
2	Reservoir Excavation	Grading	2/6/2023	3/17/2023	5	30	
3	Reservoir Construction	Building Construction	3/20/2023	4/28/2023	5	30	
4	Pipeline and Treatment Facility Installation	Grading	5/1/2023	6/9/2023	5	30	
5	Field Surface Replacement	Site Preparation	6/15/2023	7/14/2023	5	22	
6	Parking lot Resurfacing/Ancillary Improvements	Paving	7/15/2023	8/25/2023	5	30	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.35

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Reservoir Excavation	Excavators	1	8.00	158	0.38
Reservoir Excavation	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Excavation	Skid Steer Loaders	1	8.00	65	0.37
Reservoir Construction	Cranes	1	8.00	231	0.29

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Reservoir Construction	Rubber Tired Dozers	1	8.00	247	0.40
Reservoir Construction	Skid Steer Loaders	1	8.00	65	0.37
Pipeline and Treatment Facility Installation	Cranes	1	8.00	231	0.29
Pipeline and Treatment Facility Installation	Excavators	1	8.00	158	0.38
Pipeline and Treatment Facility Installation	Rubber Tired Dozers	1	8.00	247	0.40
Pipeline and Treatment Facility Installation	Skid Steer Loaders	1	8.00	65	0.37
Field Surface Replacement	Graders	1	8.00	187	0.41
Field Surface Replacement	Rubber Tired Dozers	1	8.00	247	0.40
Field Surface Replacement	Skid Steer Loaders	1	8.00	65	0.37
Parking lot Resurfacing/Ancillary Improvements	Crushing/Proc. Equipment	1	8.00	85	0.78
Parking lot Resurfacing/Ancillary Improvements	Excavators	1	8.00	158	0.38
Parking lot Resurfacing/Ancillary Improvements	Pavers	1	8.00	130	0.42
Parking lot Resurfacing/Ancillary Improvements	Rollers	1	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	10.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Excavation	3	16.00	0.00	175.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Reservoir Construction	3	16.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline and Treatment Facility Installation	4	16.00	2.00	15.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Field Surface Replacement	3	12.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Parking lot Resurfacing/Ancillary	4	20.00	2.00	47.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4009	0.0000	6.4009	3.3511	0.0000	3.3511			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609		1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**6.4009**	**0.5009**	**6.9018**	**3.3511**	**0.4609**	**3.8120**		**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-004	0.0130	3.3600e-003	6.0000e-005	1.6700e-003	8.0000e-005	1.7500e-003	4.6000e-004	8.0000e-005	5.3000e-004		6.1270	6.1270	3.4000e-004	9.7000e-004	6.4254
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0246	0.3322	9.4000e-004	0.1118	6.7000e-004	0.1125	0.0296	6.2000e-004	0.0303		94.7354	94.7354	2.5600e-003	2.4700e-003	95.5339
Total	**0.0346**	**0.0376**	**0.3356**	**1.0000e-003**	**0.1135**	**7.5000e-004**	**0.1142**	**0.0301**	**7.0000e-004**	**0.0308**		**100.8624**	**100.8624**	**2.9000e-003**	**3.4400e-003**	**101.9593**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8804	0.0000	2.8804	1.5080	0.0000	1.5080			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609	0.0000	1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**2.8804**	**0.5009**	**3.3813**	**1.5080**	**0.4609**	**1.9689**	**0.0000**	**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.9000e-004	0.0130	3.3600e-003	6.0000e-005	1.6700e-003	8.0000e-005	1.7500e-003	4.6000e-004	8.0000e-005	5.3000e-004		6.1270	6.1270	3.4000e-004	9.7000e-004	6.4254
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0344	0.0246	0.3322	9.4000e-004	0.1118	6.7000e-004	0.1125	0.0296	6.2000e-004	0.0303		94.7354	94.7354	2.5600e-003	2.4700e-003	95.5339
Total	**0.0346**	**0.0376**	**0.3356**	**1.0000e-003**	**0.1135**	**7.5000e-004**	**0.1142**	**0.0301**	**7.0000e-004**	**0.0308**		**100.8624**	**100.8624**	**2.9000e-003**	**3.4400e-003**	**101.9593**

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3.3 Reservoir Excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.3102	0.0000	6.3102	3.3416	0.0000	3.3416			0.0000			0.0000
Off-Road	0.9384	9.5405	7.7495	0.0158		0.4260	0.4260		0.3919	0.3919		1,527.5926	1,527.5926	0.4941		1,539.9439
Total	**0.9384**	**9.5405**	**7.7495**	**0.0158**	**6.3102**	**0.4260**	**6.7361**	**3.3416**	**0.3919**	**3.7335**		**1,527.5926**	**1,527.5926**	**0.4941**		**1,539.9439**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0118	0.7948	0.2060	3.4200e-003	0.1021	4.8100e-003	0.1069	0.0280	4.6100e-003	0.0326		375.2802	375.2802	0.0206	0.0596	393.5551
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0669**	**0.8342**	**0.7375**	**4.9200e-003**	**0.2810**	**5.8900e-003**	**0.2868**	**0.0754**	**5.6000e-003**	**0.0810**		**526.8568**	**526.8568**	**0.0247**	**0.0635**	**546.4093**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8396	0.0000	2.8396	1.5037	0.0000	1.5037			0.0000			0.0000
Off-Road	0.9384	9.5405	7.7495	0.0158		0.4260	0.4260		0.3919	0.3919	0.0000	1,527.5926	1,527.5926	0.4941		1,539.9439
Total	**0.9384**	**9.5405**	**7.7495**	**0.0158**	**2.8396**	**0.4260**	**3.2656**	**1.5037**	**0.3919**	**1.8956**	**0.0000**	**1,527.5926**	**1,527.5926**	**0.4941**		**1,539.9439**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0118	0.7948	0.2060	3.4200e-003	0.1021	4.8100e-003	0.1069	0.0280	4.6100e-003	0.0326		375.2802	375.2802	0.0206	0.0596	393.5551
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0669**	**0.8342**	**0.7375**	**4.9200e-003**	**0.2810**	**5.8900e-003**	**0.2868**	**0.0754**	**5.6000e-003**	**0.0810**		**526.8568**	**526.8568**	**0.0247**	**0.0635**	**546.4093**

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3.4 Reservoir Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1012	11.8074	6.3262	0.0164		0.5095	0.5095		0.4688	0.4688		1,586.3062	1,586.3062	0.5130		1,599.1323
Total	**1.1012**	**11.8074**	**6.3262**	**0.0164**		**0.5095**	**0.5095**		**0.4688**	**0.4688**		**1,586.3062**	**1,586.3062**	**0.5130**		**1,599.1323**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0572**	**0.1198**	**0.5622**	**1.8700e-003**	**0.1917**	**1.4700e-003**	**0.1931**	**0.0511**	**1.3600e-003**	**0.0525**		**191.7006**	**191.7006**	**5.4300e-003**	**9.7100e-003**	**194.7325**

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Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1012	11.8074	6.3262	0.0164		0.5095	0.5095		0.4688	0.4688	0.0000	1,586.3062	1,586.3062	0.5130		1,599.1323
Total	**1.1012**	**11.8074**	**6.3262**	**0.0164**		**0.5095**	**0.5095**		**0.4688**	**0.4688**	**0.0000**	**1,586.3062**	**1,586.3062**	**0.5130**		**1,599.1323**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0572**	**0.1198**	**0.5622**	**1.8700e-003**	**0.1917**	**1.4700e-003**	**0.1931**	**0.0511**	**1.3600e-003**	**0.0525**		**191.7006**	**191.7006**	**5.4300e-003**	**9.7100e-003**	**194.7325**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 Pipeline and Treatment Facility Installation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.0830	0.0000	7.0830	3.4248	0.0000	3.4248			0.0000			0.0000
Off-Road	1.2898	13.3560	9.5839	0.0216		0.5853	0.5853		0.5385	0.5385		2,086.4118	2,086.4118	0.6748		2,103.2815
Total	**1.2898**	**13.3560**	**9.5839**	**0.0216**	**7.0830**	**0.5853**	**7.6684**	**3.4248**	**0.5385**	**3.9633**		**2,086.4118**	**2,086.4118**	**0.6748**		**2,103.2815**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0100e-003	0.0681	0.0177	2.9000e-004	8.7500e-003	4.1000e-004	9.1600e-003	2.4000e-003	3.9000e-004	2.7900e-003		32.1669	32.1669	1.7700e-003	5.1100e-003	33.7333
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0582**	**0.1879**	**0.5798**	**2.1600e-003**	**0.2004**	**1.8800e-003**	**0.2023**	**0.0535**	**1.7500e-003**	**0.0553**		**223.8675**	**223.8675**	**7.2000e-003**	**0.0148**	**228.4658**

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Date: 3/15/2022 8:43 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.1874	0.0000	3.1874	1.5412	0.0000	1.5412			0.0000			0.0000
Off-Road	1.2898	13.3560	9.5839	0.0216		0.5853	0.5853		0.5385	0.5385	0.0000	2,086.4118	2,086.4118	0.6748		2,103.2815
Total	**1.2898**	**13.3560**	**9.5839**	**0.0216**	**3.1874**	**0.5853**	**3.7727**	**1.5412**	**0.5385**	**2.0797**	**0.0000**	**2,086.4118**	**2,086.4118**	**0.6748**		**2,103.2815**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0100e-003	0.0681	0.0177	2.9000e-004	8.7500e-003	4.1000e-004	9.1600e-003	2.4000e-003	3.9000e-004	2.7900e-003		32.1669	32.1669	1.7700e-003	5.1100e-003	33.7333
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0550	0.0394	0.5315	1.5000e-003	0.1788	1.0800e-003	0.1799	0.0474	9.9000e-004	0.0484		151.5766	151.5766	4.0900e-003	3.9400e-003	152.8542
Total	**0.0582**	**0.1879**	**0.5798**	**2.1600e-003**	**0.2004**	**1.8800e-003**	**0.2023**	**0.0535**	**1.7500e-003**	**0.0553**		**223.8675**	**223.8675**	**7.2000e-003**	**0.0148**	**228.4658**

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/15/2022 8:43 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Field Surface Replacement - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6128	0.0000	7.6128	3.4820	0.0000	3.4820			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609		1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**7.6128**	**0.5009**	**8.1138**	**3.4820**	**0.4609**	**3.9429**		**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0435**	**0.1099**	**0.4293**	**1.4900e-003**	**0.1469**	**1.2000e-003**	**0.1481**	**0.0393**	**1.1100e-003**	**0.0404**		**153.8065**	**153.8065**	**4.4100e-003**	**8.7300e-003**	**156.5189**

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/15/2022 8:43 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.4258	0.0000	3.4258	1.5669	0.0000	1.5669			0.0000			0.0000
Off-Road	1.1332	12.6449	6.1844	0.0172		0.5009	0.5009		0.4609	0.4609	0.0000	1,668.3421	1,668.3421	0.5396		1,681.8315
Total	**1.1332**	**12.6449**	**6.1844**	**0.0172**	**3.4258**	**0.5009**	**3.9267**	**1.5669**	**0.4609**	**2.0278**	**0.0000**	**1,668.3421**	**1,668.3421**	**0.5396**		**1,681.8315**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0413	0.0296	0.3986	1.1200e-003	0.1341	8.1000e-004	0.1349	0.0356	7.4000e-004	0.0363		113.6824	113.6824	3.0700e-003	2.9600e-003	114.6407
Total	**0.0435**	**0.1099**	**0.4293**	**1.4900e-003**	**0.1469**	**1.2000e-003**	**0.1481**	**0.0393**	**1.1100e-003**	**0.0404**		**153.8065**	**153.8065**	**4.4100e-003**	**8.7300e-003**	**156.5189**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.7 Parking lot Resurfacing/Ancillary Improvements - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9845	8.0257	12.3197	0.0195		0.4073	0.4073		0.3871	0.3871		1,873.9608	1,873.9608	0.4309		1,884.7336
Paving	0.1179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1024**	**8.0257**	**12.3197**	**0.0195**		**0.4073**	**0.4073**		**0.3871**	**0.3871**		**1,873.9608**	**1,873.9608**	**0.4309**		**1,884.7336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1800e-003	0.2135	0.0553	9.2000e-004	0.0274	1.2900e-003	0.0287	7.5200e-003	1.2400e-003	8.7600e-003		100.7895	100.7895	5.5400e-003	0.0160	105.6977
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0688	0.0493	0.6644	1.8700e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		189.4707	189.4707	5.1100e-003	4.9300e-003	191.0678
Total	**0.0742**	**0.3431**	**0.7504**	**3.1600e-003**	**0.2638**	**3.0200e-003**	**0.2668**	**0.0705**	**2.8500e-003**	**0.0734**		**330.3843**	**330.3843**	**0.0120**	**0.0267**	**338.6437**

CalEEMod Version: CalEEMod.2020.4.0

Date: 3/15/2022 8:43 AM

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9845	8.0257	12.3197	0.0195		0.4073	0.4073		0.3871	0.3871	0.0000	1,873.9608	1,873.9608	0.4309		1,884.7336
Paving	0.1179					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1024**	**8.0257**	**12.3197**	**0.0195**		**0.4073**	**0.4073**		**0.3871**	**0.3871**	**0.0000**	**1,873.9608**	**1,873.9608**	**0.4309**		**1,884.7336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	3.1800e-003	0.2135	0.0553	9.2000e-004	0.0274	1.2900e-003	0.0287	7.5200e-003	1.2400e-003	8.7600e-003		100.7895	100.7895	5.5400e-003	0.0160	105.6977
Vendor	2.2200e-003	0.0804	0.0307	3.7000e-004	0.0128	3.9000e-004	0.0132	3.6900e-003	3.7000e-004	4.0600e-003		40.1241	40.1241	1.3400e-003	5.7700e-003	41.8782
Worker	0.0688	0.0493	0.6644	1.8700e-003	0.2236	1.3400e-003	0.2249	0.0593	1.2400e-003	0.0605		189.4707	189.4707	5.1100e-003	4.9300e-003	191.0678
Total	**0.0742**	**0.3431**	**0.7504**	**3.1600e-003**	**0.2638**	**3.0200e-003**	**0.2668**	**0.0705**	**2.8500e-003**	**0.0734**		**330.3843**	**330.3843**	**0.0120**	**0.0267**	**338.6437**

Encanto Park Regional Stormwater Capture Project

Project Construction Energy Demand

Construction Worker Gasoline Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Site Preparation	10	0.92	8.78	104.32
Reservoir Excavation	16	2.09	8.78	238.43
Reservoir Construction	16	2.09	8.78	238.43
Pipeline and Treatment Facility Installation	16	2.09	8.78	238.43
Field Surface Replacement	12	1.15	8.78	131.14
Parking Lot Resurfacing/Ancillary Improvements	20	2.62	8.78	298.03
Total				**1,248.77**

Construction Haul Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Site Preparation	2	0.06	10.21	5.71
Reservoir Excavation	175	5.10	10.21	499.86
Reservoir Construction	0	0.00	10.21	0.00
Pipeline and Treatment Facility Installation	15	0.44	10.21	42.85
Field Surface Replacement	0	0.00	10.21	0.00
Parking Lot Resurfacing/Ancillary Improvements	47	1.37	10.21	134.25
Total				**682.67**

Construction Vendor Diesel Demand

Phase	Trips	Vehicle CO_2 (MT)	Kg CO2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Reservoir Excavation	0	0.00	10.21	0.00
Reservoir Construction	40	0.36	10.21	35.61
Pipeline and Treatment Facility Installation	10	0.09	10.21	8.89
Field Surface Replacement	8	0.07	10.21	7.13
Parking Lot Resurfacing/Ancillary Improvements	20	0.18	10.21	17.82
Total				**69.45**

Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	Kg CO2/Gallon	Gallons
Site Preparation	3	15.89	10.21	1,556.48
Reservoir Excavation	3	20.79	10.21	2,035.95
Reservoir Construction	3	21.59	10.21	2,114.21
Pipeline and Treatment Facility Installation	11	28.39	10.21	2,780.74
Field Surface Replacement	3	16.65	10.21	1,630.60
Parking Lot Resurfacing/Ancillary Improvements	3	25.50	10.21	2,497.59
Total				**12,615.58**

Construction Equipment Usage

Phase	Hours of Use
Site Preparation	504
Reservoir Excavation	720
Reservoir Construction	720
Pipeline and Treatment Facility Installation	960
Field Surface Replacement	528
Parking Lot Resurfacing/Ancillary Improvements	960
Total	**4,392**

Total **14,616.48**

Appendix B

Phase I Archaeological and Paleontological Cultural Resources Assessment Report

ArchaeoPaleo Resource Management, Inc.
A full-service Archaeology and Paleontology company
SBE/WBE/WOSB/DBE/UDBE/EBE/LBE/SLBE/CBE/VSBE/MicroBE Certified

Phase 1 Archaeological and Paleontological Cultural Resources Assessment Report for the Encanto Park Stormwater Capture Project, City of Duarte, Los Angeles County, California

Prepared For:

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500 W. Temple St., Room 358
Los Angeles, CA, 90012

and

City of Monrovia
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May 2022

Key Word(s): CEQA; NEPA; Archaeological phase 1; City of Duarte; City of Monrovia; Los Angeles County; USGS Azusa 7.5-minute quadrangle

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CONFIDENTIALITY NOTE: This document contains sensitive information regarding the location of archaeological sites that should not be disclosed to the general public or other unauthorized persons. Archaeological and other heritage resources can be damaged or destroyed through uncontrolled public disclosure of information regarding their location. This report and records that relate to archaeological sites information are exempt from the California Public Records Act (Government Code Section 6250 et seq., see Government Code Section 6254.19). Government Code Section 6254 explicitly authorizes public agencies to withhold information from the public relating to Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.

EXECUTIVE SUMMARY

ArchaeoPaleo Resource Management, Inc. (APRMI) was contracted by Craftwater Engineering, Inc., on behalf of the County of Los Angeles, and the City of Monrovia, to conduct a Phase 1 Archaeological and Paleontological Assessment for the proposed Encanto Park Stormwater Capture Project (Project). The Project is located within the confines of Encanto Park, located at 751 Encanto Pkwy, in the City of Duarte, California, Township 1 North, Range 10 West, Section 28 as denoted on the United States Geological Society (USGS) 7.5' topographic map of the Azusa Quadrangle. While Encanto Park is in the City of Duarte, the Project lead is the City of Monrovia on behalf of the Rio Hondo/San Gabriel River Quality Group, a watershed management program funded by the County of Los Angeles Safe, Clean Water Program. The program is in place for projects that improve water quality, provide community enhancements, and protect public health. The Project's goal is to improve water quality within the San Gabriel River through stormwater capture, infiltration, filter, and release. APRMI was retained to comply with the Safe, Clean Water Program feasibility guidelines.

To determine any potential effects of the Project to cultural resources, APRMI conducted a field reconnaissance survey, requested a paleontological records check from the Natural History Museum of Los Angeles County, a cultural records search from the South-Central Coastal Information Center, a Sacred Lands File Search and Native American Contact list from the Native American Heritage Commission, conducted multiple additional prehistoric and historic record searches and reference sourced materials, as well as addressing multiple historic built environment and historic building assessments that have occurred within the last twenty years.

The field reconnaissance survey was conducted to evaluate the presence of any historic, cultural, tribal, or paleontological resources on or near the Project area to determine if the proposed development will have any significant adverse impact on such resources. The Project area consists of an 11-acre multi-use park that includes a multipurpose field, picnic area with shelters and barbeques, playground equipment, tennis courts, basketball courts, sand volleyball courts, and a nature trail. The Project is located near a residential neighborhood directly across from the San Gabriel River. No paleontological or archaeological resources were observed during the field reconnaissance since most of the Project area was covered by landscaped vegetation.

The results of the paleontological Records Check did not identify any known fossil sites in the immediate boundaries of the Project but stated that there are five vertebrate fossil sites that have been recorded nearby within similar sedimentary deposits that may be found on site. These soils include Holocene and possible Pleistocene alluvial sediments, most of which derive from the San Gabriel Mountains as confirmed by the 1998 geologic map of the Azusa quadrangle. Project grading or shallow excavation within these sediments have a potential to uncover significant fossil remains at the time of Project development.

The results of the SCCIC record search included one prehistoric flake scatter site, one historic refuse site, and one historic structure within the one-mile radius, but these resources would not be affected by the Project, since the resources were identified outside of the direct Project area.

The NAHC concluded the Project area to be positive for the presence of known tribal resources,

but due to the confidentiality of information regarding Native American sacred sites meant to protect them from public harm, the NAHC could not elaborate further.

This report outlines the contextual history for the Project region, the research methodology, and results of the research conducted for this assessment. The recommended mitigation measures in this document will reduce the impacts on cultural, paleontological, and tribal resources to a less than significant impact.

ACRONYMS

AB	Assembly Bill
AD	After Death (*Anno Domini*)
AMSL	Above Mean Sea Level
APRMI	ArchaeoPaleo Resource Management, Inc.
BP	Before Present
BERD	Built Environment Resource Directory
CCR	California Code of Regulations
CE	Common Era
CEQA	California Environmental Quality Act
CHL	California Historic Landmarks
CHRIS	California Historical Resources Information System
CPHI	California Points of Historical Interest
CRHR	California Register of Historical Resources
CRM	Cultural Resource Management
GIS	Geographic Information Systems
HCM	Historic Cultural Monument
HRI	Historic Resources Inventory
HSC	California Health and Safety Code
HTMC	Historic Topographic Map Collection
MLD	Most Likely Descendant
mya	Million Years Ago
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NHMLA	Natural History Museum of Los Angeles County
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
Qg	Quaternary gravel
PRC	Public Resources Code
rEWMP	Rio Hondo/San Gabriel River Enhancement Watershed Management Program
RPA	Registered Professional Archaeologist
SOI	Secretary of the Interior
SCCIC	South Central Coastal Information Center
SVP	Society for Vertebrate Paleontology
USGS	United States Geologic Service

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1.0 INTRODUCTION

Encanto Park (Park), located in the City of Duarte the San Gabriel River is located directly west and runs parallel. As proposed, the Encanto Park Stormwater Cap (Project), would divert and treat stormwater before releasing it into the San Gabriel River with the key objective to improve the water quality within the San Gabriel River and enhance the existing park surface features. Since September 2019, the rEWMP group has worked with Craftwater Engineering to revise the Rio Hondo/San Gabriel River Enhancement Watershed Management Program (rEWMP) and to conduct a preliminary feasibility study to analyze the potential for any environmental effects that might occur as a result of the Project.

1.1 Project Description

The Encanto Park Project is one of five projects included in the Rio Hondo/San Gabriel River Water Quality Group (RH/SGR WQG). This is a multi-benefit regional project that is led by the City of Monrovia on behalf of the Rio Hondo San Gabriel River Quality Group. The program funding was allocated to the City of Monrovia and the rEWMP group includes the Rio Hondo and San Gabriel Watershed Areas in the cities of Arcadia, Bradbury, Duarte, and Sierra Madre. The Project is funded by the Safe, Clean Water Program, which was developed by the County of Los Angeles and the Los Angeles County Flood Control District (LACFCD). This program develops solutions to capture and treat rainfall water and to prevent trash from entering local lakes, beaches, and other bodies of water around Los Angeles County region.

To facilitate the CEQA requirements, ArchaeoPaleo Resource Management, Inc. (APRMI) was contracted by Craftwater Engineering, Inc., to perform a Phase 1 Archaeological and Paleontological Cultural Resources Assessment that would determine the potential sensitivity of paleontological and cultural resources (prehistoric and historic archaeological/tribal) within and around the Project area. As part of the Project CEQA generated assessment, APRMI conducted a field reconnaissance survey to document and photograph the current state of the Project area's vegetative cover, identify the type and state of soil exposed on the surface, and record any paleontological, archaeological, and/or tribal sites or observations on the surface. This assessment also included photographing and documenting the built environment to assess that no significant historic buildings will be irreversibly damaged directly or indirectly during Project construction.

Since field reconnaissance only is meant for surficial observation, paleontological and archaeological research of the Project area and surrounding vicinity was also conducted to identify previously recorded resources. APRMI conducted the following research methods: paleontological records check from the Los Angeles Natural History Museum including a APRMI led review of the Paleobiology Database; a cultural records search from the South-Central Coastal Information Center along with a thorough review of United States Geological Survey (USGS) historic topographic maps and historic aerial photographs; and a Sacred Lands File Search attached with a Native American Contacts list. Additional database resources, as well as researching multiple previous historic building assessments, were conducted for direct and/or indirect impacts to the built environment. This report discusses the methodology and results of the research conducted to state the level of sensitivity identified and determine the appropriate mitigation measure recommendations for this Project.

The Encanto Park Stormwater Capture Project (Project or Park) development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. According to the current site plans, construction activities will be focused on the south/southwest portion of the site. In the location of the existing parking lot, a pump and underground storage facility will be installed, along with permeable stalls and bioswales. Pre and post treatment units and storm drain diversions will be installed in the southwest corner of the site near the Duarte Historical Museum.

1.2 Project Location

The Encanto Park Stormwater Capture Project is located within Encanto Park located at 751 Encanto Parkway, within the City of Duarte, California Township 1 North, Range 10 West, Section 28 as denoted on the United States Geological Society (USGS) 7.5' topographic map of the Azusa Quadrangle (Figure 1-3). The park location is south of Royal Oaks Drive and north of Encanto Parkway it is an 11-acre urban park and is owned by the City of Duarte (Assessor's Parcel Number 8610-022-908). Surrounding land uses within the vicinity of the Encanto Park Stormwater Capture Project include a residential neighborhood to the north, west, and southeast, Encanto Parkway and the San Gabriel River to the southeast.

Figure 1. Regional topographic view of Project location outlined in green (USGS 2020)

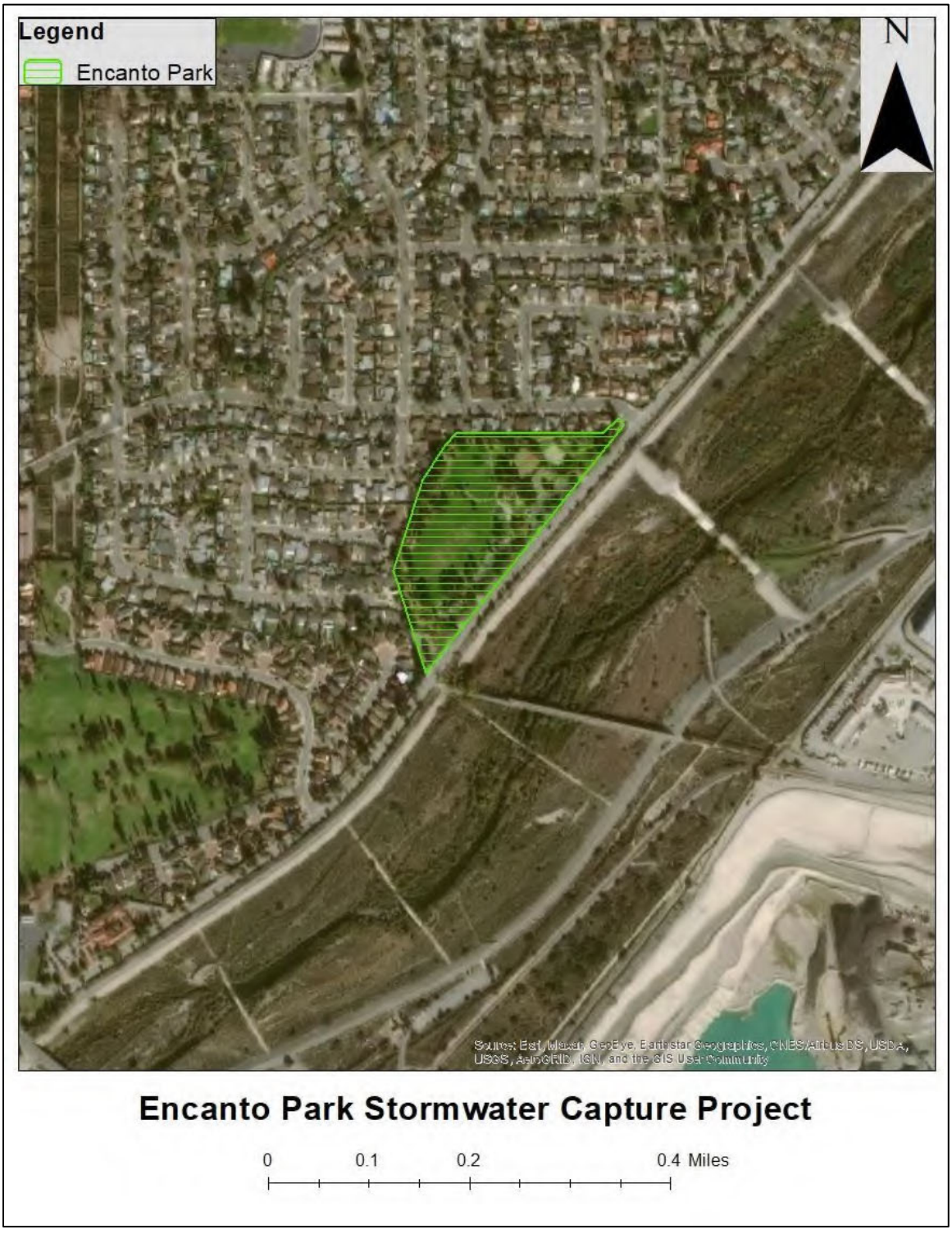

Figure 2. USGS satellite view of Project location

1.3 Natural Setting

The Project is located within the Los Angeles Basin, in a semi-arid Mediterranean climate known as the Mediterranean Warm. This climate is characterized by consistently sunny and warm summer months with light to moderately rainy winters. The County of Los Angeles itself is described as urban areas with industrial infrastructure and residential buildings sprawled throughout the incorporated cities. This greater geographic area is interspersed with low hills and marine terraces on the coast that separate inland urbanized environments from coastal bays, lagoons, and sandy beaches (Lichtenstein and Turner 2004). It contains several mountain ranges including the Transverse and Peninsular Ranges in Ventura, Los Angeles, and San Diego counties, respectively (Department of Water and Power, 2009). Elevation of the general geographic area ranges from sea level at the coast to around 200 feet for most of the urban areas (State of California, 2005). Due to urbanization, the majority of natural vegetation is constrained to the mountains consisting mostly of scrub and chaparral.

1.4 Project Personnel

Robin Turner, M.A. is the Principal Investigator and President for APRMI. She holds a Master of Arts degree in Anthropology, with an emphasis on Public Archaeology, from California State University, Northridge. Ms. Turner has over 30 years of experience in the Cultural Resource Management (CRM) and the paleontological fields and has conducted major field and technical investigations throughout southern California. She meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology and is a qualified professional paleontologist per the Society of Vertebrate Paleontology's guidelines. Ms. Turner is a Research Associate at the Natural History Museum of Los Angeles County and at the George C. Page Museum of La Brea Discoveries, as well as a Scientific Advisor to the Buena Vista Museum of Natural History and Sciences in Bakersfield. She is also a past Planning Commissioner for the City of Culver City and is a past museum chair for the Culver City Historical Society. Ms. Turner served as the principal investigator and project manager for this project as well as the final editor for this report.

Miguel Angel Miguel, B.S. is a Staff Paleontologist with APRMI. Mr. Miguel has 3 years of experience excavating, analyzing, and monitoring archaeological and paleontological materials. His work includes conducting research on Agnostid trilobite hypostomes with use of systematics, with 3D microscopes for appendage identification of Agnostid trilobites. His field and laboratory work emphasized archaeological and paleontological contexts, such as basic map analysis, rock/mineral identification, invertebrate fossil identification, and a Bachelor of Science in Geology from California Lutheran University. Mr. Miguel has extensive experience with GIS mapping, lithic identification, and sedimentary analysis. Mr. Miguel contributed to the writing of this report.

Viridiana M. Garcia, M.A. is a Staff Archaeologist with APRMI. She holds a Master of Arts degree in Anthropology, with an emphasis in Bioarchaeology, from George Mason University. Ms. Garcia has 5 years of experience excavating and analyzing archaeological materials and human remains. Her work includes serving as an intern at the Smithsonian Department of Anthropology rehousing and cataloging Neolithic archaeological materials and was a lab assistant for the George Mason University zooarchaeological lab. Her field and laboratory work emphasized archaeological and bioarchaeological contexts such as, prehistoric architecture, human osteology, ceramics, and reconnaissance. Ms. Garcia performed the field reconnaissance and contributed to the writing of this report.

2.0 REGULATROY

2.1 Federal Laws

2.1.1 Antiquities Act of 1906

The Antiquities Act of 1906 (16 USC § 431 *et seq*.) provides for the establishment and preservation of national monuments, historic landmarks, and historic or prehistoric structures, or other items of interest on federally owned lands. Additionally, Section 433 of this act prohibits the purposeful taking, excavation, damage, and destruction of historic or prehistoric ruins, monuments, or other objects of antiquity on federally owned lands. Other "objects of antiquity" are interpreted to include paleontological remains.

2.1.2 National Environmental Policy Act of 1969

The National Environmental Policy Act (NEPA) of 1969, specifically P.L. 91-190, 83 Stat. 852, 42 USC §§ 4321-4327, mandates the preservation of "important historic, cultural, and natural aspects of our national heritage" (§101.b4). In addition, NEPA is interpreted as providing for the protection and preservation of paleontological remains.

2.1.3 Section 106 of the National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA) mandates the following:

> "The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking an any district, site, building, structure or object that is included in or eligible for inclusion in the National Register [of Historic Places (NRHP)]. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation [The Council], established under Title II of this Act, reasonable opportunity to comment with regard to such an undertaking." [16 U.S.C. § 470f]

An effect, or "adverse effect," as defined by 36 CFR §800.5 (a)(1), occurs

> when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register [NRHP] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

To further clarify the meaning of what constitutes an adverse effect, 36 CFR §800.5 (a)(2) identifies the following: physical destruction, alteration that is not in keeping with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* per 36 CFR §68, removal, change of use, alteration of property setting, relocation, application of intrusive elements, neglect, and change of ownership (federal to non-federal).

The NHPA (16 U.S.C. § *et seq.*) defines a historic resource as significant if eligible for inclusion in the National Register of Historic Places (NRHP) as defined by one of four eligibility criteria set forth in 36 CFR §60.4A. Determination of historic resource significance is carried out via implementation of the Section 106 process of the NHPA, as set forth by the Council per 36 CFR §800 "Protection of Historic Properties." Such significant historic resources can include archaeological sites of pre-historic or historic context, historic buildings, structures, or objects of

state, local, or federal importance that retain integrity of location, design, setting, feeling, association, material, and/or workmanship and

(A) Are associated with events which have made a significant contribution to the broad patterns of our history, or
(B) Are associated with the lives of persons significant in our past, or
(C) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or are representative of significant and distinguishable entity of which the component may lack individual distinction, or
(D) Yield, or are likely to yield, data important to our understanding of prehistory and/or history.

2.1.4 Native American Graves Protection and Repatriation Act (25 USC Section 3001 et seq.)

The discovery of human remains is always a possibility during construction-related disturbances. The Native American Graves Protection and Repatriation Act, or NAGPRA, was enacted November 16, 1990. It states that the "ownership or control of Native American cultural items," which include human remains, funerary objects, sacred objects, and objects of cultural patrimony, that are "excavated or discovered on Federal or tribal lands" after the law went into effect is held by the lineal descendants of the Native American (or Hawaiian) to whom the objects originally belonged. If the lineal descendants cannot be found, then their ownership is conferred to the "Indian" tribe or Native Hawaiian organization on whose land the objects or remains were discovered or that has the closest cultural affiliation.

2.2 State Laws

2.2.1 California Register of Historical Resources (PRC §5024.1)

The California State Historical Resources Commission enacted Public Resources Code §5024.1, which established the California Register of Historical Resources (CRHR). The statute encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance. The register itself is a listing of all properties considered to be significant historical resources in the state. Resources are considered significant (and thus eligible for the register) if they retain integrity and meet one of the following criteria:

1) Associated with events which have made a significant contribution to the broad patterns of California's history and historical heritage
2) Associated with the lives of persons significant in California's past
3) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or
4) Yield, or are likely to yield, information important in prehistory or history.

The California Register specifically provides that historical resources listed, determined eligible for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources, which must be given consideration under CEQA (see below). Other resources, such as resources listed on local registers or in local surveys, **may** be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register is not automatic.

According to the federal laws to which the State of California defers when its own laws do not apply to a situation, historical resources are evaluated if they are 50 years or older, unless they are exceptional according to a set of criteria considerations. The Instructions for Recording Historical Resources (California Office of Historic Preservation [OHP] 1995:2) states that "[a]ny physical evidence of human activities over 45 years old may be recorded for purposes of inclusion in the OHP's filing system." This five-year difference is to compensate for the amount of time that usually occurs between a resource's discovery and its official documentation as well as the implementation of any mitigation procedures.

2.2.2 California Environmental Quality Act

The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify significant environmental impacts of their actions, including damages to cultural or historical resources, in order to avoid or mitigate those adverse impacts or changes. §5020.1 of CEQA establishes "substantial adverse change" as the "demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired" (see below for the definition of *historical resource*). The "threshold of significance" is the level at which a lead agency finds the effects of a Project to be significant.

The destruction of unique, non-renewable cultural resources is a significant impact on the environment that requires mitigation of the impact. Construction excavation in archaeologically sensitive deposits that underlie a Project Area is a significant impact that could be prevented, minimized, or mitigated through the development of project alternatives (e.g., avoidance of the cultural resource) or mitigation measures for the purpose of recovering data that might otherwise be destroyed (e.g. archaeological excavation prior to construction excavation and archaeological monitoring of construction excavation of a known site; or archaeological monitoring of construction excavation of an archaeologically sensitive area). Even if a historical resource, an archaeological site, or human remains cannot be identified within a project area before project implementation (i.e., if the resources are not visible on the surface during a Phase I survey, or if Extended Phase II testing does not reveal subsurface archaeological material), the area may still be archaeologically sensitive, based on the characteristics of the environmental background of the area or its current environmental setting, and that said resources are predicted to exist within the project area/remains could be present within the project area. Mitigation measures to avoid project impacts to as-yet undiscovered historical resources or human remains may be employed by the Lead Agency, even if these resources have not been identified within or adjacent to the project area. A study must consider a project's current baseline environmental setting and physical conditions so that the lead agency can determine whether project impacts would cause a significant change to that environment.
§15091(a) and (d) of the CEQA Guidelines require the Lead Agency to adopt a program for reporting on or monitoring the changes—that it has either required for the project or has made a condition of approval—in order to avoid or substantially lessen significant environmental effects. A Mitigation Monitoring and Reporting Program (MMRP) provides for the monitoring of mitigation measures that may be required by a project's Environmental Impact Report (EIR), if the EIR identifies potentially significant adverse impacts and mitigation measures to reduce those impacts to a less-than-significant level. An archaeological resources/built environment data

recovery or monitoring plan may be part of an MMRP if archaeological resources/built environment will be affected.

A significant historical resource, as defined by CEQA, is referred to as a "Historical Resource." Such Historical Resources have been determined eligible for inclusion in the CRHR per Title 14, California Code of Regulations (CCR), §15064.5(a)(3), and include historic properties eligible for inclusion on the National Register of Historic Places (NRHP) per PRC §5024.1, or are historically significant at a local level, such as a city, town, community, or county.

Paleontological resources are protected by Appendix G (Part V) of CEQA, which indicates that the destruction of unique, non-renewable paleontological resources is a significant impact on the environment that requires mitigation of the impact. It specifically asks whether a project would "directly or indirectly destroy a unique paleontological resource or site or unique geological feature." Excavations in paleontologically sensitive deposits that underlie a project area is a significant impact that can be mitigated via the salvage and identification of excavated fossils from the deposit.

2.2.3 California Administrative Code

Title 14, Section 4307 of the California Administrative Code states that "no person shall remove, injure, deface, or destroy any object of paleontological, archaeological, or historical interest or value."

2.2.4 Public Resources Code

Section 5097.5 of the California Public Resources Code (PRC) protects both cultural and paleontological resources. It states that

> [n]o person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands.

As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

2.2.5 Native American Heritage Act

The Native American Heritage Act, passed by California in 1976, established the Native American Heritage Commission (NAHC) for the purpose of protecting Native American religious values on state property (PRC §5097.9). The NAHC not only protects the heritage of California Native Americans, but also ensures their participation in matters concerning heritage sites. The commission's duty is to assist both federal and state agencies in protecting Native American sacred places and provide recommendations concerning Native American heritage in accordance with environmental law and policy. As required by Government Codes §65352.3 and §65562.5, for purposes of consultation with California Native American Tribes, the NAHC maintains a list of

California Native American Tribes with whom local governments and public agencies must consult.

The act also protects burials from disturbance, vandalism, and accidental destruction. It stipulates what specific procedures, laid out in the California Health and Safety Code (HSC), must be implemented if a Native American burial is uncovered during project construction or archaeological data recovery.

2.2.6 Senate Bill 18

The California Senate Bill 18, passed in 2004, establishes a procedure to help California indigenous tribes and jurisdictions define tribal cultural resources and sacred areas more clearly as well as incorporate their protection into a General or Specific Plan prior to its adoption or amendment. The law also requires that California cities and counties contact and consult with California Native American tribes prior to designating land as open space. By involving tribes in local land use decisions, impacts to sites of cultural significance can be mitigated.

2.2.7 Assembly Bill 52

Assembly Bill (AB) 52, was approved and passed on September 25, 2014 by California State Governor Gerry "Jerry" Brown, Jr. The act has amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3, relating to California's Native American populations. Assembly Bill 52 applies to projects in which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) would be filed on or after July 1, 2015. This bill recognizes California Native American tribes' expertise regarding cultural resources and provides a method for agencies to incorporate tribal knowledge into their CEQA environmental review and decision-making processes. California Native American tribes can now establish a standing request to consult with a lead agency regarding any proposed project subject to CEQA in the geographic area with which the tribe is traditionally and culturally affiliated. The definition of tribal cultural resources, as per PRC Section 21074(a)(1) and (2), are considered as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources. A tribal cultural resource may also be determined by a lead agency, in its discretion and supported by substantial evidence. PRC section 21080.3.1(a-e) outlines and defines the initial consultation process required from the lead agency as follows:

21080.3.1(a): The Legislature finds and declares that California Native American tribes traditionally and culturally affiliated with a geographic area have expertise concerning their tribal cultural resources.

21080.3.1(b): Prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project, the lead agency shall begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

(1) The California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and

(2) The California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation. When responding to the lead agency, the California Native American tribe shall designate a lead contact person. If the California Native American tribe does not designate a lead contact person, or designates multiple lead contact people, the lead agency shall defer to the individual listed on the contact list maintained by the Native American Heritage Commission for the purposes of Chapter 905 of the Statutes of 2004. For purposes of this section and Section 21080.3.2, "consultation" shall have the same meaning as provided in Section 65352.4 of the Government Code.

21080.3.1(c): To expedite the requirements of this section, the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area.

21080.3.1(d): Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

21080.3.1(e): The lead agency shall begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

Under PRC section 21080.3.2 (a) the following topics are potential consultation discussions:

- The type of environmental review necessary
- The significance of tribal cultural resources
- The significance of the project's impacts on the tribal cultural resources
- Project alternatives
- Appropriate measures for preservation
- Mitigation measures

Consultation is considered complete if the parties agree to the measure(s) to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or if a party acting in good faith and after reasonable effort, concludes that a mutual agreement cannot be reached (PRC 2108.3.2(b) (1-2)). This section does not limit the ability of a California Native American tribe or the public to submit information to the lead agency regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any appropriate measures to mitigate the impact. This section also does not limit the ability of the lead agency or project proponent to incorporate changes and additions to the project as a result of the consultation, even if not legally required. If the project proponent or its consultants participate in the consultation, those parties shall respect the principles set forth in this section.

PRC section 21082.3(a)(b) requires any mitigation measures agreed upon in the consultation conducted pursuant to PRC section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact of tribal cultural resources. If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following: (1) Whether the proposed project has a significant impact on an identified tribal cultural resource. (2) Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.

Any information including, but not limited to, the location, description, and the use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public (PRC section 21082.3(c). If a California Native American tribe has requested consultation pursuant to PRC section 21080.3.1 and has failed to provide comments to the lead agency, failed to engage in the consultation process, or if the lead agency has complied with PRC section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an Environmental Impact Report or adopt a Mitigated Negative Declaration.

Suggested mitigation measures after lead agencies determine that a project may cause a substantial adverse change to tribal cultural resources are outlined under PRC section 21084.3 as follows:

- Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
- Protecting the cultural character and integrity of the resource.
- Protecting the traditional use of the resource.
- Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Protecting the resource.

2.2.8 California Health and Safety Code

Section 7050.5 of the HSC states that if human remains are found, construction and/or excavation must cease within the general vicinity, and the remains must be inspected by the county coroner. If the coroner determines that they are Native American in origin, then the coroner must contact

the NAHC. The NAHC will then determine and notify a Most Likely Descendant (MLD). The MLD must complete inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Sections 8010-8011 of the HSC establish a state repatriation policy that is consistent with and facilitates implementation of NAGPRA. NAGPRA was passed in 1990 and required that museums and federal agencies document all Native American human remains within their collections, or uncovered on projects, as well as their cultural ties. These agencies must then notify any tribe that may be affiliated with the remains and provide the opportunity for their repatriation along with any associated cultural items (grave goods). The California state version (Cal NAGPRA) mandates publicly funded agencies (state and local government agencies) and museums to repatriate human remains and associated cultural items to California Native American Tribes, not just federally recognized tribes within California, and establishes penalties for noncompliance.

2.3 Local Laws and Policies

2.3.1 County of Los Angeles General Plan

Los Angeles County considers its "historic, cultural, and paleontological resources [as] non-renewable and irreplaceable" (County of Los Angeles 2014:155). In order to protect these resources, the County is guided by federal and state laws regarding such resources. The County's goal (C/NR 14) is to "[m]itigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible" and to "[e]nsure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources." The County also has policies to "[s]upport the preservation and rehabilitation of historic buildings" and to "[e]nsure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004)" (County of Los Angeles 2014:159). One method the County has employed to successfully preserve historic, cultural, and paleontological resources is maintaining a "local registry or landmarks commission" that identifies historic, cultural, and paleontological resources that are not identified by state and federal programs (County of Los Angeles 2014:158). This registry, known as the Los Angeles County Historical Landmarks and Records Commission "reviews and recommends cultural heritage resources in the unincorporated areas for inclusion in the State Historic Resources Inventory" (County of Los Angeles 2014:155).

POLICIES (as stated in the Los Angeles County General Plan 2015)

Policy C/NR 14.1	Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
Policy C/NR 14.2	Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
Policy C/NR 14.3	Support the preservation and rehabilitation of historic buildings.
Policy C/NR 14.4	Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
Policy C/NR 14.5	Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6 Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

2.3.2 City of Duarte General Plan

The City of Duarte General Plan (2005-2020) does not indicate specific policies, goals, or references to ordinances with respect to palaeontologic and cultural resources therefore, Los Angeles County paleontologic and cultural policies apply. However, the General Plan does include certain goals, objectives, and policies regarding the preservation of historic resources. These policies are discussed in Chapter 7 of the General Plan and are stated below.

POLICIES (as stated in the City of Duarte General Plan (2005-2020):

HP 1.1.1	Establish and support all appropriate media for reaching all segments of the community to educate residents and decision-makers concerning the protection of historical resources.
HP 1.1.2	Encourage public outreach and access to historical information.
HP 1.2.1	Utilize creative funding sources to promote the development of a comprehensive historic preservation program for the City.
HP1.3.1	Encourage training of City staff related to the development and application of historic preservation.
HP1.3.2	Develop a database and update maps which identify
HP 2.1.1	Encourage on-going research regarding the City's history and built environment
HP 3.1.1	Encourage property owners to preserve the character defining features of historical resources.
HP 3.1.2	Promote the preservation of historic and cultural resources by providing incentives and technical assistance.

The plan also discusses related agencies, laws, and plans that were not previously discussed in the Federal and State laws those laws are discussed below.

Historic Preservation Ordinance

A historic preservation ordinance is the primary tool used by municipalities to protect historic resources in a community. Local governments in California have the authority to adopt a historic preservation ordinance to provide regulations regarding historic and cultural resources. Historic preservation ordinances are structured to address the particular needs and resources within a community. Though there is no standard historic preservation ordinance, a typical ordinance usually includes provisions regarding the following: (1) establishment of a local historic commission and the powers and responsibilities assigned to that commission (2) establishment of a local historic property register (3) establishment of criteria that can be used to designate historic resources and the process of designation (4) definition of the types of physical alterations that require design review and explanation of the design review process (5) guidelines for maintenance and appropriate treatment of a historic resource. Since historic preservation ordinances are designed to meet specific needs of a community, the City's ordinance may not include all the items described above.

Certified Local Government (CLG)

Local governments strengthen their local historic preservation efforts by achieving Certified Local Government (CLG) status from the National Park Service (NPS). NPS and state governments, through their State Historic Preservation Offices (SHPOs), provide valuable technical assistance and small matching grants to hundreds of diverse communities whose local governments are endeavoring to keep for future generations what is significant from their community's past. In turn, NPS and states gain the benefit of local government partnership in the national historic preservation program. Another incentive for participating in the CLG program is the pool of matching grant funds SHPOs set aside to fund CLG historic preservation sub-grant projects--at least 10% of the state's annual Historic Preservation Fund (HPF) grant allocation. Grant funds are distributed through the HPF grant program, administered by NPS and SHPOs. The CLG Program integrates local governments with the national historic preservation program through activities that strengthen decision-making regarding historic places at the local level. Because local planning office staff often play key roles in CLG projects, the thread of historic preservation becomes woven into the fabric of local land-use policy. Local governments collect and analyze information on the location and significance of archeological and historic properties for use by preservation commissions and by local, county, and state agencies. Using grants awarded by SHPOs, CLGs may produce historic theme or context studies, cultural resource inventories, assessments of properties to determine their eligibility for local and National Register of Historic Places designation, building reuse and feasibility studies, design guidelines and conservation ordinances, and publications to educate the public about the benefits of historic preservation.

2.3.3 Society of Vertebrate Paleontology Procedures and Guidelines

The Society of Vertebrate Paleontology (SVP), an international scientific organization of professional paleontologists, has issued guidelines and policy statements entitled *Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources - standard guidelines* (SVP 1995, 2014), *Member Bylaw on Ethics Statement, Article 12 – Code of Ethics* (SVP 2009), and *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* (SVP 2010). These statements outline acceptable professional practices in paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, curation, and specimen preparation, identification, and analysis.

According to the SVP (2014: Line 189), *significant nonrenewable paleontological resources* are "vertebrate fossils and their taphonomic and associated environmental indicators." While the SVP definition of nonrenewable paleontological resources "excludes invertebrate or botanical fossils . . . [c]ertain plant and invertebrate fossils or assemblages may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by Lead Agencies or local governments" (SVP 2014: Lines 190-194).

Fossil remains in general are not found unless exposed by natural forces or by human activity. A paleontologist cannot determine fossil quality or quantity until a geological unit is exposed/disturbed or until alluvial deposits are disturbed. Paleontologists make conclusions about sensitivity based upon what types of fossils have been found previously in the same type of rock

unit or sediment type and based upon the likelihood that the depositional environment resulted in the burial and preservation of fossils (SVP 2014). The SVP (2014: Lines 15-30) states:

> The determination of a site's (or rock unit's) degree of paleontological potential is first founded on a review of pertinent geological and paleontological literature and on locality records of specimens deposited in institutions. This preliminary review may suggest particular areas of known high potential. If an area of high potential cannot be delimited from the literature search and specimen records, a surface survey will determine the fossiliferous potential and extent of the sedimentary units within a specific project. The field survey may extend outside the defined project to areas where rock units are better exposed. If an area is determined to have a high potential for containing paleontologic resources, a program to mitigate impacts is developed. In areas of high sensitivity, a pre-excavation survey prior to excavation is recommended to locate surface concentrations of fossils which might need special salvage methods. The sensitivity of rock units in which fossils are known to occur may be divided into three operational categories:
>
> I. HIGH POTENTIAL. Rock units [or alluvial or aeolian deposits] from which vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant non-renewable fossiliferous resources. These units include, but are not limited to, sedimentary formations and some volcanic formations which contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas which contain potentially datable organic remains older than Recent, including deposits associated with nests or middens, and areas which may contain new vertebrate deposits, traces, or trackways are also classified as significant.
>
> II. UNDETERMINED POTENTIAL. Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potentials of the rock units are required before programs of impact mitigation for such areas may be developed.
>
> III. LOW POTENTIAL. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils. Such units will be poorly represented by specimens in institutional collections. These deposits generally will not require protection or salvage operations.

Fossils are rarely distributed uniformly within a rock unit or within an alluvial or fluvial deposit. Even if the majority of a rock unit or deposit lacks fossil remains, the same rock unit or deposit may contain concentrations of fossils in specific locations. In addition, within a fossiliferous portion of the rock unit, fossil remains may be present in varying densities. Because the presence or location of fossils within a rock unit cannot be discovered without exposure, SVP (2014) standard guidelines state that the entire rock unit possesses one level of sensitivity. Most fossil sites recorded during construction-impact mitigation studies have had no pre-project surface expression. Monitoring of construction-related excavation of a rock unit by an experienced

paleontologist increases the probability that scientifically significant fossils will be discovered and preserved.

According to SVP (2009: Article 12.1-4), paleontologists must ensure that vertebrate fossils are collected in a professional manner, "which includes the detailed recording of pertinent contextual data, such as geographic, stratigraphic, sedimentologic and taphonomic information." The ethics bylaw also states that fossil "vertebrate specimens should be prepared by, or under the supervision of, trained personnel" (SVP 2009: Article 12.3) and that "[s]cientifically significant fossil vertebrate specimens, along with ancillary data, should be curated and accessioned in the collections of repositories charged in perpetuity with conserving fossil vertebrates for scientific study and education (e.g., accredited museums, universities, colleges and other educational institutions)" (SVP 2009: Article 12.4). The SVP (2014: Lines 1-5) standard guidelines state that vertebrate fossils are significant, nonrenewable paleontological resources;

> potential for destruction or degradation by construction impacts to paleontologic resources on public lands (federal, state, county, or municipal) and land selected for development under the jurisdiction of various governmental planning agencies is recognized. Protection of paleontological resources includes: (a) assessment of the potential property to contain significant nonrenewable paleontologic resources which might be directly or indirectly impacted, damaged, or destroyed by development, and (b) formulation and implementation of measures to mitigate adverse impacts, including permanent preservation of the site and/or permanent preservation of salvaged materials in established institutions.

Under the criteria stated above, all fossil remains may be considered *significant* by California Environmental Quality Act (CEQA) standards. *Significant* fossil remains may also be considered *scientifically significant* by the SVP. A fossil specimen is considered *scientifically significant* if it is:

- Identifiable
- Complete
- Well preserved
- Age diagnostic
- Useful in paleoenvironmental reconstruction
- A type or topotypic specimen
- A member of a rare species
- A species that is part of a taxonomically diverse assemblage
- A skeletal element different from, or a specimen more complete than, those now available for that species (SVP 1995, 2010, 2014; Scott and Springer 2003)

Both terrestrial and marine fossil remains are considered scientifically significant because they have the potential to indicate the geological age of the sedimentary unit, and its depositional environment. Additionally, vertebrate remains are comparatively rare in the fossil record. Fossil plants are also considered scientifically significant because they are sensitive indicators of their local environment which help paleontologists reconstruct paleoenvironments.

3.0 GEOLOGIC SETTING

Stratigraphic divisions found in rock sequences reflect geologic changes, and thus have provided the basis for determining geologic time scales. Geologic eons are divided into eras, which are divided into periods, which are divided into series or epochs. Table 1 outlines the geologic eras, periods, and series discussed in this report and is based on one created by the U.S. Geological Survey (USGS) Geologic Names Committee (2007). Geologic eras previous to those discussed in this report are not included in the table.

Table 1. Divisions of Recent Geologic Time (after U.S. Geological Survey Geologic Names Committee, 2007)

Eon	Era	Period or Subperiod		Series or Epoch
Phanerozoic (543 mya to present)	**Cenozoic** 65.5 mya to Present	**Quaternary** 1.5 million years ago (mya) to the Present	**Neogene**	**Holocene** 11,477 years ago (+/- 85 years) to the Present
				Pleistocene ("The Great Ice Age") 1.5 million to approximately 11,477 (+/- 85 years) years ago
		Tertiary 65.5 to 1.5 mya		**Pliocene** 5.3 to 1.5 mya
				Miocene 23 to 5.3 mya
			Paleogene	**Oligocene** 33.9 to 23.0 mya
				Eocene 55.8 to 33.9 mya
				Paleocene 65.5 to 58.8 mya

Approximately 17 to 18 million years ago in the early Miocene, the North American tectonic plate collided with the Pacific Plate due to the constant movement of plate tectonics. Prior to this collision, Los Angeles County was once above water, but the movement of the Pacific plate northward relative to the North American plate caused the area to submerge (Quinn 2001). In the middle Miocene Epoch, the Los Angeles County area was part of a deep submarine basin that quickly divided into the Ventura Basin, the San Gabriel Basin, the San Fernando Basin (now Valley), and the Los Angeles Basin. These deep, narrow, rapidly subsiding basins were formed when the tectonic blocks that make up today's Transverse Ranges rotated up to 90 degrees clockwise in response to a shear along the San Andreas Fault called the Big Bend (Luyendyk et al. 1985). The Transverse Ranges, which are oriented west to east, include the Orocopia Mountains, the San Gabriel Mountains, the Santa Ynez Mountains, the Santa Monica Mountains, and the Channel Islands, although the San Gabriel Mountains lie east of the San Andreas. As crustal blocks pivoted, they separated in places to create fault-bounded chasms. These steep-sided basins accumulated huge thicknesses of deep-water marine shales and sandstones, as well as deposits of siliceous shale and diatomites (formed from diatoms, or single-celled algae with cell walls made of silica) (Conrey 1967; Crowell 1981; Fritsche et al. 2001; Luyendyk et al. 1985;

Schwartz and Colburn 1987; Woodford et al. 1954). Marine sediment over 6 miles deep accumulated in what is now the Los Angeles County, in only 6 million years (Luyendyk et al. 1985).

With the creation of these new basins, the Project area is located within the Los Angeles Basin which continued to subside through the early Pliocene but was still separated from the open ocean by a submarine ridge (Quinn 2001). Most of the buildup of mountains and marine sediments occurred in the last two million years, since the Pliocene (Schoenherr 1992). The sediment buildup continued through the Pleistocene, but sea level fluctuated due to the alternating glacial and interglacial episodes (Quinn 1992). During these phases, the area under water expanded and contracted, and the inland stratigraphic layers (not including the coast and the Santa Monica Plain) alternate between marine and continental sediments (Woodford et al. 1954). There was also an overall decrease in local oceanic depth over time during the interglacial periods. This decrease, coupled with increasing deposition, resulted in the eventual termination of the submarine central Los Angeles Basin. Continuous non-marine deposition commenced in the later Quaternary period whereby alluvial stream deposits accumulated on top of the earlier marine deposits and was only interrupted by erosion (Quinn 1992). These alluvial stream deposits originated from the floodwaters that were transported from the surrounding mountains by the Los Angeles, San Gabriel, and Santa Ana rivers (Schoenherr 1992). The Los Angeles Basin experienced one last (shallow) marine episode during the late Pleistocene prior to the most recent glaciation period. This glaciation period saw an increase in precipitation and subsequent acceleration in erosion of the Santa Monica Mountains. The resultant increased deposition of fluvial sediments in the basin constitutes the latest stage of the Pleistocene and is often referred to as the Rancholabrean age (Quinn 1992). This designation is named after the fauna recovered from Rancho La Brea and is applied to the later Pleistocene epoch of North America.

As denoted on the 1998 Geologic Map of the Mount Wilson and Azusa quadrangles (Figure 3), the Project is located north of the Duarte Fault (depicted as a dotted line in Figure 3) and is composed of Quaternary Gravel (Qg) surficial sediments that are unconsolidated and undissected alluvial deposits. These sediments consist of gravel and sand from major stream channels and alluvial fan outwash from major canyons. These deposits derive from the adjacent San Gabriel River or as alluvial fan deposits from the nearby San Gabriel Mountains. The sediments range in size from pebbles to cobbles. Underlying deposits for the area are unknown but could include sediments from the Pleistocene aged deposits that consists of gray sandstone and pebble conglomerates. The thickness of the Quaternary Gravel surficial sediments varies throughout the area it is not possible to determine where the older alluvial sediments begin and thus, the potential to find fossils exists. It is also important to note that according to the paleontological results that will be discussed further in section 7.1, fossils have been recovered in the Project vicinity that possibly derive from Pleistocene deposits.

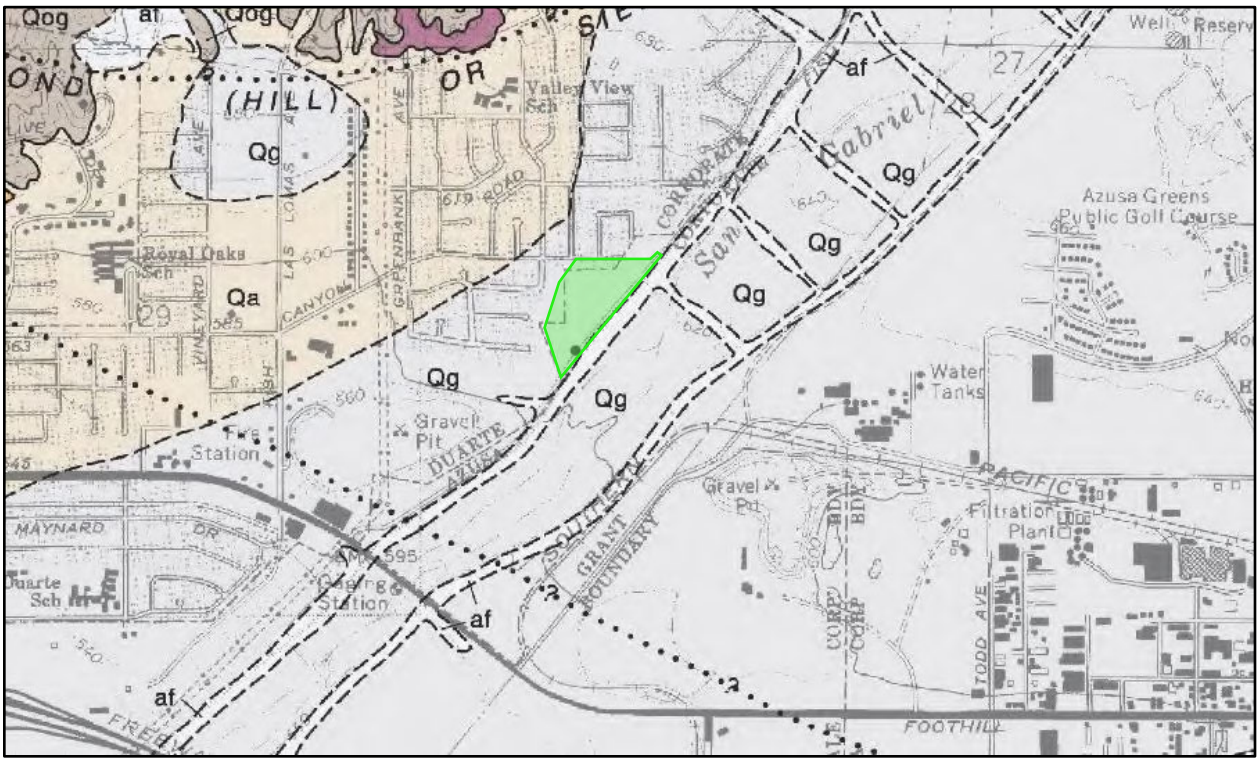

Figure 3. Geologic map of the Mt. Wilson and Azusa quadrangles, Los Angeles County, California by Dibblee, T.W., and Ehrenspeck, H.E. (1998).

3.1 Paleontological Setting

Most of the fossils found in the Los Angeles Basin are from the Eocene, Miocene, Pliocene, and Pleistocene Epochs (Table 1). The fossil remains mostly noted from the Los Angeles Basin (and from most of Los Angeles County) during the Eocene, Miocene, and Pliocene are primarily marine in origin due to the area being underwater during those epochs. The Pliocene shoreline ran along the base of the rising Santa Monica and San Gabriel Mountains. Foraminifers are an important part of the fossil assemblage, with differing species indicating different depths of seawater. Mollusks (clams, oysters, scallops, mussels, sea snails, and other shellfish as well as squid and octopus), bat rays, sharks, and sea mammals are the types of fossils found in the sediments that initially were in relatively shallow waters. These fossils include the still extant *Ostrea lurida* (oyster) and *Chione* sp. (Venus clam). Fossil land animals from the late Pleistocene form the Rancholabrean faunal assemblage, named for the distinct fossil assemblage found at the La Brea Tar Pits (George C. Page Museum at the La Brea Tar Pits) within the Los Angeles Basin. This assemblage is defined by the following extinct forms: *Mammuthus imperator* (Imperial mammoth), *Mammuthus columbi* (Columbian mammoth), *Mammut americanum* (American mastodon), *Equus occidentalis* (Western horse), *Bison bison antiquus* (large American bison), *Tapirus californicus* (California tapir), *Glossotherium harlani* and *Nothrotheriops shastensis* (Harlan's and Shasta ground sloths), *Camelops hesternus* (Yesterday's or American camel), *Canis dirus* (Dire wolf), *Panthera leo* (American lion), *Arctodus simus* (giant short-faced bear), and *Smilodon fatalis* (saber-tooth cat) (Kurten and Anderson 1980; Stock and Harris 1992; University of California Museum of Paleontology n.d.; Harris 2001; Page Museum Education Department 2002; Jefferson and Lindsay

2006). Pleistocene trees, plants, seeds, and insects have also been collected throughout the basin's fossil localities.

4.0 CULTURAL SETTING

The cultural record for Southern California has been divided into two general time periods: the prehistoric and the historic. The prehistoric period is the time prior to written documentation and colonization. The historic period represents the time from which written documentation was kept for this area: from the first Spanish explorers in the 1500s to the 1950s.

4.1 Prehistoric Background

4.1.1 Western Fluted Point Tradition or the Paleo-Indian Period (±12,000 - 11,000 BP [±10,000 - 9,000 BCE])

Prehistoric human land use for this area potentially dates as far back as approximately 12,000 years ago. Evidence of this early habitation comes from Los Angeles, California which has two of the earliest sites with human remains in all of the Americas: "La Brea Woman" and "Los Angeles Man". Found in 1914, the "La Brea Woman" site is comprised of the osteological remains of a young Native American woman discovered in Pit 10 at the La Brea Tar Pits (located at the George C. Page Museum, also known as the La Brea Tar Pits) within Hancock Park. Her remains were found in association with extinct ice age fauna and a small, possibly domestic, dog (*Canus* sp.). Artifacts associated with her remains include shell and stone artifacts and a mano (hand grinding stone) fragment. At the time of discovery, her remains were dated to approximately 40,000 years ago based upon associated fossils (Stock and Harris 1992). The presence of the mano fragment, though, as well as the type of shell and stone artifacts, call into question this early date. Artifacts such as these are not present within the archaeological record of southern California until approximately 8,500 to 9,000 BP (see Moratto 1984: 53-54; Stock and Harris 1992: 21-23). Additionally, radiocarbon dates of treated samples (to decontaminate the bones of intrusive carbon) from her remains yielded a date of 9000 +/- 80 B.P. Another find at Rancho La Brea indicating the early presence of humans in the Americas, and specifically California, comes from long bones from three Pleistocene animal species. These bones include one tibia and three femora from saber-tooth cats (*Smilodon fatalis*), one radius from a bison (*Bison* spp.), and one femur from a California lion (*Felis atrox*). All of these bones appear to have cut marks and grooves on them, likely the result of human activity. They have been radiocarbon dated to 15,200 +/- 800 B.P. (Moratto 2004).

The "Los Angeles Man" site contained several human skull fragments found in 1936 by Work Projects Administration[1] (WPA) workers excavating a storm drain along a former route of the Los Angeles River, north of Baldwin Hills by La Cienega Boulevard and Jefferson Boulevard. The site is approximately 3.4 meters deep situated in an ancient streambed (Moratto 1984). Approximately, 350 meters away at the same depth as the human bone discovery, two teeth and several bones of an Imperial Mammoth (*Mammuthus imperator*) were also unearthed. Both the mammoth bones and the human remains were dated, using a fluorine-based dating method, to approximately 20,000 years old. Other early evidence of Los Angeles human habitation has dated the Los Angeles Man to 8,000 to 10,000 B.P. (Moratto 2004)

[1] Work Projects Administration (WPA) was part of the New Deal agency that was active in the 1930s and 1940s (Pitt and Pitt 1997).

4.1.2 San Dieguito Tradition or Western Pluvial Lakes/Paleo-Coastal Tradition (11,000 - 7,500 BP [9,000 – 5,500 BCE])

Other prehistoric human archaeological records date to as early as 11,000 B.P. near the beginning of the Archaic Period in coastal southern California with the San Dieguito Tradition. The San Dieguito Tradition denotes an archaeological period that is found throughout Southern California, described as a generalized hunting tradition dating from 9,000 to 10,000 years ago. It has since been subsumed into the longer Western Pluvial Lakes Tradition, which is characterized by adaptations to inland lake, marsh, and grassland environments, as well as its coastal variant (Paleo-Coastal Tradition) distinguished by adaptations to estuary and bay shores. The tradition ended about 8000-7000 B.P. when the climate deteriorated and lakes started drying up. The people from this period were possibly descended from Paleo-Indians who inhabited the desert regions of southeastern California (Moratto 2004; Warren 1968).

The San Dieguito people that inhabited the shores of pluvial lakes and marshes exploited the chaparral zone environments and resources, possibly depending upon a broad array of vegetative resources. They subsisted primarily on chaparral-related resources such as mule deer, rabbits, and plants, but were not known to have harvested the hard seeds of the chaparral plants and moved often as they depleted the local resources (Bean and Smith 1978; Chartkoff and Chartkoff 1984; Moratto 2004). Their toolkits included foliate knives and points (Lake Mojave and Silver Lake points), lanceolate bifaces, lithic crescents, scrapers, choppers, planes, hammerstones, and several types of cores, drills, and gravers. Along the coast, diets included not only land animals and plants, but also mollusks, waterfowl, and limited amounts of sea mammals and fish. Coastal toolkits included additional items such as pitted stones, asphaltum, pointed-bone objects, and shell spoons and ornaments (Moratto 2004).

Early Archaic populations consisted of small, band level in size, groups of people approximately totaling a dozen individuals, or one or two families. The artifact assemblages associated with the "La Brea Woman" and "Los Angeles Man" sites bear similarities with this small band level size groups. During the late San Dieguito Tradition, bone awls and needles became common, probably used to make baskets, nets, and clothing (Chartkoff and Chartkoff 1984). Evidence also suggests that the northern Channel Islands (Santa Rosa and San Miguel islands) were inhabited approximately 9,000 years ago, indicating a sophisticated means of ocean travel, perhaps via plank canoes (Raab and Yatsko 1990; Bean and Smith 1978; Chartkoff and Chartkoff 1984; Moratto 2004).

4.1.3 Encinitas Tradition or Milling Stone Horizon, Topanga I Phase (7,500 - 5,000 BP [5,500 – 3,000 BCE])

Between 8,000 and 6,000 BP, regional exploitation of food resources in California became more systematic and efficient resulting in environmental niche specialization and greater regional difference, as evidenced by the variety in tool kit assemblages. Flourishing between 7,500 and 5,000 BP, the individuals of the Encinitas Tradition continued to exploit game and vegetation in the same traditions devised by their San Dieguito predecessors but added seasonal foraging strategies that yielded protein rich plant material, such as the hard seeds of chaparral plants, to their diet. Midden deposits evinced slightly different subsistence patterns between groups depending on local ecology. The people inhabiting the coastal shoreline harvested vast amounts of

shellfish and sea mammals, although not fish. Other groups practiced seasonal exploitation of resources by moving between the coastal littoral (shoreline) and chaparral zones. As the groups became more efficient in their hunting and gathering strategies, the populations of the groups increased to two to three times as large as they had been earlier in the Archaic (Wallace 1955; Warren 1968; Moratto 2004; Chartkoff and Chartkoff 1984). Encinitas Tradition tool kits became more specialized, with more regional variation than seen with their San Dieguito predecessors. Certain tool types were retained, such as basic heavy-duty choppers and scrapers (core tools). New tool forms appeared as well, including large numbers of milling slabs and handstones (metates and manos) used to grind hard seeds, and a modest amount of projectile points were added, such as the Pinto Point, that were somewhat smaller than those of previous eras. The Encinitas people also manufactured enigmatic items such as gear-like "cogwheels" and stone disks, for which there is no known utilitarian purpose. These "cogwheels" or "cogstones" required great investment of manufacturing time and energy, seemingly with no relationship to subsistence. When associated with formalized (but rudimentary) differential burials, these items suggest that the Encinitas life-way was more socio-culturally complex than that of the San Dieguito Tradition (Chartkoff and Chartkoff 1984; Moratto 2004; Sutton and Gardner (2006:8) characterize human burials from this phase as secondary burials often consisting only of long bones, with some inhumations but no cremations.

4.1.4 Campbell Tradition or Intermediate Horizon, Topanga II and III phases (5,000 - 1000 BP [3,000 BCE – 1000 CE (Common or Current or Christian Era)])

During the Campbell Tradition, ca. 5,000-4,500 BP, new forms of subsistence procurement and technology, as well as increasing societal changes, began to emerge throughout southern California. Core settlements increased in physical size and population. Many Native American settlements were located in transitional ecological zones, which provided these groups with a broad-spectrum of subsistence without extensive migration, resulting in village-style communities surrounded by peripheral settlements. Faunal remains and numerous projectile points (including harpoon points and arrowheads) demonstrate the renewed reliance on hunting, with both land and sea mammals that were exploited. Fish were incorporated into the diet again, though at low levels, at this time. Acorns became part of the subsistence base, as evidenced by the increased presence of the mortar and pestle. Other tools present include flake scrapers and a variety of shell and bone ornaments (Warren 1968; Wallace 1955; Chartkoff and Chartkoff 1984; Moratto 2004).
The stabilization of seasonal settlement patterns, due to the onset of a semi-sedentary residence, led to socio-cultural changes in the communities that provided new forms of social and political relationships and trade networks. These changes are seen archaeologically through the presence of exotic items, such as marine shell beads at inland archaeological sites, and the development of more formal mortuary customs that involved both cremations and various burial forms, as well as the inclusion of grave goods. These "advances" demonstrate that societies were becoming increasingly complex (Chartkoff and Chartkoff 1984; Moratto 2004). Sutton and Gardner characterize human burials from this time as mostly flexed inhumations with some continuation of secondary long bone interment burials (2006:8). Cremations are present during these phases, but extremely rare.

4.1.5 Late Prehistoric (1,000 – 400 BP [1,000 – 1542 CE])

During the Late Prehistoric, regional differences throughout California fully developed, resulting

in the tribal groups that are currently known (Wallace 1955). Populations of these culturally distinct groups continued to rise as did territorially defined sedentary settlement patterns. Resource exploitation, including fishing, intensified while large-scale hunting and gathering operations provided varied sources of subsistence on the other. The diversity and quantity of trade increased with the development of a shell-bead money system. Linked to the development of these trade networks was the establishment of non-egalitarian political systems that increased social complexity within the cultures, as evinced by marked differences in access to goods and services both within and between local Native American communities. Societies became highly stratified with hierarchies based upon wealth, occupation, and/or lineage. The increased subsistence intensification, sedentism, and complexity are documented in the archaeological record of the Gabrieleño people and their linguistically distinct Chumash neighbors to the west (Chartkoff and Chartkoff 1984; Moratto 2004). This also includes the Kizh and Tongva peoples.

Other changes that occurred during this period include the increased use of the bow and arrow, the application of asphaltum to various items, and the manufacture of many new types of artifacts such as shell tools (fishhooks) and ornaments (beads and pendants), stone bowls, animal effigies, bone tools and ornaments (awls, scepters, hairpins, fishhooks, whistles, and tubes), and pottery vessels in the south. Burials are formally marked and the remains face in a particular direction. While some of these practices started along the coast in earlier times, their occurrence at interior locations was a new development (Moratto 2004).

Prior to the Late Prehistoric, the "Shoshonean Tradition" way of life infused (or intruded) into the southern California region, mainly through immigration but also through trait diffusion from the interior to the coast. It is theorized that the immigration originated from the environmental decline that in turn affected substance procurement in the Great Basin. Long-term droughts forced people to migrate from the Great Basin region southwestward into the southern California interior and finally towards the coast. These migrants at first inhabited the less-desirable, sparsely inhabited areas. They brought with them new traditions and artifacts including cremation, pottery, and small triangular arrow points. The result of this immigration event is often referred to as the "Shoshonean Wedge" (Moratto 2004; Chartkoff and Chartkoff 1984).

While the social complexity of these groups began to increase within these migrating populations during the Late Archaic Period [3,000 to 1500 BP (1,000 BCE to 500 CE)], it was particularly apparent during the Late Prehistoric Horizon. When the "Shoshoneans" migrated to the coast, they quickly adapted to the surroundings, their success the result of borrowing the technologies and economic practices of their new neighbors including a maritime subsistence base (Moratto 2004). Bull (1977) theorizes that the Shoshonean groups actually replaced and intermarried with the indigenous groups. This contact has resulted in a complex archaeological record, characterized by defined cultural territories for hunting and sea exploitation.

4.2 Ethnographic Background

The name Gabrieleño was given to the local Native Americans by the Spaniards at the time of European contact. While the Gabrieleño people have been mostly associated with the San Gabriel Mission, their territory was much larger. In fact, the name Gabrieleño was derived from the name of the first Spanish Catholic Mission established in the Los Angeles area (Figure 4) (Pitt and Pitt 1997; Street 2008). The Gabrieleño Tongva, or Tongva, is the name that many Native Americans

in the 1980's and 1990's considered, and still do, to be their ancestral tribal name. The word Tongva means "People of the Earth" in the Tongva language. Additional Gabrieleño tribal information, documented by the San Gabriel Band of Mission Indians – Kizh Nation, state that their ancestry can be dated to at least the Late Prehistoric Period. While previous archaeological research and reports do not adequately address this new information from the Kizh Nation, more data is coming to light daily. With new DNA techniques, Native Americans all over the United States are finding their true/actual ancestry. The tribes in the Los Angeles area lived near the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers, along the Pacific Coast, as well as the offshore islands of Santa Catalina, San Clemente, and San Nicolas. To the west (and northwest) lived the Chumash; to the north, the Tataviam and Kitanemuk; to the northeast, Serrano; to the east, the Cahuilla; and to the southeast, the Luiseño. The Chumash spoke a language outside of the Uto-Aztecan Language Family, whereas the languages of the other groups, as well as that of the Tongva, were Uto-Aztecan in origin (Bean and Smith 1978).

Figure 4. Gabrieleño women outside the San Gabriel Mission (early 20th century)

The Gabrieleño people, at the time of European contact, were regarded as the richest, largest, and most dominant group in southern California aside from the Chumash, in part due to the abundance of resources available to them in the general Los Angeles area (Figure 5). They were not agriculturists. Their economy was based on hunting and gathering, including fishing and acorn processing, as well as trade. One object of trade was steatite or soapstone, an easily carved metamorphic talc-schist rock useful for cookware, containers, and art. The local southern Californian source of steatite is located on Santa Catalina Island, part of a locally unique geological terrain. The Gabrieleño groups that lived near the ocean were believed, along with their northwestern neighbors the Chumash, to have regularly navigated the ocean near the shore. Less

frequent ocean goers included the San Diegan groups to the south. The Tongva ocean-going canoes, called ti'at, were built using planks sewn together edge to edge with plant and sinew material, and subsequently caulked with either pine pitch or, more commonly, asphaltum that washed ashore from oil seeps or was imported to the coastal locations from the area associated with the present-day La Brea Tar Pits. The canoes could hold as many as twelve people along with trade goods and supplies. In 1542, when the Spanish explorer Juan Rodríguez Cabrillo arrived off the shore of San Pedro, the local people canoed out to meet him (Blackburn 1978; Bean and Smith 1978).

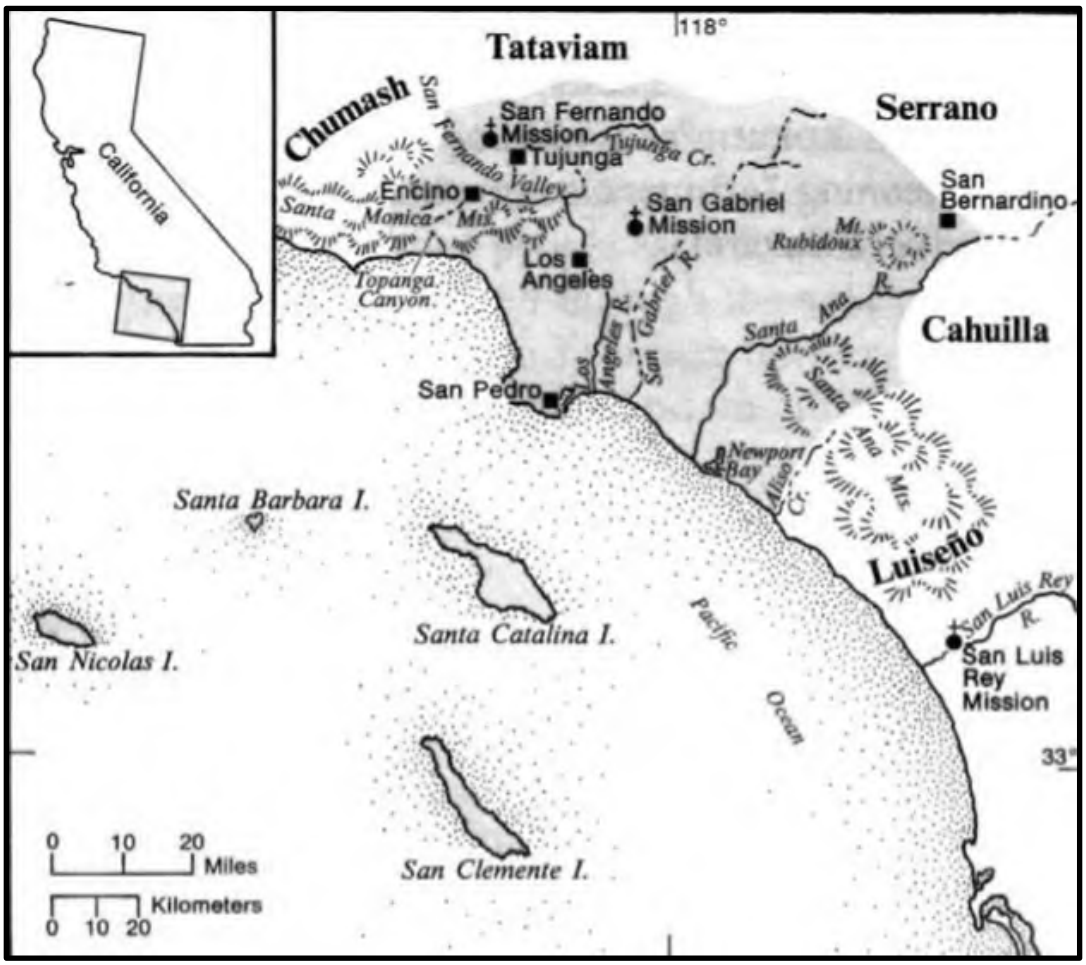

Figure 5. Gabrieleño territory highlighted in gray (Bean and Smith 1978:538)

4.3 Historic Background

The Historic Period begins when the first Spanish explorers recorded in writing their observations of the area and its inhabitants. The Historic Period in California is divided into four general phases: The Exploration Period (1542 to 1769 CE), the Spanish Period (1769 to 1821 CE), the Mexican Period (1821 to 1846 CE), and the American Period (1846 CE to Present).

4.3.1 Exploration Period (1542 to 1769 CE)

European explorers made sporadic visits into the general Los Angeles area during the 16th Century. For example, Juan Rodríguez Cabrillo, an ethnic Portuguese explorer working for the Spanish crown, arrived at San Pedro Bay in 1542 (Chartkoff and Chartkoff 1984), although the bay was not named until 1602 by Sebastian Vizcaíno during his survey of the Pacific shore between Acapulco and Oregon (Gumprecht 1999). Extensive Spanish interaction with the Gabrieleño began in 1769 when Gaspar de Portolá led an overland expedition from San Diego across southern California with Franciscan Padre Juan Crespí as part of a plan to affirm Spanish control over California that was threatened by the Russians and the British. Juan Crespí recorded this particular expedition in diaries and records. According to interpretations of these documents, the expedition party traveled through present day Elysian Park during the beginning of August and was awed by a river that flowed from the northwest, past Elysian Park, and southward. It was Portolá who named the river *El Rio de Nuestra Señora la Reina de los Angeles de Porciúncula*, which translates to "The River of Our Lady Queen of the Angels of *Porciúncula*." (The river *Porciúncula* is the present-day Los Angeles River, now mainly a concrete waterway.) The expedition travelers camped in that area. It is documented that they crossed the San Gabriel and Santa Ana Rivers as well. While much of the water of the Los Angeles and San Gabriel Rivers flows underground, the waters of the Los Angeles River were forced above the river sands at Griffith Park and Elysian Park by underground geological formations before they dropped again below the sands south of what is now downtown Los Angeles. Only during severe winter floods would there be substantial aboveground water that would appear in the riverbeds of all three rivers. Crespí described the Los Angeles River as only slightly smaller than the two other rivers. The Los Angeles River's main riverbed, downstream from the Los Angeles area and Bunker Hill, may well have been near what is now Washington Boulevard and Ballona Creek as it was during the early 1800s, though Crespí's chronicle indicates it following its more currently known southerly flow. A major flood in 1825 shifted its main course southward to join the San Gabriel River at one of that river's old course alignments (Gumprecht 1999). The Portola expedition returned to Los Angeles during the winter on its way back to San Diego from the San Francisco Bay area, having missed its initial destination, Monterey Bay. Portolá would head another expedition through Los Angeles in the spring of 1770, again on the way to Monterey Bay (Starr 2005).

4.3.2 Spanish Period (1769 to 1821 CE)

Twelve years after Portola's voyages, an expedition organized by the Spanish Governor of California, Felipe de Neve, established a pueblo on the coastal plain of the Los Angeles River. This new town was one day's ride north of San Pedro and was dedicated on September 4, 1781. The town, like the river, was named after St. Francis of Assisi's first church, St. Mary of the Angels, or *El Pueblo de (Nuestra Señora) la Reina de los Angeles (de Porciúncula)*. The company of settlers was recruited by de Neve from the Mexican states of Sonora and Sinaloa and was known as *Los Pobladores* (the "townspeople" or "populators"). The original group was led by Captain Fernando Javier Rivera y Moncada and was comprised of eleven families made up of 11 men, 11 women, and 22 children. The settlers were of various ethnicities including those of Spanish, African, and Native American descent, as well as some of mixed race (mulattos and mestizos). Over time, the area known as the Ciudad de Los Angeles became the "City of Angels," and on April 4, 1850, it became known as the City of Los Angeles (Mason 2004; Pitt and Pitt 1997).

The goal of the Spanish colonization effort was not only to create local populations of settling peasants and merchants, but also to include native peoples who already occupied the region into those populations. In order to incorporate the indigenous tribes, efforts were made to educate them and convert them to Christianity, turning them from "savages" into "intelligent beings—*gente de razón*" (Chartkoff and Chartkoff 1984: 258). It is for this reason that religious missions became the cornerstone of colonization. Padre Junípero Serra, who founded 21 missions in 52 years, directed the missionization of California (Chartkoff and Chartkoff 1984). Two of those missions were in Los Angeles: *Misión del Santo Arcángel San Gabriel de los Temblores* (San Gabriel Mission) now known as *Mission Vieja* established on September 8, 1771 by the Padres Angel Somera and Pedro Bonito Cambon, and *San Fernando Rey de España* Mission on September 8, 1797 by Padre Fermín Lasuén (Pitt and Pitt 1997). In order to support the Spanish settlements, missions did not just attempt to convert California Indians, but also used them to work on the farms and ranches present on mission grounds. Many of the Gabrieleño were gradually forced to move to the San Gabriel or San Fernando Missions and provide labor, as were many of the Native Americans living on the coastal plains and inland valleys at the time, though small groups escaped such confinement (Bean and Smith 1978).

The forced interaction with the Spanish marked the beginning of the decline of the indigenous population, as a powerful force shaping the nature of the Los Angeles area. Their population was already declining, even before the arrival of a large number of Spanish, from diseases introduced by earlier explorers (Bean and Smith 1978). Mass conversions of the Gabrieleño people began in 1778 when certain village chiefs turned to Catholicism. These Gabrieleño assisted the Spanish, even though many other Gabrieleño resisted the colonization and started revolts. In 1796, the recruits used traditional Gabrieleño subsistence practices to feed the general population of the missions. By 1800, the original Gabrieleño villages were empty and the Gabrieleños and other Native Americans provided much of the labor for the European ranches, farms, and communities. The shift from hunting and gathering to a sort of feudal existence led to dietary deficiencies that eventually caused population reduction. The local population greatly suffered from the European epidemics as their population dwindled rapidly (Bean and Smith 1978). During this time, only fragmentary ethnographic information was recorded. Because of the lack of collected data, the *Tongva*, a group that once flourished in the rich Los Angeles environment, is one of the Native American groups that is least known ethnographically (Gumprecht 1999).

4.3.3 Mexican Period (1821 to 1846 CE)

The start of the Mexican Period began when Mexico gained its independence from Spain in 1821. At the same time, the Mission system began to break down, and eventually, around 1834, the secularization of the Mission system in Alta California ended. After Mexico gained independence from Spain, California experienced a period of thriving ranchos between the years of 1821-1848. The word *rancho* was a general term covering farms, ranches, and settlements. The term was also used to denote a specific time frame (the Rancho Period) that encompassed the authorization of land grants in Alta California by King Carlos III of Spain (1784) as well as its redefinition with the acceptance of the state of California in the United States (1850). Some researchers restrict the Rancho Period to the time from 1824 to 1847 when the Mexican governors awarded some 800 land grants (Figure 7), most of which were former mission lands in which the Native Americans at the time were supposed to have some legal claim. The Spanish authorities had only made some 20 land grants before Mexico's Independence in 1821. Many of the land grants were or became

cattle ranches, a major economic activity at that time. The Native American tribes supplied most of the labor (Starr 2005; Wlodarski 1998).

In 1841, the ex-Mexican Corporal Andres Duarte was granted nearly 7,000 acres of prime land in the upper San Gabriel Valley. This was called the Rancho Azusa de Duarte. The land was subdivided into 40-acre plots and sold, mostly to help pay off and finance Andres Duarte's debts. Dr. Nehemiah Beardslee bought a portion of the land where he laid out the first section of the city's waterlines and began the first school (City of Duarte 2022). During the mid-1800s Duarte became a destination for many pioneer families, for many reasons which included, for their health, the temperate climate, and the fertile soil.

4.3.4 American Period (A.D. 1848 to Present)

American military forces were present within California during the summer of 1846 as a result of the Mexican American War. The Mexican resistance deteriorated quickly, and the United States occupied Mexico City in 1848, marking the beginning of the American Period (1848 to Present). In February 1848, California became a U.S. holding with the signing of the Treaty of Guadalupe Hidalgo. This treaty ended the Mexican American War and ceded much of the southwest (California, Nevada, Utah, and portions of Arizona, New Mexico, Colorado, and Wyoming) to the United States. A month earlier, on January 24, 1848, gold was discovered along the American River, near Sacramento. The following year resulted in over 150,000 miners, known as "49-ers," descending upon California. That same year, 1849, California petitioned Congress for admission to the Union as a "free state." As a result of the Compromise of 1850, California was admitted to the Union as the 31st state on September 9, 1850 and was slave-free (Chartkoff and Chartkoff 1984; State of California 2015b). In 1862, the Homestead Act was passed, allowing individuals to claim up to 160 acres of undeveloped federal land for freehold title, provided that the claimant filed an application, improved the land, and then filed for title within five years (U.S. Congress 1863).

While the Treaty of Guadalupe Hidalgo required the United States to grant citizenship to the Indians of former Mexican territories, the Constitution of California did not offer Indians protection under the law, considering them to be non-persons (Cook 1971). At the first State Constitutional Convention, California Indians' right to vote was denied, and in 1850, the Act for the Government and Protection of Indians was passed by the State Legislature that greatly reduced the rights of Indians and enacted harsh punishments for any crimes committed by Indians. The Act practically legalized Indian slavery by allowing city officials to arrest Indians for vagrancy (drunkenness) and then sell them to ranchers and other people to serve as a private "labor force." The law was not repealed until 1866 in order to comply with the 14th Amendment of the U.S. Constitution. However, Native Californians did not gain citizenship until 1917 when the California Supreme Court declared them citizens. Subsequently, the Indian Citizenship Act was passed in 1924 granting Indians the right to vote, but it would be more than 50 years before Indians' were guaranteed their "constitutional right of religion" (OHP 1988).

In 1851, the United States Congress authorized a commission to create treaties with California Indians with the goal of extinguishing all Indian land titles and instead establishing reservation land, as had been done in many other states. However, the State Senate objected to the treaties as the land that was to be used for reservations was good for agriculture and rich in minerals. As a

result, the U.S. senators from California convinced the U.S. Senate to not ratify the treaties that were drawn. They were then filed with an injunction of secrecy that was not removed until 1905. The signed treaties became known as the "Lost 18 Treaties of 1852" (Castillo 1978; Johnston 1962; OHP 1988). Reservation land was still set up in California, under the leadership of Edward F. Beale and Benjamin D. Wilson superintendent and sub-agent of Indian Affairs for California, but no new treaties were negotiated. In addition, after the treaties were "rediscovered," legislation was passed to purchase small tracts of lands, later known as *rancherías*, in central and north central California for "landless Indians" in those areas. Therefore, some California Indians did manage to obtain reservation land by agreeing to move to specific locations. The quality of life on reservations, though, was sometimes poor because of limited resources. There was often a lack of water, and squatters were sometimes allowed to graze their cattle on reservation land, thereby destroying crops that were supposed to feed and support the Indians (OHP 1988).

The General Allotment Act of 1887, or the Dawes Act, was meant to provide California Indian families or individuals with lands. These lands were held in trust by the Bureau of Indian Affairs for 25 years, and if, after 25 years, the Indians had cultivated the land and become self-sufficient, they would gain title to the land. While the act appeared to benefit the Indians, it was designed to weaken the power of tribal governments. Many California Indians recognized the Act's ultimate goal and instead chose to either purchase land or fight for the lands they believed to be theirs in the courts. Most court cases eventually sided with American settlers, though, and most Indians were evicted (OHP 1988). As for the lands of which Indians did manage to gain ownership, most of them were taken away by laws enacted since 1900 (Chartkoff and Chartkoff 1984). The California Indian Jurisdictional Acts, or Lea Act, was passed in 1928 that allowed California Indians to either lay claim to certain lands in court or gain recompense, however Indians gained few victories and were often left homeless (OHP 1988).

One of the reasons that it was difficult for California Indians to obtain land was due to the arrival of the railroads in the late 1800s and early 1900s, which brought in a new influx of immigrants. The rail lines initially only connected the Los Angeles area to the Pacific Ocean, but California would be connected to the rest of the country when Central Pacific and other major railroad companies started working on a southern transcontinental route across the United States known as the Sunset Route. This route was completed in 1883 and connected San Francisco to New Orleans. The portion of the route built through the Los Angeles area was constructed by Southern Pacific in the 1870s (see below). The Southern Pacific enjoyed a railroad monopoly in California until 1885 when the Atchison, Topeka and Santa Fe (AT&SF) completed a line into southern California. The two railroads then "engaged each other in a fierce rate war" that drove passenger ticket prices to as low as one dollar (Tang 2003:5). This competition resulted in significant immigration to southern California, which was a large factor in the southern California land boom in the 1880s. New towns emerged on newly acquired land and on former cattle ranches both along the coast and in the valleys. With the advent of refrigerated cars, the railroads were able to transport perishable produce, including fresh fruit, to distant eastern cities. This development enabled southern California to become a major agricultural center (Tang 2003, 2009), thus further depleting the land available to California Indians.

Native Americans faced dangers beyond what they had experienced through missionization and loss of territory. Vigilante groups and militias were established to kill Native Americans and to kidnap their children. As a result, close to 100,000 Californian Indians perished and much of the

tribal continuity throughout the state was extinguished (Castillo 1978). The last comprehensive survey of the Gabrielino occurred in 1852. It found that most of the traditional communities had disappeared, the use of the indigenous language had declined, and many traditional ceremonies and practices had been abandoned (McCawley 1996). By 1900, they had "ceased to exist as a culturally identifiable group" (Bean and Smith 1978:540).

As previously discussed, the City of Duarte began as a rancho, Rancho Azusa de Duarte. Andres Duarte, whom the land was granted to, later found that his ranching operations failed to produce sufficient funds to cover his expenses. The Rancho was then sold off in individual plots in the early 1870s. Horses, cattle, sheep ranged in the area until about 1880 when it transitioned to planting citrus crops such as oranges and limes. The town was founded during the "Boom of the Eighties". Duarte remained an agricultural area, up until World War II, it was then converted into a residential community.

Duarte became known for its citrus groves and avocado trees. It is believed that the first avocado tree was planted in the town by Mr. W. A. Spinks in 1907 and producing its first fruit in 1908 (Condit 1916). Two medical institutions were started in Duarte. In 1913, volunteers established the Jewish Consumptive Relief Associate and raised money to buy a 10-acre plot south of Duarte Road. Two canvas cottages were constructed establishing the Los Angeles Sanatorium, a refuge for garment workers who had been diagnosed with tuberculosis (Pitt and Pitt 1997). This sanctuary has greatly evolved during the past century, and today it is known as the world-renowned City of Hope Medical Center, which is one of the nation's leading medical and research institutions (City of Hope 2022). In 1930, a group of Carmelite Sisters converted an old farmhouse, some small cottages, and a barn into the Santa Teresita Sanatorium, a tuberculosis sanatorium for the care of young women. The sanatorium was named after the French Carmelite nun, Saint Therese. Her name in Spanish is Santa Teresita which translates to "The Little Flower." The sanatorium became a fully accredited acute care hospital in 1955 and expanded throughout the 50s and 60s. However, in 2004, the hospital made the decision to refocus on the facilities core competencies of long and short-term care (Santa Teresita 2021).

Two major means of transportation that helped shaped the City of Duarte were the Pacific Electric Rail and Route 66. The Pacific Electric Railway (PE), also known as the Red Car System, was a privately owned transit system in Southern California. The transit system consisted of electrically powered streetcars, light rail, and buses. The PE was the largest interurban electric railway system spanned from Los Angeles and San Bernardino, connecting cities in Los Angeles County, Orange County, San Bernardino County, and Riverside County. According to the Southern California Railway Museum the PE rail system originated in 1985 and operated until the 1961. The portion of the rail system that ran through Duarte was built in 1907. U.S. Highway 66 also known as Route 66, or the Mother Road was created in 1926 by repairing existing local, state, and national roads. It spans across two-thirds of the United States from California to Illinois and quickly became a popular and heavily used roadway (NPS 2020). Route 66 passed through Duarte up until the route was replaced by the freeway system in the mid-1950s and was re-named Huntington Drive, which is west of the 605 Freeway and Foothill Boulevard, east of the freeway (The Route-66 2019).

Duarte was officially incorporated on August 22 1957 due to the efforts of community members. The Duarte Unified School District was also formed during this time. Monrovia, Azusa, Irwindale, Baldwin Park, Arcadia and Bradbury are cities that were later established on the land that was

known as Rancho Azusa de Duarte. The original boundary lines of the Rancho were formed in 1858 and are still traceable today as city limits, major streets, and the boundaries of real estate lots subdivided from larger parcels. To this day, many of the original boundary lines of the Rancho are traceable as city limits, major streets, and the boundaries of hundreds of real estate subdivisions taken from larger parcels that were defined by the Rancho boundaries that were formally surveyed in 1858.

5.0 METHODOLOGY

5.1 Field Reconnaissance

The field reconnaissance survey was conducted on January 27th, 2022. Ms. Robin Turner and Viridiana Garcia conducted this survey of the Project area to observe and evaluate any presence of cultural or paleontologic resources to determine if the development of the Project would have any obvious significant direct or indirect adverse impacts on such resources.

5.2 Paleontological Resources Records Check

On February 3, 2022, APRMI requested a paleontological resources records check for the proposed Project from the Vertebrate Paleontology Department at the Natural History Museum of Los Angeles County (NHMLA). To determine the paleontological sensitivity of the Project area, this records check consisted of a thorough review of the museum's paleontology collection records of recorded fossil sites in and/or near the Project area. The record check was conducted on February 13, 2022, by Dr. Alyssa Bell, NHMLA Collections Manager.

Additional paleontological record search reviews were conducted online by APRMI, including a thorough search of the Paleobiology Database that was conducted by Ms. Viri Garcia on February 14th, 2022. The Paleobiology Database allows users to search through various taxonomic groups of fossils recorded through different nearly 400 scientists from over 130 institutions in 24 countries. This resource was used to search for additional paleontological records that may be present within the Project area and to better understand the sensitivity of the general Project vicinity.

5.3 Cultural Resources Records Search

On February 3, 2022, APRMI requested a cultural resource records and literature search from the South Central Coastal Information Center (SCCIC), the local repository for the California Historical Resources Information System (CHRIS), located on the campus of California State University Fullerton, in Fullerton, California, to identify any cultural resources on or near the Project site. The results for this request were received on March 18, 2022. A quarter-mile search radius was utilized to locate prehistoric, historic, and the historic built environment and historic buildings on and around the Project area.

5.4 Archival Research

The Built Environment Resource Directory (BERD) is available online and not always included in the results provided by the SCCIC. The BERD was reviewed to find information of current

inventories of the NRHP, California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), the California State Historic Resources Inventory (HRI) for Los Angeles County, and the CRHR to determine any local resources that have been previously evaluated for historic significance. For the purposes of this assessment, the OHP's definition of historic resources was used in that any building or object that is 45 years of age or older is considered historic (OHP 1995).

Additional research was conducted through different inventory databases and/or local historic societies to acquire more information or knowledge of cultural resources within the City of Duarte, including the City of Duarte website. The Duarte Historical Society and Museum is a non-profit society is staffed by volunteers dedicated to preserving local history and operating the museum. Archival records of the Project site found within the Duarte Historical Society and Museum Historical Society data base were reviewed for additional background information of cultural resources.

The Pacific Electric Railway Historical Society maintains the archives of the Pacific Electric Railway (history, images, text, and artifacts) that once operated throughout the Los Angeles County. Historic images and text were referenced for additional information about the Pacific Electric Railway within the City of Duarte and Los Angeles County from this data base.

6.0 RESULTS OF FIELD RECONNAISSANCE

Results of the original field reconnaissance, as viewed in Figures 9-17, has determined the area to be an existing multi-use park with multipurpose field, playground, tennis and basketball courts, and a nature trail. The Property is located north of the San Gabriel River and is surrounded by residential homes. The Duarte Historical Museum is located within the Project boundaries.

The pedestrian survey began at the southwest portion where the parking lot is located on Encanto Parkway and continued following the nature walk path that is on the site. Pedestrian survey methods were conducted in undeveloped areas with clear brush access and high ground visibility, which in this case was the perimeter of the Property. Visibility was poor over most of the Project because the area is an existing landscaped park with field and ball courts, therefore the topsoil has been disturbed. Some native vegetation was observed on the Project property, but this vegetation was planted during the landscaping of the Park. The area south of Encanto Parkway, which includes the San Gabriel River, was also observed and photographed (Figure 17) to achieve a better understanding of the type of soil that would have been present on the Project prior to the development of the Park.

No paleontological or cultural resources were observed during the field reconnaissance survey, but the absence of such resources does not preclude that this area is not sensitive for such resources since this field survey only observed surficial sediments. Vegetation, topography, and fauna observations were photographed and noted for any potential significant adverse impacts that may be caused by the development of the Project. All photos, and field notes are stored in the APRMI office.

Figure 6. View towards the northwest of visible soil. Photograph taken from the nature walk in the Park at the northern end of the Park

Figure 7. View towards the north of scrub oak present along the nature walk in the Park

Figure 8. View towards the southwest of the existing stormwater capture.

Figure 9. View towards the southwest of the stormwater capture from the nature walk bridge.

Figure 10. View towards the northwest of the stormwater capture located in the northwest area of the Park.

Figure 11. View towards the southwest of the stormwater capture located near Encanto Pkwy in the southwest corner of the Park.

Figure 12. View towards the north of the Park developed area where topsoil was not visible.

Figure 13. View towards the southwest of the Duarte Historical Museum located on the Park.

Figure 14. View towards the southeast of the San Gabriel River

7.0 RESULTS OF RECORD SEARCH

7.1 Paleontological Resources Records Check

The results of the paleontological resources records search, conducted by Dr. Alyssa Bell, the Natural History Museum Los Angeles County Collections Manager were received on February 13, 2022. Dr. Bell states that there are no known vertebrate fossil localities within the direct boundaries of the Project, but fossil localities have been found in similar sedimentary deposits that are found in the Project site. As previously discussed in section 3.0 Geologic Setting, the Project area is overlain by Holocene alluvial sands, gravel, and silt. Bison and Mammoth fossil localities have been recorded within the older Pleistocene alluvial sediments. Depths of these finds varied from surficial finds to unknown depths. The results and accompanying reports of the paleontological resources records search can be viewed in Table 2 and Appendix A. The acronyms found in Table 2 stand for: VP for "Vertebrate Paleontology"; IP for "Invertebrate Paleontology"; and bgs stand for "below ground surface".

Table 2. Results of Paleontological Resources Records Check

Locality Number	Location	Formation	Taxa	Depth
LACM VP 3363	W of Monterey Pass Road in Coyote Pass; E of the Long Beach Freeway & S of the N boundary of Section 32; Monterey Park	Unknown Formation (Pleistocene; sand and silt)	*Horse (Equus)*	Unknown
LACM VP 7702	Intersection of 26th St and Atlantic Blvd, Bell Gardens	Unknown Formation (Pleistocene; silt)	Fish (*Gasterosteus*); Snake (*Colubridae*), Rodents (*Thomomys, Microtus, Reithrodontomys*); Rabbit (*Sylvilagus*)	30 feet bgs
LACM VP 7508	Near intersection of Vellano Club Dr. and Palmero Dr., Oakcrest Development; N of Serrano Canyon, Chino Hills	Unknown Formation (Pleistocene)	Ground sloth (*Nothrotheriop*s); elephant family (*Proboscidea*); horse (*Equus*)	Unknown
LACM VP 7268, 7271	Sundance Condominiums, S of Los Serranos Golf Course	Unknown Formation (Pleistocene)	Horse (*Equus*)	Unknown
LACM VP 1728	W of intersection of English Rd & Peyton Dr, Chino	Unknown Formation (light brown shale with interbeds of very coarse brown sand; Pleistocene)	Horse (*Equus*), camel (*Camelops*)	15-20 feet bgs

A review of the Paleobiology Database did not yield any results for fossil localities within or in the general vicinity of the Project area. The closest fossil localities to the Project site that is depicted in the Paleobiology Database have been documented near the City of Covina, which is approximately seven miles east of the Project. The documented localities are marine fossils that derive from the Puente Formation, in sediments that are like those found on the Project. The fossils date to the Miocene era.

No currently known fossil localities will be significantly impacted during Project development. However, potential to uncover unknown paleontological resources still exists. The evidence states that fossil resources have been uncovered at a depth of 15-20 feet below the ground surface within the quarter-mile radius of the Project, although, the formation in which these fossils were found is not known. It is likely that they were derived from a Pleistocene aged formation. As a result, it is recommended that any substantial excavations below the surface within the Holocene to the older Pleistocene should be monitored closely by a paleontologist to recover any fossil remains that may be uncovered. Sediment samples from the proposed Project area should also be collected

and processed, to SVP standards, to determine the potential to find micro fossil remains. Any fossil remains recovered during this mitigation effort should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

7.2 Cultural Resources Records Check

Results of the cultural records search were received on March 18, 2022. The results of the cultural records search are discussed in detail below. They are listed as catalog numbers assigned by the SCCIC and are specific to previously recorded archaeological (prehistoric and historic, ethnographic and multi-component) resources within the research Study Area. Any building assessment discussed below that state NRHP, CRHR, or HCM criterion determinations are made by the author or investigators of the report studies or site record and not made by APRMI. Criterion requirements may be viewed in Regulatory Setting section.

7.2.1 Prehistoric Sites and Isolate(s)

An initial search radius of a quarter mile from the Project area was established. According to the results provided by the SCCIC. There are no previously recorded archaeological sites or isolates within the Project or the quarter-mile radius. However, a Cultural Assessment conducted on the Park in 2007, states that an archaeological resource was found adjacent, half a mile north, to the Project. The resource (CA-LAN-241 or RS12) is described as an archaeological site consisting of 3 flakes. The site is not eligible to be listed on the Archaeological Determination of Eligibility list. The Project will not affect this area, but it is still important to note that previously unrecorded archaeological sites or isolates during ground disturbing activities of the Project remains a possibility. The results and accompanying reports of the SCCIC records search can be viewed in Table 3 and 4.

Table 2. Results of SCCIC Prehistoric Sites and Isolate (s)

Primary Number/Trinomial	Resource Type	Description	Recorder(s) and Year(s)	Location
19-000241/CA-LAN-241	Prehistoric archaeological site	RS12-prehistoric flake scatter	1988 (Strudwick, Ivan)	Outside of Project area

7.2.2 Historic Sites and Isolate(s)

The results provided by the SCCIC includes data for a total of 1 previously recorded historic site within a quarter-mile of the Project area. A historic refuse site known as RS-1 was surveyed, tested, and recorded by Archaeological Advisory Group in 1988 as part of the *Cultural Resource Assessment for the Raiders Stadium Project.* RS-1 is located to the southeast of the Project, across the San Gabriel River and immediately north of Huntington Drive, just before Foothill Blvd. and Irwindale Avenue intersection. The site is described as a historic refuse dump with 15 primary concentrations. The site was likely used by residents and businesses from Azusa and Duarte. The materials present on the site include tin cans, bottles, ceramics, brick and concrete debris, wire, automobile parts, rubber, plastic, various metal objects, and faunal and floral remains. The Project will not affect this area, but it is still important to note that previously unrecorded historic sites or

isolates during ground disturbing activities of the Project remains a possibility. Primary Records and the results of the SCCIC records search can be viewed in Table 4 and Appendix B.

Table 3. Results of SCCIC Historic Sites and Isolate (s)

Primary Number/Trinomial	Resource Type	Description	Recorder(s) and Year(s)	Location
19-001368/ CA-LAN1368H	Historic Site	RS-1 Refuse site	1988 (Strudwick, Ivan)	Outside of Project area

7.2.3 Built Environment

Historic property results include 1 Historic Resource Inventory. Archaeological Advising Group conducted a Historical Resources Inventory of the Pacific Electric Bridge (RS3), known historically as the Puente Largo (The Great Bridge). The bridge is located within the quarter-mile radius of the Project, north of the Santa Fe Flood Control Basin and across from the San Gabriel River. The bridge was constructed in the early 1900s and was part of the Pacific Electric Railway. The architecture style of the bridge is described as having multiple arches. The resource suffered damages after a flood that occurred in 1938, three of the original concrete piers and five of the arches were replaced. The bridge has been rehabilitated with alterations such as, replacement of the wooden timbers and railings and fencing placed on either side. Today, the bridge operates as a bicycle and pedestrian path. The structure was designated a Category 5 (non-significant historic structure) by Caltrans in 1986, indicating it is not eligible for listing in the National Register of Historic Places. The structure is outside of the Project area and will not be impacted. Primary Records and the results of the SCCIC records search can be viewed in Table 5.

Table 4. Results of SCCIC Built Environment(s)

Primary Number/Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/CRHR Status	Location
19-190993	Historic Structure	RS3 Pacific Electric Bridge; Puente Largo, The Great Bridge	1988 (Elliot, John E.)	Not eligible	Outside of Project area

Upon reviewing the OHP Built Environment Resources Directory (BERD) there is no record of any cultural resources listed that are located within the Project or the quarter-mile Project radius.

7.2.4 Reports and Studies

Three studies and assessments (see Table 6) were conducted within a quarter-mile radius from the Project area. These reports have been discussed in the previous sections because they pertain to the resources that were reported, no additional cultural resources were documented that would be directly or indirectly be affected by the proposed Project development. Cultural Reports and Studies that state NRHP, CRHR, or HCM criterion determinations are made by the author or investigators of the reports and studies and not determined by APRMI.

Table 5. Results of SCCIC Cultural Reports and Studies Identified

Report Number	Author(s)	Year	Title	Resources	Location
LA-00186	Brock, James and John F. Elliott	1988	A Cultural Resources Assessment for the Raiders Stadium Project, Irwindale, California.	19-001368, 19-189104, 19-190992	Within a 1/4-mile radius
LA-02649	Unknown	1989	Historic Properties Overview for Routinue Properties Overvew for Routine Operation Maintenance, Los Angeles County Drainage Area (LACDA)	19-000053, 19-000057, 19-000068, 19-000111, 19-000167, 19-000300, 19-000345, 19-000858, 19-001009, 19-001311, 19-001368	Within a 1/4-mile radius
LA-11185	Glenn, Brian	2007	Cultural Resources Assessment Letter Report for El Encanto Project Area, County of Los Angeles, California	19-000241, 19-001368, 19-186917	Within a 1/4-mile radius

7.2.5 Archival Research

Through archival research for Native American concerns, it was concluded that the closest Tongva-Gabrielino village was located north of the present city of Azusa which is approximately 1-3 miles east of the Project area. The village, named Asuksangna, was one of the largest permanent villages in the lowlands of the San Gabriel Valley. It was located near the drainage of the San Gabriel watershed; this watershed eventually formed the San Gabriel River. This location was essential for the people living in Asuksangna (Medina 2013). The huts or *kich* were located above the river away from flooding areas but near a water source that could provide subsistence. The people of Asuksangna, followed footpaths that led to gathering sites today, these sites are major landmarks are known as Mount Wilson, Red Box Saddle, Millard Canyon, and the camps of the Chilao backcountry. This is the only information regarding a Native American village that could be found through our archival research, however, this does not mean this is the only Native American village in the area or that there is additional information on this village that we could not find. It is not uncommon that many Native American tribes do not want the information regarding their ancestral homeland known to people outside of their culture or tribe. The San Gabriel area would have been a desirable location for the original peoples of the area to settle, so there is always the possibility of uncovering unrecorded sites during Project ground disturbing activities.

The BERD was reviewed to find information regarding the current inventories of historic properties, landmarks, structures, etc. No historic resources were listed in the BERD directory within the Project or within a quarter-mile radius. As previously mentioned, the Puente Largo Bridge was evaluated, and it was determined that it is not eligible per NHRP/CRHR status to be listed as a historic structure.

Additionally, the Historic Preservation portion of the City of Duarte General Plan 2005-2020 was reviewed. The General Plan states that a survey was conducted to identify possible historic

structures in the city. The survey was conducted in 2002 and it included all properties within the City of Duarte. According to page 8 of the General Plan "The survey focused on identifying buildings and structures which displayed architectural elements and structures that contribute to the historical fabric of Duarte". However, the results of that survey require more research and are not available to the public. The survey did not consider other historic Criterion that is evaluated for historic status. If any buildings or structures were identified, they have not been listed in been sent to the appropriate entity for evaluation.

7.2.6 Historic Topographic Maps and Aerial Images

APRMI's independent review of the USGS HTMC did not identify any buildings or structures within the Project area between 1897 to 1953 (Figure 6). It appears that structures were present near the Project vicinity in 1897 and were likely removed because they are not depicted in the 1939 map. Route 66/Foothill Boulevard was located southwest of the Project area and is shown in the 1939 and 1953 maps as a solid red line. In addition, the Pacific Electric Railway was constructed in the 1907 and according to the 1939 map the railway was located near the Project area. The development of the surrounding area in Duarte was underway by 1953. However, no development occurred within the Project boundaries.

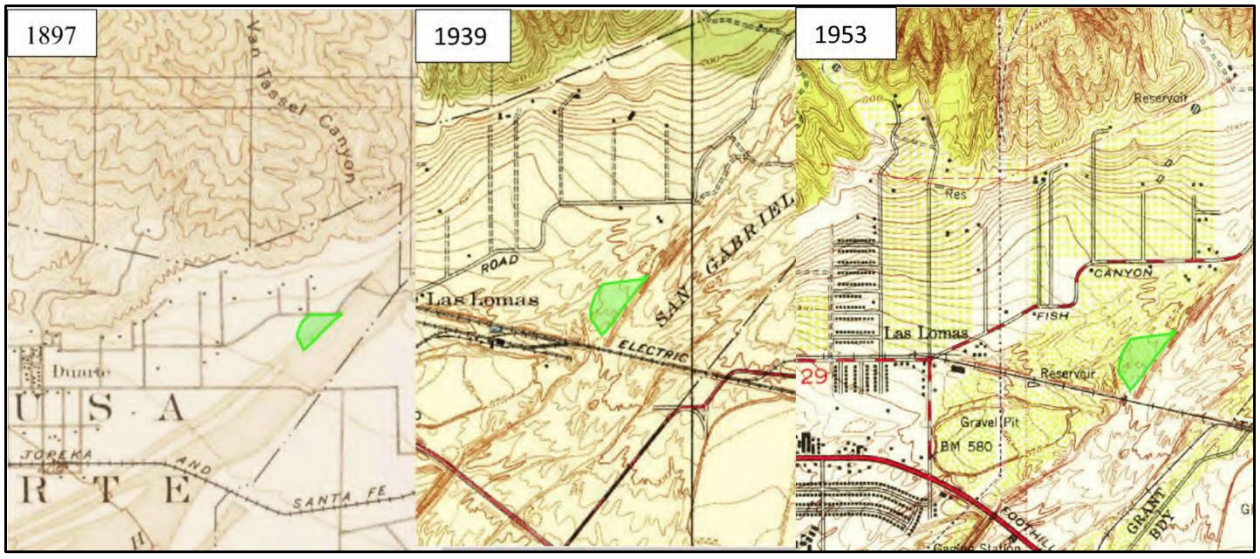

Figure 15. USGS historic topographic maps from 1897 to 1953 with the approximate location of the Project outlined in green

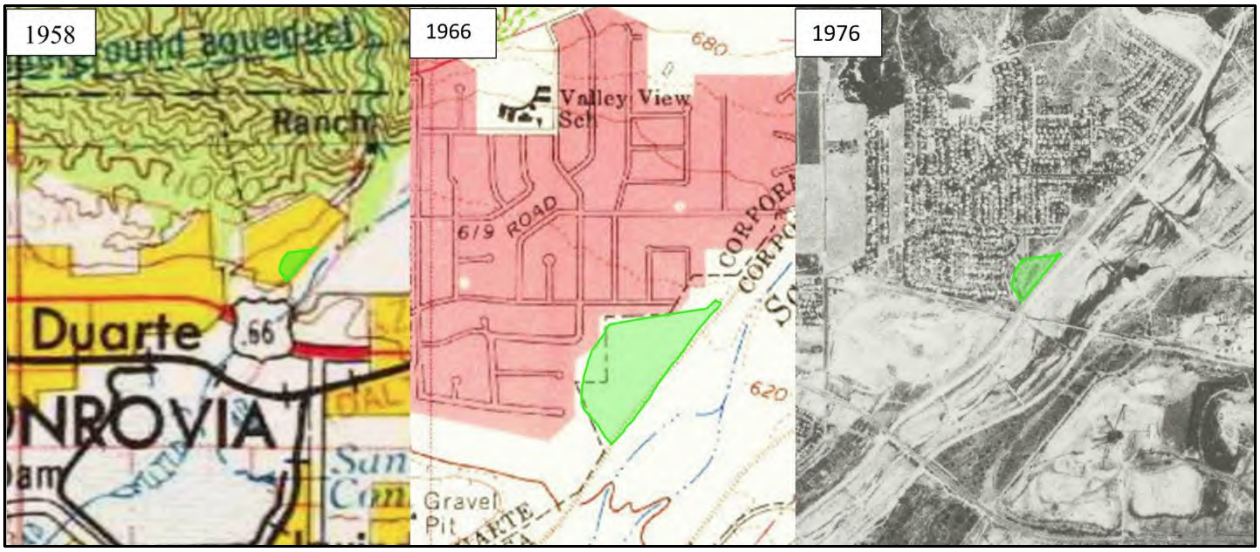

Figure 16. USGS historic topographic maps from 1958 to 1976 with the approximate location of the Project area in outlined in green

By 1958 more of Duarte was being populated, depicted as yellow indicating populated places in Figure 7. The area near the Project boundaries also appears to have begun to be developed. Research revealed that some of the residences that border the Project boundaries were constructed in 1957. By 1976 a fully developed residential neighborhood was present and it bordered the north-west-south portion of the Project area.

Figure 17. Google Earth Pro Historical Imagery from 1994 to 2011 with the Project area outline in green

Encanto Park and the Duarte Historical Museum were constructed in the early 1990s. The Park, museum, and the park amenities were already established as seen in the 1994 image in Figure 8. Between 1976 and 1994 more residences were built near the park, specifically the residences near the intersection of Royal Oaks Drive and Encanto Parkway. No changes occurred at the park or immediate surrounding area. However, it does appear that some trees were removed on the northwest portion of the Park where the nature path is located, sometime around 2011. No historic structures were observed within the Project boundaries.

8.0 NATIVE AMERICAN CONTACT RESULTS

APRMI requested a Sacred Lands File Search and a Native American Contacts list for the proposed Project from the Native American Heritage Commission (NAHC) on February 3, 2022. The NAHC's search of the Sacred Lands Files, received by APRMI on March 28, 2022, stated **positive** results for known sites in the Project area. The NAHC provided APRMI with a Native American Contacts list (see Appendix C). APRMI contacted the tribes, individuals, and organizations listed by phone, to assure that the mailing information is correct and to let them know that an informational package regarding the Project, including a project description, was being sent to them by mail. The Project informational package along with an accompanying letter was sent to them by regular mail, on April 11, 2022. All letters sent to the Native Americans, and accompanying responses, can be viewed in Appendix C.

On May 2, 2022, Chairperson Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council responded to APRMI through personal (verbal) communication and states he wants to be involved in all Project related updates and interested in being a Native American monitor for the Project regarding any Native American resources within the Project area. He stated this region is considered a scared area for him and his ancestors.

On May 05, 2022, Christina Conley-Haddock the Cultural Resource Administrator of the Gabrielino Tongva Indians of California responded to APRMI via email communication and stated that the Project site is considered culturally sensitive and are recommending that one of their tribal monitors be present for all ground disturbances.

On May 09, 2022, Bonnie Bryant the Cultural Resources Tech for the San Manuel Band of Mission Indians (SMBMI) responded to APRMI via email communication and stated that they appreciate the opportunity to review the Project documentation but that the Project is located outside of Serrano ancestral territory and will not be requesting to receive consulting from the lead agency or participate in the scoping, development, or review of documents created pursuant to legal and regulatory mandates.

ASSEMBLY BILL 52 NATIVE AMERICAN CONSULTATION

The City of Duarte will conduct the Native American consultation process with the individuals listed in the previous section, and/or through their own consultation list, as required by Assembly Bill 52, and prepare the documentation that takes place between the City of Duarte and Native American interested parties. APRMI will help in the process if requested by the City of Duarte.

9.0 CONCLUSIONS

The field reconnaissance of the Project area yielded negative results for known archaeological and paleontologic resources. Pedestrian surveys only allow surficial observation and if ground visibility on the Project is poor due to the existing landscaping, parking lots, and structures present on the majority of the Project area, that will affect the potential to identify a site, feature, or isolate that many be there. The nature trail located within the Park is the only location where soil was observable. The Project is an in use multi-purpose urban park that was landscaped standard park

vegetation and with native vegetation such as alluvial fan scrub which includes scale broom, sagebrush, Mexican Elderberry along the nature trail. Scrub oak trees were also present within the site boundaries. Despite these negative results, there is still the potential to encounter cultural resources during Project related grubbing, grading, and excavation activities.

Collections Manager, Dr. Alyssa Bell of the Natural History Museum of Los Angeles County stated in the paleontological results that fossil localities have been recorded in similar sedimentary deposits that may be found in the Project site itself, but there is no record of known fossil localities within the direct boundaries of the Project. Holocene/Pleistocene alluvial sediments have produced fossil specimens of Bison, Mammoth, Mastodon, and Horse in the region, but depths of these discoveries are not known due to unrecorded data. Within the Project quarter-mile radius horse, fish, and ground sloth fossil remains have been discovered some at depth of 15-30 feet below the ground surface. The formation in which these fossil remains were found is unknown but data states they derive from Pleistocene sediments. Although the field reconnaissance yielded negative results for paleontological resources, this does not preclude the possibility to uncover paleontological sites or fossil remains within the Project area

Results of the cultural resources records search state that no resources were identified within the immediate Project boundaries. However, isolated flakes, a refuse site, and the Puente Largo Bridge are resources that have been previously documented and are located within the quarter-mile radius of the Project. These resources were assessed and do not meet the qualifications to be listed as historic resources. Further data on prehistoric and/or Native American presence was provided by the NAHC stating **positive** results regarding the SLF data within the area. Due to the sensitive nature of tribal resources, further information regarding the locality, type of resource, or other pertinent information was not provided. APRMI contacted the tribes, individuals, and organizations provided by the Native American Contacts list. Letter and verbal correspondence were given to the Native Americans on the NAHC list by APRMI with information on the Project, the results of the SLF, and were asked to comment on their ancestral homeland. Additionally, archival research determined that a Native American village was located near the Project area. In conjunction with the data collected, the Project has been determined to be potentially sensitive for archaeological and tribal resources. APRMI recommends full time on site archaeological resources construction monitoring to be conducted by a qualified archaeologist. This will reduce the damage to any potential archaeological or tribal resources discovered in the Project site itself to a less than significant impact. Additionally, a qualified Native American monitor with ancestral ties to the area should also be retained during ground disturbing activities, per the AB52 list the lead agency has regarding their consultation process.

10.0 RECOMMENDATIONS

While there are no known prehistoric and historic artifacts, sites, or features that have been recovered within the boundaries of the Project or a quarter mile, that might have been due to the lack of preservation during early urban development or during the park construction. There is a possibility that subsurface archeological resources may still be present. Therefore, it is critical that full-time archaeological resource monitoring be conducted by a qualified archaeologist during construction-related activities until the archaeologist deems that they no longer need to monitor Project construction. After the conclusion of Native American consultation, a Native American

monitor should be allowed to monitor the Project excavation, if the consultation requires it.

The Project area has a known potential for paleontological resources per Alysa Bell of the NHMLA, stating fossils have been recovered in the within a quarter-mile radius of the Project boundaries. The sediments present in the APE consists of older Quaternary gravels and alluvial sediments that has yielded significant vertebrate fossil remains at other locations nearby. While surficial sediment is unlikely to yield paleontological resources, fossiliferous sediment may be present at an unknown depth. Under the current design a storm drain diversion, pre/post-treatment units, and an underground storage facility will be installed near the current parking lot, the depths for the installation of these units are only estimated at the moment. The Project site sits above alluvial sediments and although the depths of these sediments is currently unknown, Pleistocene fossils have been recovered near the Project at 15-20 feet below the surface grade. Therefore, any Project related excavation is to be monitored by a qualified paleontologist for potential fossil remains. Full time monitoring of the storm water infiltration and retention system excavation is required. If there is evidence that microfossils (small teeth or bone fragments weathering out of the sediment) is observed at any time during mitigation monitoring, soil samples of the native sediment should be collected and processed per SVP guidelines.

Once construction activities have been completed, any prehistoric, historic, or paleontological sites that were located during construction, must be recorded, and the artifacts or fossil remains must be cleaned, catalogued, photographed, and prepared for curation and accession to a legal local repository, such as the Natural History Museum of Los Angeles County, for final curation. A final Report of Findings (or Negative Findings) must be completed and sent to the County of Los Angeles, the legal curation repository, the State of California, and additional agencies if requested.

As determined by the qualified Project archaeologist, a qualified local Native American monitor should be retained during ground disturbing activities, per the list of tribal contacts provided by the Native American Heritage Commission, or those on the lead agency's SB52 Consultation list, for any sensitive Tribal cultural resources that may be uncovered. If Tribal cultural resources are discovered, all construction within fifty (50) feet of the find/site will stop and the qualified Project archaeologist with the Native American monitor will assess the significance of the find to determine the appropriate avoidance measures and mitigation. Upon completion of Tribal cultural resource construction monitoring, a compliance report that summarizes the monitoring efforts by the Native American monitor will be prepared. This report will be submitted to the qualified Project archaeologist to add to the final archaeological Report of Findings document.

Since the Record Searches and on-line analysis shows that there is the potential of finding prehistoric and historic cultural resources, Tribal concerns as discussed during the Native American contact period, and the potential fossil sites and remains, Table 7 explains the Project Mitigation Measures to be followed on the Project.

Table 6. Mitigation Monitoring and Reporting Plan for the Encanto Park Stormwater Project		
Impact	***Mitigation Measure***	***Impact after Mitigation Measure***
PAL-1 Development of the proposed project could potentially disturb undiscovered paleontological resources present on the project site.	MM-PAL-1a Prior to the commencement of construction, a qualified paleontologist shall be retained by the contractor, and he/she will create a Worker's Environmental Awareness Program (WEAP) pamphlet that will be provided as training to construction personnel to understand regulatory requirements for the protection of paleontological resources. This training shall include examples of paleontological resources to look for and protocols to follow if discoveries are made. The paleontologist shall develop the training and any supplemental materials necessary to execute said training. MM-PAL-1b Paleontological resources monitoring shall be conducted during excavation for the Project by a qualified paleontological resource monitor, per Society for Vertebrate Paleontology (2010) standards, under the supervision of a qualified Lead Paleontologist. Monitoring will entail the visual inspection of excavation or grading area and trench sidewalls, and during the storm water infiltration and retention system excavation. The qualified paleontological resources monitor will periodically assess monitoring results in consultation with the Lead Paleontologist. If no (or few) significant fossils have been exposed, the Lead Paleontologist may determine that full time monitoring is no longer required, and periodic spot checks or no further monitoring may be recommended. During construction monitoring, the monitor should process soil samples for micro-fauna per SVP guidelines. MM-PAL-1c In the event that paleontological resources are encountered when a monitor is not on site, all construction shall cease within at least 50 feet of the discovery and the Principal Investigator and Lead Paleontologist must be notified immediately. If the monitor is present at the time of discovery, then the monitor will have the authority to temporarily divert the construction equipment around the find and notify the Principal Investigator and Lead Paleontologist until it is assessed for scientific significance. Work cannot resume in the direct area of the discovery until the it is assessed by the Principal Investigator and/or Lead Paleontologist indicates that construction can resume. MM-PAL-1d If a paleontological discovery requires an excavation team or requires additional time to collect specimens, the area will be cordoned off and secured so that a paleontological resources excavation crew, led by the Principal Investigator and Lead Paleontologist, may retrieve the remains out of that localized area of in situ deposits while excavation, monitored by a paleontological resource monitor, can continue in other areas. Once the Principal Investigator and Lead Paleontologist has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area. If the	Less than Significant

	fossil site is too large and requires an excavation team, a Paleontologic Mitigation Plan (PMP) must be written and must be approved by the Lead Agency prior to the onset of work. MM-PAL-1e All significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Any fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are accessioned to a locally recognized repository. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level, catalogued, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials within Los Angeles County or other local repository. Accompanying notes, maps, and photographs shall also be filed at the repository. The cost of curation is assessed by the repository and is the responsibility of the Project proponent. MM-PAL-1f At the conclusion of laboratory work, but before museum curation, a final report will be prepared describing the results of the paleontological mitigation monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the geology and paleontology in the project vicinity, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. A copy of the report will be submitted to the lead agency and the designated museum repository.	
CR-1 Construction associated with the proposed Project would result in the destruction or alteration of the character of known historically significant buildings and properties.	No known historically significant buildings and properties have been identified within or adjacent to the project site. Therefore, impacts would be less than significant an no mitigation is required.	Less than Significant.

	MM-CR-2a Prior to the commencement of construction, a professional archaeologist shall be retained by the contractor, and he/she will create a Worker's Environmental Awareness Program (WEAP) pamphlet that will be provided as training to construction personnel to understand regulatory requirements for the protection of cultural resources. This training shall include examples of archaeological cultural resources to look for and protocols to follow if discoveries are made. The archaeologist shall develop the training and any supplemental materials necessary to execute said training. MM-CR-2b Archaeological resources monitoring shall be conducted by an archaeological resource monitor, during Project related earth-disturbing activities, per OHP/SOI standards, under the supervision of a qualified Lead Archaeologist. Monitoring will entail visual inspection of Project related earth-disturbing activities (i.e. trenching, shoring, utility installation, storm drain diversion, pre/post-treatment units, and an underground storage facility, etc.) MM-CR-2c An approved Native American monitor(s), with documented ancestral ties to the area consistent with the standards of the Native American Heritage Commission (NAHC) shall be present for all ground disturbing activities that involve excavation of previously undisturbed soil. Monitoring will entail visual inspection of Project related earth-disturbing activities. MM-CR-2d If an archaeological resource is encountered during construction when a monitor is not on site, all construction shall cease within at least 50 feet of the discovery and the Principal Investigator and Lead Archaeologist must be notified. Work cannot resume in the direct area of the discovery until the it is assessed by the Principal Investigator and/or Lead Archaeologist and indicates that construction can resume. MM-CR-2e If an archaeological discovery cannot be preserved in situ and requires an excavation team or requires additional time to collect cultural resources, a Discovery and Treatment Plan (DTP) will be developed and the area will be cordoned off and secured so that an archaeological resources excavation team, led by the Principal Investigator and Lead Archaeologist, may recover the cultural resources out of that contained area. Once the Principal Investigator has determined that the collection process is complete for a given area or locality, construction activity will resume in that localized area. MM-CR-2f All significant cultural resources collected will be prepared in a properly equipped laboratory to a point ready for curation. Following laboratory work, all cultural resources will be identified, catalogued, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Any cultural resources collected shall	Less than Significant

	be donated to a public or non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or local museum. Accompanying notes, maps, and photographs shall also be filed at the repository. The cost of curation is assessed by the repository and is the responsibility of the Project proponent. MM-CR-2g At the conclusion of laboratory work, but prior to museum curation, a final findings report will be prepared describing the results of the cultural mitigation monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the cultural background within the project vicinity, a list of cultural resources recovered (if any), an analysis of cultural resources recovered (if any) and their scientific significance, and recommendations. A copy of the report will be sent to the Lead Agency and be submitted to the designated museum repository.	
CR-4 Native American human remains may be inadvertently uncovered during project construction.	MM-CR-4a In the event of Native American human remains being inadvertently uncovered during Project construction, the Project proponent would immediately cease activity in the vicinity of the discovery and notify the local Native American most likely descendent (MLD) if not already on site and the procedures dictated by law must be implemented.	Less than Significant

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Appendix A

Paleontological Records Search

Project Information

Project Name: Encanto Park Stormwater Capture Project
County: Los Angeles
ArchaeoPaleo Project number: 2022-01

Project Background

The Encanto Park Stormwater Capture Project (Project or Park) development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. Additionally, native landscaping and permeable parking stalls will be added as surface improvements to the Encanto Park's parking lot. Construction of the subsurface diversion structure of the proposed Project would occur within Encanto Park.

Project Location

The Project area is located within the City of Duarte, Los Angeles County, California. Specifically, the park is located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway.

USGS Quadrangle Name: Azusa, California., 7.5-minute quadrangle, dated 2018, San Bernardino Base Meridian
Township _1N_ Range _10W_ Section(s) 28

UTMs:
Zone 11N; 413595m E/ 3778485m N (NAD83).

Project Vicinity & Location Maps:

Figure 1. Topographic regional overview of Project Location outlined in green

Figure 2. Topographic overview of Project Location outlined in green

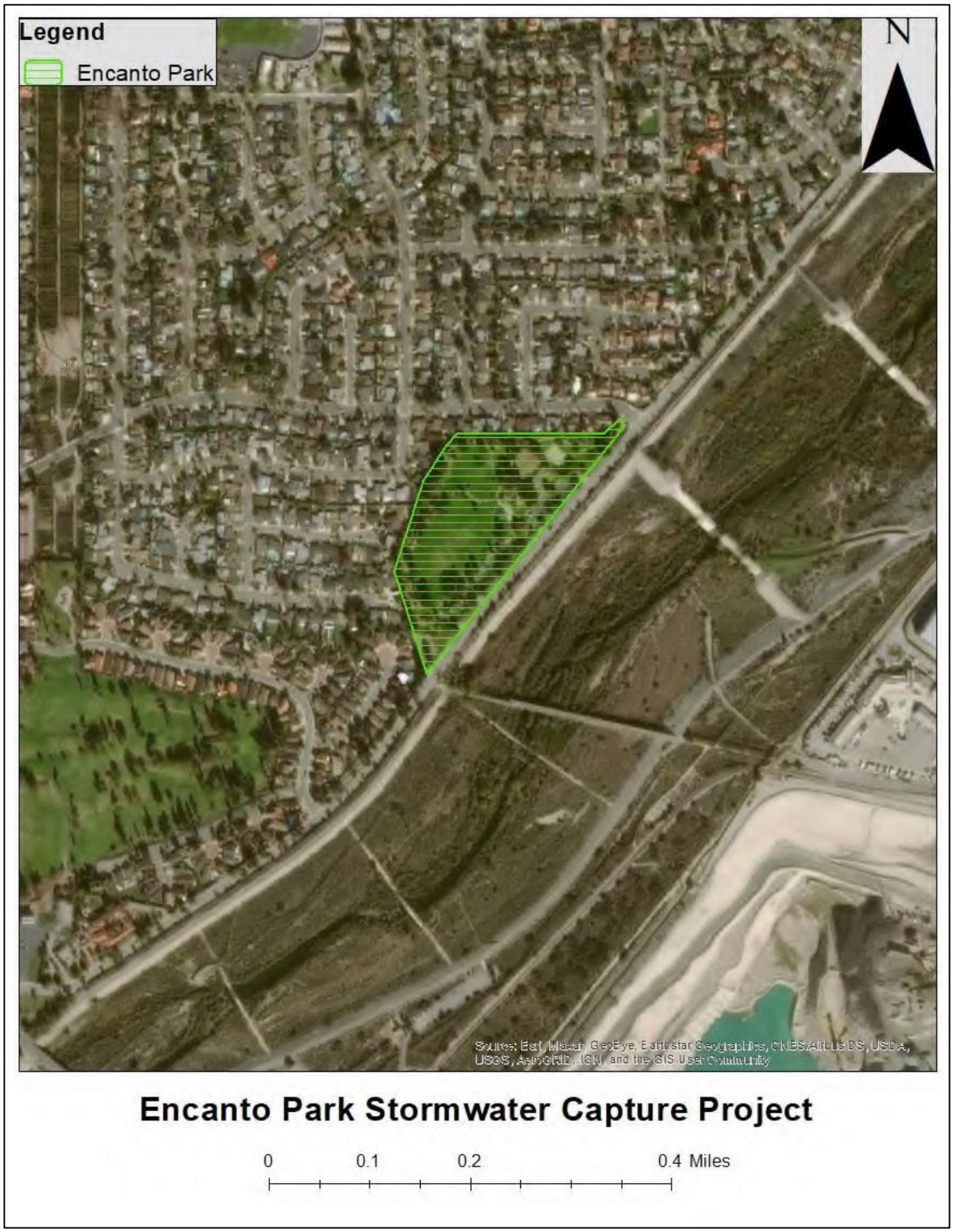


Figure 3. Satellite overview of Project Location outlined in green

Project Construction
Construction of the subsurface diversion structure of the proposed Project would occur within Encanto Park. Construction activities for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration. Construction of the pipelines would use the open-trench method of construction, except at busy intersections where a boring and jacking method may be used. Construction activities in the Park would include removal of existing turf and hardscaping within the construction footprint, site preparation, site grading, excavation, installation of pipelines, and surface restoration, including landscaping species restoration.

Project Purpose and Objectives
The Proposed Project is a City of Monrovia and Department of Public Works project to be funded by the County of Los Angeles Safe Clean Water Program, the primary objective of the project is to improve water quality within the San Gabriel River through runoff/pollutant capture, infiltration, filter, and release

Required Project Approvals
In order for the Project to be implemented, a series of actions and approvals would be required from the City of Monrovia which is the Lead Agency for the NEPA/CEQA implementation.

Company/Contact: ArchaeoPaleo Resource Management, Inc. is the archaeological and paleontologic firm that will be preparing project documents on behalf of the City of Los Angeles Department of Public Works Bureau of Sanitation.

Contact Person: Robin Turner, MA-Principal Investigator, President, CEO
Street Address: 1531 Pontius Ave., Suite 200
City: Los Angeles, CA Zip: 90025
Phone: 424-248-3316
Fax: 424-248-3417
Email: rturner@archaeopaleo.com

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

February 13, 2022

ArchaeoPaleo Resource Management, Inc.
Attn: Robin Turner

re: Paleontological resources for the Encanto Park Stormwater Capture Project

Dear Robin:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Encanto Park Stormwater Capture project area as outlined on the portion of the Azusa USGS topographic quadrangle map that you sent to me via e-mail on February 5, 2022. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

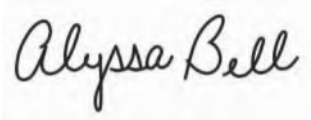
Locality Number	Location	Formation	Taxa	Depth
LACM VP 3363	W of Monterey Pass Road in Coyote Pass; E of the Long Beach Freeway & S of the N boundary of Section 32; Monterey Park	Unknown Formation (Pleistocene; sand and silt)	Horse (*Equus*)	Unknown
LACM VP 7702	Intersection of 26th St and Atlantic Blvd, Bell Gardens	Unknown Formation (Pleistocene; silt)	Fish (*Gasterosteus*); Snake (Colubridae), Rodents (*Thomomys, Microtus, Reithrodontomys)*; Rabbit (*Sylvilagus*)	30 feet bgs
LACM VP 7508	Near intersection of Vellano Club Dr. and Palmero Dr., Oakcrest Development; N of Serrano Canyon, Chino Hills	Unknown formation (Pleistocene)	Ground sloth (*Nothrotheriops*); elephant family (Proboscidea); horse (*Equus*)	Unknown
LACM VP 7268, 7271	Sundance Condominiums, S of Los Serranos Golf Course	Unknown (Pleistocene)	Horse (*Equus*)	Unknown
LACM VP 1728	W of intersection of English Rd & Peyton Dr, Chino	Unknown (light brown shale with interbeds of very coarse brown sand; Pleistocene)	Horse (*Equus*), camel (*Camelops*)	15-20 feet bgs

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the NHMLA. It is not intended as a

paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice

Appendix B

Historic and Cultural Record Searches

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00186		1988	Brock, James and John F. Elliott	A Cultural Resources Assessment for the Raiders Stadium Project, Irwindale, California.	Archaeological Advisory Group	19-001368, 19-189104, 19-190992
LA-02649		1989	Anonymous	Historic Properties Overview for Routinue Properties Overvew for Routine Operation Maintenance, Los Angeles County Drainage Area (lacda)	MITECH	19-000053, 19-000057, 19-000068, 19-000111, 19-000167, 19-000300, 19-000345, 19-000858, 19-001009, 19-001311, 19-001368
LA-11185		2007	Glenn, Brian	Cultural Resources Assessment Letter Report for El Encanto Project Area, County of Los Angeles, California	Bonterra Consulting	19-000241, 19-001368, 19-186917

Resource Detail: P-19-001368

Identifying information

Primary No.: P-19-001368
Trinomial: CA-LAN-001368
Name: RS-1
Other IDs:

Type	*Name*
Resource Name	RS-1

Cross-refs:

Attributes

Resource type: Site
Age: Historic
Information base: Survey, Testing, Excavation
Attribute codes: AH04 (Privies/dumps/trash scatters)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/13/1988	Ivan Strudwick	Archaeological Advisory Group	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
LA-00186	1988	A Cultural Resources Assessment for the Raiders Stadium Project, Irwindale, California.	Archaeological Advisory Group
LA-02111	1989	A Cultural Resource Assessment of the Proposed Azusa Quarry Conveyor/haul Road Azusa, California	Scientific Resource Surveys, Inc.
LA-02649	1989	Historic Properties Overview for Routinue Properties Overvew for Routine Operation Maintenance, Los Angeles County Drainage Area (lacda)	MITECH
LA-08679	2006	Cultural Resources Records Search Results and Site Visit for T-mobile Usa Candidate Ie24753a (n. of Fotthill and Irwindale), 751 Encanto Parkway, Duarte, Los Angeles County, California	Michael Brandman Associates
LA-11185	2007	Cultural Resources Assessment Letter Report for El Encanto Project Area, County of Los Angeles, California	Bonterra Consulting

Location information

County: Los Angeles
USGS quad(s): AZUSA
Address:
PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*
Entered:	5/6/2008	jay
Last modified:	9/4/2019	sstjames

IC actions:

Date	*User*	*Action taken*
[illegible]	[illegible]	[illegible]

	5/6/2008	jay
Record status:	Verified	

Resource Detail: P-19-190993

Identifying information

Primary No.: P-19-190993
Trinomial:
Name: Pacific Electric Bridge; Puente Largo, The Great Bridge
Other IDs:

Type	*Name*
Resource Name	Pacific Electric Bridge
Resource Name	Puente Largo, The Great Bridge

Cross-refs:

Attributes

Resource type: Structure
Age: Historic
Information base: Survey
Attribute codes: HP19 (Bridge)
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
1/19/1988	John E. Elliott	AAG	

Associated reports

Location information

County: Los Angeles
USGS quad(s): AZUSA
Address:

Address	*City*	*Assessor's parcel no.*	*Zip code*
N of Santa Fe Flood Control Basin across San Gabriel River	Azusa		

PLSS:
UTMs:

Management status

Database record metadata

	Date	*User*
Entered:	2/4/2015	mgalaz
Last modified:	9/4/2019	sstjames

IC actions:
Record status: Verified

Appendix C

NAHC Records Search, Letters, and Contact List

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Encanto Park Stormwater Capture Project

County: Los Angeles

USGS Quadrangle Name: Azusa Quadrangle

Township: 1 N **Range:** 10W **Section(s):** 28

Company/Firm/Agency: ArchaeoPaleo Resource Management, Inc.

Street Address: 1531 Pontius Avenue Suite 200

City: Los Angeles **Zip:** 90025

Phone: 424-248-3316

Fax: 424-248-3417

Email: rturner@archaeopaleo.com

Project Description:

The Encanto Park Stormwater Capture Project (Project or Park) development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. Additionally, native landscaping and permeable parking stalls will be added as surface improvements to the Encanto Park's parking lot. The Project is located in the City of Duarte, Los Angeles County Township 1 North, Range 10 West Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595m E/ 3778485m N (NAD83).

Project Location:

The Project area is located within the City of Duarte, Los Angeles County, California. Specifically, the park is located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway

Project Construction:

Construction of the subsurface diversion structure of the proposed Project would occur within Encanto Park. Construction activities for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration. Construction of the pipelines would use the open-trench method of construction, except at busy intersections where a boring and jacking method may be used. Construction activities in the Park would include removal of existing turf and hardscaping within the construction footprint, site preparation, site grading, excavation, installation of pipelines, and surface restoration, including landscaping restoration.

Project Purpose and Objectives:

The Proposed Project is a City of Monrovia and Department of Public Works project to be funded by the County of Los Angeles Safe Clean Water Program, the primary objective of the project is to improve water quality within the San Gabriel River through runoff/pollutant capture, infiltration, filter, and release

Required Project Approvals:

In order for the Project to be implemented, a series of actions and approvals would be required from the City of Monrovia which is the Lead Agency for the NEPA/CEQA implementation.

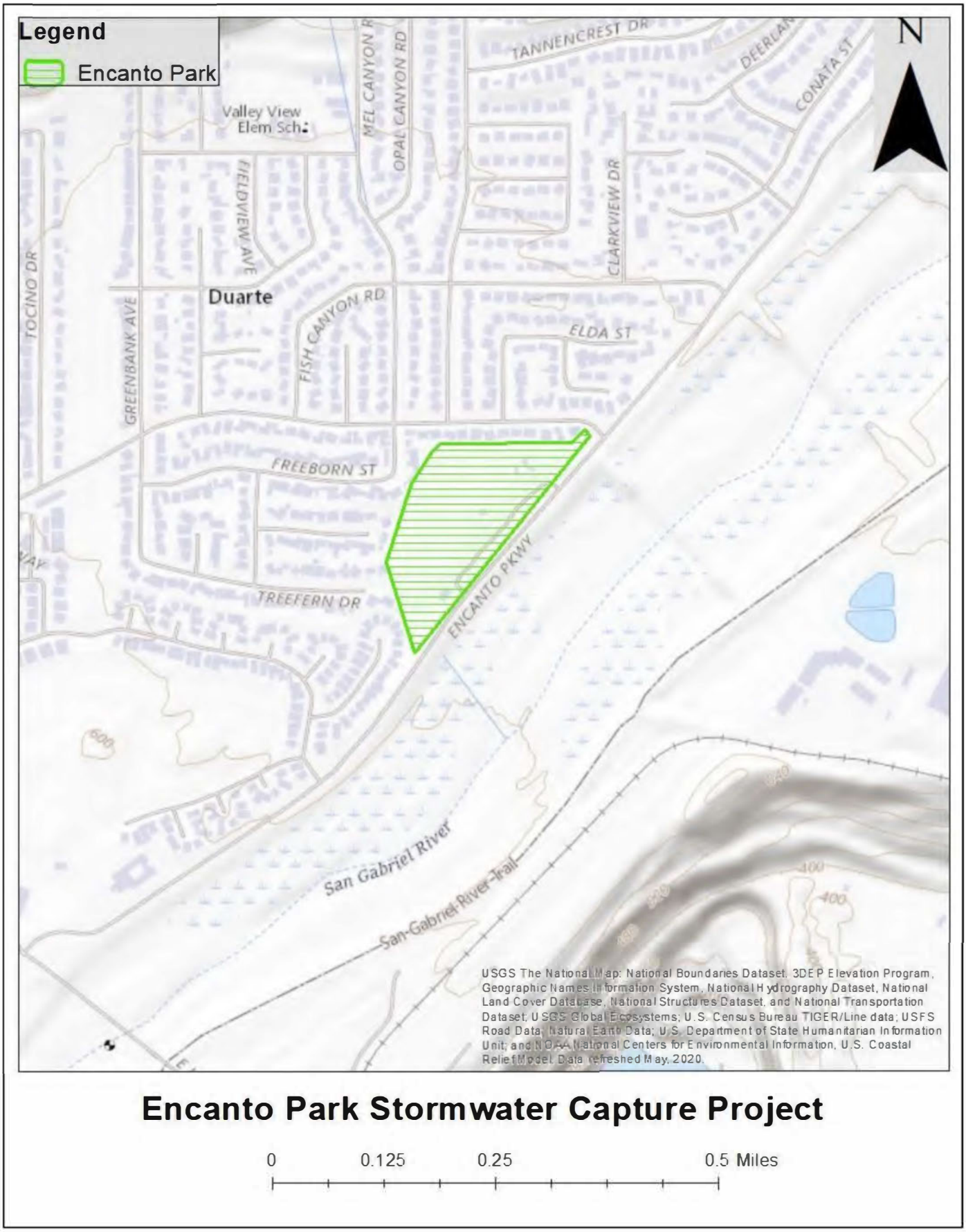


Figure 1. Topographic regional view of Project Location outlined in green

Figure 2. Topographic overview of Project Location outlined in green.

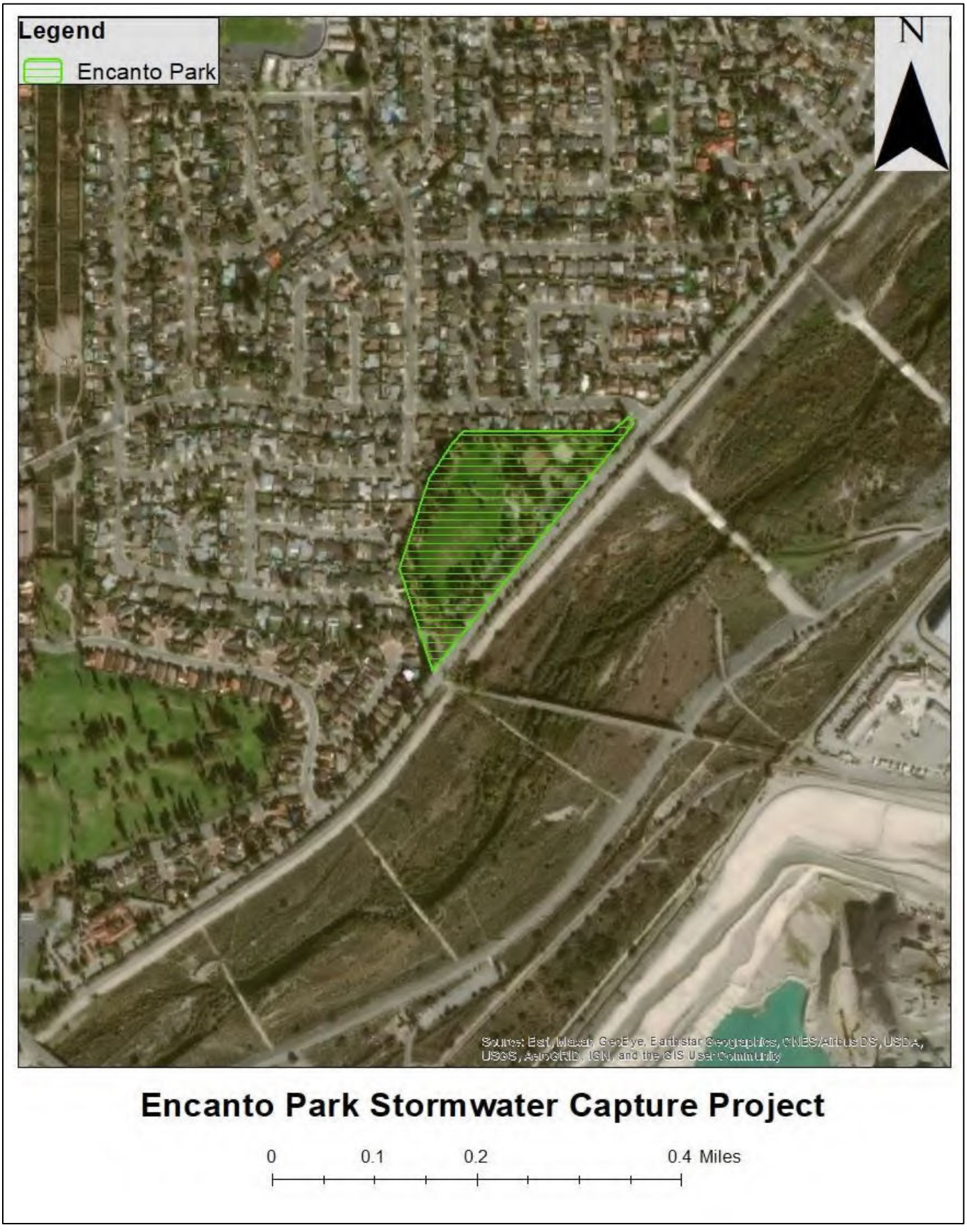


Figure 3. Satellite view of Project Location outlined in stripped green

Native American Heritage Commission
Native American Contact List
Los Angeles County
3/28/2022

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Christina Conley, Tribal Consultant and Administrator
P.O. Box 941078 — Gabrielino
Simi Valley, CA, 93094
Phone: (626) 407 - 8761
christina.marsden@alumni.usc.edu

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

Soboba Band of Luiseno Indians
Isaiah Vivanco, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 — Cahuilla
San Jacinto, CA, 92581 — Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Encanto Park Stormwater Capture Project, Los Angeles County.

ArchaeoPaleo Resource Management, Inc.
A full-service Archaeology and Paleontology company
SBE/WBE/WOSB/DBE/UDBE/EBE/LBE/SLBE/CBE/VSBE/MicroBE Certified

March 5th, 2021

Chairperson Sandonne Goad
Gabrielino/Tongva Nation
106 1/2 Judge John Aiso St., #231
Los Angeles, CA, 90012

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Chairperson Goad,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

Sincerely,

Robin Turner
CEO/President/Principal Investigator

ArchaeoPaleo Resource Management, Inc.
1531 Pontius Ave., Suite 200
Los Angeles, CA 90025
(424) 248-3316 ph.
(424) 248-3417 fax
rturner@archaeopaleo.com

ArchaeoPaleo Resource Management, Inc.
A full-service Archaeology and Paleontology company
SBE/WBE/WOSB/DBE/UDBE/EBE/LBE/SLBE/CBE/VSBE/MicroBE Certified

March 5th, 2022

Chairperson Robert Dorame
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, CA, 90707

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Chairperson Dorame,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

Sincerely,

Robin D. Turner

Robin Turner
CEO/President/Principal Investigator

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Los Angeles, CA 90025
(424) 248-3316 ph.
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March 5th, 2022

Tribal Chair Lovina Redner
Santa Rosa Band of Cahuilla Indians
P.O. Box 391820
Anza, CA, 92539

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Lovina Redner,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

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March 5th, 2022

Joseph Ontiveros, Cultural Resource Department
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA, 92581

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Joseph Ontiveros

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

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March 5th, 2022

Director of Cultural Resources Jessica Mauck
San Manuel Band of Mission Indians
26569 Community Center Drive
Highland, CA, 92346

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Jessica Mauck,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

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March 5th, 2022

Chairperson Isaiah Vivanco
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA, 92581

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Chairperson Vivanco,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

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March 5th, 2021

Christina Conley, Tribal Consultant and Administrator
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 941078
Simi Valley, CA, 93094

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Tribal Consultant and Administrator Conley,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

ArchaeoPaleo requested the Native American Heritage Commission to conduct a Sacred Lands File record check of the Project site and it was determined that the Project area is positive for tribal resources. Your name was given to us by the Native American Heritage Commission as being an interested party and/or contact. Since your ancestral homeland is part of this general vicinity, and this is a Feasibility Study, ArchaeoPaleo would like your input and views to see if you feel that there is ancestral significance on or close by this Project site on which you and/or your family would like to comment. Please send your written responses to my attention at the address at the bottom of this letter. I look forward to hearing from you.

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March 5th, 2022

Charles Alvarez
Gabrielino-Tongva Tribe
23454 Vanowen Street
West Hills, CA, 91307

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Charles Alvarez,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

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March 5th, 2022

Chairperson Anthony Morales
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA, 91778

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Chairperson Morales,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

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March 5th, 2022

Chairperson Andrew Salas
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA, 91723

Re: Encanto Park, Duarte, Los Angeles County, California

Dear Chairperson Salas,

Encanto Park Stormwater Capture Project proposes to development will involve the construction of a diversion structure, stormwater treatment units, and the construction of subsurface storage structures that will divert stormwater flows during low-flow and storm events, will remove pollutants from the captured water. The Project is located within the City of Duarte which is considered an incorporated portion of the Los Angeles County, Township 1 North, Range 10 West, Section 28, as denoted on the 7.5' United States Geological Society Topographic Map of the Azusa Quadrangle, UTMs: Zone 11N; 413595mE/ 3778485mN (NAD83), see attached. Specifically, the Project area is an 11-acre multi-purpose park located at 751 Encanto Parkway, Duarte, CA 91010. The park is bounded by Encanto Pkwy to the east and Royal Oaks Dr. to the northwest. Currently, the San Gabriel River is located approximately 800 feet southeast of the park and extends parallel to Encanto Parkway. The Project construction for pipelines, the diversions, and nature-based treatment areas within rights-of-way would include asphalt removal, excavation, trenching, pipelaying, backfill, and surface restoration.

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Appendix C
Noise Analysis Data

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: ENCANTO PARK — PROJECT #: 19154
SITE ID:
SITE ADDRESS:
OBSERVER(S): PEJE VITAR
START DATE: 3/16/22 — END DATE: 3/16/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS
TEMP: 73 F — HUMIDITY: 39 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 5 MPH — DIR. N NE E SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT: PICCOLO SCM-3 — TYPE 1 2 — SERIAL #: B092046
CALIBRATOR: REED R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
65-80 (ST1)	13:16	13:31							

COMMENTS: READING TAKEN IN SOUTHWESTERN PORTION OF ENCANTO PARK ALONG WALKING PATH; PRIMARY NOISE SOURCE IS TRAFFIC ON ENCANTO PKWY; SOME DISTANT TRAFFIC NOISE FROM [redacted] E. FOOTHILL BL / I-10 FWY TO THE SOUTH; PEOPLE OCCASIONALLY WALKING BY ON DIRT PATH (FOOTSTEPS);

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION: — MIN — SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE

COUNT 2 (OR RDWY 2)	MIN		SPEED	
	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING (DIST. TRAFFIC (JUST RDWYS BELOW)) DIST'D GARDENERS/LANDSCAPING NOISE
OTHER: DISTANT HELICOPTER NOISE AT VARIOUS POINTS IN READING;

DESCRIPTION / SKETCH
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3758; 3759; 3760; 3761; 3762; 3763
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT: ENCANTO PARK — PROJECT #: 14154
SITE ID:
SITE ADDRESS:
OBSERVER(S): PEDE VITAR
START DATE: 3/16/22 — END DATE: 3/16/22
START TIME: — END TIME:

METEOROLOGICAL CONDITIONS

TEMP: 73 F — HUMIDITY: 39 % R.H. — WIND: CALM (LIGHT) MODERATE
WINDSPD: 5 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT: PICCOLOS SCM-3 — TYPE 1 2 — SERIAL # 130427046
CALIBRATOR: TREND R8090 — SERIAL #:
CALIBRATION CHECK — PRE-TEST: ____ dBA SPL — POST-TEST: ____ dBA SPL — WINDSCRN: YES

SETTINGS: (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

	REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST3)	81–96	13:36	13:51							

COMMENTS: READING TAKEN AT [redacted] CENTRAL-WESTERN EDGE OF ENCANTO PARK, ALONG WALKING PATH; SOME DISTANT TRAFFIC NOISE FROM E. FOOTHILL BL / 210 FWY TO THE SOUTH; PEOPLE OCCASIONALLY WALKING BY ON DIRT PATH (FOOTSTEPS);

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP:

TRAFFIC COUNT DURATION: — MIN — SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS										
MED TRKS										
HVY TRKS										
BUSES										
MOTRCLS										

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: 3765; 3766; 3767; 3768; 3769; 3770
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT ENCANTO PARK — PROJECT # 14154
SITE ID
SITE ADDRESS — OBSERVER(S) PEDE VITAR
START DATE 3/16/22 — END DATE 3/16/22
START TIME — END TIME

METEOROLOGICAL CONDITIONS
TEMP 73 F — HUMIDITY 39 % R.H. — WIND CALM (LIGHT) MODERATE
WINDSPD 6 MPH — DIR. N NE S SE S SW W NW — VARIABLE STEADY GUSTY
SKY (SUNNY) (CLEAR) OVRCAST PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLUS SCM-3 — TYPE 1 2 — SERIAL # 130627046
CALIBRATOR 1KHZ 1C8090 — SERIAL #
CALIBRATION CHECK — PRE-TEST ____ dBA SPL — POST-TEST ____ dBA SPL — WINDSCREEN YES

SETTINGS (A-WTD) (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
ST2 97-112	13:55	14:10							

COMMENTS
READING TAKEN IN NORTHWESTERN PORTION OF ENCANTO PARK, ALONG WALKING PATH; SOME DISTANT TRAFFIC NOISE FROM E. FOOTHILL BLVD / 210 FWY TO THE SOUTH; PEOPLE OCCASIONALLY WALKING BY ON DIRT PATH (FOOTSTEPS); FAINT TRAFFIC NOISE FROM ENCANTO PKWY TO THE EAST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT — DIST. TO RDWY C/L OR EOP:
TRAFFIC COUNT DURATION: — MIN — SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS				
MED TRKS				
HVY TRKS				
BUSES				
MOTRCLS				

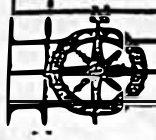
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
SPEED				

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING (DIST. CONVRSTNS) YELLING (DIST. TRAFFIC (LIST RDWYS BELOW)) DIST. GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 3772; 3773, 3774; 3775
OTHER COMMENTS / SKETCH



3758 - Looking northeast

3759 - Looking southeast

3760 - Looking southwest

3761 - Looking northwest

3772 - Looking south

3773 - Looking west

3774 - Looking north

3775 - Looking east

3765 - Looking southeast

3766 - Looking southwest

3767 - Looking northwest

3768 - Looking northeast

To User: bordered cells are inputs, unbordered cells have formulae

noise level limit for construction phase at residential land use, per FTA guidance = 80

allowable hours over which Leq is to be averaged = 8

Construction Activity	Equipment	Total Equipment Qty	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Client Equipment Description, Data Source and/or Notes	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq
Site Mobilization	grader	1	40	85		110	0.1		75.5	8	480	72
	dozer	1	40	82		110	0.1		72.5	8	480	69
	skid-steer*	1	40	80		110	0.1		70.5	8	480	67
									Total for Site Mobilization Phase:			**74.2**
Reservoir Excavation	excavator	1	40	81		200	0.1		65.0	8	480	61
	dozer	1	40	82		200	0.1		66.0	8	480	62
	dump truck	1	40	76		200	0.1		60.0	8	480	56
	skid-steer*	1	40	80		200	0.1		64.0	8	480	60
									Total for Reservoir Excavation Phase:			**66.3**
Reservoir Construction	crane	1	16	81		200	0.1		65.0	8	480	57
	dozer	1	40	82		200	0.1		66.0	8	480	62
	dump truck	1	40	76		200	0.1		60.0	8	480	56
	skid-steer*	1	40	80		200	0.1		64.0	8	480	60
									Total for Reservoir Construction Phase:			**65.4**
Pipeline and Treatment Facility Installation	excavator	1	40	81		110	0.1		71.5	8	480	68
	dozer	1	40	82		110	0.1		72.5	8	480	69
	dump truck	1	40	76		110	0.1		66.5	8	480	63
	skid-steer*	1	40	80		110	0.1		70.5	8	480	67
									Total for Pipeline and Treatment Facility Installation Phase:			**72.8**
Field Surface Replacement	grader	1	40	85		90	0.1		78.0	8	480	74
	dozer	1	40	82		90	0.1		75.0	8	480	71
	skid-steer*	1	40	80		90	0.1		73.0	8	480	69
									Total for Field Surface Replacement Phase:			**76.7**
Parking Lot Resurfacing and Other Improvements	paver	1	50	77		160	0.1		63.3	8	480	60
	pavement scarafier	1	20	85		160	0.1		71.3	8	480	64
	excavator	1	40	81		160	0.1		67.3	8	480	63
	roller	2	20	80		160	0.1		66.3	8	480	62
	dump truck	1	40	76		160	0.1		62.3	8	480	58
									Total for Parking Lot Resurfacing and Other Improvements Phase:			**69.2**

Notes

* https://ia.cpuc.ca.gov/Environment/info/ene/mesa/attachment/A1503003%20ED-SCE-01%20Q.PD-01%20Attachment%20(Revised%20Noise%20Levels%20Construction%20Equipment).pdf