

City of Rancho Cucamonga Central Park Amphitheater Project

DRAFT

Initial Study/Mitigated Negative Declaration

Prepared For:



City of Rancho Cucamonga
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August 2019

CENTRAL PARK AMPHITHEATER PROJECT

PROPOSED MITIGATED NEGATIVE DECLARATION AND NOTICE OF INTENT TO ADOPT THE PROPOSED MITIGATED NEGATIVE DECLARATION

This serves as the City of Rancho Cucamonga's Notice of Intent to adopt a Mitigated Negative Declaration for the Central Park Amphitheater Project, prepared in accordance with the California Environmental Quality Act (CEQA) and CEQA Guidelines.

Name of Project: Central Park Amphitheater Project

Project Location: The proposed Central Park Amphitheater Project (Project) site is located in the City of Rancho Cucamonga's Central Park. Central Park is located approximately in the center of the City of Rancho Cucamonga at 11200 Base Line Road, and is within Section 36 of Township 1 South, Range 7 West, on the Cucamonga Peak, California, U.S. Geological Survey 7.5-minute Quadrangle Map (1980). Bounded on the south by Base Line Road and on the east by Milliken Avenue, the Park is approximately 2.5 miles west of Interstate 15, 3.7 miles north of Interstate 10, and 0.7 miles south of the State Route 210 in between Interstate 10 and State Route 210 Freeways in Rancho Cucamonga.

Lead Agency: City of Rancho Cucamonga
10500 Civic Center Drive
Rancho Cucamonga, California 91730

Project

Description:

The proposed Project is the development of an approximately 40,000 square feet (sq. ft.) amphitheater on 11 acres located at the southcentral portion of Central Park. The Central Park Amphitheater will be an open-air, outdoor performing arts venue and multi-use space. The amphitheater's performance facility will consist of two stages separated by a building containing backstage facilities including a green room and restrooms. The backstage building will be approximately 1,320 sq. ft. and each stage will be approximately 1,300 sq. ft. The performance facility will be steel framed with plaster finish, matching the existing community/senior centers. House light-emitting diode lighting will be provided in the ceiling of the performance facility. No permanent stage performance lighting or sound amplification systems will be constructed.

Spectator seating for the amphitheater's main stage will consist of several concentric tiers of concrete terraced seating and an open viewing lawn area. The terraced seating will have capacity for approximately 300 spectators. An open viewing lawn area will be located behind the terraced seating and will be a flat or gently sloping grass area with a minimum amount of hard surface walkways. This area will be suitable for blanket or lawn chair seating and will have capacity for approximately 1,700 spectators.

A secondary stage will be located on the opposite side of the performance facility. The spectator area for this stage will consist of a fill gently sloping grass area suitable for blanket or lawn chair seating and will have capacity for approximately 1,200 spectators.



The project includes 158 unpaved parking spaces for event parking to supplement existing Central Park paved parking. Turf is proposed for this parking area, so it can be used as a large open space passive area when not needed for event parking.

While the amphitheater could be used for various sized events, major (full capacity) City of Rancho Cucamonga-sponsored events will only occur up to 12 times per year. These City of Rancho Cucamonga-sponsored events are currently held at Red Hill Park, located approximately 2.5 miles west of the Project site.

Construction is anticipated to begin in the first quarter of 2021 and continue for approximately 12 months.

The Project site is not designated a hazardous waste property, or a hazardous waste disposal site as enumerated under Section 65962.5 of the California Government Code.

NOTICE IS HEREBY GIVEN THAT the City of Rancho Cucamonga proposes to adopt a Mitigated Negative Declaration for the above-cited Project. Such Mitigated Negative Declaration is based on the finding that, by implementing the identified mitigation measures, the Project's potential impacts will be maintained at a less than significant level. The reasons to support such a finding are documented by the Initial Study prepared by the City of Rancho Cucamonga. Copies of the Initial Study, the proposed Mitigated Negative Declaration and supporting materials are available for review at the City of Rancho Cucamonga Community Services Department, located at 10500 Civic Center Drive, Rancho Cucamonga, CA 91730.

For questions regarding the Mitigated Negative Declaration, please contact:

NAME: Jeff Benson **PHONE:** 909.477.2760 ext. 2106
TITLE: Management Analyst II **EMAIL:** Jeff.Benson@cityofrc.us
ADDRESS: City of Rancho Cucamonga
Community Services Department
10500 Civic Center Drive
Rancho Cucamonga, CA 91730

Public Review Period: 30 days Begins: 8/21/2019 Ends: 9/19/2019

Public Hearing: Consideration of adoption of the Mitigated Negative Declaration via public hearing by the City of Rancho Cucamonga is scheduled to take place on October 2, 2019 at 7:00 pm at the City of Rancho Cucamonga located at 10500 Civic Center Drive, Rancho Cucamonga, CA 91730.

In accordance with CEQA Guidelines, any comments concerning the findings of the proposed Initial Study/Mitigated Negative Declaration must be submitted in writing and **received by the City of Rancho Cucamonga no later than 5:00 pm on September 19, 2019**, in order to be considered prior to the City of Rancho Cucamonga's final determination on the Project. Please submit your written comments to Jeff Benson, Management Analyst II, City of Rancho Cucamonga Community Services Department, located at 10500 Civic Center Drive, Rancho Cucamonga, CA 91730.





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ABBREVIATIONS AND ACRONYMS

AB	Assembly Bill
APSE	area of potential significant effects
AQMP	Air Quality Management Plan
BP	before present
BUOW	burrowing owl
CalEEMod	California Emissions Estimator Model®
CEQA	California Environmental Quality Act
CH ₄	methane
City	City of Rancho Cucamonga
CNEL	Community Noise Equivalent Level
CRHR	California Inventory of Historical Resources
CVWD	Cucamonga Valley Water District
cy	cubic yard
dB	decibel scale
dBA	A-weighted sound level
EIR	Environmental Impact Report
GHG	greenhouse gas
IEUA	Inland Empire Utilities Agency
lbs/day	pounds per day
LST	localized significance threshold
mgd	million gallons per day
N ₂ O	nitrous oxide
NAHC	Native American Heritage Commission
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHWM	ordinary high-water mark
PM ₁₀	particulate matter 10 micrometers or less in diameter
PM _{2.5}	particulate matter 2.5 micrometers or less in diameter
PRC	Public Resource Code
Project	Central Park Amphitheater Project
RP-4	Regional Plant No. 4
RCFD	Rancho Cucamonga Fire District
RCPG	Regional Comprehensive Plan and Guide

RCM	Regulatory Compliance Measure
SAA	Streambed Alteration Agreement
SBCM	San Bernardino County Museum
SBKR	San Bernardino Kangaroo Rat
SBTAM	San Bernardino Transportation Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SoCAB	South Coast Air Basin
SLF	sacred land files
sq. ft.	square feet/foot
TDF	travel demand forecasting
TDM	transportation demand management
SWPPP	Storm Water Pollution Prevention Plan
UWMP	Urban Water Management Plan
VdB	Vibration Velocity Level
VMT	Vehicle Miles Traveled

1.0 INTRODUCTION

The City of Rancho Cucamonga (City) is proposing to develop an approximately 40,000 square foot (sq. ft.) amphitheater on approximately 11 acres located at the southcentral portion of Central Park. The project includes 158 unpaved parking spaces for event parking to supplement existing Central Park paved parking. The amphitheater will have an approximately 2,000 spectator capacity. While the amphitheater could be used for various sized events, major (full capacity) City-sponsored events will only occur up to 12 times per year. These City-sponsored events are currently held at Red Hill Park, located approximately 2.5 miles west of the Project site.

The Central Park Amphitheater Project (herein referenced as “Project”) is needed to replace the use of the aging Red Hill Park facilities for City-sponsored events.

Following initial review of the proposed Project, the City has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the environmental effects of the Project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

This Mitigated Negative Declaration has been prepared by the City with technical assistance from Tetra Tech, Inc. to evaluate if implementation of the Project would have a significant effect on the environment. Pursuant to Section 15070 of the *Guidelines for Implementation of the California Environmental Quality Act* (14 California Code of Regulations Sections 15070-15075), a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

- (a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
- (b) The initial study identifies potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

1.2 REQUIRED CONTENT

CEQA Guidelines Section 15071 indicate that a Negative Declaration circulated for public review shall include:

- (a) A brief description of the project, including a commonly used name for the project, if any;
- (b) The location of the project, preferably shown on a map, and the name of the project proponent;
- (c) A proposed finding that the project will not have a significant effect on the environment;
- (d) An attached copy of the Initial Study documenting reasons to support the finding; and
- (e) Mitigation measures, if any, included in the project to avoid potentially significant effects.



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2.0 PROJECT INFORMATION

Project title:	Central Park Amphitheater Project
Lead agency name and address:	City of Rancho Cucamonga Community Services Department 10500 Civic Center Drive Rancho Cucamonga, CA 91730
Contact person and phone number:	Jeff Benson, Management Analyst II 909.477.2760 ext. 2106
Project location:	The proposed Project site is located in the City of Rancho Cucamonga's Central Park. Central Park is located approximately in the center of the at 11200 Base Line Road, and is within Section 36 of Township 1 South, Range 7 West, on the Cucamonga Peak, California, U.S. Geological Survey 7.5-minute Quadrangle Map (1980). Bounded on the south by Base Line Road and on the east by Milliken Avenue, the Park is approximately 2.5 miles west of Interstate 15, 3.7 miles north of Interstate 10, and 0.7 miles south of the State Route 210 in between Interstate 10 and State Route 210 Freeways in Rancho Cucamonga. The Park is also bordered on the north by the residential uses and on the west by Deer Creek Channel.
Project sponsor's name and address:	City of Rancho Cucamonga Community Services Department 10500 Civic Center Drive Rancho Cucamonga, CA 91730
General Plan Designation:	Public Facilities - Parks
Zoning Designation:	Terra Vista Planned Community (PC-TV)
Surrounding land uses:	Uses surrounding the Project site include existing Central Park facilities, residential uses, Deer Creek Flood Control Channel, and commercial uses. The existing Central Park facilities are located on the eastern third of the Central Park site. The majority of the surrounding uses are single family residential uses found all around the Central Park boundaries. Deer Creek Flood Control Channel is located on the western boundary of the Central Park site. Commercial uses are located at the southeast and southwest corners of Milliken Avenue and Base Line road and at the northeast corner of Haven Avenue and Base Line Road.



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2.1 ENVIRONMENTAL SETTING

2.1.1 Regional

The City covers approximately 20,707 acres, with another 3,735 acres within the City's Sphere of Influence (Figure 2.1-1). The City is surrounded by developed municipalities to the west, south and east, including the cities of Upland, Ontario, and Fontana and a large area of unincorporated San Bernardino County to the north and east. The northernmost portion of the City's Sphere of Influence is adjacent to the San Bernardino National Forest. Interstate and regional access to the City is provided by Interstate 15, which runs in a general north-south direction and bisects the eastern portion of the City, and by State Route 210, an east-west freeway that runs through the center of the City. The Interstate 10 freeway also provides regional access and is located approximately 0.75 mile south of the City boundary. The City is also accessible from adjacent communities via major arterial surface streets.

Existing land uses within the City include a range of residential, commercial, industrial, open space, and institutional uses, with the majority of residential uses located north of Foothill Boulevard and industrial uses largely located south of Foothill Boulevard. The City has an estimated 2019 population of 179,412 (DOF 2019).

The City has approximately 347.6 acres of parkland and recreational facilities. These include 25 neighborhood parks, three community parks, and eight special use facilities. In addition, the City's Multi-Use Regional and Community Trails add approximately 295 acres of land for recreational use. The trails provide a network of interconnecting off-road, urban, and wilderness venues that allow horseback riding, hiking, jogging, running, bicycling, and walking within open space areas and connecting residential areas to commercial activity centers.

2.1.2 Project Area

As shown in Figure 2.1-2, the Project site is within Central Park, which is located approximately in the center of the City. Central Park consists of approximately 103.4 gross acres of which approximately 30 acres have been developed. This includes a 57,000-sq. ft. facility, home to the Goldy S. Lewis Community Center and James L. Brulte Senior Center (Figure 2.1-3). The facility offers meeting rooms, event halls, an intimate courtyard and beautiful landscapes, and is the setting for many programs, classes, and special events offered to the public year-round. Other attractions within Central Park include the Central Park Playground with two children's play equipment areas, the Central Park Pavilion, a shade pavilion with picnic tables and barbecues, access to the multi-purpose Pacific Electric Trail, and Freedom Courtyard, a reflection site where families and friends come to pay tribute and honor the service and sacrifices of veteran's past, present and future (Figures 2.1-4 and 2.1-5). The proposed Project site consists of approximately 11 acres of Central Park, located to the west of the currently developed portion of the Park. The middle and eastern portions of the Project site have been graded and the vegetation grubbed for use as a construction staging and storage area for the City. In late 2003, a drainage channel was constructed on the northern portion of the project site to accommodate stormwater runoff associated with the developed area of the Central Park. The remainder of the area is comprised of disturbed coastal sage scrub habitat, as shown in Figure 2.1-6.

The majority of the land uses surrounding Central Park are single family residential uses and are found all around the Central Park boundaries. Deer Creek Flood Control Channel is located on the western boundary of the Central Park site. Commercial uses are located at the southeast and southwest corners of Milliken Avenue and Base Line Road and at the northeast corner of Haven Avenue and Base Line Road.



City of Rancho Cucamonga
 Central Park Amphitheater

Figure 2.1-1
 Regional Location

San Bernardino County, CA

★ Project Location

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, NGCC, © OpenStreetMap contributors, and the GIS User Community



RANCHO CUCAMONGA





TETRA TECH

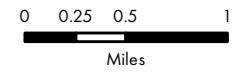
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City of Rancho Cucamonga Central Park Amphitheater

Figure 2.1-2 Project Vicinity

San Bernardino County, CA

-  Central Park Boundary
-  Amphitheater
-  City of Rancho Cucamonga Boundary
-  Interstate



Imagery Source: USDA NAIP 2016



PROJECTS\CENTRAL PARK\6799\LOCATION\MAPS\Figure 2.1-2_Amphitheater_Site.mxd



Goldy S. Lewis Community Center, southwest side of the joint facility building.



James L. Brulte Senior Center, northeast side of the joint facility building.

City of Rancho Cucamonga
Central Park

Figure 2.1-3
Existing Central Park Facilities:
Community/Senior Center

San Bernardino County, CA





Central Park Playground with two children's play equipment areas.



Central Park Pavilion, a shade pavilion with picnic tables and barbeques.

City of Rancho Cucamonga
Central Park

Figure 2.1-4
Existing Central Park Facilities:
Playground/Shade Pavilion

San Bernardino County, CA





Freedom Courtyard, a reflection site honoring the service and sacrifices of veterans.



Pacific Electric Trail, a regional multi-purpose trail which follows the east-west route of the old Pacific Electric Railroad.

City of Rancho Cucamonga
Central Park

Figure 2.1-5
Existing Central Park Facilities:
Freedom Courtyard/
Pacific Electric Trail

San Bernardino County, CA





Northeast view from Baseline Road of disturbed coastal sage scrub vegetation on the Project site.

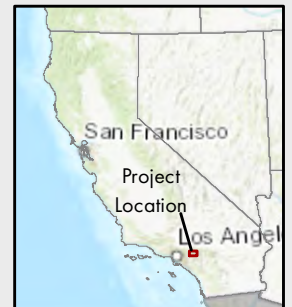


Northwest view from Baseline Road of disturbed coastal sage scrub vegetation on the Project site.

City of Rancho Cucamonga
Central Park

Figure 2.1-6
Existing
Project Site Conditions

San Bernardino County, CA



2.2 PROJECT DESCRIPTION

2.2.1 Background and Project History

In 1984, the City Council acquired approximately 103.4 gross acres of land northwest of the corner of Milliken Avenue and Base Line Road for a park that would serve the whole city and become a major public resource on the order of other great parks in other major cities. The City negotiated a purchase agreement with Lewis Homes to acquire the Central Park property over a ten-year period through a land purchase agreement and note. Central Park was placed into the City's General Plan and the property was reserved for future park purposes.

During the late 1980s a Central Park Task Force was organized to begin workshops on the development of a conceptual master plan for Central Park. No revenue was available for its construction nor was there any real-time line for plan development. Approved in 1987, the original Park Master Plan integrated the cultural and sports-related needs of the community, as well as the need for a large open park setting. The Master Plan contained three major use areas or elements: the OmniCenter, Sports Complex, and Park and Open Space.

Negative economic conditions in the early 1990s and rejection of a bond measure for development of Central Park in 2000 delayed development of Central Park. In 2002 major funding was received through approval of the 2002 State Proposition 40 Bond Act, through the VA/HUD Appropriations Committee, and a significant donation from the Lewis Family, combined with investment of Redevelopment Agency funds, allowed for the development of approximately 30 acres, including a 57,000-sq. ft. facility, home to the Goldy S. Lewis Community Center and James L. Brulte Senior Center. City Park Development fees allowed for the development of the Central Park Playground with two children's play equipment areas.

In 2006, efforts began to update the Central Park Master Plan to reflect that some of the originally envisioned Central Park elements, including a performing arts venue, a second library location, had been developed in other parts of the City. An amphitheater was part of the Central Park Master Plan 2007 Update, located a little further to the west of the Central Park site with 280 seats. The Initial Study that was prepared for this update in 2008 did not identify any unmitigable significant impacts.

The advent of the economic recession in 2007 and the elimination of the City's Redevelopment Agency (along with the loss of the Agency's funds), prevented the City from implementing the 2007 Central Park Master Plan Update.

In 2017 the Rancho Cucamonga City Council approved efforts for a Central Park Master Plan Update. As part of the Master Plan Update, the City conducted an extensive community outreach and public input process. This outreach process was intended to highlight the historical design and development efforts to date on Central Park and to seek public input for its future and ultimate development. A combination of local community workshops, online surveys, social networking, and a live Facebook broadcast were conducted to develop the resulting Central Park Master Plan Update reVISION. The Central Park Master Plan Update reVISION reflects the historical design philosophy, is responsive to the past planning efforts, includes modern community inspired recreation elements, and incorporates a phased approach providing for fiscally achievable project segments ranging in size from 1 acre to 11 acres.

One of the proposed segments of the Central Park Master Plan Update reVISION involved the development of an amphitheater (Segment D). The development of a new amphitheater is needed to replace the use of the aging Red Hill Park facilities, which are currently used for City-sponsored events. Red Hill Park is located approximately 2.5 miles west of the Project site.

City-sponsored events are held at Red Hill Park from June through August. Large concerts are held on Thursdays and run from 7 pm to 9 pm. In 2018, the City sponsored six of these

concerts, which averaged approximately 3,400 attendees per event. Family movies are held on Fridays and run from 7:45 pm to 10 pm. In 2018, the City sponsored four of these shows, which averaged approximately 375 attendees. Other activities included community and corporate events which occur on Saturdays between 8 am and 4 pm. These events averaged approximately 700 attendees. This facility is also available to reserve on weekends throughout the calendar year.

The City has applied for grant funding to assist with the development of an amphitheater in Central Park through the California Department of Parks and Recreation Office of Grants and Local Services Statewide Park Development and Community Revitalization Program. The Statewide Park Development and Community Revitalization Program provides grants to assist with creating new parks and new recreation opportunities across California. Projects eligible for this grant funding include expansion or renovating an existing park. Eligible recreational features include amphitheater/performing arts dance, music, and theater facilities. Selection criteria includes use of sustainable techniques such as: incorporation of pervious surfaces such as bio-swales or grading to capture storm water for infiltration or irrigation, or cleanse storm water before release; use of water efficient irrigation systems, and; landscaping with drought tolerant or climate appropriate non-invasive native grasses, trees, shrubs, and ground covers.

2.2.2 Project Description

The project is the development of an amphitheater, ancillary facilities, and other infrastructure covering approximately 40,000 sq. ft. on 11 acres located in the southcentral portion of Central Park (Figure 2.2-1). The Central Park Amphitheater will be an open-air, outdoor performing arts venue and multi-use space (Figure 2.2-2).

The amphitheater's performance facility will consist of two stages separated by a building containing backstage facilities including a green room and restrooms. The backstage building will be approximately 1,320 sq. ft. and each stage will be approximately 1,300 sq. ft. The performance facility will be steel framed with plaster finish, matching the existing community/senior centers. House light-emitting diode (LED) lighting will be provided in the ceiling of the performance facility. No permanent stage lighting or sound amplification systems will be constructed.

Spectator seating for the amphitheater's main stage will consist of several concentric tiers of concrete terraced seating and an open viewing lawn area. The terraced seating will have capacity for approximately 300 spectators. An open viewing lawn area will be located behind the terraced seating and will be a flat or gently sloping grass area with a minimum amount of hard surface walkways. This area will be suitable for blanket or lawn chair seating and will have capacity for approximately 1,700 spectators.

A secondary stage will be located on the opposite side of the performance facility. The spectator area for this stage will be a gently sloping grass area suitable for blanket or lawn chair seating and will have capacity for approximately 1,200 spectators.

The project includes 158 parking spaces of unpaved event parking to supplement existing parking provided at Central Park. Turf is proposed for this event parking area, so it can be used as a large open space passive area when not needed for event parking.

Central Park's existing internal roadway, Central Park Drive, is accessed from Base Line Road and Milliken Avenue. The proposed Project will involve the construction of an additional roadway which will be accessed from Base Line Road, west of the existing Base Line Road access point.

The proposed Project includes provision of sewer, water, storm drain, electric, gas, telephone, data and cable television, to the Project site.

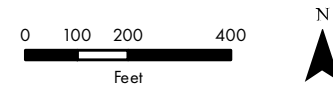


City of Rancho Cucamonga
Central Park

Figure 2.2-1
Project Site

San Bernardino County, CA

Source: RJM Design Group, Central Park Master Plan Update. January 29, 2018





City of Rancho Cucamonga
Central Park

Figure 2.2-2
Project Concept Plan

San Bernardino County, CA

Source: RJM Design Group, Central Park Master Plan Update. January 29, 2018



RANCHO
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TETRA TECH



2.2.3 Grading Plan

Detailed grading studies and cut and fill calculations have been developed to generate the grading concept for the proposed Project. Figure 2.2-3 presents the existing landform of the project site as well as the proposed new contours. There is a topographic low (a drainage channel) that traverses the project site from the northeast to the southwest from the middle of the northern project boundary to the middle of the western project boundary. Outside of this drainage, the topography currently slopes gently south toward Baseline Road. Figure 2.2-4 provides the proposed grading of the project in terms of areas to be cut and areas to be filled for the Project. The grading will take advantage of the topographic low for placement of the stage and will require cuts of 6 to 7 feet to complete that construction. Southeasterly from the stage, fill will be used to create the amphitheater shape and accentuate the slopes toward the stage. Fill depths exceeding 12 feet will be needed to form the amphitheater. The proposed Project will require a cut volume of approximately 15,268 cubic yards (cy) of soil and a fill volume of approximately 50,623 cy of soils. The shortage of approximately 35,355 cy of fill will be addressed through the import of soils from other private developer projects within the City needing to export soil. However, any soil brought on-site shall be tested and evaluated prior to use. The event parking area on the eastern side of the project will be formed with fill depths primarily ranging between one foot and five feet, as necessary to create a relatively flat surface.

2.2.4 Water Quality Plan

As shown in Figure 2.2-5, the proposed Project will use a series of water treatment and bioretention basins for treatment of storm water runoff. Bioretention basins are shallow, vegetated, depressed basins which function to collect, store and treat storm water runoff. The basin is designed to incorporate an engineered soil media to assist in plant uptake of pollutants. The bioretention basin allows infiltration to the extent the on-site soil and engineered soil media can accommodate. When the infiltration rate of the underlying soil is exceeded, the treated flows are discharged through an underdrain system.

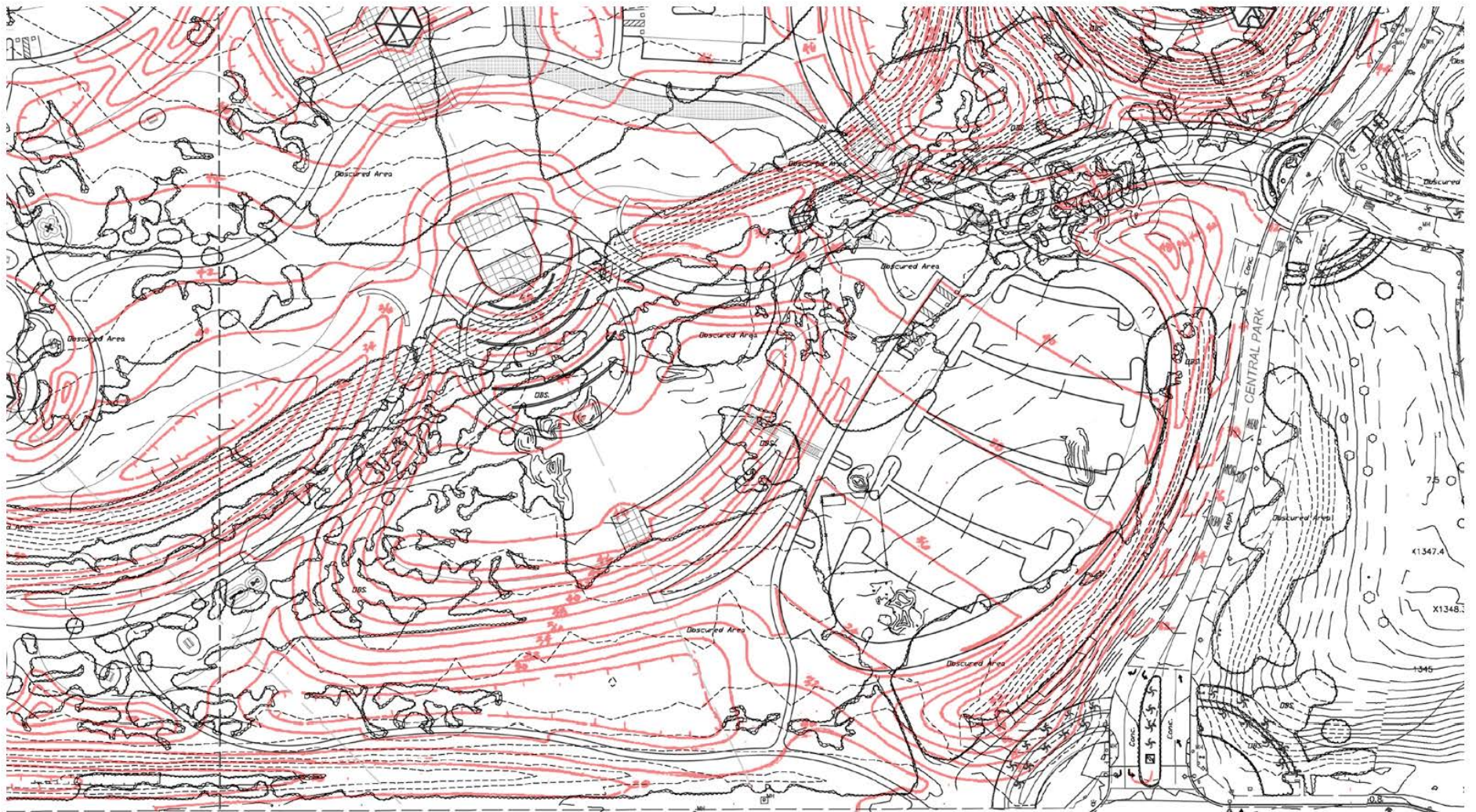
2.2.5 Landscaping Plan

Plant types and species will be selected based on hydro zones (water use requirements), function (screening, shade), maintenance, and aesthetics. Shade canopy trees will be used in parking lot islands when appropriate to provide shade and reduce the heat island effect. Turf is proposed for this event parking area, so it can be used as large open space passive area when not needed for event parking.

The irrigation system will follow water use allocation calculations and programming parameters per the state model water efficient ordinance, Assembly Bill (AB) 188. In addition, the irrigation system will be designed for future reclaimed water use.

2.2.6 Construction Details

Construction is anticipated to begin in the first quarter of 2021 and continue for approximately 12 months. Construction Best Management Practices will be used including those for stormwater, erosion/sediment control, and spill prevention. All staging and stockpiling will occur on-site.



City of Rancho Cucamonga
Central Park

Figure 2.2-3
Grading Plan

San Bernardino County, CA

- Existing Topography
- Proposed Grades

Source: RJM Design Group, Central Park Master Plan Update. January 29, 2018

N



RANCHO
CUCAMONGA



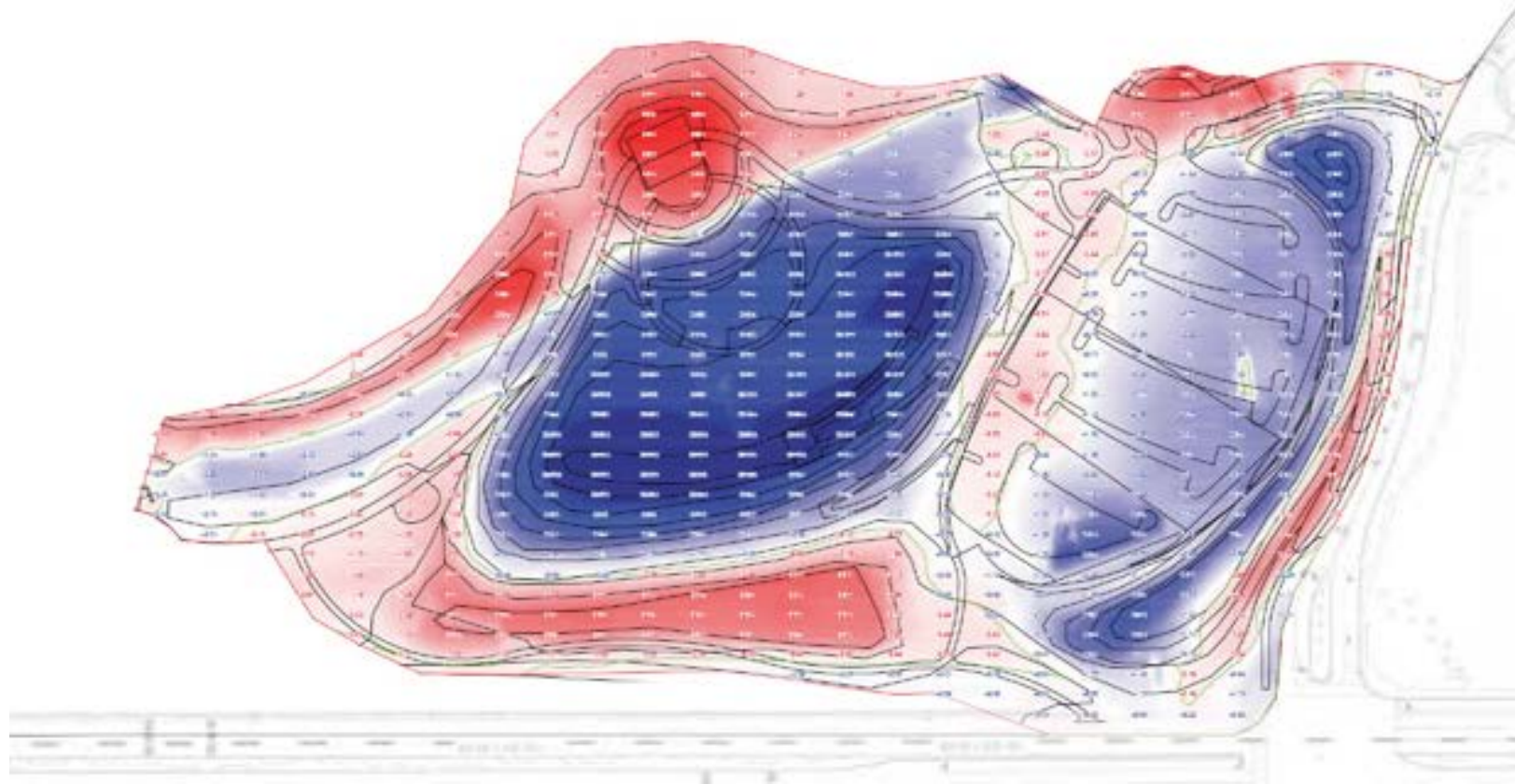
TETRA TECH



San Francisco

Project
Location

Los Angeles



City of Rancho Cucamonga
Central Park

Figure 2.2-4
Cut and Fill Analysis

San Bernardino County, CA

Cut Volume: 15,268.1 C.Y.
Fill volume: 50,623.0 C.Y.
Import Volume: 35,355.0 C.Y.

Area in Cut : 194,449.7 S.F., 4.46 Acres
Area in Fill: 314,960.2 S.F., 7.23 Acres
Total inclusion horiz area: 509,410.0 S.F.

Source: RJM Design Group, Central Park Master Plan Update. January 29, 2018

N



RANCHO
CUCAMONGA



TETRA TECH








City of Rancho Cucamonga
Central Park

Figure 2.2-5
Preliminary
Water Quality Plan

San Bernardino County, CA

-  OPEN CHANNEL DIRECTIONAL FLOW
-  PHASED DIRECTIONAL FLOW
-  BIORETENTION BASINS

Source: RJM Design Group, Central Park Master Plan Update. January 29, 2018

N



2.2.7 Operations

The new amphitheater will be used to hold City-sponsored events, that are currently being held at the existing Red Hill Park facilities, located approximately 2.5 miles west of the Project site. While the amphitheater could be used for various sized events, major (full capacity) events will occur up to 12 times per year. Similar to events held at Red Hill Park, City-sponsored events will be held from June through August. Scheduling is expected to be similar to existing events with large concerts held on Thursdays and family movies on Fridays. Hours for City sponsored events will usually run between 7 pm and 10 pm. Other community and corporate events will occur on Saturdays between 8 am and 4 pm. This facility will also be available on weekends throughout the calendar year for general public access.

2.3 OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

Other public agencies whose approval is expected to be required in the form of permits, financing approval, or participation agreements are as follows:

- California Department of Parks and Recreation Office of Grants and Local Services
- California Department of Fish and Wildlife
- Regional Water Quality Control Board – Santa Ana (Region 8)
- South Coast Air Quality Management District
- San Bernardino County Flood Control District
- Cucamonga Valley Water District



3.0 ENVIRONMENTAL CHECKLIST

3.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked 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.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

3.2 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 (EIR) 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 EIR is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jeff Benson 8/20/19
 Signature Date

 Signature Date

Jeff Benson
 Print Name

 Print Name



3.3 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 if it is based on project-specific factors as well as general standards (e.g., the project would 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, 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 EIR is required.
- (4) “Negative declaration: less than significant with mitigation incorporated” applies when the incorporation of mitigation measures has reduced an effect from a “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.
- (5) Earlier analyses may be used if, pursuant to 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 earlier analyses 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 incorporated,” describe the mitigation measures that 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, when 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 a less than significant level.



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3.4 ENVIRONMENTAL IMPACT ANALYSIS

3.4.1 AESTHETICS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a.	Have a substantial adverse effect on a scenic vista?			X	
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?				X
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?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Existing Conditions:

The Project site is located in an urban setting characterized by views primarily of residential areas, as well as park and commercial areas. According to the General Plan, major scenic resources for the City include the San Gabriel and San Bernardino Mountains and foothills (Figure 2.1-1), vistas of the City from hillside areas, and other views of special vegetation and permanent open space features. As the north-south views are particularly prominent along the straight alignments of Archibald, Haven, and Etiwanda Avenues, these roadways are designated as view corridors. Haven Avenue is the closest City designated view corridor to Central Park, located approximately 0.3 mile to the west of Central Park (Figure 2.1-2). Due to intervening structures, the Project site is not visible from Haven Avenue.

The City also designated Base Line Road and Milliken Avenue as Special Boulevards. Roadways designated "Special Boulevards" are to incorporate extensive landscape setback areas, and denote where landscape and hardscape design, trails, and setback standards will be master planned and implemented. The landscape prominence of these roadways has been and will continue to be a focus in the design process for both the private and public sectors (City of Rancho Cucamonga 2010).

According to the Caltrans Map of Designated Scenic Routes (BonTerra 2010), there are no official State-designated routes in the Project vicinity. State Route 2 (Angeles Crest Scenic Highway), a designated State Scenic Highway, is located approximately 12 miles north of the City's northern boundary. The Project site is not visible from State Route 1 due to distance and intervening structures and topography.

The eastern third of Central Park is developed with park facilities including: the Goldy S. Lewis Community Center and James L. Brulte Senior Center, the Central Park Playground, the Central Park Pavilion, and the Freedom Courtyard. The Pacific Electric Trail crosses the northern end of Central Park. Existing Park facilities are shown in Figures 2.1-3 and 2.1-4. The remainder of Central Park, including the proposed Project site, is comprised of disturbed coastal sage scrub habitat, as shown in Figure 2.1-5. Views of the Project site are limited to the surrounding residential and park areas and adjacent roadways, as shown in Figure 3.4.1-1. Views from the first floors of surrounding residential uses are generally blocked by community walls, however, some residences have views of the Project site from second story windows.

Discussion:

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

Less than Significant Impact.

As discussed above, direct views of the Project site are from surrounding residential, park uses, and adjacent roadways. Views of the San Gabriel Mountains to the north are available from Base Line Road adjacent to the Project site, as shown in Figure 3.4.1-1.

The proposed Project involves the development of an approximately 40,000 sq. ft. amphitheater on 11 acres located at the southcentral portion of Central Park. Grading for the amphitheater and event parking area will change the Project site's existing topography as shown in Figures 2.2-3 and 2.2-4. With the development of the proposed Project, the Open Viewing Lawn at the southern end of the Project site will be more prominent in the foreground views from Base Line Road and from the residences south of Base Line Road that currently have views of the Project site. This prominence will be similar to the views of the developed third of Central Park from Base Line Road. While the proposed Project would add developed foreground elements to these views, the background views of the San Gabriel Mountains would not be blocked. As the proposed Project will not significantly block existing views of any scenic vista, thus no significant impact is expected.

Mitigation Measures: No mitigation is required.

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.

As discussed previously, Baseline Road and Milliken Avenue are designated by the Rancho Cucamonga General Plan as Special Boulevards. Development along these Special Boulevards is reviewed for compliance with these development standards and is required to comply with the General Plan guidelines to provide the appropriate setbacks, attractive landscaping, and community design elements. As the proposed Project will comply with all applicable setbacks, attractive landscaping, and community design elements, no impact will occur.

Haven Avenue is the closest City designated view corridor to Central Park, located approximately 0.3 mile to the west of Central Park (Figure 2.1-2). Due to intervening structures, the Project site is not visible from Haven Avenue and no impact will occur.

The Project site is not in the viewshed of any designated or eligible State scenic highway. No impact to a scenic highway will occur.

Mitigation Measures: No mitigation is required.



View of Project Site looking north from Base Line Road.



View of Project Site looking southwest from Central Park northern boundary.

City of Rancho Cucamonga
Central Park

Figure 3.4.1-1
Views of Project Site

San Bernardino County, CA



- c. Would the project 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?**

Less Than Significant Impact.

The proposed Project would involve both temporary and permanent changes to the visual character of the site. Temporary changes are associated with construction activities, including construction equipment, staging, and Site construction. These visual impacts would be short-term in nature and are not considered to be significant.

Implementation of the proposed Project would result in long-term/permanent changes to the visual character of the site from undeveloped with native and non-native vegetation to developed with the amphitheater. The Project site will incorporate landscaping similar to that found in the developed eastern third of Central Park. Development of the Project site with park uses would be consistent with the General Plan and the zoning for the site. As the proposed Project would be consistent with the General Plan and the development standards for Special Boulevards and would be consistent with the existing developed portion of Central Park, impacts to visual character would be less than significant, and no mitigation measures are required.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact.

There are two primary sources of light to be considered: light emanating from building interiors that pass through windows, and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Light introduction can be a nuisance to adjacent uses and diminish the view of the clear night sky. The proposed project site is located in a developed area, with substantial existing light sources. Currently, light and glare in the Project vicinity is produced by vehicle headlights, street lighting, and lighting from the adjacent residential and park uses.

The Amphitheater will have house LED lighting in the ceiling of the performance facility. No permanent stage lighting will be constructed as part of the Project. During Amphitheater events, temporary lighting may be brought in to illuminate the stage. Temporary outdoor lighting used for the events would be required to comply with lighting standards contained within the City's Municipal Code (City of Rancho Cucamonga 2019a). These regulations require lighting to be directed away and shielded from nearby residential areas. The regulations also prohibit the creation of areas with intense light or glare.

Similar to events held at Red Hill Park, City-sponsored events will be held from June through August. Scheduling is expected to be similar to existing events with large concerts held on Thursdays and family movies on Fridays. Hours for City sponsored events will usually run between 7 pm and 10 pm. Other community and corporate events are expected to occur on Saturdays between 8 am and 4 pm.

It is unlikely that operation of the proposed lighting system would result in significant adverse impacts related to light trespass. In urbanized locations the most common adverse effect of light trespass is disruption of sleep. It is anticipated that any temporary stage lighting would be extinguished by 10:30 pm at the latest. The nearby residential areas produce medium ambient

brightness and the small occasional increase in light is considered a less than significant impact.

Compliance with the site lighting standards contained in the City's Development Code will reduce light impacts on neighboring properties to a less than significant level. Furthermore, since the structures would not include shiny finishes, the Project is not expected to create any daytime glare. Therefore, a less than significant impact from the standpoint of light and glare would occur.

Mitigation Measures: No mitigation is required.



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3.4.2 AGRICULTURE AND FOREST RESOURCES

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

Existing Conditions:

The City of Rancho Cucamonga is predominately built-out with limited vacant land. On the Farmland Mapping and Monitoring Program Map for California (CDC 2017), the Project site and the surrounding area is designated as Urban and Built-Up Land, which is generally described as land occupied by structures that has a variety of uses including residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Discussion:

- 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 Farmland Mapping and Monitoring Program Map for California, Central Park, including the Project site, is designated as Other Land and is surrounded by land designated as Urban and Built-Up Land (CDC 2017). The “Other Land” category is defined as an area that is vacant and nonagricultural land, surrounded on all sides by urban development, and greater in size than 40 acres. No Prime or Unique Farmland, or Farmland of Statewide importance exists within the Project site or vicinity; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

- b. **Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?**

No Impact.

Central Park, including the Project site, is zoned as Terra Vista Planned Community (PC-TV). The City does not have an agricultural land use designation in its Land Use Plan, there is no agriculturally zoned land within the City, and there are no Williamson Act contracts within the City (City of Rancho Cucamonga 2010). As the Project site is not zoned for any agricultural uses and is not part of a Williamson Act contract, the implementation of the proposed project would not result in any impacts to existing zoning for agricultural use or to Williamson Act land; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

- c. **Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)) or timberland (as defined in PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

No Impact.

Central Park, including the Project site is zoned as Terra Vista Planned Community (PC-TV). The proposed Project would not conflict with existing zoning, or cause rezoning of forest land or timberland resources. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact.

There is no forest land in the vicinity of the Project site. Therefore, the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

Mitigation Measures: No mitigation is required.

- e. **Would the project involve other changes in the existing environment that, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use or conversion of forest land to non-forest use?**

No Impact.

There is no farmland or forest land located within or near the Project site. Therefore, the Project would not involve any changes that could result in the loss or conversion of farmland or forest land to other uses. No impact would occur.

Mitigation Measures: No mitigation is required.



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3.4.3 AIR QUALITY

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
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?			X	
c.	Expose sensitive receptors to substantial pollutant concentrations?			X	
d.	Result in other emissions (such as those leading to odors affecting a substantial number of people?			X	

Existing Conditions:

The project site is located within the South Coast Air Basin (SoCAB or “Basin”), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The Basin is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties.

The California Air Resources Board tracks attainment of air quality standards (established by both U.S. Environmental Protection Agency and SCAQMD) for basins throughout the State. The SoCAB has been designated as a non-attainment area for ozone (O₃), particulate matter 2.5 micrometers or less in diameter (PM_{2.5}), and particulate matter 10 micrometers or less in diameter (PM₁₀) as it does not meet the California Ambient Air Quality Standards for certain pollutants regulated under the Federal Clean Air Act. The SoCAB fails to meet national standards for O₃ and PM_{2.5} and therefore is considered a Federal “non-attainment” area for these pollutants. Table 3.4.3-1 lists criteria air pollutants and their attainment status in the SoCAB.

Table 3.4.3-1. Criteria Pollutants Attainment Status in the South Coast Air Basin

Air Pollutants	State	Federal
Ozone (1-hour)	Nonattainment	Extreme Nonattainment
Ozone (8-hour)	Nonattainment	Extreme Nonattainment
PM _{2.5}	Nonattainment	Serious Nonattainment
PM ₁₀	Nonattainment	Attainment/Maintenance
Nitrogen dioxide	Attainment	Attainment/Maintenance
Carbon monoxide	Attainment	Attainment/Maintenance

Table 3.4.3-1. Criteria Pollutants Attainment Status in the South Coast Air Basin

Air Pollutants	State	Federal
Sulfur dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Particulate Sulfate	Attainment	Attainment
Hydrogen Sulfide	Unclassified	Attainment
Visibility Reducing Particles	Unclassified	Attainment

Source: SCAQMD AQMP 2016.

Table 3.4.3-2 lists criteria air pollutant de minimis levels based on Federal attainment status.

Table 3.4.3-2. Federal Attainment Status/De Minimis Levels

Pollutant	Area Type	Tons/Year
Ozone (VOCs or NO _x)	Serious nonattainment	50
	Severe nonattainment	25
	Extreme nonattainment	10
	Other areas outside an ozone transport region	100
Ozone (NO _x)	Marginal and moderate nonattainment inside an ozone transport region	100
	Maintenance	100
Ozone (VOC)	Marginal and moderate nonattainment inside an ozone transport region	50
	Maintenance within an ozone transport region	50
	Maintenance outside an ozone transport region	100
Carbon monoxide, SO ₂ and NO ₂	All nonattainment & maintenance	100
PM ₁₀ and PM _{2.5}	Serious nonattainment	70
	Moderate nonattainment and maintenance	100
Lead	All nonattainment & maintenance	25

Source: US EPA 2019. (<https://www.epa.gov/general-conformity/de-minimis-tables>)

Discussion:

a. Would the project conflict with or obstruct implementation of the applicable air quality plans?

No impact. The SCAQMD is required, pursuant to the Clean Air Act, to reduce emissions of certain pollutants for which the SoCAB is in non-attainment (i.e. ozone, PM₁₀, and PM_{2.5}). The Project would be subject to the SCAQMD’s Air Quality Management Plan (AQMP). The AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG).

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. SCAG serves as the federally designated metropolitan planning organization for the southern California region.

With regard to air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG), which includes Growth Management and Regional Mobility chapters that form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP. Both the RCPG and AQMP strategy incorporate projections from local planning documents.

The determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. Neither the development of the Project nor its operation would result in long-term regional impacts. The Project would comply with SCAQMD Rule 403 and would implement all feasible mitigation measures for control of PM₁₀ and PM_{2.5}; the Project would be consistent with the goals and policies of the AQMP for control of fugitive dust. Because the proposed Project would not result in a change in dwelling units or occupants or activities, it is not in conflict with the AQMP. The Project's long-term influence would also be consistent with the goals and policies of the AQMP and is, therefore, considered consistent with the SCAQMD's AQMP.

Mitigation Measures: No mitigation is required.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction Impacts

Less Than Significant Impact. SCAQMD has established daily significance thresholds and the EPA has established annual De Minimis Levels to address pollution sources associated with general construction and operation activities. The SCAQMD has implemented a methodology for estimating localized air quality impacts from construction and operation emissions using localized significance thresholds (LSTs). The LSTs are allowable emission levels (in pounds per day [lbs/day]) for criteria pollutants nitrogen dioxide, carbon monoxide (CO), PM₁₀ and PM_{2.5}, and vary based on source receptor area, minimum receptor-source distance, and maximum daily disturbed acreage. The project is located within source receptor area 32 Northwest San Bernardino Valley. The LST look-up tables allow for a minimum receptor-source distance of 82 feet (25 meters). Since construction will periodically occur near residences, localized on-site emissions were assessed at this minimum distance (82 feet or 25 meters) for all construction and operation activities for a five-acre maximum daily disturbed area.

Short-term air quality impacts would occur during construction of the project site. Construction emissions include operation of on-site construction equipment, fugitive dust from site disturbance activities, and travel by construction workers during construction. Construction emissions used conservative assumptions which imply a conservative equipment mix and a worst-case construction schedule (detailed in Appendix A). Actual construction may proceed at a less intensive pace, which would result in lower daily emissions.

During operation, the new amphitheater will be used to hold events that are currently being held at the existing Red Hill Park facilities, located approximately 2.5 miles west of the Project site. The average number of visitor trips and trip distance are not anticipated to change relative to the existing site. Therefore, once operational, the project is anticipated to have a negligible impact from vehicle emissions. Operational emissions include off-road equipment used for maintenance activities (e.g. air compressor), solvents such as cleaning supplies and aerosols, and landscape equipment. The emissions associated with electricity used for lighting and power would be generated off-site as indirect emissions, in the form of greenhouse gas (GHG), which are presented in Section 3.4.8.

Proposed project construction and operation emissions were calculated using the California Emissions Estimator Model® (CalEEMod) emissions inventory model, originally developed by California Air Resources Board. The analysis assumed that construction activities would comply with applicable portions of SCAQMD Rule 403 regarding the control of fugitive dust. SCAQMD Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 402 requires implementing dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Implementing these dust suppression techniques will reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these rules will reduce impacts on nearby sensitive receptors. Standard requirements and Best Management Practices include the following:

- Equipment/vehicles shall not be left idling for periods in excess of five minutes.
- Engines shall be maintained in good working order to reduce emissions.
- Onsite electrical power connections shall be made available where feasible.
- Low-sulfur diesel fuel shall be utilized.
- Electric and gasoline powered equipment shall be substituted for diesel powered equipment where feasible.
- Exposed soils and haul roads shall be watered up to three times per day to reduce fugitive dust during grading/construction activities, if necessary.
- Street sweeping shall be conducted when visible soil accumulations occur along site access roadways to remove dirt dropped by construction vehicles.
- Site access driveways and adjacent streets shall be washed daily if there are visible signs of any dirt track-out at the conclusion of any workday.
- Construction vehicle tires shall be cleaned prior to leaving the project site.
- All trucks hauling dirt away from the site shall be covered, and speeds on unpaved roads shall be reduced below 15 miles per hour.
- During high wind conditions (i.e., sustained wind speeds exceeding 20 miles per hour), areas with disturbed soil shall be watered hourly and activities on unpaved surfaces shall cease until wind speeds no longer exceed 20 miles per hour.
- Storage piles that are to be left in place for more than three working days shall either be sprayed with a non-toxic soil binder, covered with plastic or revegetated.

The onsite emissions are compared with LSTs and summarized in Table 3.4.3-3. The CalEEMod model runs, which estimate the construction and operation emissions in detail, are presented in Appendix A.

Table 3.4.3-3 shows that emissions from construction and operation of the amphitheater would fall below local emissions thresholds, resulting in a less than significant impact. With compliance with SCAQMD Rule 403 construction and operation local criteria pollutant impacts would be less than significant levels and would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Table 3.4.3-3. Localized Significance Analysis^a

Activity		Maximum Daily Onsite Emissions (lbs/day)			
		NO _x	CO	PM ₁₀	PM _{2.5}
Construction					
2021 On-site Sources	Unmitigated	64	47	14	8
	Mitigated ^b	64	47	7	4
LST (lbs/day)		270	2,193	16	9
<i>Exceed Localized Significance Threshold?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Operation					
2021 On-site Sources		< 1	< 1	< 1	< 1
LST (lbs/day)		270	2,193	4	2
<i>Exceed Localized Significance Threshold?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

- a. Compiled using the CalEEMod emissions inventory model, provided in Appendix A.
 b. PM₁₀ and PM_{2.5} emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

Mitigation Measure: No mitigation is required.

- c. **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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

Less Than Significant Impact. The proposed project results in an increase in short-term emissions related to construction and long-term operational emissions for the pollutants and precursors for which the SoCAB is in nonattainment (O₃, PM₁₀, and PM_{2.5}). Although the project site is located in a region that is in nonattainment for O₃, PM₁₀, and PM_{2.5}, the cumulative emissions associated with the project would not be considerable because the emissions fall below SCAQMD thresholds. Under this condition, the project would not make a cumulatively considerable contribution during construction and operation. Therefore, impacts would be less than significant.

Construction and operational emissions for the proposed project are presented in Table 3.4.3-4. The CalEEMod model runs, which estimate the construction and operational emissions in detail, are presented in Appendix A.

Table 3.4.3-4. Regional Significance Analysis^a

	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Daily Regional Emissions (lbs/day)						
Construction						
2021 On-Site and Off-site Sources	16	85	60	< 1	14	8
SCAQMD Regional Significance Threshold (lbs/day)	75	100	550	150	150	55
<i>Exceed Regional Significance Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Operation						
2021 On-Site and Off-site Sources	1.4	2.6	1.5	< 1	< 1	< 1
SCAQMD Regional Significance Threshold (lbs/day)	55	55	550	150	150	55
<i>Exceed Regional Significance Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

- a. Compiled using the CalEEMod emissions inventory model, provided in Appendix A.
 b. PM₁₀ emissions estimates are based on compliance with SCAQMD Rule 403 requirements for fugitive dust suppression.

Source: Tetra Tech, 2019

The incremental increase in regional emissions from project construction and operation activities would fall below SCAQMD significance thresholds. The project will not result in the violation of air quality standards or contribute substantially to an existing or projected air quality violation. A less than significant construction impact is anticipated.

Mitigation Measures: No mitigation is required.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The project involves construction of park facilities, during which time nearby sensitive receptors could potentially be affected. The closest residence to the construction footprint is approximately 120 feet. The SCAQMD LST look-up tables at a minimum receptor-source distance of 25 meters (82 feet) were used for Source Receptor Area 32 Northwest San Bernardino Valley for a five-acre site. As described in the response to 3.4.3.b previously, construction and operation of the project would not result in emissions of criteria pollutants in excess of established thresholds. Because emissions of toxic air contaminants from diesel-powered construction equipment are expected to be minimal, intermittent, and of short duration, the project is not expected to substantially increase ambient concentrations of toxic air contaminants regionally or locally. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations. As such, localized impacts to off-site sensitive receptors would be less than significant.

Mitigation Measures: No mitigation is required.

e. Would the project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. During project-related construction activities, various diesel-powered vehicles and equipment could create minor odors. These odors are not likely to be noticeable beyond the immediate vicinity and would be temporary and short-lived due to rapid dissipation. Construction odor impacts would be less than significant. No long-term odor impacts would occur with project implementation.

Mitigation Measures: No mitigation is required.

3.4.4 BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		X		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
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?		X		
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
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?				X

Biologists from Tetra Tech, ELMT Consulting, Inc. (ELMT), and LSA Associates, Inc. (LSA) conducted literature reviews and field surveys of the biological resources potentially associated with Central Park (which includes the Project site). Biologist visited the site 23 times in 2007, 2008, and 2019 to conduct the following types of general and focused biological surveys:

- General site assessment and plant community mapping.
- General plant survey.
- General wildlife survey.
- Protocol coastal California gnatcatcher surveys.
- Protocol burrowing owl surveys.

- Focused San Bernardino kangaroo rat small mammal trapping surveys.
- Jurisdictional assessment and delineation.
- Wildlife movement evaluation.

Three reports and three letters were prepared that documented the methods and results of the literature reviews and the field surveys:

- *Central Park Amphitheater Habitat Assessment* (ELMT 2019) (Appendix B1, 2019 Bio Report).
- *General Biological Resources Assessment Report, Central Park Project* (LSA 2007) (Appendix B2, 2007 Bio Report).
- *Jurisdictional Delineation Report, Central Park Project, City of Rancho Cucamonga, San Bernardino County, California* (LSA 2008b) (Appendix B3, 2008 Jurisdictional Delineation Report).
- *Results of Focused Burrowing Owl Survey for Central Park Project located in the City of Rancho Cucamonga, San Bernardino County, (LSA Project No. CRG0703)* (LSA 2008d) (Appendix B4, 2008 Protocol Burrowing Owl Survey Letter).
- *Results of a Focused California Gnatcatcher Survey for Central Park Phase II Project Site in the City of Rancho Cucamonga, San Bernardino County, (LSA Project Number CRG0703)* (LSA 2008c) (Appendix B5, 2008 Protocol Coastal California Gnatcatcher Survey Letter).
- *70-Acre Central Park Parcel in the City of Rancho Cucamonga, San Bernardino County, Kangaroo Rat Trapping, February 2008* (LSA 2008a) (Appendix B6, 2008 Focused San Bernardino Kangaroo Rat Small Mammal Trapping Survey Letter).

Tetra Tech biologists used the reports listed above to help prepare this section which documents the methods and results of the literature review and field survey and recaps the results of the 2007 and 2008 field surveys where appropriate. This section summarizes the existing biological resources and conditions within Central Park, the Project site, and the Project vicinity and provides an analysis of the potential impacts on those resources from Project implementation. Finally, it recommends measures to avoid, eliminate, and reduce impacts on biological resources.

Literature Review:

This section describes the study methods (literature review) used for evaluating the biological resources that exist within the Central Park property, Project site, and Project vicinity. Prior to the field surveys, biologists reviewed relevant literature, databases, agency web sites, reports, management plans, Geographic Information System (GIS) data, maps, and aerial imagery.

Ecoregions

The Jepson eFlora website and CDFW's Biogeographic and Information Observation System (BIOS) were reviewed to determine within which eco-geographic region and subregion the Central Park property is located (Calflora, 2019; CDFW 2019b).

Topography

Maps such as the USGS 7.5-Minute Topographic Map *Guasti* and *Cucamonga Peak* Quadrangles, aerial imagery (Google Earth®), historic imagery (Google Earth® and Historic Aerials by Netronline), and interactive maps were reviewed in order to gain a perspective of the topographic features associated with the Central Park property, Project site, and project vicinity. Topography describes the physical features of an area of land. The topographic features looked

at include natural landforms, aquatic features, developed lands, agricultural lands, undeveloped lands, and terrain (the lay of the land).

Soils

The Natural Resources Conservation Service (NRCS) operates the Web Soil Survey that provides soil data and information produced by the National Cooperative Soil Survey. The Web Soil Survey (USDA NRCS 2019) was used to create a custom soils report for the soils associated with the Central Park site.

Sensitive Natural Communities

CDFW's California Natural Diversity Database (CNDDDB) (CDFW 2019c) was used to identify sensitive natural communities that may exist within the USGS 7.5-Minute Topographic Map *Guasti* and *Cucamonga Peak* Quadrangles. The CNDDDB search determined that four sensitive habitats have the potential to occur within the Central Park area:

- California walnut woodland.
- Coastal and valley freshwater marsh.
- Riversidian alluvial fan sage scrub.
- Southern sycamore alder riparian woodland.

Special-status Plant and Wildlife Species¹

Plant and wildlife species protected by federal agencies, state agencies, and local conservation agencies and organizations, such as the California Native Plant Society (CNPS), are collectively referred to as "special-status species" in this report.² The methods described below were used to research and derive a comprehensive project-specific list of special-status plants (plant inventory) and wildlife (wildlife inventory) to potentially target during the field surveys.

- CDFW's CNDDDB RareFind 5 online database (CDFW 2019c) was used to identify special-status plant and wildlife species that may exist within the USGS 7.5-Minute Topographic Map *Guasti* and *Cucamonga Peak* Quadrangles.
- USFWS' Information, Planning, and Conservation (IPaC) system (USFWS 2019b) was used to identify federal threatened and endangered plant and wildlife species, critical habitats, and other natural resources of concern that may exist within the Central Park property.
- CNPS' online *Inventory of Rare and Endangered Plants of California*, 8th Edition (CNPS 2019) was used to identify special-status plants that may exist within the USGS 7.5-Minute Topographic Map *Guasti* and *Cucamonga Peak* Quadrangles.
- Previous consultant studies and reports were reviewed to gain a sense of the existing conditions at the time the studies were conducted (ELMT 2019; LSA 2007, 2008a, 2008b, 2008c, 2008d).

The literature review and query of the databases for reported locations of special-status species helped to identify the known locations of these resources in the Project region and assisted in identifying the potential for on-site occurrence of such species. Although the inventory list of special-status plant and wildlife species was not exhaustive of species that might be of concern

1 Plant nomenclature and taxonomic sequence within this report is based on the California Native Plant Society's On-Line Inventory of Rare, Threatened, and Endangered Plants of California and *The Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al., 2012). Wildlife nomenclature and taxonomic sequence are based on the following: amphibians and reptiles - Center for North American Herpetology; birds - American Ornithologists' Union checklist of North American Birds, 7th edition (AOU, 1998 and supplements); and mammals - *Mammal Species of the World* (Wilson and Reeder, 2005).

2 Avian species protected by the Migratory Bird Treaty Act (MBTA) are not considered "special-status species."

for the property, it provided a wide range of species that are representative of the habitats in the Project area.

The literature review found that 37 special-status plant species (plant inventory) and 63 special-status wildlife species (wildlife inventory) may be present within the Central Park area. The plant inventory is provided in Appendix B7, *Plant Special-status Species Inventory and Potential Occurrence Determination* and the wildlife inventory is provided in Appendix B8, *Wildlife Special-status Species Inventory and Potential Occurrence Determination*. Two plants and 14 animals are designated federally, or state listed endangered, threatened, candidate, or state rare (plants only) under the ESA, CESA, and/or the NPPA (plants only). These plant and wildlife species are referred to as “listed species” in this report. Thirty-five of the special-status plant species and 49 of the special-status wildlife species have no designated status under the ESA, the CESA, and/or the NPPA, but are designated as sensitive or locally important by federal agencies, state agencies, and/or nonprofit resource organizations, such as the CNPS. These plant and wildlife species are referred to as “sensitive species” in this report.

Each species listed in the inventories were assessed for their potential to occur within Central Park by comparing each species’ habitat elevation range and distribution (if known) obtained from the literature review, with the location and elevation range of Central Park. A species was determined as having “no potential to occur” if Central Park is outside the species’ known distribution and/or the species’ known elevation range. Through this initial analysis, 25 special-status plant species and 17 special-status wildlife species were determined to have no potential to occur within Central Park (Appendix B7 and Appendix B8). It is anticipated that the Project will have no impacts on these species, and they are not discussed further in this report.

Protected Trees/Shrubs

In addition to the Rancho Cucamonga General Plan (Rancho Cucamonga 2010), applicable City ordinances and municipal codes pertaining to tree and shrub preservation and protective measures and their replacement conditions or permits required were reviewed.

Hydrology

In order to identify known locations of aquatic features within Central Park, the Project site, and the Project vicinity the following databases were queried:

- The watershed boundary data set containing the most current 8-, 10-, and 12-digit hydrologic unit code (HUC) (CDFW 2019b).
- The National Wetlands Inventory (NWI) database and maps developed by the USFWS were used as preliminary indicators of potential wetland areas based on changes in vegetation patterns as observed from satellite imagery. The USFWS Wetlands Mapper (USFWS 2019c) was used to review and download the digital wetland data for the project vicinity.
- Environmental Protection Agency’s WATERS GeoViewer data (EPA 2019).

Jurisdictional Areas

The following were reviewed and consulted to determine jurisdictional areas:

- *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) (referred to as “USACE Manual” in this report).
- *Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual* (WTI 1999).
- *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008) (referred to as “Supplemental Manual” in this report).

- *Arid West 2016 Regional Wetland Plant List* (Lichvar et al. 2016).
- *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (Lichvar and McColley 2008).
- *Field Indicators of Hydric Soils in the United States, Version 7.0. L.M. Vasilas, G.W. Hurt, and C.V. Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.* (USDA NRCS 2010).
- *A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607* (CDFG ESD 1994).

In 1987, the USACE published the USACE Manual for the identification and delineation of wetlands. In 2008, the USACE published a supplement to the USACE Manual that describes wetland indicators, delineation guidance, and other information that is specific to the arid west region. The USACE's definition of wetlands is described below.

The USACE technical guidelines for defining wetlands are provided in the Supplemental Manual. The USACE Manual was used as a secondary resource. According to the Supplemental Manual, "Indicators and procedures given in the supplement are designed to identify wetlands as defined jointly by the USACE (33 CFR 328.3) and the EPA (40 CFR 230.3).³ Wetlands are a subset of the 'Waters of the U.S.' that may be subject to regulation under section 404 of the CWA. One key feature of the definition of wetlands is that, under normal circumstances, they support 'a prevalence of vegetation typically adapted to life in saturated soil conditions.' Many Waters of the U.S. are unvegetated and thus are excluded from the USACE/EPA definition of wetlands, although may still be subject to CWA regulations." Wetlands and other special aquatic sites are afforded additional protection in the USACE's section 404 permitting program. The USACE Manual defines a "wetland" (a subset of Waters of the U.S.) as:

Those areas that are inundated or saturated by surface or ground water (either fresh or salt) at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." (33 CFR 328)

According to the USACE Manual, identification of wetlands is based on a three-factor approach involving indicators of wetland hydrology, hydric soil, and hydrophytic vegetation. A feature must normally satisfy all three criteria to be classified as a wetland. These criteria are defined as follows:

1. **Wetland hydrology:** wetland hydrology is determined to exist if an area is flooded or ponded for 14 or more consecutive days, or has a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10 (50% or higher probability). Water saturation largely determines how the soil develops and the types of plant and wildlife communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Field indicators that are used to determine the presence of wetland hydrology are described in the USACE Manual and Supplemental Manual and include flow data; direct observation of surface water or groundwater; indirect evidence of flow or saturation, such as high water marks, drift lines, or sediment deposits; evidence that the soil is saturated currently or was saturated

3 On October 9, 2015, the Sixth Circuit Court of Appeal issued a nationwide stay of the U.S. EPA's revised definition, promulgated on June 29, 2015, entitled the "Clean Water Rule." See 80 Fed. Reg. 37, 054 (June 29, 2015). The Clean Water Rule affected the regulatory interpretation of "Waters of the U.S." as used in the Clean Water Act, 33 U.S.C. section 1251 et seq.

recently; and vegetation and soil features that indicate contemporary rather than historical wet conditions.

- Hydric soils:** water saturation (hydrology) largely determines how the soil develops in wetlands. The National Technical Committee for Hydric Soils (NTCHS) provides the continuing formulation, evaluation, and application of hydric soil definition, criteria, and indicators. The NTCHS also updates and distributes a national list of hydric soils annually. The definition of a hydric soil is a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA Soil Conservation Service, 1994). Anaerobic means a situation in which molecular oxygen is virtually absent from the environment. The definition of hydric soils includes soils that developed under anaerobic conditions in the upper part, but no longer experience these conditions due to hydrologic alteration such as those hydric soils that have been artificially drained or protected (e.g., by ditches or levees). Most hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation for more than a few days. Saturation or inundation, when combined with microbial activity in the soil, causes the depletion of oxygen. This anaerobiosis promotes certain biogeochemical processes, such as the accumulation of organic matter and the reduction, translocation, or accumulation of iron and other reducible elements. These processes result in distinctive “characteristics” that persist in the soil during both wet and dry periods, making them particularly useful for identifying hydric soils in the field (USDA NRCS 2006).

Wetland soil conditions are present if the soils are hydric or have characteristics that are associated with reducing chemical processes. The USACE Manual also specifies that a hydric soil “may be either drained or undrained, and a drained hydric soil may not continue to support hydrophytic vegetation. Therefore, not all areas having hydric soils will qualify as wetlands. Only when a hydric soil supports hydrophytic vegetation and the area has indicators of wetland hydrology may the soil be referred to as a wetland soil.” Field indicators of wetland soil conditions are described in the USACE Manual and Supplemental Manual and include a range of criteria for color and mottling.

- Hydrophytic vegetation:** the USACE Manual defines hydrophytic vegetation as the community of macrophytes that occurs in areas where inundation or soil saturation is either permanent or of enough frequency and duration to exert a controlling influence on the plant species present. Hydrophytic vegetation are adapted to wet conditions. It is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation during the growing season. The first procedure used to determine whether a site contains hydrophytic vegetation is called the “Dominance Test” (Indicator 1). The Dominance Test looks at the wetland indicator status of species that make up the plant community. The wetland indicator status of a plant species is determined by reviewing the most current wetland plant list. When more than 50 percent of the dominant plant species across all strata in the plant community are rated obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC), the site contains hydrophytic vegetation. Obligate vegetation occurs almost always under natural conditions in wetlands. FACW vegetation usually occurs in wetlands, but occasionally found in non-wetlands. FAC vegetation equally likely to occur in wetlands or non-wetlands. If plant community fails the Dominance Test then hydrophytic vegetation can also be identified by using the “Prevalence Index” (Indicator 2) which takes into consideration all plant species in the community, not just a few dominants. In addition, plant morphological adaptations (Indicator 3) can be used to distinguish certain wetland plant communities in the Arid West, when indicators of hydric soil and wetland hydrology are present.

A “parameter” is a characteristic component of a defined unit. The USACE wetland definition is often referred to as a “three parameter definition” because three key parameters (wetland hydrology, hydric soil, and hydrophytic vegetation) must all occur and meet the defined characteristics for a location to be classified as a wetland. Except in certain situations defined in the Supplemental Manual, evidence of a minimum of one positive wetland indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination. Field “indicators” are physical, chemical, or biological features of an area that can be easily observed or assayed and that are usually correlated with the presence of a wetland parameter.

Critical Habitats

The USFWS’ Critical Habitat Portal (USFWS 2019a) was reviewed to identify federal threatened and endangered species designated final and proposed critical habitat designations within the Central Park property, Project site, and project vicinity.

Wildlife Corridors

CDFW’s BIOS Habitat Connectivity Viewer (CDFW 2019a) was used to review the Essential Connectivity Map and to search for Natural Landscape Blocks (NLBs) and Essential Connectivity Areas (ECAs) within Central Park property, Project site, and project vicinity. The California Essential Connectivity Map depicts large, relatively natural habitat blocks that support native biodiversity (Natural Landscape Blocks) and areas essential for ecological connectivity between them (Essential Connectivity Areas). In addition, maps and NLB and ECA descriptions were reviewed within the *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer et al. 2010).

An evaluation of potential wildlife movement within the Central Park property, Project site, and project vicinity was also conducted by examining aerial imagery and maps. Finally, the literature review also included maps and reports on wildlife home ranges and migration and dispersal patterns (CDFG, 1988a and updates; CDFG, 1988b and updates; CDFG, 1988c and updates).

Field Survey Methods:

This section describes the field survey methods used within Central Park during the biological field surveys. All biological field surveys focused on the entire Central Park site and not just the Project site; however, the Project site is located within Central Park.

On June 28, 2007, LSA Biologist, Ms. Lisa Wadley conducted a reconnaissance-level biological survey on the Central Park site. On July 17, 2019, ELMT Biologists, Mr. Thomas J. McGill, Ph.D., Mr. Travis J. McGill, and Mr. Jacob H. Lloyd Davies, conducted another reconnaissance-level biological survey on Central Park.

Biologist from LSA and ELMT visited Central Park 23 times in 2007, 2008, and 2019 to conduct the following types of general and focused biological surveys:

- General site assessment and plant community mapping.
- General plant survey.
- General wildlife survey.
- Protocol coastal California gnatcatcher surveys.
- Protocol burrowing owl surveys.
- Focused San Bernardino kangaroo rat small mammal trapping surveys.
- Jurisdictional assessment and delineation.
- Wildlife movement evaluation.

Surveys were conducted during daylight hours and not during abnormal or excessive cold, heat, wind, rain, or other inclement weather. Surveys were conducted on foot and covered all

accessible areas of the undeveloped portion of Central Park by meandering transects. The survey did not extend beyond the undeveloped portion of Central Park boundary. Biologists used binoculars from strategic vantage points whenever direct access was not possible. Observations were also made with aerial imagery.

Biologists used pertinent regional flora/fauna field guides and topographic/aerial maps during the field surveys. In addition, Global Positioning System (GPS) units and other GIS and survey-related techniques, hardware and software were used to collect locational data and record relevant attributes of features or species encountered. Digital color photographs were taken during the field surveys to record existing site conditions. Data collected during the site visits were recorded in field notebooks, data sheets, and/or on color mapped aerials.

General Site Assessment and Plant Community Mapping

Biologists characterized the existing land cover and searched for the presence of sensitive plant communities within the undeveloped portion of Central Park. Identification of habitats and plant communities were based on observed dominant species. Land cover types were identified and mapped in the field by marking their limits on a color aerial map and/or with the use of a GPS unit/iPad. Topography, soil characteristics, substrates, rock formations, vernal pools, and site disturbances (natural and human caused) were also components of the habitat assessment. The purpose of the habitat assessment was to ascertain existing site conditions and identify habitat areas that could potentially support special-status plant and wildlife species.

General Plant Surveys

Biologists surveyed the undeveloped portion of Central Park for common plants and for the presence of special-status plant species listed in the plant inventory. Plant species were identified in the field and in the office, when necessary, using plant field guides, plant taxonomical guides, and photographs and collections of plants taken in the field. Identified plants were recorded in field notes. The purpose of the survey was not to extensively search for every plant species occurring within the undeveloped portion of Central Park, but to ascertain general site conditions and identify potentially suitable habitat areas for various special-status plant species.

General Wildlife Surveys

Biologists surveyed the undeveloped portion of Central Park for common wildlife and for the presence of special-status wildlife species listed in the wildlife inventory.⁴ Biologists also searched for signs of wildlife, including animal tracks, burrows, dens, nests, nest sites, scat, or remains. Wildlife signs and wildlife species encountered visually or audibly during the field surveys were identified and recorded in field notes.

Protocol Coastal California Gnatcatcher Surveys

Central Park is located within the range of the coastal California gnatcatcher (CAGN) (*Poliophtila californica californica*) and the 2007 habitat assessment determined that the undeveloped portion of Central Park contains coastal sage scrub habitat that could potentially support CAGN; therefore, protocol CAGN surveys were required. Surveys were conducted in the undeveloped portion of Central Park by LSA Senior Biologist, Mr. Stan Spencer, under LSA Federal 10(a)(1)(A) Permit TE-777965 and under a Letter of Agreement (LOA) from CDFW in lieu of a Memorandum of Understanding (MOU) between LSA and CDFW. Surveys conformed to the *USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines* (dated February 28, 1997 [USFWS 1997] and revised July 28, 1997 [USFWS 1997]) for the CAGN non-breeding season. Surveys were conducted on the following dates: December 10 and 24, 2007; January 8

⁴ The undeveloped portion of Central Park is within the general distributional range of several special-status species; however, most of the special-status wildlife species that could occur within the site are not subject to specific published survey protocols or guidelines.

and 22; February 5 and 19; March 6 and 20; and April 4, 2008. Details of the field survey methods can be found in LSA's *Results of a Focused California Gnatcatcher Survey for Central Park Phase II Project Site in the City of Rancho Cucamonga, San Bernardino County, (LSA Project Number CRG0703)* letter (LSA 2008c) (Appendix B5). The purpose of these surveys was to determine CAGN presence or absence within the undeveloped portion of Central Park.

Protocol Burrowing Owl Surveys

Central Park is located within the range of the burrowing owl (BUOW) (*Athene cunicularia*) and the 2007 habitat assessment determined that the undeveloped portion of Central Park contains habitat that could potentially support BUOW; therefore, protocol BUOW surveys were required. Surveys were conducted in the undeveloped portion of Central Park by LSA Biologist, Ms. Lisa Wadley, and they were conducted in accordance with the guidelines set forth by the California Burrowing Owl Consortium, Santa Cruz Predatory Bird Research Group Burrowing Owl Survey Protocol (1993), and CDFW internal memo (February 1995). Surveys were conducted on the following dates: December 3, 5, 13, and 17, 2007; and January 2, 2008. Details of the field survey methods can be found in LSA's *Results of Focused Burrowing Owl Survey for Central Park Project located in the City of Rancho Cucamonga, San Bernardino County, (LSA Project No. CRG0703)* letter (LSA 2008d) (Appendix B4). The purpose of the surveys was to determine BUOW presence or absence within the undeveloped portion of Central Park.

Focused San Bernardino Kangaroo Rat Small Mammal Trapping Surveys

Central Park is located within range of the San Bernardino kangaroo rat (SBKR) (*Dipodomys merriami parvus*) and the 2007 habitat assessment determined that the undeveloped portion of Central Park contains habitat that could potentially support SBKR; therefore, focused SBKR small mammal trapping surveys were required. Surveys were conducted in the undeveloped portion of Central Park by LSA Biologists, Mr. Richard Erickson and/or Mr. Leo Simone, under LSA Federal 10(a)(1)(A) Permit TE-777965-7 (May 10, 2004 - May 9, 2007; renewal request submitted April 9, 2007, extending coverage indefinitely) and a temporary authorization from CDFW (May 12, 2003 - March 31, 2007; renewal request submitted March 26, 2007, extending coverage indefinitely) in lieu of a MOU between LSA and CDFW. A majority of the trapline was placed within the undeveloped portion of Central Park outside of the Project site boundary. Only a portion of the trapline was situated within the Project site. Surveys were conducted on the following dates: February 25, 26, 27, 28, and 29, 2007; and March 1, 2008. Details of the field survey methods can be found in LSA's *70-Acre Central Park Parcel in the City of Rancho Cucamonga, San Bernardino County, Kangaroo Rat Trapping, February 2008* (LSA 2008a) (Appendix B6). The purpose of the surveys was to detect the presence of SBKR within the undeveloped portion of Central Park.

Jurisdictional Assessment and Delineation

During the initial 2007 reconnaissance-level biological survey, LSA biologist, Ms. Lisa Wadley, searched the undeveloped portion of Central Park for the potential presence federal or state wetlands, waters, and vegetation that are potentially subject to the jurisdictional authority of the USACE, RWQCB, and CDFW. She determined that the site did indeed contain jurisdictional areas and recommended that a formal jurisdictional delineation be conducted.

On December 4, 2007, LSA Senior Biologist, Mr. Leo Simone, conducted a formal jurisdictional delineation survey on the undeveloped portion of Central Park. The survey was conducted according to current U.S. Army Corps of Engineers (USACE) and CDFW guidelines. The survey recorded: 1) wetland hydrology, hydric soils, hydrophytic vegetation, and signs of an ordinary high-water mark (OHWM); 2) the presence of a well-defined bed and bank; 3) areas of water flow; and 4) vegetation within and along the jurisdictional areas. Width and length measurements of USACE, RWQCB, and CDFW jurisdictional areas was delineated in the field using a hand-held GPS unit and aerial imagery. Following field mapping, GIS staff took the

measurements and digitized them into an ArcGIS file. Acreages of each agency's jurisdiction was then calculated. Details of the field survey methods can be found in LSA's *Jurisdictional Delineation Report, Central Park Project, City of Rancho Cucamonga, San Bernardino County, California* (LSA 2008b) (Appendix B3).

Wildlife Movement Evaluation

Biologists searched the undeveloped portion of Central Park for potential natural and man-made travel routes that wildlife could use to traverse the site. Biologists assumed wildlife species would use these linear features for travel if they occurred within the site. Biologists also searched for natural and man-made barriers to wildlife movement, such as permanent structures, paved roads, sound walls, concrete walls, or fences that would interfere with the movement of wildlife. A formal wildlife movement corridor study was not conducted.

Post Surveys Evaluation

After the field surveys and mapping of the plant communities were complete, an additional evaluation was conducted later in the office for each special-status plant and wildlife species listed in the plant inventory (Appendix B7) and wildlife inventory (Appendix B8). The evaluation considered whether the undeveloped portion of Central Park contained suitable habitats and conditions to support those special-status species listed in the inventories. A species was determined to have "no potential to occur" within the undeveloped portion of Central Park if suitable and adequate biological and physical features that are needed to support the plant and wildlife species were absent. For example, animal species that are only found within rivers, sand dunes, desert scrub, or conifer forests would be determined to have no potential to occur within the undeveloped portion of Central Park because those habitats are absent from the undeveloped portion of Central Park. Since they are unlikely to occur, there would be no effect to these species from the project. Those species were eliminated from further evaluation and are not discussed further.

Existing Conditions:

This section describes the results of the literature review and the 2007, 2008, and 2019 field surveys (Table 3.4.4-1, *Field Survey Information*). Photographs that were taken during the 2019 field survey can be found in Appendix B1.

Ecoregions and Local Setting

Central Park is in the center of the City of Rancho Cucamonga, in southwestern San Bernardino County. The City of Rancho Cucamonga is located at the north-central section of the Chino Valley, just south of the eastern San Gabriel Mountains (BonTerra Consulting, 2010) which are part of the Transverse Ranges. Central Park is located south within the Peninsular Ranges Geomorphic Province. The property is also in the Southwestern California Region and the South Coast Subregion of the California Floristic Province as described within the Jepson eFlora Project (Jepson Flora Project [eds.] 2019). This subregion extends along the Pacific Coast, from Point Conception in Santa Barbara County, to Mexico.

Table 3.4.4-1. Field Survey Information

Survey Type	Survey Date	Survey Time	Temperature Fahrenheit (°F)	Wind (mph)	% Cloud Cover	Company: Surveyors	
		(Start - Finish)					
Biological Resources Reconnaissance Surveys							
Survey 1	June 28, 2007	/	/	/	/	LSA: Ms. Lisa Wadley	
Survey 2	July 17, 2019	/	high 80s - low 90s	calm	0 - 0	ELMT: Mr. Thomas J. McGill, Ph.D., Mr. Travis J. McGill, and Mr. Jacob H. Lloyd Davies	
Protocol Coastal California Gnatcatcher Surveys							
Survey 1	December 10, 2007	7:40 - 10:40 am	55 - 58	<1 - 1-3	0 - 0	LSA: Mr. Stan Spencer	
Survey 2	December 24, 2007	7:30 - 10:30 am	56 - 73	<1 - 1-3	0 - 0		
Survey 3	January 8, 2008	7:20 - 11:00 am	44 - 57	<1 - 1-3	20 - 20		
Survey 4	January 22, 2008	7:30 - 11:00 am	49 - 59	<1 - <1	98 - 40		
Survey 5	February 5, 2008	7:26 - 10:15 am	48 - 58	1-3 - 1-3	0 - 0		
Survey 6	February 19, 2008	7:30 - 10:25 am	54 - 56	<1 - <1	100 - 100		
Survey 7	March 6, 2008	7:35 - 10:35 am	60 - 70	<1 - <1	10 - 10		
Survey 8	March 20, 2008	7:25 - 10:10 am	55 - 61	<1 - 1-3	30 - 30		
Survey 9	April 4, 2008	8:00 - 10:50 am	54 - 67	1-3 - <1	0 - 0		
Protocol Burrowing Owl Surveys							
Burrow Survey	December 3, 2007	8:30 - 10:15 am	56 - 67	0-3 - 0-2	0 - 0	LSA: Ms. Lisa Wadley	
Survey 1	December 5, 2007	6:30 - 7:45 am	51 - 61	0-2 - 0-1	0 - 5		
Survey 2	December 13, 2007	6:40 - 7:50 am	44 - 55	0-3 - 0	25 - 15		
Survey 3	December 17, 2007	6:40 - 7:50 am	42 - 42	0-1 - 0-1	10 - 5		
Survey 4	January 2, 2008	6:50 - 8:15 am	50 - 52	0-3 - 0-2	100 - 70		
Focused San Bernardino Kangaroo Rat Small Mammal Trapping Surveys							
Night Survey 1	February 25, 2008	pm	/	/	/	LSA: Mr. Richard Erickson and Mr. Leo Simone	
Morning Survey 1 Night Survey 2	February 26, 2008	am and pm	/	/	/		
Morning Survey 2 Night Survey 3	February 27, 2008	am and pm	/	/	/		
Morning Survey 3 Night Survey 4	February 28, 2008	am and pm	/	/	/		
Morning Survey 4 Night Survey 5	February 29, 2008	am and pm	/	/	/		
Morning Survey 5	March 1, 2008	am	/	/	/		
Jurisdictional Delineation Survey							
Survey 1	December 4, 2007	/	/	/	/		LSA: Mr. Leo Simone

/ = no information described in the specific reports.

Central Park is situated on the alluvial fan of the eastern most portion of the San Gabriel mountain range (fire). Central Park is in the Fontana Plain-Calimesa Terraces Ecological Subsection of the Southern California Mountains and Valleys Ecological Section as described within the *Ecological Subregions of California: Section and Subsection Descriptions* (Miles and Goudey 1997). This subsection is on very gently to gently sloping alluvial fans, mostly from the San Gabriel and San Bernardino Mountains and the predominant natural plant communities are California sagebrush - California buckwheat series and needlegrass grasslands (Miles and Goudey 1997).

The Central Park property is bounded by the following:

- **North:** The Pacific Electric Inland Empire Trail. This trail is a multi-purpose commuter and recreation trail that includes a 10-foot-wide, concrete trail for bikes and a 10-foot-wide side path of decomposed granite for running, walking, and horseback riding.
- **East:** Milliken Avenue.
- **South:** Base Line Road.
- **West:** Deer Creek and Deer Creek Channel Trail. Deer Creek is a flood control channel and the trail is a Class I designated off-road bike path.

The Project site by site is bordered by the following.

- **North:** undeveloped, vacant land within the Central Park boundary.
- **East:** institutional developments (James L. Brulte Senior Center and Goldy S. Lewis Community Center).
- **South:** Base Line Road.
- **West:** undeveloped, vacant land within the Central Park boundary.

Local Climate

The City of Rancho Cucamonga is considered having a “Mediterranean” climate with hot, arid, and clear summers and long, cool, and partly cloudy winters. Most of the City’s rainfall occurs almost entirely in the winter between the months of December and March, with hardly any occurring in the months between May and October (ELMT 2019). Climatological data obtained for the City of Rancho Cucamonga indicates the annual precipitation averages 16.8 inches per year (ELMT 2019). The average maximum and minimum temperatures for the region are 78.4- and 52.5-degrees Fahrenheit (°F) respectively with July (monthly average 93.7° F) being the hottest month and December and January (monthly average 41.4°F) being the coldest (ELMT 2019).

Topography

The Central Park property is in a developed urban portion of the City. Around Central Park, land use is built-up and developed lands including residential neighborhoods, transportation roadways (Milliken Avenue and Base Line Road), recreation trails (Pacific Electric Inland Empire Trail and Deer Creek Channel Trail), and a commercial complex (Terra Vista shopping center).

The Central Park site encompasses approximately 103.4 acres of land and it currently supports a mix of developed lands and undeveloped natural lands. Approximately 30 acres is currently developed (Phase I) with the Goldy S. Lewis Community Center, James L. Brulte Senior Center, and Freedom Courtyard, leaving approximately 73.4 acres of the Central Park site undeveloped. The developed portion of Central Park is developed with City buildings, courtyards, and associated pavings (parking lots, roads, driveways, sidewalks, trails), gardens, turf, and landscaping. The built-up and developed lands provide little to no habitat for wildlife species. Included with the built-up and developed lands are its associated vegetation which includes

landscaping, ornamental vegetation, gardens, and turf. This vegetation is predominately non-native, and it could potentially provide habitat for wildlife species.

The Project site encompasses approximately 11 acres and it is located within the undeveloped portion of Central Park. The undeveloped portion of Central Park consists of both disturbed and undeveloped land.

The Central Park property is generally flat with a gentle slope from the north to the south. It has an elevation range of 1,324 to 1,377 feet above mean sea level. The undeveloped portion of Central Park contains no areas of significant topographic relief (terrain).

Soils

The general area in which the site is located is underlain by a series of coalescing alluvial fans derived from stream systems from the eastern San Gabriel Mountains (Kleinfelder 2009). Adjacent to the mountains, the alluvial fan deposits are very coarse and crudely bedded and consist mainly of fine- to coarse-grained sand and gravel with cobbles and boulders (Kleinfelder 2009). Beyond the mountain front the alluvial deposits are interlayered with eolian deposits which are represented by thin silt and fine sand lenses throughout the soil profiles (Kleinfelder 2009). Soil moisture regimes are xeric (Miles and Goudey 1997).

Kleinfelder West, Inc. conducted a geotechnical investigation in 2009 within the undeveloped portion of Central Park. The earth materials encountered during their survey consisted of alluvial fan deposits comprising of, sand, silty sand, sandy gravel, and gravelly sand (Kleinfelder 2009).

Based on the NRCS Soil Survey, the Central Park property (and the Project site) contains two soil map units which are listed in Table 3.4.4-2, *Summary of Soil Mapping Units*, depicted on Exhibit 4 in Appendix B1 and described within the custom soils reports found within Appendix B9, *NRCS Soils Report*. Map unit delineations on soil maps represent an area dominated by one or more major kinds of soil areas. A map unit is identified and named according to the taxonomic classification of the dominant soils.

Table 3.4.4-2. Summary of Soil Mapping Units

Soil Map Unit Symbol	Soil Map Unit Name	Percent of Central Park Property	Natural Drainage Class	Hydric Soil Rating
TuB	Tujunga loamy sand, 0 to 5 percent slopes	41.7%	Somewhat excessively drained	No
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	58.3%	Somewhat excessively drained	No

Note: Map units with a “yes” rating contain either major or minor components that are at least in part hydric.

Tujunga loamy sands (TuB) consist of brown loamy sand and pale-brown coarse sand. These soils are about 60 inches thick, somewhat excessively drained, and found on nearly level to moderately sloping alluvial fans (BonTerra Consulting 2010). Tujunga soils are slightly acidic and highly permeable so runoff on these soils is slow to very slow (BonTerra Consulting 2010). Tujunga gravelly loamy sand (TvC) has the same characteristics as TuB soils, except for a higher gravel content (15 to 30 percent by volume) (BonTerra Consulting 2010). These soils are fair sources of sand and gravel (BonTerra Consulting 2010).

Soils onsite have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural, clearing/grading, and storage activities) (ELMT 2019).

Ground Cover

The Central Park property contained a grape vineyard that was used in the region's wine making industry (Rancho Cucamonga Fire District 2017). The vineyard went dormant and then in 1984, the City purchased the Central Park property (Rancho Cucamonga Fire District 2017). A decision was made years ago by the City to provide vegetation ground cover to reduce the occurrence of blowing sand and dust during Rancho Cucamonga's frequent wind events (Rancho Cucamonga Fire District 2017). It was decided that seeding the park with a native coastal sage scrub mix would provide the desired ground cover and dust reduction while eliminating the need for costly irrigation (Rancho Cucamonga Fire District 2017). As the ground cover took hold over the ensuing years, a coastal sage scrub habitat was created (Rancho Cucamonga Fire District 2017). Over the years, the vegetation has grown to maturity and is now a mostly continuous cover of shrubs and herbs (Rancho Cucamonga Fire District 2017).

Site Disturbances

The undeveloped portion of Central Park consists of both disturbed and undeveloped land that has been subject to a variety of direct and indirect human-related disturbances from historical agricultural activities, grading activities, adjacent development, weed abatement, construction staging, and storage activities (ELMT 2019). In the decades since active agricultural activities (i.e., grape vineyards) ceased, native vegetation communities typical of disturbed areas have reestablished onsite; however, onsite anthropogenic disturbances have greatly disturbed the natural plant communities that once occurred within the boundaries of the undeveloped portion of Central Park, reducing their ability to provide suitable habitat for special-status plant and wildlife species (ELMT 2019).

In late 2003, a drainage channel was constructed on the northern portion of the undeveloped portion of Central Park to accommodate stormwater runoff associated with construction from Phase I of the Central Park Master Plan (ELMT 2019). Stormwater continues to enter the undeveloped portion of Central Park via a culvert in the middle of the northern boundary of the property and flows to the west and off-site into Deer Creek Channel (ELMT 2019).

Land Cover

A plant community is a combination of different plants growing together. Generally, classifications of habitat types or plant communities were based on Holland's *Preliminary Descriptions of the Terrestrial Communities of California* (Holland 1986) and *A Manual of California Vegetation Second Edition* (Sawyer et al. 2009), with modifications to better represent existing site conditions. The classifications were then checked against CDFW's *List of Vegetation Alliances and Associations* (or Natural Communities List) (CDFG 2010). The list indicates which natural communities are sensitive given the current state of the California classification and includes alliance rankings according to their degree of imperilment.

Four different land cover types were observed and mapped within the Project site during the latest field survey conducted in 2019. The vegetation communities onsite contain low plant species diversity. Table 3.4.4-3, *Acreage of Mapped Land Cover within the Amphitheater Project Site*, lists the land cover types with approximate acreages mapped; the corresponding name according to *Preliminary Descriptions of the Terrestrial Communities of California* (Holland 1986) and *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009); and the California Natural Community Codes (CaCodes) listed in the Natural Communities List (CDFG, 2010). Non-vegetated features, such as development, are not plant communities, but are also delineated and discussed in this report. Exhibit 5 in Appendix B1 depicts the location and size of each mapped land cover category within the Project site. Characteristics of each land cover type feature are described in detail below in the following sections.

Table 3.4.4-3. Acreage of Mapped Land Cover within the Amphitheater Project Site

Mapped Land Cover Type	Community Name by Reference		CaCode	Global Rank and State Rank	Mapped Acreage
	<i>Preliminary Descriptions of the Terrestrial Communities of California</i>	<i>A Manual of California Vegetation</i>			
California buckwheat scrub	Riversidean sage scrub (Element Code: 32700)	<i>Eriogonum fasciculatum</i> shrubland alliance (California buckwheat scrub)	32.040.02	G5, S5	5.8
Ruderal/disturbed habitat	N/A	N/A	N/A	N/A	4.77
Developed land	N/A	N/A	N/A	N/A	0.21
Drainage feature	N/A	N/A	N/A	N/A	0.22
<p>Legend</p> <p>Global Rank: the global rank (G-rank) reflects the overall status of an element throughout its global range.</p> <ul style="list-style-type: none"> G5 = Secure: Common; widespread and abundant. <p>State Rank: the state rank (S-rank) refer to the imperilment status only within California's state boundaries.</p> <ul style="list-style-type: none"> S5 = Secure: Common, widespread, and abundant in the state. 					

Sensitive plant communities (sensitive habitats) are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental impacts of projects (CDFG 2009). Sensitive habitats are often threatened with local extirpation and are therefore, considered as valuable biological resources. None of the plant communities identified and mapped within the undeveloped portion of Central Park during the field surveys are considered sensitive natural communities in local or regional plans, policies, and regulations or by CDFW and USFWS because:

- These plant communities are not considered rare by the CNDDDB;
- They are dominated by non-native species;
- They are widespread in the project vicinity;
- They generally are considered common enough not to be of concern; and/or
- They exhibit a moderate level of disturbance rendering them less valuable as habitat to support wildlife diversity or special-status species.

Characteristics of each land cover type are described below.

California Buckwheat Scrub

The California buckwheat scrub plant community was observed throughout undeveloped portion of Central Park (including the Project site). This community supports a monoculture of California buckwheat (*Eriogonum fasciculatum*). California buckwheat scrub has been designated by NatureServe as a secure (G5 and S5) natural community. Secure communities are common, widespread, and abundant in the state. This community is considered low priority for inventory by CDFW and is not considered sensitive.

Buckwheat scrub plant communities often reestablish after disturbed areas are allowed to revegetate with native plants (ELMT 2019). Other plant species observed within this plant community include deerweed (*Acmispon glaber*), California croton (*Croton californicus*),

common phacelia (*Phacelia distans*), chia (*Salvia columbariae*), California sagebrush (*Artemisia californica*), western ragweed (*Ambrosia psilostachya*), white sage (*Salvia apiana*), common cryptantha (*Cryptantha intermedia*), mule fat (*Baccharis salicifolia* ssp. *salicifolia*), coastal prickly pear (*Opuntia littoralis*), slender buckwheat (*Eriogonum gracile*), pine scented goldenbush (*Ericameria pinifolia*), and telegraph weed (*Heterotheca grandiflora*) (ELMT 2019).

Ruderal/Disturbed Habitat

Ruderal/disturbed areas are heavily to sparsely vegetated by non-native, weedy plant species (ruderal vegetation) or they lack vegetation completely. These areas are persistent where habitat has been physically disturbed by human activities, resulting in compacted soils, and a dominance of ruderal plants. Bare areas include dirt lots, dirt access roads, and other maintained areas. Ruderal plants are adapted to frequent disturbances and easily colonize areas that are devoid of vegetation. This ruderal/disturbed community is degraded in nature; not conducive to the establishment of any special-status plant populations; provides little to no habitat value for wildlife; and is not considered a sensitive plant community. The characteristic ruderal plant species observed include short-podded mustard (*Hirschfeldia incana*), wild oat (*Avena fatua*), flax-leaved horseweed (*Erigeron bonariensis*), and tacolote (*Centaurea melitensis*) (ELMT 2019). Despite the presence of native species, the ruderal/disturbed sites are dominated by invasive non-native vegetation.

Developed Land

Developed lands are features that describe areas occupied by man-made structures, pavings, and other impermeable surfaces. Developed lands are not a plant community; however, these lands do include vegetation, such as turf, landscaping, and ornamental plants. The developed areas provide virtually no habitat for wildlife species.

Drainage Features

Characteristics of this land cover is described below in Hydrology, Aquatic Features, Drainage A.

Plants

This section describes the plants identified during the 2007, 2008, and 2019 field surveys and the special-status plants that have a potential to occur within the undeveloped portion of Central Park (and therefore, the Project site) as identified by the literature review and field surveys. Based on the literature review and field surveys, this section reflects the best professional judgment of the biologists on special-status plant occurrence within the undeveloped portion of Central Park.

Plant Species Recorded during the Field Surveys

Approximately 45 plant species from 16 plant families were observed within the undeveloped portion of Central Park. This list of plant species is provided in Appendix B10, *Plant and Wildlife Species Recorded during the Field Surveys*; however, ornamental and landscaped vegetation are not included in the totals reported here.

Listed Plants

No listed plant species were observed within the undeveloped portion of Central Park during the field surveys. In addition, the literature review and field surveys determined that the site lacks suitable habitats, soils, and/or other factors to support any of the listed species in the plant inventory.

Sensitive Plants

No sensitive plant species were observed within the undeveloped portion of Central Park during the field surveys. In addition, the literature review and field surveys concluded that all the sensitive species in the plant inventory do not have more than a low potential to exist within the site due to a lack of suitable habitats, soils, and/or other factors to support them.

Protected Trees/Shrubs

The City's Tree Preservation Ordinance in the Municipal Code (Title 19, Environmental Protection - Chapter 19.08) states that eucalyptus, palm, oak, sycamore, pine, and other trees growing within the City are a natural aesthetic resource and are worthy of protection (BonTerra Consulting 2010). A permit is required for the removal, relocation, or destruction of a Heritage Tree (BonTerra Consulting 2010).⁵ Prior to removal of a Heritage Tree within the City limits, a Tree Removal Permit shall be obtained from the Planning Director and replacement trees may be required consistent with the City code (BonTerra Consulting 2010).

No trees protected by the City were observed within the undeveloped portion of Central Park during the field surveys.

Wildlife

This section describes the wildlife identified during the 2007, 2008, and 2019 field surveys and the special-status wildlife that have a potential to occur within the undeveloped portion of Central Park (and therefore, the Project site) as determined by the literature review and field surveys. Based on the literature review and field surveys, this section reflects the best professional judgment of the biologists on special-status wildlife occurrence within the undeveloped portion of Central Park.

Survey Limitations

The wildlife observed and/or detected during the field surveys represent the diversity of wildlife in the surrounding areas; however, there were limitations to the field surveys. They include the following:

- The biological field surveys were conducted during the daytime to maximize the detection of most wildlife; however, many species are nocturnal. Birds represent the largest component of the fauna observed because most birds are active in the daytime. In contrast, daytime surveys usually result in few observations of mammals, many of which may only be active at night. Many wildlife species are secretive in their habits and are difficult for biologists to observe in a walking survey; therefore, wildlife may have been unnoticed because of their subterranean habitats and/or camouflaged appearance.
- Many species are intolerant of human interfaces and hide.
- Many wildlife species are wide-ranging and move about a territory; they only occur on a seasonal basis; they only occur during migration; and/or they may have become dormant for the season.
- Additional wildlife species that likely use the undeveloped portion of Central Park were not observed or indirectly detected during the field surveys, due to their scarcity or the need for special survey methods, such as using herp arrays and mist netting.

⁵ A Heritage Tree is defined as any tree, shrub, or plant meeting at least one of the following criteria: (1) eucalyptus windrows; (2) woody plants in excess of 15 feet in height and having a single trunk circumference of 15 inches or more measured 24 inches from ground level; (3) multi-trunk trees having a total circumference of 30 inches or more measured 24 inches from ground level; (4) a stand of trees the nature of which makes each dependent upon the others for survival; or (5) any other tree as may be deemed historically or culturally significant by the Planning Director because of size, condition, location, or aesthetic qualities.

Wildlife Species Recorded during the Field Surveys

The undeveloped portion of Central Park supports an assortment of wildlife and provides shelter, cover, roosting, foraging, and breeding habitats to reptiles, birds, and mammals as year-round residents, seasonal residents, and/or migrants. During the 2007, 2008, and 2019 field surveys, three reptiles, 35 bird, and six mammal species were recorded within the undeveloped portion of Central Park. Wildlife activity was low during the field surveys and consisted of primarily avian species. A list of wildlife species recorded within the undeveloped portion of Central Park during the field surveys is provided in Appendix B10. Due to the developed nature of the properties surrounding Central Park, the Project site also provides habitat for common species known to occur within urban settings such as coyote (*Canis latrans*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*).

Vegetation communities form the basis of the wildlife habitats and provide the primary plant productivity upon which wildlife depends, along with nesting and denning sites, escape and movement cover, and protection from adverse weather and predation. Some species are habitat specific for their life history requirements, while many wildlife species move freely between plant communities to obtain their life history needs. In general, more complex natural communities with more vegetation layers and more plant species provide higher value wildlife habitat than less complex vegetation communities. Communities that are more complex have more niches for wildlife and usually support more animal species than less complex communities do. Although simple communities may support few wildlife species, they may provide habitat for great numbers of those few species. The undeveloped portion of Central Park lacks complex vegetation communities and has low vegetation species diversity; therefore, the site supports low habitat value for wildlife.

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) with frequent sources of water that would provide suitable habitat for fish were observed within the undeveloped portion of Central Park; therefore, no fish are expected to occur and are presumed absent (ELMT 2019).

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed within the undeveloped portion of Central Park; therefore, no amphibians are expected to occur and are presumed absent (ELMT 2019).

Reptiles

The undeveloped portion of Central Park provides a limited amount of habitat for a few reptile species adapted to a high degree of human disturbance associated with onsite disturbances and surrounding development (ELMT 2019).

Birds

The undeveloped portion of Central Park provides suitable foraging and cover habitat for a variety of year-round and seasonal avian residents, as well as migrating bird species (ELMT 2019). In addition, the site has the potential to provide suitable nesting opportunities for birds that nest on the open ground and those acclimated to routine disturbances (i.e., killdeer [*Charadrius vociferus*]) (ELMT 2019).

Mammals

The undeveloped portion of Central Park and surrounding areas have the potential to support mammalian species adapted to human presence and disturbance (ELMT 2019). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices, abandoned structures) within and surrounding the Project site (ELMT 2019).

Listed Wildlife

No listed wildlife species were observed within the undeveloped portion of Central Park during the field surveys. In addition, the literature review and field surveys concluded that the site lacks suitable and adequate biological and physical features that are needed to support any of the listed species in the wildlife inventory.

Coastal California Gnatcatcher

No CAGNs were observed during the 2007/2008 protocol CAGN surveys or during any of the other bio surveys conducted at the undeveloped portion of Central Park. The California buckwheat scrub plant community onsite has been degraded from existing anthropogenic disturbances and is isolated from occupied sage scrub habitats in the region (ELMT 2019). Based on these conditions, it was determined that the undeveloped portion of Central Park does not provide the requisite Primary Constituent Elements which are needed by CAGN to be present; therefore, it was determined that CAGN is presumed absent from the undeveloped portion of Central Park (ELMT 2019). See ELMT's *Central Park Amphitheater Habitat Assessment* report in Appendix B1 for details describing this rationale. Additional protocol CAGN surveys are not recommended.

San Bernardino Kangaroo Rat

No SBKRs were captured during the 2008 focused SBKR small mammal trapping surveys. The undeveloped portion of Central Park does not support Riversidian alluvial fan sage scrub plant communities and is no longer exposed to hydrological processes needed to maintain the openness of suitable SBKR habitat and does not contain upland areas proximal to flood plains that contain suitable refuge habitat for SBKR (ELMT 2019). The channelization of Deer Creek and surrounding development has eliminated the undeveloped portion of Central Park from being subjected to scouring regimes historically associated with Deer Creek that would have had the potential to provide suitable habitat for SBKR (ELMT 2019). Based on these conditions, it was determined that the site does not provide the requisite Primary Constituent Elements which are needed by SBKR to be present; therefore, it was determined that SBKR is presumed absent from the undeveloped portion of Central Park (ELMT 2019). See ELMT's *Central Park Amphitheater Habitat Assessment* report in Appendix B1 for details describing this rationale. Additional focused SBKR surveys are not recommended. Note: a majority of the trapline was placed within the undeveloped portion of Central Park outside of the Project site boundary. Only a portion of the trapline was situated within the Project site; however, the same conclusion about SBKR absence remains the same for the Project site.

Sensitive Wildlife

Three sensitive animals, rufous hummingbird (*Selasphorus rufus*), California gull (*Larus californicus*), and Cooper's hawk (*Accipiter cooperii*), were observed within the undeveloped portion of Central Park during the 2007 and 2008 field surveys. Rufous hummingbird was observed during the 2007 bio reconnaissance survey. California gull was observed during the 2007/2008 BUOW protocol surveys. Cooper's hawk was observed during the 2007/2008 CAGN protocol surveys. LSA bio report, BUOW report, and CAGN report do not give information about these observations, only that they were sighted.

According to the City of Rancho Cucamonga Central Park Fire Hazard Reduction and Vegetation Management Plan, Blainville's horned lizard (*Phrynosoma blainvillii*) and California glossy snake (*Arizona elegans occidentalis*) occupies the undeveloped portions of the Central Park property. Table 3.4.4-4, *Sensitive Wildlife Species known to use the Central Park Site*, lists the sensitive wildlife species known to occupy and/or use the Central Park site and it lists each species' status in California.

Table 3.4.4-4. Sensitive Wildlife Species known to use the Central Park Site

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard (=coast horned lizard)	SSC
<i>Arizona elegans occidentalis</i>	California glossy snake	SSC
<i>Selasphorus rufus</i>	rufous hummingbird	BCC
<i>Larus californicus</i>	California gull	WL
<i>Accipiter cooperii</i>	Cooper's hawk	WL
Legend		
<u>California Department of Fish and Wildlife (CDFW) Designations:</u>		
<ul style="list-style-type: none"> • SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. • WL = watch list: this list includes birds identified in the <i>California Bird Species of Special Concern</i> (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species. 		
<u>United States Fish and Wildlife Service (USFWS) Designations:</u>		
<ul style="list-style-type: none"> • BCC = bird of conservation concern: a bird of conservation concern is listed in the USFWS' 2008 <i>Birds of Conservation Concern</i> report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing. 		

Besides the animals listed above, no other sensitive wildlife species were observed within the undeveloped portion of Central Park during the field surveys. Sensitive wildlife species were not observed or detected during the 2019 field survey.

The literature review and field surveys concluded that a majority of the sensitive species in the wildlife inventory do not have more than a low potential to exist within the undeveloped portion of Central Park due to a lack of some suitable biological and physical features that are needed to support them adequately; however, habitat conditions create a high potential for four sensitive wildlife species to occur within the site (Table 3.4.4-5, *Sensitive Wildlife Species that have a Moderate to High Potential to Occur*).

Table 3.4.4-5. Sensitive Wildlife Species that have a High Potential to Occur

Scientific Name	Common Name	Status in California	Potential to Occur on the Project Site
<i>Aspidoscelis hyperythra beldingi</i>	Belding's orange-throated whiptail	WL	high potential to occur
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	SSC	high potential to occur
<i>Elanus leucurus</i>	white-tailed kite	fully protected	high potential for foraging
<i>Accipiter striatus</i>	sharp-shinned hawk	WL	high potential for foraging
Legend			
<ul style="list-style-type: none"> • SSC: see Table 5 for description. • WL: see Table 5 for description. • Fully protected: fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Lists were created for fish (Fish and Game Code Section 5515), amphibians and reptiles (Fish and Game Code Section 5050), birds (Fish and Game Code Section 3511) and mammals (Fish and Game Code Section 4700). 			

Burrowing Owl

Even though the undeveloped portion of Central Park contained fossorial mammal burrows, no BUOWs, occupied burrows, or sign of BUOWs (past or present) were observed during the 2007/2008 protocol BUOW surveys or during any of the bio surveys conducted at the undeveloped portion of Central Park. The undeveloped portion of Central Park provides minimal line-of-sight opportunities favored by BUOWs; however, most of the site lacks suitable burrows (>4 inches in diameter) capable of providing roosting and nesting opportunities (ELMT 2019). Even though BUOW was not detected on site during the focused BUOW surveys or during any of the other field visits, the site contains suitable habitat that could potentially support BUOW in the future. See ELMT's *Central Park Amphitheater Habitat Assessment* report in Appendix B1 for details describing this rationale. Additional protocol BUOW surveys are not recommended; however, pre-construction surveys are recommended.

Hydrology

Watersheds

A watershed is an area of land within which waterways drain or seep to one specified place, such as an ocean, river, stream, reservoir, marsh, wetland, lake, playa, pond, or groundwater. Mountains, hills, and ridges usually separate watersheds. Central Park is located within the following watersheds (CDFW 2019b):

- **HUC 12:** majority of the site is in the Lower Cucamonga Creek Watershed and the western edge of Central Park is in the Upper Cucamonga Creek Watershed.
- **HUC 10:** Chino Creek Watershed.
- **HUC 8:** Santa Ana River Watershed.

Blue-lined Streams

"Blue-line streams" are broken or solid blue or purple lines on USGS topographic maps; however, topographic maps do not show all drainages or streams that might exist. The literature review determined that the undeveloped portion of Central Park does not contain blue-line streams; however, Deer Creek, located west of Central Park, is a blue-line stream as shown on the USGS 7.5-Minute Topographic Map *Guasti* and *Cucamonga Peak* Quadrangles. Deer Creek drains the western section of the City (BonTerra Consulting 2010).

NWI Wetlands

The literature review determined that the undeveloped portion of Central Park does not contain NWI wetlands; however, Deer Creek, located west of Central Park is designated as riverine wetlands.

Aquatic Features

As described earlier, the Central Park property is generally flat with a gentle slope from the north to the south. Surface runoff is through sheet flow to the south (Kleinfelder 2009). The undeveloped portion of Central Park lacks open water, such as a river, stream, creek, lake, or pond; however, five unnamed aquatic features (drainages) were observed and mapped. These drainages primarily consist of a main drainage (Drainage A) with four smaller tributaries (Drainage B, C, D, and E). Portions of Drainage A are located within the Project site. Drainage B, C, D, and E are not located within the Project site. The flow of water through the drainages is ephemeral (seasonal) and typically present only very briefly. Most flows occur after rain events, and therefore, the drainages are dry for most of the year. Details of each drainage are described in detail below. Descriptions were taken from LSA's *Jurisdictional Delineation Report, Central*

Park Project, City of Rancho Cucamonga, San Bernardino County, California (LSA 2008b)
(Appendix B3).

Drainage A

Portions of Drainage A are located within the Project site. Drainage A is the main drainage that runs across the undeveloped portion of Central Park. This feature flows from the northeastern corner of the undeveloped portion of Central Park boundary to a 3-foot diameter concrete-lined culvert at the southwest corner of the site at Base Line Road (LSA 2007). Flows appear to move beneath Base Line Road and tie into Deer Creek which is a flood control channel located west of the undeveloped portion of Central Park and the Deer Creek Channel Trail (LSA 2007). The drainage is approximately 2,862 feet long. Drainage A is fed primarily by nuisance flows from adjacent residential and park development. Most of the western portion of the drainage is engineered and lined with imported cobble and river-rock, while the eastern portion of the drainage has a natural gravelly/sandy bottom. The eastern half of the drainage is small and well-defined, with vegetation consisting primarily of upland scrub species; California buckwheat, California sagebrush, and grasses. Near the center of the drainage, nuisance runoff from adjacent development is fed into the drainage via an approximately 5 x 3-foot concrete-lined storm drain outlet. Temporary ponding appears to occur in the area of the storm drain outlet, with vegetation dominated primarily by mule fat and arroyo willow (*Salix lasiolepis*). Scattered, isolated mule fat shrubs were present at several locations throughout this drainage.

Drainage B

Drainage B is a small ephemeral drainage that flows in a north to south direction for approximately 70 feet before entering Drainage A. Vegetation associated with this drainage consists entirely of upland scrub species. Soils within this drainage are a mix of gravelly sand and sandy loam.

Drainage C

Drainage C is an ephemeral drainage that originates at the northern edge of the site approximately 500 feet east of Deer Creek. This drainage flows in a general north to south direction for approximately 986 feet before entering Drainage A. Vegetation associated with this drainage consists entirely of upland scrub species. Soils with this drainage are a mixture of gravelly sand and sandy loam.

Drainage D

Drainage D appears to be an engineered earthen-lined, trapezoidal-shaped ephemeral drainage that originates at an 18-inch storm drain outlet of the north edge of the undeveloped portion of Central Park. This drainage flows in a north to south direction for approximately 512 feet before entering Drainage A. This feature is fed primarily by nuisance flows from adjacent residential development. Soils within this drainage are composed of coarse gravelly sand.

Drainage E

Drainage E is a small ephemeral drainage that flows in a northeast to southwest direction from approximately 71 feet before entering Drainage A. Vegetation associated with this drainage consists entirely of upland scrub species. Soils within this drainage are a mix of coarse gravelly sand and sandy loam.

Jurisdictional Areas

Survey Limitations

The 2007 jurisdictional delineation was conducted during an abnormally dry rainy season; however, the fieldwork was completed three days after a rainfall event that deposited up to 1.5 inches in the Project area.

Drainage Characteristics

The literature review and jurisdictional delineation survey determined that the undeveloped portion of Central Park contains non-tidal jurisdictional areas (Figure 2 in Appendix B3). A total of five unnamed ephemeral drainages were observed and mapped, characteristics of which are described in Table 3.4.4-6, *Drainage Characteristics*.

USACE Defined Wetlands

There were no USACE defined wetlands identified within the undeveloped portion of Central Park based on the absence of hydric soil indicators, hydrophytic vegetation, and/or hydrology:

- Hydric soil indicators were not observed in any of the soils examined during the survey. Loamy and sandy substrates of the drainages appear to be excessively drained for the persistence of wetland vegetation and the establishment of wetland soils.
- Dominant vegetation observed in all the drainages consisted primarily of upland species. Since most of the plants occur almost always in uplands, they are not indicators of wetlands.
- Hydrophytic vegetation, potentially indicative of wetlands, primarily consisted of mule fat and arroyo willow, was observed at the storm drain outlet in the central part of Drainage A; however, the soil sample taken at the point did not show indicators of hydric soils.
- Indicators of wetland hydrology were not observed in the drainages.

Jurisdictional Acreage

The undeveloped portion of Central Park contains jurisdictional Waters of the U.S. regulated by USACE and the RWQCB. Drainages A, B, C, D, and E exhibited an OHWM consisting primarily of a scoured channel bed. Drainages B, C, D and E are tributaries to Drainage A. Drainage A flows appear to move beneath Base Line Road and tie into Deer Creek. Deer Creek is a tributary of Cucamonga Creek. Deer Creek joins Cucamonga Creek, which runs southerly and connects to Chino Creek near the State Route 71 Freeway and to Mill Creek and the Santa Ana River at Prado Park (just east of Prado Dam) (BonTerra Consulting 2010). The Santa Ana River is the largest water course in southern California. The 100-mile long river generally runs southwesterly from the San Bernardino Mountains north of Seven Oaks Dam toward the San Bernardino and Chino valleys, cutting through the Santa Ana Mountains, and flowing down into the Orange County coastal plain before its outlet at the Pacific Ocean in Huntington Beach (BonTerra Consulting 2010). The Santa Ana River ultimately flows to the Pacific Ocean, a traditional navigable water; therefore, the connectivity to a navigable waterbody required by USACE for a waterbody to be considered jurisdictional is established. The site also contains jurisdictional waters regulated by CDFW. Table 3.4.4-7, *Acreage of Mapped Jurisdictional Areas within the Undeveloped Central Park Site*, summarizes the extent of jurisdictional areas mapped within the undeveloped portion of Central Park.

Table 3.4.4-6. Drainage Characteristics

Drainage	UTM Begin	UTM End	Linear Feet	Depth Estimate (Feet)	Side Slope Estimate	Hydrologic Regime	Biological Characteristics	Primary Substrate	Chemical Characteristics	Hydrologic Indicators	USACE OHWM (Feet)	CDFW Streambed (Feet)
A*	0448259 3776123	0447403 3775805	2,862	0.5	2:1	Partially engineered ephemeral	Sage scrub, mule fat, arroyo willow	Loam/sand/gravel/cobbles	None	Defined OHWM	1-4	6-25
B	0447605 3775904	0447611 3775914	70	0.2	4:1	Ephemeral	Sage scrub	Gravelly sand/loam	None	Defined OHWM	1-2	3-5
C	0447702 3776180	0447709 3776070	986	0.2	4:1	Ephemeral	Sage scrub	Gravelly sand loam	None	Defined OHWM	1-3	2-12
D	0448074 3776174	0448068 3776064	512	0.3	3:1	Engineered ephemeral	Sage scrub	Sand/gravel	None	Defined OHWM	1-2	3-5
E	0448126 3776109	0448130 3776094	71	0.2	4:1	Ephemeral	Sage scrub	Gravelly sand/loam	None	Defined OHWM	2-4	4-6

* Portions of Drainage A are located within the Project site. Drainage B, C, D, and E are not located within the Project site.

Table 3.4.4-7. Acreage of Mapped Jurisdictional Areas within the Undeveloped Central Park Site

Drainage	USACE and RWQCB Jurisdictional Acreage: CWA		CDFW Jurisdictional Acreage: Fish and Game Code
	Waters of the U.S. - Non-wetland Waters	Waters of the U.S. - USACE Defined Wetlands	
A*	0.117	0	0.758
B	0.003	0	0.008
C	0.042	0	0.167
D	0.018	0	0.047
E	0.002	0	0.006
Totals	0.182	0	0.986

*Portions of Drainage A are located within the Project site. Drainage B, C, D, and E are not located within the Project site.
Note: a jurisdictional delineation field survey was not conducted just within the Project site; therefore, exact acreage of USACE, RWQCB, and CDFW jurisdictions located within the Project site cannot be determined at this time.

Critical Habitats

When a species is listed as federally endangered or threatened, areas of habitat considered essential to its conservation may be designated as critical habitat.⁶ Federal agencies are prohibited from authorizing, funding or carrying out actions that "destroy or adversely modify" critical habitats. For listed species, critical habitat may include areas that are not currently occupied by the species, but that will be needed for its recovery. While development is not precluded from designated critical habitat, these areas have been afforded legal protection, which requires developers to consult with the USFWS if a project would affect critical habitat, or any listed species.

The literature review determined that Central Park is not located within a designated or proposed critical habitat for listed plant or wildlife species (Exhibit 6 in Appendix B1). The nearest designated critical habitat is for SBKR and is located north and northeast of Central Park (approximately 1.2 miles NE).

Wildlife Movement

A wildlife corridor is a connection of habitat, generally native vegetation, which joins two or more larger areas of similar habitat that are otherwise separated by natural barriers, changes in vegetation composition, or land permanently altered for human activities, such as farms; and infrastructure, such as roads, railroads, residential development, or fencing. When native vegetation is cleared, fragmented patches of open space or isolated "islands" of wildlife habitat are created. Fragmentation and habitat loss are the two main contributors to continuing biodiversity decline. The main goal of corridors is to facilitate movement of individuals, through dispersal, seasonal migration, and movement for foraging, breeding, cover, etc. Corridors allow for physical and genetic exchange between isolated wildlife populations and are critical for the maintenance of ecological processes, including allowing for the movement of animals and the continuation of viable populations and higher species diversity.

Wildlife corridors may either be contiguous strips of vegetation and habitat, such as ridgelines or riverbeds, or intermittent patches of habitat or physical features spaced closely enough to allow safe travel. The habitat within the corridor generally contains biological and physical features that are needed to temporarily support wildlife and allow avian and ground-dwelling wildlife to safely move through it. Corridors can be natural, such as a riparian corridor, or man-made, such

⁶ Designated critical habitats are described in 50 CFR §17 and 226.

as culverts, tunnels, drainage pipes, underpasses, or overpasses. Manufactured corridors are often referred to as “wildlife crossings” and they allow wildlife to pass over, under, or through physical barriers that otherwise hinder movement, such as roads or highways. Wildlife corridors also vary greatly in size, shape, and composition. The wider and more safeguarded a wildlife corridor is from adjacent human activities, noise, traffic, and light, the better it functions for the movement of wildlife. Generally, there are three types of wildlife corridors:

- **Regional corridor:** a primary landscape connection between larger important areas of habitat. They are generally substantial in width (more than 2,000 feet) and not only provide for dispersal of individual species, but act as habitat for a range of species. These areas provide adequate food, water, cover, and shelter to support wildlife within the corridor.
- **Sub-regional corridor:** a landscape connection not as wide as a regional corridor, but wide enough (generally more than 1,000 feet) to provide species movement and dispersal. Sub-regional corridors typically connect larger vegetated landscape features such as ridgelines and valley floors.
- **Local corridor:** smaller, shorter, less defined linkages that provide local connection of remnant patches of vegetation and landscape features such as creek lines, gullies, and wetlands. They may, in some cases be less than 160 feet wide and thus may be influenced by edge effects. Many of wildlife crossings are considered local corridors.

The literature review determined that Central Park is not located within a CDFW designated Essential Habitat Connectivity Area or a Natural Landscape Block; however, Central Park is in an area designated as a Natural Areas Small - California Essential Habitat Connectivity (CEHC) [ds1073]. Natural Areas Small are natural areas smaller than 2,000 acres that otherwise meet Natural Landscape Block criteria.

Although, the undeveloped portion of Central Park is designated as a Natural Areas Small by CDFW, the literature review and field surveys determined that the undeveloped portion of Central Park does not function as a wildlife movement corridor. Even though the undeveloped portion of Central Park is undeveloped, it is in an area of the City that is heavily influenced by human development and is surrounded by development and roadways. These permanent structures serve as significant barriers to wildlife movement through the site and region. In addition, human activities, lighting, noise, and traffic associated with the development and roadways, would most likely deter wildlife movement through the site. In addition, the site does not contain and is not connected to an established wildlife corridor and it does not provide connectivity between large areas of open space on a local or regional scale.

Wildlife movement would most likely occur in the foothills of the San Gabriel Mountains, Deer Canyon, and Day Canyon to the north; Deer Creek Channel to the west; and Day Creek Channel to the east; however, the roadways, paved trails, and development that surrounds the undeveloped portion of Central Park prevents wildlife movement from those directions. Travel through the site is likely limited to common urban tolerant wildlife species such as coyote, northern raccoon, striped skunk, and Virginia opossum. These species could be expected to travel through the Project site and neighboring developed areas.

Native Wildlife Nursery Sites

No native wildlife nursery sites, such as bird rookeries or bat roosts, were observed within the undeveloped portion of Central Park during the field surveys.

Potential Direct Impacts

Direct impacts on sensitive biological resources have immediate consequences, such as the changes that occur when land is converted and/or jurisdictional waters are removed, filled in, channelized, stabilized, altered, or modified. The Project site will be developed, and all habitats, vegetation, non-vegetated features, and jurisdictional areas would be removed. In order to determine impacts on biological resources from Project implementation, the current proposed development design provided by the Project architect was overlaid on the result maps that were prepared after conducting the literature review and field surveys. Direct, permanent Project impact areas include all areas within the limits of grading in the Project footprint. Project construction-related ground-disturbing and habitat-altering activities could directly kill, injure, or harass wildlife.

Potential Indirect Impacts

Indirect impacts may either be short-term related to construction or long-term and may affect plant and wildlife populations, habitats, and water quality over an extended period, long after construction activities have been completed. Indirect impacts may occur on biological resources located adjacent to the Project site.

Discussion:

- a. **Would the project have a substantial adverse impact, 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 Wildlife or the U.S. Fish and Wildlife Service?**

Less Than Significant.

No listed or sensitive plant species were observed within the Project site and all the special-status plant species in the plant inventory do not have more than a low potential to exist; therefore, no direct impacts on listed or sensitive plants are anticipated as a result of Project implementation. The adjacent undeveloped land located outside of the Project site also does not contain listed or sensitive plant species; therefore, no indirect impacts on listed or sensitive plants are anticipated as a result of Project implementation. The Project is not anticipated to have direct or indirect impacts on listed or sensitive plants.

No listed wildlife species were observed or detected within the Project site and all the listed species in the wildlife inventory have no potential to exist on the Project site; therefore, no direct impacts on listed wildlife are anticipated as a result of Project implementation. The adjacent undeveloped land located outside of the Project site also does not contain listed wildlife species; therefore, no indirect impacts on listed wildlife species are anticipated as a result of Project implementation.

Three sensitive animals, rufous hummingbird, California gull, and Cooper's hawk, were observed within the undeveloped portion of Central Park during the 2007 and 2008 field surveys. In addition, Blainville's horned lizard and California glossy snake are also known to occupy the undeveloped portions of the Central Park property. In addition, habitat conditions within the Project site create a high potential for four sensitive wildlife species to occur: Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), white-tailed kite (*Elanus leucurus*), and sharp-shinned hawk (*Accipiter striatus*). The Project will permanently impact and remove all occupied habitats located within the Project footprint; therefore, these animals could potentially be directly and/or indirectly impacted by the Project should they exist onsite within or adjacent to the Project footprint during construction activities. With implementation of regulatory compliance measures RCM-1 and RCM-2, impacts to sensitive birds will be reduced to less than significant.

Even though BUOW was not detected on site during the focused BUOW surveys or during any of the other field visits, the site contains suitable habitat that could potentially support BUOW in the future. With implementation of regulatory compliance measures RCM-1 and RCM-2, impacts to BUOW will be reduced to less than significant.

The Project site also supports shrub vegetation and other physical features that could potentially provide foraging, nesting, and cover habitats to support bird species (year-round residents, seasonal residents, and migrants). Those birds that could potentially breed within the Project site are protected by the MBTA and Fish and Game Code Section 3503, Section 3503.5, and Section 3513. The statutes make it unlawful to take native breeding birds, and their nests, eggs, and young. Activities that are most likely to result in take of migratory birds during the breeding bird season when eggs or young are likely to be present include, but are not limited to, clearing or grubbing of bird nesting habitat, or structure demolition. The Project has a potential to directly take individual breeding birds, their nests, young, or eggs. With implementation of regulatory compliance measures RCM-1 and RCM-2, impacts to breeding birds will be reduced to less than significant.

The Project is not anticipated to have direct or indirect impacts on listed wildlife. Direct and/or indirect impacts on sensitive wildlife are anticipated as a result of the project; however, impacts would be considered less than significant for the following reasons:

- Blainville's horned lizard, Belding's orange-throated whiptail, coastal whiptail, California glossy snake, rufous hummingbird, California gull, white-tailed kit, sharp-shinned hawk, and Cooper's hawk are widespread in California and have low sensitivity statuses.
- The loss of one or a few individual sensitive species would not substantially reduce or threaten the regional or local populations of these common species below self-sustaining levels.
- California gull are not anticipated to use the Project site for foraging or breeding and is anticipated to use the Project site only for short time use.
- Rufous hummingbird, white-tailed kit, sharp-shinned hawk, and Cooper's hawk would most likely only use the Project site for foraging purposes. Breeding habitats are absent.
- Any loss of foraging habitat is unlikely to create a significant, permanent impact because the project site hosts no special foraging habitat (e.g., large healthy riparian courses) and there is identical foraging habitat outside of the Project site (north of the Central Park property).
- The project would result in the loss of low quality, degraded, and disturbed California buckwheat scrub habitat that is surrounded by development. The state of the habitat makes it less valuable as habitat to support wildlife diversity or special-status species.
- The removal of potential sensitive bird foraging habitat would be considered a less than significant impact under CEQA.
- The sensitive birds are highly mobile and would most likely be able to avoid direct contact with construction vehicles, equipment, and personnel.

Due to these reasons, impacts on sensitive wildlife species on a local or regional level would be considered less than significant and no mitigation is needed.

Mitigation Measures: With implementation of RCM-1 and RCM-2, no mitigation is required.

Regulatory Compliance Measures (RCMs):

RCM-1: Pre-Construction BUOW and Breeding Bird Survey within 14 Days Prior to Construction

To be in compliance with the MBTA and the California Fish and Game Code, and to avoid and reduce direct and indirect impacts on BUOWs, migratory, non-game breeding birds, and their nests, young, and eggs to less than significant levels, the project proponent shall have a qualified biologist conduct a 14-day pre-construction focused BUOW survey and breeding bird survey. The pre-construction BUOW survey (Take Avoidance Survey) shall be conducted in accordance with the *Staff Report* (CDFG 2012) no less than 14 days prior to initiating ground disturbance activities. The survey may detect changes in BUOW presence such as colonizing BUOWs that have recently moved onto the site, migrating BUOWs, resident BUOWs changing burrow use, or young of the year that are still present and have not dispersed (CDFG 2012).

Following the completion of the survey, the biologist would prepare a memo summarizing the results of the survey. The memo would be submitted to the City and CDFW prior to initiating any ground disturbance activities.

If no BUOWs, signs of BUOWs, or breeding birds are observed during the survey and concurrence is received from CDFW, project activities may begin, and no further mitigation would be required.

If BUOWs or signs of BUOWs are observed during the survey, the site would be considered occupied. The biologist would contact the City and CDFW to assist in the development of avoidance, minimization, and mitigation measures, prior to commencing project activities.

If an active bird nest (not a BUOW nest) is located during the pre-construction survey and potentially would be disturbed, a no-activity buffer zone would be delineated on maps and marked (flagging or other means) up to 500 feet for special-status avian species and raptors, or 100 feet for non-special status avian species. The limits of the buffer would be demarcated to not provide a specific indicator of the location of the nest to predators or people. Materials used to demarcate the nests would be removed as soon as work is complete, or the fledglings have left the nest. The biologist would determine the appropriate size of the buffer zone based on the type of activities planned near the nest and bird species because some bird species are more tolerant than others to noise and other disturbances. Buffer zones would not be disturbed until a qualified biologist determines that the nest is inactive. Additionally, the area would also not be disturbed until the young have fledged, the young are no longer being fed by the parents, the young have left the area, or the young would no longer be impacted by project activities.

The results of the 14-day pre-construction BUOW survey will be valid for 14 days. If construction is delayed more than 14 days, then the 14-day pre-construction BUOW survey must be repeated.

RCM-2: Pre-Construction BUOW and Breeding Bird Survey within 24 Hours Prior to Construction

In addition to the 14-day pre-construction BUOW survey, a 24-hour pre-construction BUOW survey and breeding bird survey will be conducted following the same measures described above in RCM-2. The results of the 24-hour pre-construction BUOW survey will be valid for 24 hours. If construction is delayed more than 24 hours, then the 24-hour pre-construction BUOW survey must be repeated.

- b. Would the project have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or**

regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

No Impact.

Implementation of the Project would result in the loss and removal of approximately 11 acres of vegetation and wildlife habitat (Table 3.4.4-8, *Acreage of Anticipated Direct Impacts on Land Cover Types*).

Table 3.4.4-8. Acreage of Anticipated Direct Impacts on Land Cover Types

Mapped Land Cover Type	Total Acreage within the Project Site	Total Avoided Acreage within the Project Site	Total Impact Acreage within the Project Site		
			Permanent Impacts	Temporary Impacts	Total Impacts
California buckwheat scrub	5.8	0	5.8	0	5.8
Ruderal/disturbed habitat	4.77	0	4.77	0	4.77
Developed land	0.21	0	0.21	0	0.21
Drainage feature	0.22	0	0.22	0	0.22
Total Acreage:	11	0	11	0	11

California buckwheat scrub, ruderal/disturbed habitat, and drainage feature (portions of Drainage A) will be directly impacted by the Project. These communities are not considered sensitive; therefore, no direct impacts on sensitive vegetation communities are anticipated as a result of Project implementation. The adjacent undeveloped land located outside of the Project site also does not contain sensitive plant communities; therefore, no indirect impacts on sensitive vegetation communities are anticipated as a result of Project implementation.

Riparian habitats are those on, relating to, or near the banks of a river, stream, creek, spring, seep, pond or lake. The Project site is disturbed, dry, and does not support wetlands or areas that support riparian habitats. In addition, the adjacent undeveloped land located outside of the Project site also does not contain riparian habitats; therefore, no direct or indirect impacts on riparian habitat are anticipated as a result of Project implementation.

The Project is not anticipated to have direct or indirect impacts on riparian habitats or other sensitive natural communities.

Mitigation Measures: No mitigation is required.

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

Less than Significant Impact.

Only a portion of Drainage A is located within the Project site. Drainage B, C, D, and E are not located within the Project site. A jurisdictional delineation field survey was not conducted just within the Project site; therefore, exact acreage of USACE, RWQCB, and CDFW jurisdictions located within the Project site cannot be determined at this time.

Table 3.4.4-9, *Acreage of Jurisdictional Areas in the Undeveloped Portion of Central Park*, lists the approximate total acreages of jurisdictional areas within the undeveloped portion of Central Park.

Table 3.4.4-9. Acreage of Jurisdictional Areas In the Undeveloped Portion of Central Park

Jurisdictional Areas	Total Acreage within Central Park	Total Avoided Acreage within Central Park	Total Impact Acreage within Central Park		
			Permanent Impacts	Temporary Impacts	Total Impacts
Waters of the U.S. - non-wetland waters	0.182	0	0.182	0	0.182
Waters of the U.S. - USACE defined wetlands	0	0	0	0	0
CDFW jurisdictional areas	0.986	0	0.986	0	0.986

Deer Creek is a jurisdictional channel located west of the undeveloped portion of Central Park and the Deer Creek Channel Trail. Deer Creek will not be directly impacted by the Project. In addition, this area is located far away (0.2 mile) from the Project footprint making it unlikely for direct or indirect impacts on jurisdictional areas to occur.

The portion of Drainage A that is in the Project site footprint will be entirely removed by the Project. The City will be required to obtain the following regulatory approvals prior to impacts occurring within the identified jurisdictional areas: Corps CWA Section 404 Permit; Regional Board CWA Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement (SAA). With implementation of regulatory compliance measure RCM-3 and RCM-4, impacts to jurisdictional areas will be reduced to less than significant.

Jurisdictional areas are located within the Project site and would be directly impacted by the project; however, there are no USACE defined wetlands based on the absence of hydric soil indicators, hydrophytic vegetation and/or hydrology. The Project will have no impact on federally protected wetlands as defined by section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Mitigation Measures: With implementation of RCM-3 and RCM-4, no mitigation is required.

Regulatory Compliance Measures (RCMs):

RCM-3: Jurisdictional Delineation Survey

The City will retain a biologist to conduct a formal jurisdictional delineation survey on the Project site. The survey will be conducted according to current USACE and CDFW guidelines and will record: 1) wetland hydrology, hydric soils, hydrophytic vegetation, and signs of an OHWM; 2) the presence of a well-defined bed and bank; 3) areas of water flow; and 4) vegetation within and along the jurisdictional areas. Width and length measurements of USACE, RWQCB, and CDFW jurisdictional areas will be delineated in the field using a hand-held GPS unit, 100-meter measuring tape, and aerial imagery. Following field mapping, GIS staff would take the measurements and digitize them into an ArcGIS file. Acreages of each agency's jurisdiction would then be calculated. Following completion of the jurisdictional delineation survey, the biologist will prepare a jurisdictional delineation report in accordance with agency guidelines. The report will support permits and approvals required for the Project from federal and state resource agencies.

RCM-4: Permits for Impacts on Jurisdictional Areas (404, 401, and 1600)

Impacts on jurisdictional areas will require permits; therefore, the City will need to obtain the following permits for the Project:

- CWA section 404 nationwide permit (NWP) from the USACE.
- CWA section 401 Water Quality Certification (WQC) from the RWQCB.
- Lake or SAA with CDFW.

To follow the CWA and the California Fish and Game Code, the City would obtain these permits prior to the issuance of grading or building permits for the project, and prior to any impacts on jurisdictional areas. These permits and approvals would mandate measures for impacts on sensitive biological resources and jurisdictional areas. Compliance with the terms and conditions of the permits, approvals, and regulatory programs would ensure that the potential impacts on sensitive biological resources and jurisdictional areas would be less than significant.

Copies of permits including any extensions and amendments, approvals, and biological reports and plans will be available to all persons who will be working on the project. These documents will be available at the work site during periods of work and will be presented upon request by any resource agency personnel with a reasonable reason for making such a request. Resource agency personnel may enter Central Park at any time to verify compliance with the permits, approvals, reports, and plans.

Central Park is in an area of San Bernardino County that is under the jurisdiction of the following resource agencies' field offices:

- California Department of Fish and Wildlife (CDFW): Inland Desert Region 6.
- United States Army Corps of Engineers (USACE): Los Angeles District.
- Regional Water Quality Control Board (RWQCB): Regional Board 8 - Santa Ana Region.

CWA Section 404 Nationwide Permit

The Project site contains Waters of the U.S. that will be unavoidably impacted by the Project; therefore, the Project would require a federal section 404 permit from the USACE. Under section 404 of the CWA, the USACE can issue general permits to authorize activities that have minimal individual and cumulative adverse environmental effects. The USACE issues general permits in the form of nationwide permits for certain activities, provided that the disturbance thresholds are satisfied. Typically, projects that result in impacts on less than 0.5 acre (this acreage varies among different nationwide permits) can normally be conducted pursuant to one of the nationwide permits. A portion of the approximately 0.182 acre of Waters of the U.S. identified in Central Park will be impacted by the Project; therefore, the City will need to obtain a section 404 nationwide permit for the Project. A Pre-Construction Notification (PCN) must be filed with the USACE if a project will result in the fill of more than a specified acreage of Waters of the U.S. For nationwide permits, impacts over 0.1 acre require submittal of a PCN. Other PCN thresholds may apply depending on the nature of impacts and regional conditions (e.g., impacts on threatened and endangered species or sensitive water resources). Before the USACE can issue a section 404 permit, the City must apply for and receive a section 401 WQC from the Santa Ana Region of the RWQCB.

CWA Section 401 Water Quality Certification

Section 401 of the CWA requires every applicant for a federal license or federal permit to conduct any activity which may result in any discharge of dredge or fill material into Waters of the U.S. provide a certification that any discharges will comply with the CWA, state water quality laws, and other appropriate state regulations (e.g., California Water Code), including water quality standard requirements. Section 401 is implemented through a Water Quality Certification process. As described above, a Section 404 nationwide permit will be required for the Project; therefore, section 404 (b)(1) compliance must be confirmed before a section 404 permit can be issued for the discharge of dredged or fill material in Waters of the U.S.

Lake or Streambed Alteration Agreement

The Project site contains jurisdictional waters that will be unavoidably impacted by the Project; therefore, the Project would require a permit from CDFW pursuant to §Section 1600-1616 of the California Fish and Game Code. CDFW generally regulates waters, wetlands, and riparian areas through its Lake and Streambed Alteration Program that requires execution of an agreement with CDFW before any activity substantially modifies a river, stream or lake. It is not legal to alter the bed or bank of a stream or lake or their natural water flow without a CDFW Lake or SAA. The California Fish and Game Code Section 1602 requires an entity to notify CDFW of any proposed activity that may substantially modify a perennial, intermittent, and ephemeral river, stream, or lake in the state. The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. It is anticipated that the City will need a standard SAA for the project.

- 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 wildlife nursery sites?**

No Impact.

The project site is not located within or near a CDFW designated EHCA or an NLB and the undeveloped portion of Central Park was determined not to function as a wildlife movement corridor; therefore, no direct or indirect impacts on designated wildlife corridors or on fish or wildlife movement are anticipated as a result of project implementation.

A potential wildlife corridor (Deer Creek) is located west of the undeveloped portion of Central Park and the Deer Creek Channel Trail. This area is located far away (0.2 mile) from the Project footprint making it unlikely for direct or indirect impacts on wildlife movement to occur. Accordingly, no impacts on fish or wildlife movement are anticipated as a result of project implementation.

No native wildlife nursery sites, such as bird rookeries or bat roosts, were observed within the project site; therefore, no direct or indirect impacts on native wildlife nursery sites are anticipated as a result of project implementation.

The project is not anticipated to have direct or indirect impacts on wildlife corridors or wildlife movement. The project is not anticipated to have direct or indirect impacts on wildlife nursery sites.

Mitigation Measures: No mitigation is required.

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

No Impact.

No trees protected by the City's Tree Preservation Ordinance were observed within the undeveloped portion of Central Park; therefore, no direct or indirect impacts on protected trees are anticipated as a result of project implementation. The project is not anticipated to have direct or indirect impacts on protected trees.

Mitigation Measures: No mitigation is required.

- f. Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or any other approved local, regional, or state habitat conservation plan?**

No Impact.

The project site is not located within the boundary of and does not contain undeveloped natural lands subject to an adopted HCP, NCCP or other approved local, regional, or state HCP; therefore, the project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP, and no impact would occur.

Mitigation Measures: No mitigation is required.

3.4.5 CULTURAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?		X		
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c.	Disturb any human remains, including those interred outside of formal cemeteries?			X	

Existing Conditions:

Section 15064.5(a) of the CEQA Guidelines generally defines a historical resource as one that is (a) listed in, or eligible for listing in, the California Register of Historical Resources, (b) listed in a local register of historical resources, (c) identified as significant in a historical resource survey (meeting the requirements of Section 5024.1(g) of the Public Resources Code), or (d) determined to be a historical resource by a project's lead agency. Historic, cultural, and paleontological resources include historic buildings, structures, artifacts, sites, and districts of historic, architectural, archaeological, or paleontological significance.

Record Search Results

A California Historical Resources Information Center records search of the Project area and a one-half mile buffer was conducted via the SCCIC, Division of Anthropology, California State University, Fullerton, in July 2019 (Records Search File No.: 20318.6401). As part of this records search, the SCCIC database of survey reports and overviews was consulted, as well as other resources (documented cultural resources, cultural landscapes, and ethnic resources). Additionally, the search included a review of the following publications and lists:

- California Office of Historic Preservation Historic Properties Directory,
- National Register of Historic Places (NRHP), Office of Historic Preservation Archaeological Determinations of Eligibility,
- California Inventory of Historical Resources (CRHR),
- California Points of Historical Interest,
- California Historical Landmarks,
- ethnographic information,
- historical literature,
- historical maps and plats, and
- local historic resource inventories.

The records search focused specifically on the proposed Project's area of potential significant effects (APSE) and a half mile buffer centered on the Project area. The records search results are included in Appendix C as Enclosure 2 (non-confidential).

One previously conducted survey (SB-00479: 1977) is within the APSE. A total of 16 previous surveys have been conducted within one-half mile of the APSE between 1975 and 2010. These

cultural resource investigations include archaeological surveys, architectural surveys, and desktop studies. The previous surveys within the APSE and within one-half mile of the APSE are listed in Table 3.4.5-1.

No previously recorded sites were identified within the APSE and only one was identified within one-half mile of the APSE. Site P-36-020137 (CA-SBR-15904) is a segment of the former Pacific Electric Railway's San Bernardino Line that was removed in the 1990s and replaced with a paved bike and pedestrian trail. P-36-020137 has been determined not eligible for the CRHR or NRHP (Table 3.4.5-2). No CRHR or NRHP eligible archaeological sites were identified within the APSE or within a half mile of the APSE.

Table 3.4.5-1. Cultural Resources Surveys Conducted within the APSE and within one-half mile of the APSE

Report No.	Year	Author(s)/ Affiliation	Title	Survey Type	Resources Identified
Previous Cultural Resource Surveys Conducted within the APSE.					
SB-00479	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Lewis Homes Project in the Etiwanda Area.</i>	Archaeological/ Architectural Survey	--
Previous Cultural Resource Surveys Conducted within a half mile of the APSE					
SB-00286	1975	James Crowell, SBCMA	<i>Archaeological – Historical Resources Assessment of 82 Acres between Haven Ave. and Deer Creek Wash and the Pacific Electronic Railroad Tracks and a Projection East of 19th Street in the Alta Loma Area.</i>	Archaeological/ Architectural Survey	--
SB-00317	1976	Patricia Martz, ARC	<i>Description and Evaluation of the Cultural Resources: Cucamonga, Demens, Deer, and Hillside Creek Channels, San Bernardino and Riverside Counties.</i>	Archaeological/ Architectural Survey	Over 9, see attached data sheet
SB-00342	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Project No. 76-66.</i>	Archaeological/ Architectural Survey	--
SB-00352	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Project No. 76-64, Alta Loma.</i>	Archaeological/ Architectural Survey	--
SB-00353	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of 76-74, and 76-76.</i>	Archaeological/ Architectural Survey	--
SB-00368	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Two Parcels.</i>	Archaeological/ Architectural Survey	--
SB-00479	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Lewis Homes Project in the Etiwanda Area.</i>	Archaeological/ Architectural Survey	--
SB-00495	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Road Improvement HO 6451.</i>	Archaeological/ Architectural Survey	--
SB-03222	1979	Scientific Resource Survey	<i>Archaeological/Paleontological Report on the William Lyon Co. Rancho Cucamonga Property, Rancho Cucamonga, CA.</i>	Archaeological/ Paleontological Survey	--

Table 3.4.5-1. Cultural Resources Surveys Conducted within the APSE and within one-half mile of the APSE

Report No.	Year	Author(s)/ Affiliation	Title	Survey Type	Resources Identified
SB-03581	2000	Phillipe Lapin, LSA	<i>Cultural Resource Assessment for PBW Facility CM 226-01, County of San Bernardino, CA.</i>	Archaeological Survey	--
SB-04156	2002	Curt Duke, LSA	<i>Cultural Resource Assessment: Cingular Wireless Facility No. CM226-03, San Bernardino County, CA.</i>	Archaeological Survey	--
SB-04679	2006	Riordan Goodwin, et al., LSA	<i>Historical Resources Evaluation Report and Archaeological Survey Report for the Pacific Electric Inland Empire Trail, Phase I, City of Rancho Cucamonga, San Bernardino County, CA.</i>	Archaeological/ Architectural Survey	36-016448, 36-020136, 36-020137, 36-020138
SB-05358	1976	W.A. Sider	<i>Cucamonga Creek 1776-1976 After 200 Years.</i>	Archaeological Survey	--
SB-06419	2009	Phil Fulton, LSA	<i>Cultural Resource Assessment Verizon Wireless Services Stoneridge Facility, City of Rancho Cucamonga, San Bernardino County, CA.</i>	Archaeological Survey	--
SB-06815	2010	Wayne Bonner and Sarah Williams, MBA	<i>Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate IE24081-D (Terra Vista Cohab at Central Park Plaza), Milliken and Baseline, Rancho Cucamonga, San Bernardino, CA.</i>	Record Search and Site Visit.	--
SB-06816	2010	Robert Wlodarski, CARE	<i>Records Search and Field Reconnaissance Phase for the proposed AT&T Wireless Telecommunications Site ES0142 (Milliken Tower) Milliken and Baseline, Rancho Cucamonga, CA 91730.</i>	Archaeological Survey	--

SBCMA=San Bernardino County Museum Association; ARC=Archaeological Research Unit; MBA=Michael Brandon Associates; LSA= LSA Associates, Inc.

Table 3.4.5-2. Cultural Resources Identified within a half mile of the APSE

Site No./ Isolate No.	Time Period	Site Type	Date/ Recorder	CRHR/ NRHP Eligibility	Approximate Distance to Project Area
P-36-020137 (CA-SBR-15904)	Historic	Railroad alignment, associated track, ties, etc. removed in 1990s. Currently a paved bike or pedestrian trail.	2004; White, and several others.	Not eligible.	Adjacent, north.

Review of Historic Aerial Photographs

Review of historic maps provides information regarding potential unrecorded historic features or sites within the APSE. Based on the historic map and aerial review, the Project site and surrounding area appears as undeveloped agricultural land from 1938 to 1980s, with the Deer Creek channel to the west, and Base Line Road established by the 1960s to the south. The results of the review of available historic aerials and USGS quadrangle maps are presented in Table 3.4.5-3 below.

Table 3.4.5-3. Review of Historic USGS Maps and Aerial Photographs for Township 1 South, Range 7 West, Section 36 (southwest portion)

Map Name	Date(s)	Author	Legal Description	Description of Potential Resource within Project Area of Impact
GLO Plat Map	1865	Surveyor General's Office	T1S, R7W, S36	The Project site and surrounding area appears undeveloped.
USGS 1:62,500, Cucamonga CA	1897, 1900, 1903, 1906, 1908, 1911, 1912, 1917, 1927, 1929	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped with a road to the south. A creek is to the west.
USGS 1:24,000, Guasti, California	1953	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped with an east to west trending road to the south (current Base Line Road), and a two-track road within the Project site. A creek is to the west.
USGS 1:24,000, Guasti, California	1961, 1966, 1975	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped agricultural land with an east to west trending road to the south labeled "Base Line Road", and a two-track road within the Project site. Deer Creek is to the west.
Historic Aerial	1938, 1948, 1959, and 1966	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with Deer Creek adjacent west, and the surrounding area is undeveloped agricultural land.
Historic Aerial	1980	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with the channelized Deer Creek adjacent west, and the surrounding area as undeveloped agricultural land with a residential development to the northwest.
Historic Aerial	1994	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with the channelized Deer Creek adjacent west, and the surrounding area is developed with residential and commercial structures.

T=Township, R=Range, USGS=United States Geological Survey; Netonline=Historic Aerials by Netonline 2018. Electronic database located at <https://www.historicaerials.com/viewer> accessed 4/23/2019.

A search of federal land patents through the Bureau of Land Management's General Land Office Records website identified one early patent holder for Township 1 South, Range 7 West, Section 36, by the State of California in 1857 under the title authority of the California Enabling Act (see Table 3.4.5-4). Federal land patents provide information on the initial transfer of land titles from the federal government to private (individuals or companies) or local governments by the title transfer authority.

Table 3.4.5-4. Historic Land Patent for Township 7 South, Range 7 West, Section 36 (southwest portion), San Bernardino Baseline Meridian

Patent # or BLM Accession #	Date	Patentee	Legal Description	Transfer Authority
CACAAA 000001 5P	6/19/1874	State of California	T1S, R7W, S36	California Enabling Act, March 3, 1853 (10 Stat. 244).

BLM=Bureau of Land Management, T=Township, R=Range

Native American Heritage Commission Sacred Lands Files Search

Tetra Tech, Inc. contacted the Native American Heritage Commission (NAHC) on June 6, 2019 and requested that the NAHC review its sacred land files (SLF). The NAHC replied on June 21, 2019 that results were negative for Native American tribal resources within the APSE and provided a list of local Native American contacts with knowledge of the Project area (see Appendix C). The NAHC recommends conducting outreach to the listed tribes or individuals as they may have knowledge of cultural resources within or near the Project area. Native American consultation is part of the lead CEQA agency's responsibilities under AB 52.

Archaeological Background and Sensitivity

The prehistory of the southern California region has been summarized within four major horizons or cultural periods: Horizon I – Early Period (12,000 to 7,500 years before present [BP]) characterized by small mobile groups that utilized lithic tools such as fluted projectiles, scrapers, and choppers; Horizon II – Millingstone Horizon (7,500 to 3,000 BP) characterized by the extensive use of milling stones (manos and metates) to process small, hard seeds from plants associated with shrub-scrub communities; Horizon III – Intermediate Culture (3,000 to 1,000 BP) is characterized by mixed subsistence strategy of plant exploitation (increased use of pestles for larger, hard seeds) and the hunting of terrestrial and marine (shellfish) resources, and Horizon IV – Late Prehistoric (1,000 BP to European historic contact) is characterized by an increasing human population and associated expansion of cultural practices, and the use of the bow and arrow, pottery, shell fishhooks, use of asphaltum, and decorative shell and bone ornaments were all typical during this time.

The Project area is within the ethnographic territory traditionally inhabited by the Gabrieliño (Tongva) people. The City is named after the Gabrieliño village of Kukamo or Cucamonga (Kroeber 1925) that was located within the extreme eastern area of the tribe's territory. The Gabrieliño occupied areas in San Bernardino, Los Angeles and Orange counties, as well as the southern Channel Islands—San Clemente, Santa Catalina, San Nicolas, and Santa Barbara Islands. The Gabrieliño were fisher-hunter-gatherers and exploited a variety of coastal bay, littoral, riverine, and inland floral and faunal resources available within the diverse ecological zones of their territory (i.e., coastal plain, rivers, foothills, mountains, and ocean). Subsistence resources included items such as several species of oak trees, grasses, sage bushes, rabbits, deer, fish, shellfish, and other terrestrial and marine mammals.

European settlement began in 1771, when Spanish missionaries began to settle along the California coast and adjacent inland areas. Following the Mexican-American War and secularization of the nearby missions in 1834 (specifically San Gabriel Mission), the region was transferred to private landowners (ranchos) who established a primary economy of cattle ranching. Specifically, in the Project area Rancho Cucamonga was awarded to Tiburcio Tapia in 1839. After the fall of the rancho system, European settlers purchased substantial land holdings in the area. The establishment of the mission system introduced European diseases which decimated the Gabrieliño people. Agriculture developed as the main industry in the area in the mid to late nineteenth century with crops of citrus fruits and grapes. The region remained a rural

agricultural area until, and throughout the 1960s. Urban development (e.g. residential subdivisions and commercial areas) began to take root in the 1920s through the 1970s. The City of Rancho Cucamonga was incorporated in 1977, consolidating the three towns of Cucamonga, Alta Loma and Etiwanda into one municipality. Today, the City is densely developed with urban uses and limited vacant land.

Archaeological Survey Methods and Results

Tetra Tech's qualified archaeologist Jenna Farrell and Sydni Kitchel conducted an archaeological survey of the APSE on July 17, 2019 (see Appendix C). The Project is located on desert land within a suburban area surrounded by major roads, single and multifamily residential properties, and commercial buildings. The proposed 11-acre Project area is within a previously disturbed graded area currently used as a City laydown and storage area with patches of dense brush, annual grasses, and shrubs. Ground surface visibility was generally good to fair due to cleared or graded surface areas. However, patches of dense vegetation were also encountered throughout the project area. See Appendix C for photographs of the APSE. No cultural resources were observed within the Project area. A potential sensitive resource area (a historic grapevine orchard remnant) was identified outside of the APSE (approximately 50 feet).

Discussion:

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines §15064.5?

Less than Significant Impact with Mitigation Incorporated.

Section 15064.5 of the CEQA Guidelines specifically defines a "historical resource" as a resource that meets one or more of the following criteria:

- Listed in, or determined eligible for listing in, the California Register of Historical Resources; or
- A resource listed in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code; or
- Identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code; or
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California that may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Public Resources Code, Section 5024.1, Title 14 California Code of Regulation, Section 4852) including the following:

- An association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- An association with the lives of persons important to local, California, or national history.

- An embodiment of the distinctive characteristics of a type, period, region, or method of construction, or a representation of the work of a master, or possesses high artistic values.
- A resource that has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

No historic resources were identified during the record searches or observed within the Project site. If construction ground disturbance depths extend to native soils (approximately 1 foot or more in depth), there would be a potential to impact previously unrecorded subsurface cultural resources. With implementation of Mitigation Measures CUL-1 and CUL-2, impacts to previously unrecorded subsurface cultural resources will be less than significant.

A potential sensitive resource area (a historic grapevine orchard remnant) was identified outside of the APSE (see Figure 3.4.5-1). With implementation of Mitigation Measure CUL-3, impacts to this resource will be less than significant.

Mitigation Measures:

CUL-1: Worker Education/Training – prior to construction of the Project, the City will retain a qualified archaeologist that will provide a cultural resource briefing that includes all applicable laws and penalties pertaining to disturbing cultural resources, a brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area, types of cultural resources found in the area, instruction that Project workers will halt construction if a cultural resource is inadvertently discovered during construction, and procedures to follow in the event an inadvertent discovery (Inadvertent Discovery Plan discussed below) is encountered, including appropriate treatment and respectful behavior of a discovery (e.g., no posting to social media or photographs). If requested, a local tribal representative(s) shall be invited to participate in the environmental training to discuss or provide input from a tribal cultural perspective regarding the potential cultural resources within the region.

CUL-2: Inadvertent Discovery of Archaeological Resources During Construction – A qualified archaeologist shall prepare an Inadvertent Discovery Plan for the Project which includes appropriate Avoidance Procedures. During Project-level construction, should subsurface archaeological resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5 and/or NRHP criteria (as applicable). If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agencies and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Under CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, Project re-route or re-design, Project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.



City of Rancho Cucamonga
Central Park

Figure 3.4.5-1
Cultural Resource
Avoidance Area

San Bernardino County, CA

- Amphitheater Project Area
- Avoidance Area



CUL-3: – Avoidance Area - A potential sensitive resource area has been identified outside the Project APSE and will be avoided by the Project (see Figure 3.4.5-1). As a precaution to protect the area until further analysis is completed and presented in the technical report for the larger area outside the current APSE, the sensitive area will be avoided. To avoid physical damage to the sensitive area during construction, a qualified archaeologist will mark the area for avoidance by placing flagging, fencing, or staking prior to construction near the area. The archaeologist will ensure any prescribed avoidance measures are in place during construction and the fencing, flags, or stakes are removed once construction is completed near the avoidance area.

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

Less Than Significant with Mitigation Incorporated.

No cultural resources were identified during the record searches or observed within the Project site. If construction ground disturbance depths extend to native soils (approximately 1 foot or more in depth), there would be a potential to impact previously unrecorded subsurface cultural resources. With implementation Mitigation Measures **CUL-1** and **CUL-2**, impacts to previously unrecorded subsurface cultural resources will be less than significant.

Mitigation Measures: Implement Mitigation Measures **CUL-1** through **CUL-3**

c. Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact.

Existing regulations require that if human remains and/or cultural items defined by Health and Safety Code, Section 7050.5, are inadvertently discovered, all work in the vicinity of the find would cease and the San Bernardino County Coroner would be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, the coroner will contact the NAHC by telephone within 24 hours. Compliance with existing regulations will ensure that any Project impact on human remains would be less than significant.

Mitigation Measures: No mitigation is required.



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3.4.6 ENERGY

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Existing Conditions:

The Resource Conservation Element of the General Plan contains a discussion of energy resources as they relate to quality of life and sustainability issues and contains goals and policies to encourage the use of energy resources efficiently (City of Rancho Cucamonga 2010).

Discussion:

- 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.

According to the CEQA Guidelines, “[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.” Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of Project implementation that cannot be avoided.

Both construction and operation of the Proposed Project would lead to the consumption of limited, slowly renewable, and non-renewable resources, committing such resources to uses that future generations would be unable to reverse. The Project would require the commitment of resources that include: (1) building materials; (2) fuel and operational materials/resources; and (3) the transportation of goods and people to and from the Proposed Project.

During Project construction, energy will be consumed in the form of electricity associated with powering lights, electronic equipment, or other construction activities necessitating electrical power. Project construction will also consume energy in the form of petroleum-based fuels associated with the use of construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, and truck trips delivering building materials to the Project site and hauling solid waste from the Project site.

During Project operation, energy consumption will involve electricity to run amphitheater events and petroleum-based fuels associated with trips to and from the Project site.

The construction of the Project will require an estimated 21,548 gallons of gasoline and 59,852 gallons of diesel fuel to power construction equipment. Annual Project operations is estimated to demand 406 gallons of gasoline, 406,763 kilowatt hour of electricity, and 1.3 million kilo-British thermal units of natural gas. Consumption of fuel would be short-term during construction. The energy expended during Project operation is expected to be similar to that expended for current amphitheater events at Red Hill Park. As these events will be relocated to the Project, the net change in energy consumption over existing conditions is not expected to be significant.

The Proposed Project will comply with all applicable regulations and codes which require achievement of various levels of energy efficiency in building construction, design and operation. The consumption of such resources would represent a long-term commitment of those resources. The commitment of resources required for the construction and operation of the Proposed Project would limit the availability of such resources for future generations or for other uses during the life of the Project. However, use of such resources will be short-term and minimal during construction and during operation, energy use is expected to be similar to that expended for current amphitheater events at Red Hill Park; therefore, construction and operation will not result in energy consumption requiring a significant increase in energy production for the energy provider. In addition, the Proposed Project will comply with all applicable regulations and codes. Therefore, the energy demand associated with the proposed Project will be less than significant.

Mitigation Measures: No mitigation is required. Regulatory compliance will maintain impacts at a less than significant level.

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

No Impact.

As noted above, the Project will not result in energy consumption requiring a significant increase in energy production for the energy provider. The Project is not expected to conflict with or obstruct a state or local plan for renewable energy or energy efficiency and therefore, no impacts are expected.

Mitigation Measures: No mitigation is required.

3.4.7 GEOLOGY AND SOILS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	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.			X	
	ii.) Strong seismic ground shaking?			X	
	iii.) Seismic-related ground failure, including liquefaction?			X	
	iv.) Landslides?				X
b.	Result in substantial soil erosion or the loss of topsoil?			X	
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
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?			X	
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?		X		

Existing Conditions:

The Project site is located south of the San Gabriel Mountains (Transverse Ranges Geomorphic Province of Southern California) at the upper elevations of the Los Angeles Basin (comprised of alluvial sediment). The general area in which the Project site is located is underlain by a series of coalescing alluvial fans derived from the San Gabriel Mountains (Kleinfelder West 2009).

Elevations in Central Park range from approximately 1,360 feet above mean sea level on the north to 1,320 feet above mean sea level on the south (Kleinfelder West 2009).

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known active faults traverse the site. The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along any one of several major active faults in the region. The nearest active fault to the Project site is the Cucamonga fault located approximately 3 miles north of the site. The Red Hill Fault is located approximately 2.5 miles southwest of the site. This fault is not considered to be active by the State of California. (Kleinfelder West 2009) The City requires geotechnical investigations for all habitable structures proposed within the expanded Cucamonga Fault Zone and in the northeastern and (extended) southwestern segments of the Red Hill Fault Zone (BonTerra 2010). The northwest corner of Central Park is located in Low Ground Rupture Potential Zone for the Red Hill Fault. The project site is not located within this zone.

Groundwater levels in the City are generally 350 feet or more below ground surface (BonTerra 2010). Groundwater levels in the project area are approximately 400 feet or more below ground surface (Kleinfelder West 2009).

Earth materials encountered during soil investigations of the site were identified as alluvial fan deposits of sand, silty sand, sandy gravel, and gravelly sand (Kleinfelder West 2009).

Discussion:

- 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.**

Less than Significant Impact.

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no active faults are known to cross the site (Kleinfelder West 2009). The probability of damage because of surface ground rupture is low due to the lack of known active faults crossing the Project area. The proposed Project will be designed in accordance with applicable seismic safety standards. The operation of the proposed Project, therefore, is not anticipated to expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death from the rupture of a known earthquake fault. The impact is anticipated to be less than significant.

Mitigation Measures: No mitigation is required.

- ii.) **Strong seismic ground shaking?**

Less than Significant Impact.

The Project is located within the seismically active Southern California region and is likely to experience strong ground shaking from seismic events generated on regionally active faults. The Project has been designed in accordance with applicable seismic safety standards. The operation of the proposed Project, therefore, is not anticipated to expose people or structures to potential substantial adverse effects from strong seismic ground-shaking. The impact is anticipated to be less than significant.

Mitigation Measures: No mitigation is required.

iii.) Seismic-related ground failure, including liquefaction?

Less than Significant Impact.

Liquefaction refers to a phenomenon when surface soils (generally alluvial in nature) if saturated with water lose their structural integrity and react as a liquid rather than a solid during strong ground-shaking activity. The potential for liquefaction is increased in areas with susceptibility for high water tables (i.e., saturated subsurface conditions very close to the ground surface) or inundation coupled with groundshaking. Liquefaction more often occurs in earthquake prone areas underlain by young alluvium where the groundwater table is less than 50 feet below ground surface. The depth to groundwater in the Project site area is in excess of 50 feet below ground surface and the potential for liquefaction in the Central Park area is considered remote. The proposed Project would not expose people or structures to substantial impacts involving seismic-related ground failure from liquefaction; therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation is required.

iv.) Landslides?

No Impact.

The Project site is not located in a landslide area. The land within and in the vicinity of the Project site is relatively flat; thus, no impact from landslides is anticipated.

Mitigation Measures: No mitigation is required.

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

Less than Significant Impact.

Construction of the Project would include ground-disturbing activities, such as excavation and grading in order to build the amphitheater. The proposed Project will require a cut volume of approximately 15,268 cy of soil and a fill volume of approximately 50,623 cy of soils. The shortage of approximately 35,355 cy of fill will be addressed through the import of soils from other private developer projects within the City needing to export soil. However, any soil brought on-site shall be tested and evaluated prior to use.

The proposed Project would be subject to the requirements of the Construction General Permit under the National Pollutant Discharge Elimination System (NPDES) program administered by the State Water Resources Control Board. This would include the submittal of a Stormwater Pollution Prevention Plan (SWPPP) to address erosion and discharge impacts associated with the proposed on-site grading. The SWPPP is also required to include a Water Quality Management Plan for the control of post construction pollutants. Adherence to the requirements of NPDES, SWPPP and Rule 402 and 403 provisions would reduce impacts related to erosion to a less than significant level and no mitigation is required.

Mitigation Measures: No mitigation is required.

c. Is the project 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 onsite or offsite landslides, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact.

Based on the analysis provided in Responses (a.) (iii) and (iv) above, no impact would be experienced related to liquefaction or on-site or off-site landslides. Lateral spreading generally occurs during seismic shaking conditions due to consolidation of liquefied soils and the reduced shear resistance of slopes. Based on site soils and depth to groundwater at the site, the potential for lateral spreading is considered to be low (Kleinfelder West 2009). Subsidence

generally occurs as vertical “block” of soil zones which move in a vertical fashion at varying rates due to underground anomalies, soil collapse, or due to fluid withdrawals, such as groundwater or oil withdrawal. Subsidence is not considered an issue for the Project site (Kleinfelder West 2009). Collapsible soils are generally defined as soils that have potential to suddenly decrease in volume upon increase in moisture content even without increase in external loads. Soils tested in Central Park have indicated collapse potential of low to moderate (Kleinfelder West 2009). Compliance with the City’s Building Regulations for the preparation of geotechnical investigations would require the design and construction of structures and infrastructure to withstand anticipated levels of soil settlement, thereby reducing potential hazards related to collapsible soils to less than significant levels. In addition to design-level geotechnical recommendations prepared for the proposed Project, design and construction of the Project will comply with seismic safety requirements of the California Building Code. Compliance with these requirements would ensure that potential hazards from seismic-related ground failure, including collapsible soils would be less than significant.

Mitigation Measures: No mitigation is required.

- d. **Is the project 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.

Expansiveness refers to the potential to swell and shrink with repeated cycles of wetting and drying and is commonly associated with fine-grained or clayey soils. This wetting and drying causes damage due to differential settlement within buildings and other improvements. However, due to the granular nature of the soils encountered in Central Park (limited presence of clay-particle size fraction and predominance of the sand (or larger) particle sizes, the potential for expansive soils is considered to be low (Kleinfelder West 2009). In addition, the design and construction of the Project will comply with applicable regulations and standard specifications to prevent potential risk of damage from expansive soils. Therefore, regulatory compliance will ensure that impacts would be less than significant.

Mitigation Measures: No mitigation is required.

- e. **Would the project have soils that are incapable of supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No Impact.

No septic tanks or alternative wastewater systems will be constructed as part of the Project, and no impacts will occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant with Mitigation Incorporated. A record search, included in Appendix C, indicates that no paleontological sites or resources have been recorded within Central Park. However, one San Bernardino County Museum (SBCM) locality was found within 1.5 miles directly east of Central Park (SBCM Locality number 5.1.13). This locality produced fossils representing extinct taxa including *Neotoma* sp., *Neotoma lepida*, *Thomomys bottae*, and *Rodentia*. Fossils were recovered from a fine grained, well-sorted yellow sand representing older alluvium after a 5-foot down cut (SBCM 2019). While paleontological resources have not been observed on the Project site, ground-disturbing activities planned for the Project site such as grading and excavation could unearth undocumented paleontological resources or unique geologic features by disturbing native soils that may contain such resources. Therefore, since

the proposed Project could potentially cause a substantial adverse change in significance to a paleontological resource, the incorporation of the following Mitigation Measure GEO-1 would reduce the potential impact on paleontological resources to less than significant.

Mitigation Measures: GEO-1: *Inadvertent Discoveries of Paleontological Resources* — If the construction staff or others observe previously unidentified paleontological resources during ground disturbing activities, they will halt work within a 200-foot radius of the find(s), delineate the area of the find with flagging tape or rope (may also include dirt spoils from the find area), and immediately notify a qualified Paleontologist. Construction will halt within the flagged or roped-off area. The Paleontologist will assess the resource as soon as possible and determine appropriate next steps in coordination with the City. Such finds will be formally recorded and evaluated. The resource will be protected from further disturbance or looting pending evaluation.

The paleontologist shall prepare a report of findings which provides specific recommendations regarding further mitigation measures (e.g., paleontological monitoring) that may be appropriate. Where mitigation monitoring is indicated, the program must include, but not be limited to, the following measures:

- A paleontological monitor trained and equipped to allow the rapid removal of fossils with minimal construction delay, will be assigned to the site full-time during the interval of earth-disturbing activities.
- If fossils are found within an area being cleared or graded, earth-disturbing activities will be diverted elsewhere until the monitor has completed salvage. If construction personnel make the discovery, the grading contractor should immediately divert construction and notify the monitor of the find.
- All recovered fossils will be prepared, identified, and curated as part of documentation in a summary report. All fossils and associated reporting will be transferred to an appropriate depository (i.e., SBCM).
- A copy of the summary report will be sent to the City of Rancho Cucamonga.



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3.4.8 GREENHOUSE GAS EMISSIONS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b.	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?				X

Existing Conditions:

The State of California has enacted key legislation in an effort to reduce its contribution to climate change. Climate change is a result of greenhouse gases emitted all around the world from sources such as the combustion of fuel for transportation and heat, cement manufacture, and refrigerant emissions.

AB 32, the California Global Warming Solutions Act of 2006, requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020. The Air Resources Board is the State agency charged with monitoring and regulating sources of emissions of greenhouse gases. AB 32 requires the Air Resources Board to adopt and implement a list of discrete and early action greenhouse gas reduction measures, which was completed in October 2007.

The SCAG is the regional planning agency for ensuring implementation of Senate Bill 375. Senate Bill 375, or the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. Under the Sustainable Communities Act, the Air Resources Board sets regional targets for GHG emissions reductions from passenger vehicle use.

Area sources of GHG include emissions from natural gas combustion, fireplaces, landscaping equipment, consumer products, and architectural coatings. Indirect sources include emissions from energy consumption and water conveyance. Mobile sources include emissions from passenger vehicles and delivery trucks. Typically, mobile sources are the primary contributor of GHG emissions.

Discussion:

- 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.

For this project, the major source of GHG emissions are the combustion of fuel in construction equipment and vehicles, vehicles used to haul materials, and vehicles used by workers commuting to and from the site. Construction of the project will increase GHG generation, which can contribute to global climate change.

There are three types of GHG emissions from fuel combustion, including CO₂, methane (CH₄) and nitrous oxide (N₂O), and each of these can be evaluated in terms of its carbon dioxide

equivalent (CO₂e). The value of CO₂e with regard to its global warming equivalence, must consider that the CO₂e value for CH₄ is 21 times greater than CO₂, and the CO₂e value for N₂O is 310 times that of CO₂.

Thus, mathematically, the value of CO₂e can be represented by the following equation:

$$\text{CO}_2\text{e Emissions} = \text{CO}_2 \text{ Emissions} + 21 \times \text{CH}_4 \text{ Emissions} + 310 \times \text{N}_2\text{O Emissions}$$

The CalEEMod model provides a CO₂ profile only and does not quantify CO₂e, CH₄ and N₂O emissions. The analysis assumed that the CO₂ emissions are CO₂e. For typical diesel-fueled combustion equipment used in construction activities, the emissions factors adjusted with global warming equivalence are the following:

1. CO₂ emission factors are 22.4 pounds of CO₂e per gallon consumed;
2. CH₄ emission factors are 0.065 pounds of CO₂e per gallon consumed; and
3. N₂O emission factors are 0.068 pounds of CO₂e per gallon consumed.

As shown in these emission factors, the CO₂ profile is 99 percent of the total GHG emissions generated by combustion equipment. Therefore, the CO₂ emissions were assumed to be equivalent to the CO₂e emissions levels.

The CalEEMod model was used to estimate GHG emissions during the construction phase of the proposed project. Based on the construction schedule, types and quantities of construction equipment, and haul trucks, etc., the maximum CO₂e emissions were estimated. The GHG emissions for each construction year are compared with SCAQMD's GHG screening threshold and summarized in Table 3.4.8-1.

During operation, since events will be relocated from an existing facility 2.5 miles from the project, impacts from vehicle trips are expected to be negligible. Operational emissions come from maintenance equipment (e.g. air compressors), solvents such as cleaning supplies and aerosols, and landscape equipment. The electricity used for lighting and power would be generated off-site and emissions associated with these activities would be in the form of GHGs. The operational CO₂e emissions are compared with SCAQMD's GHG screening threshold and summarized in Table 3.4.8-1.

Table 3.4.8-1. Construction and Operational Emissions – GHG^a

	CO ₂ e (tpy)
Construction	
2021 On-site and Off-site Sources	1,011
General Conformity De Minimis / SCAQMD GHG Screening Threshold (tons/year)	3,000
<i>Exceeds Screening Threshold?</i>	<i>No</i>
Operation	
2021 On-site and Off-site Sources	299
General Conformity De Minimis / SCAQMD GHG Screening Threshold (tons/year)	3,000
<i>Exceeds Screening Threshold?</i>	<i>No</i>

a. Compiled using the CalEEMod emissions inventory model, provided in the Appendix A.

As indicated in Table 3.4.8-1, short-term and temporary construction and operational CO₂e emissions will not exceed the daily GHG threshold. Construction and operational emissions for the proposed project will be temporary and finite and will be below those levels being considered and/or discussed by other government agencies and associations as consistent with

the AB 32 Scoping Plan. The project's construction-related cumulative GHG emissions are not a considerable contribution to climate change and, therefore, are less than significant. The project's operation-related GHG emissions will be negligible, and cumulatively are not a considerable contribution to climate change. Therefore, operational impacts are considered less than significant, as well.

Due to the complex physical, chemical and atmospheric mechanisms involved in global climate change, there is no basis for concluding that the project's theoretically small emissions increase could cause a measurable increase in global GHG emissions necessary to influence global climate change. The GHG emissions of the project alone will likely not cause a direct physical change in the environment. It is global emissions in their aggregate that contribute to climate change, not any one source of emissions alone. Therefore, due to the incremental amount of GHG emissions estimated for this project, and the lack of any evidence for concluding that the project's GHG emissions could cause any measurable increase in global GHG emissions necessary to force global climate change, the project is not considered to be hindering the goals of AB 32. Thus, because the project would result in total GHG emissions less than the 3,000-ton SCAQMD annual CO₂e threshold, it is not considered to have a significant impact on a cumulative level.

The estimated daily contribution of GHG emissions is considered to have a less than significant greenhouse gas impact at both the project and cumulative levels.

Mitigation Measures: No mitigation is required.

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

No Impact.

As shown in Table 3.4.8-1, the project results in GHG emissions below the SCAQMD threshold of 3,000 tons per year. Therefore, the project would not conflict with any applicable plan, policy, and/or regulation to reduce GHG emissions.

Predicted levels of CO₂e associated with the proposed project will not inhibit the State's ability to implement AB 32. No impact is anticipated on implementation of the applicable plan to reduce greenhouse gas emissions.

Mitigation Measures: No mitigation is required.



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3.4.9 HAZARDS AND HAZARDOUS MATERIALS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?				X
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?				X
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?			X	
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.			X	

Existing Conditions:

The Project Site and surrounding area contains a variety of uses including urbanized with park, residential, commercial, and place of worship.

The Project Site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2019, CWRCB 2019).

The Project site is also not located within 2 miles of a public airport or public use airport. The nearest airport is Ontario International Airport located approximately 4 miles to the southwest.

The Project site is not within the Airport Influence Area or the Safety Zone for Ontario International Airport (Ontario Airport Planning 2011).

The Rancho Cucamonga Fire District (RCFD) provides emergency response to fires and hazardous materials incidents in the City. Central Park is located in a Wildland-Urban Interface Fire Area designated as Very High Fire Severity Zone (City of Rancho Cucamonga 2019b). The Wildland-Urban Interface Fire Area refers to the zone where undeveloped, wildland vegetation transitions to developed land such as residential neighborhoods. Communities adjacent to and surrounded by wildlands are at risk of wildfires.

A Fire Protection Plan is required for all development within hazardous fire areas, The Central Park Fire Hazard Reduction and Vegetation Management Plan establishes a sustainable and annually recurring program for maintaining perimeter vegetation fuel removal and interior vegetation fuel breaks in the native (non-landscaped) vegetation at Central Park (RCFD 2017).

The City maintains a Local Hazard Mitigation Plan which assess the significant natural and manmade hazards that may affect the City and provides direction and guidance for officials and citizens in the event of emergency (City of Rancho Cucamonga 2013).

Discussion:

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.

Hazardous materials in the City are routinely used, stored, and transported in government facilities as well as in educational facilities, commercial/retail businesses, hospitals, and households. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health or to the environment if released. Hazardous materials include, but are not limited to, inorganic and organic chemicals, solvents, mercury, lead, asbestos, paints, cleansers, or pesticides.

Existing hazardous materials regulations already protect people and locations from unreasonable exposure to hazardous materials and substances. For example, Titles 8, 22, and 26 of the California Code of Regulations, and their enabling legislation set forth in Chapter 6.95 of the California Health and Safety Code, were established at the State level to ensure compliance with Federal regulations to reduce the risk to human health and the environment from the routine use of hazardous substances. The following existing Federal, State, and City regulations are established to control exposure to potentially hazardous materials:

Federal Regulations

- Resources Conservation and Recovery Act (RCRA): relates to hazardous waste management.
- Hazardous and Solid Waste Amendments Act (HSWA): relates to hazardous waste management.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): relates to cleanup of contamination.
- Emergency Planning and Community Right-to-Know (SARA Title III): relates to business inventories and emergency response planning.

State Regulations

- Hazardous Materials Management Act: relates to business plan reporting.

- Hazardous Waste Control Act: relates to hazardous waste management.
- Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): relates to release of and exposure to carcinogenic chemicals.
- Hazardous Substances Act: relates to cleanup of contamination.
- California Medical Waste Management Act: relates to medical and bio-hazardous wastes.

These regulations would be implemented by the proposed Project and its operators, as appropriate, and would be monitored by the State (e.g., Cal Occupational Health and Safety Administration in the workplace or Department of Toxic Substances Control for hazardous waste), and/or local jurisdictions (e.g., the City and the RCFD), as appropriate. Because substantial regulation and documentation exists to address hazardous materials, potential effects due to use or transport of hazardous materials would be less than significant.

Mitigation Measures: No mitigation is required.

- b. Would the project create a significant hazard to the public or the environment through the reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?**

Less than Significant Impact.

During construction, there is a potential for accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used by construction equipment. The level of risk associated with the accidental release of these hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. As with the discussion for 3.4.9(a) above, all chemical and fuel storage and usage would comply with existing federal, State, and local requirements (including chemical hygiene requirements administered by the California Division of Occupational Safety and Health). With the aforementioned requirement implemented as part of the proposed Project, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

- c. Would the project emit hazardous emissions or handle hazardous materials or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?**

No Impact.

There are no schools within 0.25 mile of the Project site. The closest school, Victoria Groves Elementary School, is located approximately 0.35 mile to the north of the Project site. No impact would occur.

Mitigation Measures: No mitigation is required.

- d. Is the project located on a site that is included on a list of hazardous material 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.

Since the project site is not on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, there would be no hazard to the public or environment and therefore, no impact would be experienced.

Mitigation Measures: No mitigation is required.

- e. **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?**

Less Than Significant Impact.

The Project site is not located within 2 miles of a public airport or public use airport. The nearest airport is Ontario International Airport located approximately 4 miles to the southwest. The Project site is not within the Airport Influence Area or the Safety Zone for Ontario International Airport (Ontario Airport Planning 2011). The Project would not result in a safety hazard or excessive noise for people residing or working in the Project area and no impact would occur.

Mitigation Measures: No mitigation is required.

- f. **Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?**

No Impact.

Project construction activities will be confined to the Project site and will not obstruct access to the surrounding lots or otherwise hinder emergency evacuation within the surrounding properties. At no time will any of the surrounding streets be completely closed to traffic to accommodate construction equipment or activities. During Project operation, emergency access would be maintained to all residences and public facilities since the existing adjacent roads would not be altered. Therefore, the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

- g. **Would the project expose people or structures, either directly or indirectly, to the risk of loss, injury, or death involving wildland fires.**

Less than Significant Impact.

While Central Park is surrounded by urban development, the majority of the Park, including the Project site, has not been developed and consists of disturbed coastal sage scrub habitat. The vegetation fuel management plan for Central Park consists of annually maintaining the perimeter of the park in compliance with the City's requirements for vegetation fuel set-backs from roads, structures, and publicly accessible paths and trails in addition to the annual maintenance of the interior fuel breaks.

Landscaping for the proposed project will follow the Landscaping Guidelines for Projects Located in the Wildland Urban Interface Fire Area developed by the RCFD (2019a). By following the guideline, the proposed landscaping would not create hazardous conditions due to wildland fires. In addition, the existing vegetation fuel management plan for Central Park will continue to be implemented for the undeveloped portions of the Park. Therefore, the Project would not contribute to fire hazard risk and no significant impact would occur.

Mitigation Measures: No mitigation is required.

3.4.10 HYDROLOGY AND WATER QUALITY

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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 that would:			X	
	(i) result in substantial erosion or siltation on site or off site?				
	(ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?			X	
	(iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
	(iv) impede or redirect flood flows?			X	
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Existing Conditions:

Surface Water

The proposed Project site consists of approximately 11 acres of Central Park, located to the west of the currently developed portion of the Park. This area is comprised of disturbed coastal sage scrub habitat.

Stormwater flows across the site to storm drains located in the surrounding streets.

The Project and the surrounding areas are in a Federal Emergency Management Agency Flood Zone X, where the probability of flood inundation has been evaluated to be 0.2 percent (i.e., resulting from an event expected to occur once in a 500-year period; FEMA 2015).

The Project site is not located in any flood inundation area (BonTerra 2010).

The City of Rancho Cucamonga is located within the watershed of the Santa Ana River. Runoff from the City drains into Reach 3 of the Upper Santa Ana River, which is the segment located upstream from Prado Dam and downstream from Mission Boulevard in Riverside County. Locally, there are four canyon watersheds in the San Gabriel Mountains that direct storm water through the City: the Cucamonga Canyon, Deer Canyon, Day Canyon, and East Etiwanda Canyon watersheds. Creeks through the City, including Day Creek, have been channelized. Day Creek, which borders Central Park on the west, joins Etiwanda Creek, which runs southerly and connects to the Santa Ana River east of the Interstate 15 Freeway (BonTerra 2010).

Storm drainage in the City is provided by curbs and gutter along streets, which direct storm water into catch basins, pipes, and concrete channels that run southerly in or near the City. The City's storm drainage facilities connect to the regional storm drainage system owned and maintained by the San Bernardino County Department of Public Works, which includes channelized creeks, debris basins, and spreading grounds. Together, the City and the San Bernardino County Department of Public Works prepare drainage plans and review development projects using the County's design criteria (BonTerra 2010).

Groundwater

The Project site is underlain by the Chino groundwater basin. Groundwater depths in the Chino Basin in the City range from 350 to 600 feet below the ground surface, with deeper groundwater levels at the northern section and shallower groundwater levels at the southern section (BonTerra 2010). Groundwater levels in the project area are approximately 400 feet or more below ground surface (Kleinfelder West 2009).

Discussion:

- a. **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less than Significant Impact.

Short-term Impacts

The proposed Project could potentially result in water quality impacts during the short-term construction process. The grading and excavation required for Project implementation would result in exposed soils that may be subject to wind and water erosion. The proposed Project would be subject to the requirements of the Construction General Permit under the storm-water NPDES program administered by the State Water Resources Control Board. This would include preparation of a SWPPP to address erosion and discharge impacts associated with the proposed on-site grading. The SWPPP is also required to include a Water Quality Management Plan for the control of post construction pollutants. Adherence to the requirements of NPDES and SWPPP would reduce impacts related to the potential for water quality impacts during construction to a less than significant level.

Long-Term Operational Impacts

As shown in Figure 2.2-5, the proposed Project will use a combination of phased directional flow conveyances (for collection and infiltration of surface water) and bioretention basins for treatment of storm water runoff. Bioretention basins are shallow, vegetated, depressed basins which function to collect, store and treat storm water runoff. The basin is designed to incorporate an engineered soil media to assist in plant uptake of pollutants. The bioretention basin also allows infiltration to the extent the on-site soil and engineered soil media can

accommodate. When the infiltration rate of the underlying soil is exceeded, the treated flows are discharged through an underdrain system. The Project's water treatment and bioretention basins for treatment of storm water runoff would reduce impacts related to the potential for water quality impacts to less than significant.

Mitigation Measures: No mitigation is required.

b. 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.

With construction of the amphitheater, the pervious area of the Project site will be reduced by approximately 24 percent. The remainder of the site will remain pervious, including the event parking area. The increase in impervious surface is not expected to result in any significant change to groundwater recharge opportunity. In addition, the Project site is not within an area designated as a recharge basin or spreading ground (BonTerra 2010).

Operation of the Project will require water service for the amphitheater performance facility and for irrigation of the Project landscaping. The irrigation system will be designed for future reclaimed water. The irrigation design will also require water use allocation calculations and programming parameters per the state model water efficient ordinance, AB 1881. The Project will include the use of a bioretention basin which will collect, store, and treat storm water runoff. In addition, the basin could potentially increase on-site groundwater recharge, or at least off-set the limited loss of pervious areas within the Project site.

The Project is served by the Cucamonga Valley Water District (CVWD). CVWD's water is provided by surface water (7 percent), groundwater (45 percent), and imported water (47 percent) (CVWD 2016). The CVWD has adopted an Urban Water Management Plan (UWMP) that estimates demand needs through the year 2035. Currently there is sufficient water supply available to the City of Rancho Cucamonga to serve this project (CVWD 2016). Additionally, the proposed project contains no residential development and does not trigger the requirement (i.e., reaching or exceeding 500 dwelling units or equivalent with project implementation) for preparation of a water supply assessment as set forth in Sections 10910–10912 of the California Water Code. The CVWD has established conditions that development projects in its service area must meet and the RCFD has established standards to satisfy fire flow requirements.

As the Project will result in little, if any, reduction of groundwater recharge and will comply with the water service requirements of the CVWD and RCFD, impacts to groundwater supply would be less than significant.

Mitigation Measures: No mitigation is required.

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 that would:

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

Less than Significant Impact.

Refer to Response 3.4.10(a) above. Adherence to the requirements of the NPDES and the SWPPP would reduce impacts related to the potential for erosion or siltation impacts during construction to a less than significant level. Post-construction, the drainage pattern on the Project site will include directed runoff conveyances and a bioretention basin to control and treat

storm water runoff. The Project's bioretention/water treatment basin would reduce potential water quality impacts to surface water to less than significant.

Mitigation Measures: No mitigation is required.

(ii). Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?

Less than Significant Impact.

Refer to Responses 3.4.10(a) and 3.4.10(c) above. The proposed Project is not expected to substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site. Use of the bioretention basin may actually decrease site runoff in comparison to existing conditions. Impacts would be less than significant.

Mitigation Measures: No mitigation is required.

(iii). Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impact.

Refer to responses 3.4.10(a) and 3.4.10(c) above. The proposed Project is not expected to substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site. Use of the bioretention basin may actually decrease site runoff in comparison to existing conditions. Therefore, impacts to stormwater drainage systems would be less than significant.

Mitigation Measures: No mitigation is required.

(iv). Impede or redirect flood flows?

Less than Significant Impact.

Refer to responses 3.4.10(a) and 3.4.10(c) above. The proposed Project is not expected to substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site. The amphitheater structure is not be expected to impede surface runoff. Impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact.

The Project site is not located within a 100-year floodplain (FEMA 2015). The Project site is not located in any flood hazard, tsunami, or seiche zones (BonTerra 2010). The Project site is not located near any areas at risk for seiche, tsunami or mudflows; therefore, no impacts associated with these hazards would occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact.

Adherence to the requirements of NPDES and SWPPP would reduce impacts related to the potential for erosion or siltation impacts during construction to a less than significant level. The post-construction drainage pattern within the Project site will include both phased directional

flow conveyances and a bioretention basin for treatment of storm water runoff. The Project's bioretention/water treatment basin would reduce impacts to surface water quality to less than significant. In addition, these conveyances and the bioretention basin could potentially increase on-site groundwater recharge. The Project would not conflict with the CVWD UWMP or the NPDES program. Impacts would be less than significant.

Mitigation Measures: No mitigation is required.



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3.4.11 LAND USE AND PLANNING

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?				X
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?				X

Existing Conditions:

The Project is located within Central Park. Land uses surrounding the Project site include existing Central Park facilities, residential uses, Deer Creek Flood Control Channel, and commercial uses.

Land use in the City is directed by the City of Rancho Cucamonga General Plan (City of Rancho Cucamonga 2010). According to the City of Rancho Cucamonga General Plan Land Use Map, the land use designation for Central Park, including the Project site, is Public Facilities - Parks and it is zoned Terra Vista Planned Community (PC-TV). The surrounding areas have mostly residential land use designations and zoning with some commercial designations. The City of Rancho Cucamonga's General Plan Public Facilities - Parks designation is applied to both existing and planned public parks. Under the PC-TV, Central Park, including the Project site, is designated City Park.

The Project site is not located within any habitat conservation plan areas or natural community conservation plan areas.

Discussion:

a. Would the project physically divide an established community?

No Impact.

The Project area is urbanized with park, residential, and commercial land uses. Development of the Project site would not hinder pedestrians or travelers on the adjacent streets or sidewalks from accessing other areas in the surrounding community. Therefore, the proposed Project would not divide an established community and no impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact.

The permitted uses under the City's General Plan and zoning designations for the Project site include future and existing park uses. Since the proposed Project is considered an allowed use under these designations, the proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project; therefore, no impacts would occur.

Mitigation Measures: No mitigation is required.



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3.4.12 MINERAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				X
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?				X

Existing Conditions:

Mineral Resource Zones are commercially viable mineral or aggregate deposits, such as sand, gravel, and other construction aggregate. The mineral resources in the City consist of deposits of regionally significant aggregate resources identified by the California Department of Conservation, Divisions of Mines and Geology. The Mineral Land Classification for Central Park is MRZ-2, where significant mineral deposits are present. These significant sand and gravel resources for the City are found in alluvial fans in and near the City, including the Lytle Creek, San Antonio Creek, Cucamonga Creek, Deer Creek, and Day Creek. These alluvial fans generally start at the canyons at the base of the San Gabriel Mountains, north of the City. While the northern ends of these fans remain undeveloped, the creeks have been channelized in and near the City and in developed areas along the creeks. The portion of Day Creek on the western boundary of Central Park is channelized. As of 2008, no mining operations occur within the City along Day Creek (BonTerra 2010). There are no oil, gas, or geothermal resources in Central Park or the surrounding area (CDC 2019).

Discussion:

- 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?**

No Impact.

No mineral recovery activities currently occur in the Project area, and portion of Day Creek on the western boundary of Central Park is channelized. The Project site is not located within an area of oil and gas resources. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.

- 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?**

No Impact.

No mineral recovery activities currently occur in the Project area, and portion of Day Creek on the western boundary of Central Park is channelized. The Project site is not located within an area of oil and gas resources. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.



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3.4.13 NOISE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a local general plan or noise ordinance, or applicable standards of other agencies?		X		
b.	Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

Existing Environment:

The existing noise environment consists of vehicle noise from local street traffic on Base Line Road and Milliken Avenue, nature sounds, and community sounds. The majority of the land uses surrounding Central Park are single family residential uses found all around the Central Park boundaries. Deer Creek Flood Control Channel is located on the western boundary of the Central Park site. Commercial uses are located at the southeast and southwest corners of Milliken Avenue and Base Line road and at the northeast corner of Haven Avenue and Base Line Road. The nearest airport is Ontario International Airport located approximately 4 miles to the southwest. The Project site is not within the Airport Influence Area or the Safety Zone for Ontario International Airport (Ontario Airport Planning 2011).

In order to obtain typical ambient noise levels at the Project site, two short term ambient noise measurements of 30 minutes each were taken during the daytime period within the Project boundary. The measurements were taken with a Larson Davis 831 sound level meter using a Type 1 microphone. The sound level meter was calibrated before and after each field measurement. The measured ambient noise levels ranged from 46.2 dBA L_{eq} to 60.5 dBA L_{eq} . The Rancho Cucamonga 2010 General Plan shows the levels at the Project site ranging from under 55 dBA Community Noise Equivalent Level (CNEL) to 70 dBA CNEL (2010 General Plan Figure PS-9).

Discussion:

- 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?**

Less than Significant with Mitigation Incorporated.

The City of Rancho Cucamonga Public Health and Safety Chapter of the 2010 General Plan specifies outdoor noise level limits for land uses impacted by transportation noise sources. Generally, the City requires that new developments be designed to achieve these standards.

Section 17.66.050 of the City of Rancho Cucamonga’s municipal code sets limits on the exterior noise levels that would be tolerated. Noise ordinance limits are specified using the “Basic Noise Level” as its reference criteria. The municipal code defines the Basic Noise Level as “the acceptable noise level within a given district.” The City’s exterior noise standard puts restrictions on the duration of noises of various magnitudes. The noise ordinance sets the following time limits on noise sources in all residential and commercial districts:

- Basic Noise Level for a cumulative period of not more than 15 minutes in any one hour; or
- Basic Noise Level plus 5 dBA for a cumulative period of not more than 10 minutes in any one hour; or
- Basic Noise Level plus 14 dBA for a cumulative period of not more than 5 minutes in any one hour; or
- Basic Noise level plus 15 dBA at any time.

The municipal code goes on to set maximum allowable limits for an exterior and an interior location within residential districts (see Table 3.4.13-1).

Table 3.4.13-1. City of Rancho Cucamonga Noise Standards

Location of Measurement	Maximum Allowable	
	10 pm to 7 am	7 am to 10 pm
Exterior	60 dBA	65 dBA
Interior*	45 dBA	50 dBA
*With windows and doors shut		

Furthermore, the following activities are exempted from the provisions of the Municipal Code:

1. City- or school-approved activities conducted on public parks, public playgrounds, and public or private school grounds including, but not limited to, athletic and school entertainment events between the hours of 7:00 am and 10:00 pm.
2. Occasional outdoor gatherings, dances, shows, and sporting and entertainment events, provided said events are conducted pursuant to the approval of a temporary use permit issued by the city.
3. Any mechanical device, apparatus, or equipment used, related to, or connected with emergency machinery, vehicle, work, or warning alarm or bell, provided the sounding of any bell or alarm on any building or motor vehicle shall terminate its operation within 30 minutes in any hour of its being activated.
4. Noise sources associated with, or vibration created by, construction, repair, remodeling, or grading of any real property or during authorized seismic surveys, provided said activities:
 - a. When adjacent to a residential land use, school, church or similar type of use, the noise generating activity does not take place between the hours of 8:00 pm and 7:00 am on weekdays, including Saturday, or at any time on Sunday or a national holiday, and provided noise levels created do not exceed the noise standard of 65 dBA when measured at the adjacent property line.
 - b. When adjacent to a commercial or industrial use, the noise generating activity does not take place between the hours of 10:00 pm and 6:00 am on weekdays, including

Saturday and Sunday, and provided noise levels created do not exceed the noise standards of 70 dBA at the when measured at the adjacent property line.

5. All devices, apparatus, or equipment associated with agricultural operations, provided:
 - a. Operations do not take place between 8:00 pm and 7:00 am on weekdays, including Saturday, or at any time on Sunday or a national holiday.
 - b. Such operations and equipment are utilized for protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions.
 - c. Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by, or regulations enforced by, the state department of agriculture.
6. Noise sources associated with the maintenance of real property, provided said activities take place between the hours of 7:00 am and 8:00 pm on any day.
7. Any activity to the extent regulation thereof has been preempted by state or federal law.

The dominant noise source in the vicinity of the proposed Project site is traffic noise associated with Base Line Road at the intersection with Milliken Avenue. Based on existing traffic volumes, noise impacts to adjacent residences range from 57 dBA CNEL to 67 dBA CNEL. The Project would result in a maximum increase in traffic along Base Line Road during the major (full capacity) City-sponsored events summer concerts, which occur on Thursday evenings. Based on the existing concerts attendance, a maximum increase of 3,425 average daily trips at Baseline Road is estimated. This increase in average daily trips represents an increase of less than 2 dBA at the residences adjacent to the proposed project. According to the CEQA guidelines, an increase in the overall ambient community noise level of less than 2 dBA is considered to be a less than significant impact. The construction of the proposed amphitheater would have only a minimal impact on daily traffic volumes in the project vicinity (and only on days when an event is held), and thus would have minimal impact on traffic noise conditions.

Construction of the Project will begin in the first quarter of 2021 and continue for approximately 12 months. The Project construction activities are anticipated to occur in phases and include site preparation, grading, building construction, paving, and architectural coating. These construction activities would require a variety of equipment. Typical construction equipment would not be expected to generate noise levels above 90 dBA at 50 feet, and most equipment types would typically generate noise levels of less than 85 dBA at 50 feet.

The highest noise levels during construction are normally generated during site grading and foundation work. Grading equipment would be the loudest equipment used at the site. This equipment is expected to generate a maximum instantaneous noise level (L_{max}) of up to 75 – 80 dBA at the homes located at approximately 400 feet to the south of the center of the Project. This would be loud enough to temporarily interfere with speech communication outdoors and indoors with the windows open.

Project construction will also implement standard noise reduction measures. Therefore, due to the infrequent nature of loud construction activities at the site, the limited hours of construction, and implementation of mitigation measure NOISE-1, the temporary increase in noise due to construction is considered to be a less than significant impact.

Once the Project construction is complete, major City-sponsored events will only occur up to 12 times per year. These City-sponsored events are currently held at Red Hill Park, located approximately 2.5 miles west of the Project site. Noise measurements were taken on July 25, 2019 between 7 pm and 10 pm at the large Thursday evening City-sponsored event at Red Hill Park in order to predict future sound levels related to the Project. To determine potential noise effects of the proposed Project during the operations of the facility, a noise model was

constructed to evaluate the effects of the proposed Project related noise sources on the environment. Modeling of the Project site and surrounding environment was accomplished using Cadna (Computer Aided Noise Abatement), which is a model-based computer program developed for predicting noise impacts in a wide variety of conditions. Cadna allows for the input of project information such as noise source data, barriers, structures, and topography to create a detailed CAD model, and uses the most up-to-date calculation standards to predict outdoor noise impacts not only at the property lines but also in adjacent surrounding areas.

The noise levels from the future events are predicted to have noise impacts ranging from 63.1 dBA L_{eq} at the residential homes to the south, 55.5 dBA L_{eq} at the residential homes to the west, 61.3 dBA L_{eq} at the residential homes to the north, and 53.0 at the residential homes to the east. However, these city-sponsored events are exempt from the Rancho Cucamonga's municipal codes noise threshold limits. Nevertheless, the noise levels generated by the proposed project will comply with the Rancho Cucamonga's General Plan and municipal code. Furthermore, the noise generated by the Project would result in an overall increase of less than 3 dBA. Therefore, project impact is less than significant.

Mitigation Measures:

NOISE-1: Construction noise levels fluctuate depending on the construction phase, equipment type and duration of use; distance between noise source and sensitive receptor; and the presence or absence of barriers between noise source and receptors. Therefore, the Project proponent should require construction contractors to limit standard construction activities as follows:

- Equipment and trucks used for Project construction shall utilize the best available noise control techniques wherever feasible (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds). In addition, the time allowed for equipment and trucks to idle will be limited to the extent practicable.
- Stationary noise sources shall be located as far from adjacent receptors as possible and shall be muffled and enclosed within temporary sheds, insulation barriers or other measures incorporated to the extent feasible.
- Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for Project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible. This could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.
- When heavy construction activities are located within 75 feet of a residential structure deploy a temporary portable sound barrier between the construction activities and nearest sensitive receptor.

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

Less than Significant Impact.

Events at the amphitheater once in operation would not generate significant vibration; however, construction of the amphitheater, and particularly site grading, would require the use of equipment that could generate vibration. Possible sources of vibration may include use of

bulldozers, dump trucks, backhoes, rollers, and other construction equipment that produce vibration. No blasting will be required at the project site.

Project construction activities would occur within approximately 400 feet from the nearest single-family residence. According to the Federal Transit Administration guidelines, a vibration level of 78 Vibration Velocity Level (VdB) is the threshold of perceptibility for humans. For a significant impact to occur, vibration levels must exceed 80 VdB during infrequent events (FTA 2006). Using the levels published by the Federal Transit Administration (2006) and the type of equipment proposed for the project, coupled with the distance to the existing identified noise-sensitive receptors, analysis shows that the vibration levels may be perceptible to the nearest sensitive receptors, but will be below the maximum vibration level of 80 VdB. This vibration level is considered acceptable for impacts to sensitive receptors. Therefore, the impact from groundbourne vibration or noise is less than significant.

Mitigation Measures: No mitigation is required.

- 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 2 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 is no public airport or public use airport located within 2 miles of the proposed Project site. The Project would expose people residing or working in the Project area to excessive noise levels associated with a public airport and no impact would occur.

Mitigation Measures: No mitigation is required.



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3.4.14 POPULATION AND HOUSING

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b.	Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Existing Conditions:

Estimates from the California Department of Finance show the City's 2019 population to be 179,412, a 0.44 percent increase from 2018 (DOF 2019). The City has an estimated 59,399 housing units.

Discussion:

- a. **Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and business) or indirectly (e.g., through extension of roads or other infrastructure)?**

No Impact.

The proposed Project would not involve the construction of any homes, businesses, or other uses that would result in direct population growth or infrastructure that indirectly results in population growth. No impacts related to growth-inducement are expected.

Mitigation Measures: No mitigation is required.

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

No Impact.

Construction of the Project would not require the removal or obstruction of existing housing and thus would not require the displacement of people or the construction of replacement housing elsewhere. No impacts would occur.

Mitigation Measures: No mitigation is required.



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3.4.15 PUBLIC SERVICES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
	i.) Fire protection?			X	
	ii.) Police protection?			X	
	iii.) Schools?				X
	iv.) Parks?			X	
	v.) Other public facilities?				X

Existing Conditions:

Public services include critical facilities such as police stations, fire stations, hospitals, shelters, and other facilities that provide important services to the community. Other public services include schools and parks and libraries that serve the communities.

Fire protection and other related services in the City Ana are provided by the RCFD. The closest RCFD station to the Project site is Station No. 173, located at 12270 Firehouse Court, approximately 1.25 miles east of the Project site (RCFD 2019b). Police protection services for the City are provided by the San Bernardino County Sheriff's Department. The San Bernardino County Sheriff's Department headquarters is located at 10510 Civic Center Drive, approximately 1.3 miles south of the Project site (Google Earth 2019). Four elementary school districts, one high school district, and one community college district serve the City (City of Rancho Cucamonga 2019c). The City of Rancho Cucamonga has approximately 347.6 acres of parkland and recreational facilities. These include 25 neighborhood parks, three community parks, and eight special use facilities (BonTerra 2010). The City library system consists of two library locations: the Archibald Library at 7368 Archibald Avenue and the Paul A. Blane Library at 12505 Cultural Center Drive (City of Rancho Cucamonga 2019d).

Discussion:

- a. **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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:**

i.) Fire Protection

Less Than Significant Impact.

The proposed Project will add a new structure to Central Park. This is not expected to significantly increase the need for fire protection services as the development of the amphitheater and event parking area will decrease the disturbed coastal sage scrub habitat, thereby reducing the Wildland-Urban Interface Fire Area designated as Very High Fire Severity Zone. In addition, there are no residential uses proposed and the Project is not expected to result in an increase in the City's population. No significant impacts to fire protection services or facilities are expected.

Mitigation Measures: No mitigation is required.

ii.) Police Protection

Less Than Significant.

The proposed Project will add a new structure to Central Park. This is not expected to significantly increase the need for police protection beyond what is currently provided and therefore, would not require police facilities to be altered. Police assistance during amphitheater events would be similar to that found with the current events held at Red Hill Park. No significant impacts to police protection services or facilities are expected.

Mitigation Measures: No mitigation is required.

iii.) Schools

No Impact.

Implementation of the proposed Project would not result in the need for the construction of additional school facilities, as the Project would not result in an increase in population nor would it result in a removal of a school, a reduction of school capacity, or displacement of students from existing schools. Therefore, no impact to school services or facilities are expected.

Mitigation Measures: No mitigation is required.

iv.) Parks

Less Than Significant Impact.

Implementation of the proposed Project would not create need for construction of additional park facilities, as the Project would not result in an increase in population nor would it result in a removal of a park. The proposed Project involves the addition of an amphitheater to the existing Central Park. The environmental impacts associated with the construction of the Project will not result in any significant impacts as described in this Initial Study/Mitigated Negative Declaration. Impacts to parks would be less than significant.

Mitigation Measures: No mitigation is required.

v.) Other Public Facilities

No Impact.



The proposed Project would not alter any of the government facilities in the area or produce a need for additional or new government services; therefore, no impacts to other public facilities are expected.

Mitigation Measures: No mitigation is required.



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3.4.16 RECREATION

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	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?				X
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?			X	

Existing Conditions:

The City of Rancho Cucamonga has approximately 347.6 acres of parkland and recreational facilities. These include 25 neighborhood parks, three community parks, and eight special use facilities (BonTerra 2010).

Discussion:

- 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?**

No Impact.

The proposed Project involves the addition of an amphitheater to the existing Central Park. The construction of the Project will not affect the use of the other existing facilities at Central Park. Therefore, the development of the Project will not drive current users of Central Park to other recreational facilities. The proposed Project would not add additional residences or business in the neighborhood and thus would not cause additional use of any park or other recreational facilities in the area. No impact is expected to occur.

Mitigation Measures: No mitigation is required.

- b. **Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

Less Than Significant Impact.

The proposed Project involves the addition of an amphitheater to the existing Central Park. The environmental impacts associated with the construction of the Project will not result in any significant impacts as described in this Initial Study/Mitigated Negative Declaration. Impacts to parks would be less than significant.

Mitigation Measures: No mitigation is required.



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3.4.17 TRANSPORTATION

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

Existing Conditions:

A separate Vehicle Miles Traveled (VMT) Assessment was prepared for the proposed Project and is provided as Appendix D. The following summarizes the results and conclusions.

The proposed Project will relocate events currently held at the existing City amphitheater at Red Hill Park in Rancho Cucamonga (located approximately two and half miles west of Central Park) to the proposed Project site. The events that currently occur at the existing amphitheater are intended for local residents in the community. The types of events that currently occur are:

- Six large concerts on Thursday evenings in June, July and August as part of Rancho Cucamonga's Summer Concerts in The Park. Average attendance in 2018 at these concerts was 3,425 people. These events require up to ten staff and assistance from the police department.
- Four family movies on Friday evenings in June, July and August. Average attendance in 2018 at these movies was 375 people. These events require up to three staff.
- One corporate/community event the last Saturday of June for the Fire Department Car Show. Approximate attendance at this event is 700 people.
- Other events can occur on weekends with maximum rental capacity of 1,200 attendees.

Discussion:

- a. **Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?**

Less than Significant Impact.

Rancho Cucamonga Municipal Code Transportation Demand Management

Chapter 17.78.010, Transportation Demand Management of the Rancho Cucamonga Municipal Code addresses transportation demand management (TDM) requirements for various project

development. The purpose of TDM requirements is to encourage large employers to implement programs and make site improvements that will help reduce the number of single-occupancy vehicle commuters on the roads. Large numbers of commuters have many negative impacts on the community such as increased traffic congestion, reduced worker productivity, and air quality and other environmental impacts. TDM requirements apply if the minimum thresholds in Municipal Code Table 17.78.010-1 (TDM Requirements Based on Development Size) are met be a new, remodeled, or expanded development that could include a single or multiple buildings. As shown in Table 3.4.17-1, the proposed Project does not meet the minimum thresholds in the Municipal Code Table 17.78.010-1, therefore, TDM requirements do not apply.

Table 3.4.17-1. Municipal Code Table 17.78.010-1 TDM Requirements Based On Development Size

Type of Use	Minimum Development Size
Office (excluding medical)	80,000 sf
Industrial Office Park (MP)	200,000 sf
Hospital and Medical Offices	100,000 sf
Commercial	150,000 sf
Light Industrial (M-1)	250,000 sf
Heavy Industrial (M-2)	350,000 sf
Hotels/ Motels	150 rooms
Mixed or Multiple Uses	(1)

(1) The minimum development size for mixed or multiple-use developments shall be calculated based on the proportional square footage of areas devoted to each type of use.

(Code 1980, Section [17.78.010](#); Ord. No. 855 Section 4, 2012)

Other provisions of Title 17 call for access and circulation design that provide a safe and efficient system for vehicles and pedestrians. The guidelines address points of access, reduction of conflicts between vehicular and pedestrian traffic, minimal impacts on adjacent properties, adequate maneuvering areas, separation of vehicular and pedestrian traffic, and interconnected public and private sidewalks. Title 17 also includes Parking Regulations requirements for the provision, design, and location of parking spaces needed to serve new buildings, new land uses, building expansions or changes in occupancy.

Title 12, Streets, Sidewalks and Public Places, requires that an encroachment permit be obtained from the City Engineer for the construction of public improvements or the protection of public improvements from construction activities. The permit requires compliance with the Work Area Protection and Traffic Control Manual and the Manual on Uniform Traffic Controls for Street and Highways.

The proposed Project will be required to comply with all applicable regulations.

Hiking and Riding Trails Master Plan

The City's Hiking and Riding Trails Master Plan identifies a system of regional and community trails, needed bridges and street undercrossings, and trailheads to access the trail system at locations throughout the City. The Pacific Electric Inland Empire Trail is a Regional Multi-Purpose Trail, which, upon completion, will connect the cities of Claremont, Montclair, Upland, Rancho Cucamonga, Fontana, and Rialto. A portion of this trail runs east to west across the northern boundary of Central Park. The proposed Project does not involve and/or impact the Pacific Electric Inland Empire Trail.

The proposed Project would not conflict with any applicable program, plan, ordinance or policy addressing the circulation system. Impact would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less than Significant Impact.

Project VMT

VMT is a function of the number of trips and the length of those trips. Since the events are being relocated from an existing facility (Red Hill Park), no net change is expected in the number of event-trips generated to the project relative to those reduced from Red Hill Park. Big Data⁷, which is travel data recorded from mobile devices, was utilized to develop average trip lengths from visitors to the Concerts in the Park events between 2016 and 2018 at Red Hill Park. Over 500 records were tracked from the 18 concert events that occurred between 2016 and 2018 and the average trip length per record was estimated to be 6.6 miles. Because the new amphitheater is expected to continue serving the same local population, the average trip length is not anticipated to vary because of a change in venue from the existing Red Hill Park location to the new Project location. Since VMT is the total length of travel from origin to destination and back to origin, the round-trip average trip length is estimated to remain at 13.2 miles.

Regional Vehicle Miles Traveled

The San Bernardino Transportation Analysis Model (SBTAM) is a travel demand forecasting (TDF) model detailed for use in San Bernardino County. The TDF model estimates traffic on the SBTAM roadway network by matching origin and destination pairs from zones throughout the SCAG region using trip generation, trip distribution, mode choice, and trip assignment data. SBTAM land use and roadway networks are consistent with the 2016 SCAG Regional Transportation Plan and Sustainable Communities Strategy. This model is the best tool available in the region to estimate vehicle trips, trip distance, and VMT. Different types of trips are tracked, including home-based-work trips (commute trips to and from home), home-based-other trips (such as shopping and school trips originating or ending from home) and non-home-based trips (all other trips that don't start or end at home such as from work to shopping).

Average trip lengths for trips originating or ending in Rancho Cucamonga were extracted from the base year (2012) version of SBTAM to compare against the project. Rancho Cucamonga home-based-work trips, home-based-other trips and non-home-based trips from the production and attraction trip matrices (number of trips) were multiplied by the highway skim matrices (travel distance) to estimate VMT. VMT was divided by the total number of trips generated in Rancho Cucamonga to derive the average trip length.

The average trip length was estimated to be 9.7 miles and the average round-trip to be 19.5 miles. These trip lengths are approximately 30% higher than the average trips estimated for the Project. As such, the Project is not anticipated to generate longer trip distances than currently exist throughout Rancho Cucamonga and therefore is not anticipated to result in a significant transportation impact related to VMT.

Cumulative Effect on Vehicle Miles Traveled

Given that the proposed Project is not anticipated to change the number of trips or the average trip distance, the Project is anticipated to have a negligible effect on cumulative (year 2040) VMT.

No significant impacts are expected.

⁷ "Big Data" was provided by the vendor StreetLight Data. StreetLight uses location-based data from services such as smartphone apps (which can number in the hundreds and allow data collection passively and anonymously). StreetLight also has established partnerships with geospatial data providers to leverage the GPS locations acquired in their data collection and processing.

Mitigation Measures: No mitigation is required.

- 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)?**

No Impact.

The project design does not include the construction of any sharp curves. As the Project involves improvements to an existing park, the Project would be compatible with the existing park facilities. The project does not include the construction of any structure or feature that would substantially increase hazards due to a design feature, therefore no impact associated with this issue would occur and no mitigation is required.

Mitigation Measures: No mitigation is required.

- d. **Would the project result in inadequate emergency access?**

No Impact.

The construction and operation of the proposed project will not result in any closure, nor will it otherwise obstruct traffic on the surrounding streets. In addition, the construction of the proposed project will not impede emergency access to the adjacent properties. The proposed project would be required to design, construct, and maintain structures, roadways, and facilities to allow for adequate emergency access and evacuation routes. No impacts are expected.

Mitigation Measures: No mitigation is required.

3.4.18 TRIBAL CULTURAL RESOURCES

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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		X		
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, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Public Resource Code (PRC) section 21074 defines tribal resources as follows:

(a) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Existing Conditions: The combined cultural resource record search and NAHC SLF search did not identify any existing historic resources within the Project area of potential effect. As specified in the PRC Section 21080.31,⁸ as amended by AB 52, Gatto, lead agencies must provide notice inviting consultation to California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the Tribe has submitted a request in writing to be notified of proposed projects. The City was contacted by the San Gabriel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres Martinez Desert Cahuilla Indians, the Gabrieleño Band of Mission Indians – Kizh Nation, and the Morongo Band of Mission Indians through AB 52 to be notified of the City’s proposed projects.

Discussion:

- a. **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 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)?**

Less Than Significant Impact With Mitigation Incorporated. The combined cultural resource record search and NAHC SLF search did not identify any existing historic resources within the Project area of potential effect. As a result, it is believed the proposed Project would not cause a substantial adverse change in the significance of a known historic resource as defined in PRC 5020.1 (k).

If construction ground disturbance depths range within native soils (at least 1 foot or more below the ground surface), there would be a potential to impact previously unrecorded subsurface tribal cultural resources. With Mitigation Measures CUL-1 through CUL-3 incorporated, a less than significant impact is anticipated.

As specified in AB 52, the City provided written notification on August 13, 2019 to the San Gabriel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres Martinez Desert Cahuilla Indians, the Gabrieleño Band of Mission Indians – Kizh Nation, and the Morongo Band of Mission Indians regarding the Proposed Project. Any of these identified tribal cultural groups must respond in writing within 30 days of the City’s notice of the proposed Project. Should any of these identified tribal cultural groups request consultation regarding the Project site, in accordance with AB 52, the City as Lead Agency would facilitate such consultation. Therefore, at this time the Project is determined to have less than significant impacts related to tribal cultural resources with the implementation of Mitigation Measures CUL-1 through CUL-3. This finding is subject to change following the completion of consultation with local tribes as part of the AB 52 process.

Mitigation Measures: Implement Mitigation Measures **CUL-1** through **CUL-3**.

- b. **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 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, the lead agency shall consider the significance of the resource to a California Native American tribe.**

⁸ Public Resources Code, Division 13, Chapter 2.6, Section 21.080.3.1.

Less Than Significant with Mitigation Incorporated.

The records search and NAHC sacred lands search did not identify any significant tribal cultural resources within or adjacent to the Project site.

The City sent formal AB 52 notification letters on August 13, 2019 to the following:

- San Gabriel Band of Mission Indians: *Anthony Morales, Chief*
- San Manuel Band of Mission Indians: *Lee Clauss*
- Soboba Band of Luiseno Indians; *Joseph Ontiveros, Cultural Resource Director*
- Torres Martinez Desert Cahuilla Indians; *Michael Mirelez, Cultural Resource Coordinator*
- Gabrieleno Band of Mission Indians – Kizh Nation: *Andrew Salas, Chairman*
- Morongo Band of Mission Indians: *Raymond Huaute, Tribal Historic Preservation Officer*

Any of these identified tribal cultural groups must respond in writing within 30 days of the City's notice of the proposed Project. Should any of these identified tribal cultural groups request consultation regarding the Project site, in accordance with AB 52, the City as Lead Agency would facilitate such consultation. Therefore, at this time the Project is determined to have less than significant impacts related to tribal cultural resources with the implementation of Mitigation Measures CUL-1 through CUL-3. This finding is subject to change following the completion of consultation with local tribes as part of the AB 52 process.

Mitigation Measures: Implement Mitigation Measures **CUL-1** through **CUL-3**.



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3.4.19 UTILITIES AND SERVICE SYSTEMS

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c.	Result in a determination by the wastewater treatment provider that 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?			X	
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?			X	
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Existing Conditions:

Wastewater conveyance is handled by the City and CVWD and wastewater is processed by CVWD and the Inland Empire Utilities Agency (IEUA). Wastewater from Central Park is treated at IEUA's Regional Plant No. 4 (RP-4), located in the City at the intersection of 6th Street and Etiwanda (BonTerra 2010). RP-4 treats an average flow of 10 million gallons per day (mgd) and has a treatment capacity of 14 mgd (IEUA 2019). West of Milliken Avenue, along Base Line Road an underground sewer main is located which provides sewer service for the existing facilities in the southeast corner of Central Park at Milliken Avenue and Base Line Road (RJM 2018).

Storm drainage in the City is provided by curbs and gutter along streets, which direct storm water into catch basins, pipes, and concrete channels that run southerly in or near the City. The City's storm drainage facilities connect to the regional storm drainage system owned and maintained by the San Bernardino County Department of Public Works, which includes channelized creeks, debris basins, and spreading grounds. Together, the City and the San Bernardino County Department of Public Works prepare drainage plans and review development projects using the County's design criteria (BonTerra 2010). On the north side of Base Line Road, exists a 24-inch underground storm drain. Storm drain facilities are also found along Central Park Drive (RJM 2018).

Potable water is provided to the Project site by the CVWD, which serves a 47-square mile area including the City of Rancho Cucamonga, portions of the cities of Upland, Ontario, and Fontana, and some unincorporated areas of San Bernardino County. CVWD's water is provided by surface water (7 percent), groundwater (45 percent), and imported water (47 percent) (CVWD 2016). The CVWD has adopted an UWMP that estimates demand needs through the year 2035. There is currently a sufficient water supply available to the City of Rancho Cucamonga to serve this project (CVWD 2016). On the north side of Base Line Road, exists a 12-inch water main which provides water service for the existing Park facilities at Central Park Drive and Base Line Road (RJM 2018).

Electric services are provided to Central Park by South California Edison. On the north side of Base Line Road, exists an underground Southern California Edison transmission line (66 kilovolt) and distribution line which provides electric service for the existing Park facilities at Central Park Drive and Base Line Road (RJM 2018).

Natural gas services are provided to Central Park by Southern California Gas Company. An underground Southern California Gas Company distribution line is located on the north side of Base Line Road (RJM 2018).

Communication services, including digital cable and high-speed internet services are provided to Central Park by Verizon. Underground transmission lines are located on the north side of Base Line Road, the west side of Milliken Avenue, and the east side of Central Park Drive (RJM 2018).

Since 2007 Burrtec Waste Industries has been the single franchised waste hauler for the City of Rancho Cucamonga, and has been responsible for providing recycling, refuse, and green waste services for residents, commercial and industrial customers. Burrtec Waste Industries is the only business permitted to haul solid waste in the City of Rancho Cucamonga (City of Rancho Cucamonga 2019e).

Solid waste generated in the City is transferred to Burrtec's West Valley Materials Recovery Facility, located immediately southeast of the City at 13373 Napa Street in Fontana. Solid waste that is not diverted is primarily disposed at Mid-Valley Landfill, a County Class III (i.e., municipal waste) landfill located at 2390 North Alder Avenue in Rialto (BonTerra 2010). Mid-Valley Landfill has a daily permitted capacity of 7,500 tons per day (tons/day), a remaining capacity of 67,520,000 cy, and an anticipated close date of 2033 (CalRecycle 2019).

Discussion:

- 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.

The proposed Project will construct connections to the existing systems adjacent to the Project site. Construction of these connections would result in temporary and minor impacts to air, noise, and traffic during construction activities, but these have been reduced through mitigation, where necessary, to maintain impacts at a less than significant level.

Mitigation Measures: No mitigation is required.

- 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.

Currently sufficient water supply is available to the City of Rancho Cucamonga to serve this project with adequate resources and infrastructure (CVWD 2016). Additionally, the proposed project contains no residential development and does not trigger the requirement (500 dwelling units or equivalent) for preparation of a water supply assessment as set forth in Sections 10910–10912 of the California Water Code. The CVWD has established conditions that development projects in its service area must meet and the RCFD has established standards to satisfy fire flow requirements. With compliance with the water service requirements of the CVWD and RCFD, impacts to water supply would be less than significant.

Mitigation Measures: No mitigation is required.

- c. Would the project result in a determination by the wastewater treatment provider that 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?**

Less than Significant Impact.

Wastewater from the proposed Project would be treated at the IEUA RP-4 treatment plant. The plant's average daily treatment flow of 10 mgd is below the it's treatment capacity of 14 mgd. As the wastewater generated by the proposed Project would occur infrequently and would be expected to be well within the capacity of the RP-4 treatment plant, impacts to wastewater treatment systems would be less than significant.

Mitigation Measures: No mitigation is required.

- 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.

The Project would not include any habitable structures and would not have the capability to produce solid waste during long-term operations. Although the Project may require the disposal of construction/demolition debris during the construction process (soil, asphalt, demolished materials, etc.), the generation of these materials would be short-term in nature and would not have the capability to substantially affect the capacity of regional landfills; therefore, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact.

The proposed Project would comply with all federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act and City requirements for solid waste generated during the construction process; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.



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3.4.20 WILDFIRE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
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?			X	
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?			X	
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?				X

Existing Conditions:

The RCFD provides emergency response to fires and hazardous materials incidents in the City. Central Park is located in a Wildland-Urban Interface Fire Area designated as Very High Fire Severity Zone (City of Rancho Cucamonga 2019b). The Wildland-Urban Interface Fire Area refers to the zone where undeveloped, wildland vegetation transitions to developed land such as residential neighborhoods. Communities adjacent to and surrounded by wildlands are at risk of wildfires.

A Fire Protection Plan is required for all development within hazardous fire areas, The Central Park Fire Hazard Reduction and Vegetation Management Plan establishes a sustainable and annually recurring program for maintaining perimeter vegetation (i.e., through fuel removal) and interior vegetation (through fuel breaks) in the native (non-landscaped) vegetation at Central Park (RCFD 2017).

Discussion:

- a. **Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

Less than Significant Impact.

For construction of the proposed Project, traffic control will be used to temporarily reduce available lanes during the construction of connections to storm drain and utility services and street resurfacing. Full road closures are not anticipated, however. In addition, a traffic control

plan will be prepared to accommodate any work involve the local roadways. These impacts would be short term and temporary and would have a less than significant impact to roadways utilized for emergency purposes. Through City review, the proposed Project would provide adequate vehicular access along public roads and Project driveways, thereby accommodating access for all emergency vehicles. During Project operation, emergency access would be maintained since the existing adjacent roads would not be altered. Therefore, the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and therefore any impacts would be less than significant.

Mitigation Measures: No mitigation is required.

- b. Would the project, 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?**

Less Than Significant Impact.

While Central Park is surrounded by urban development, the majority of the Park, including the Project site, has not been developed and consists of disturbed coastal sage scrub habitat. The vegetation fuel management plan for Central Park consists of annually maintaining the perimeter of the park in compliance with the City's requirements for vegetation fuel set-backs from roads, structures, and publicly accessible paths and trails in addition to the annual maintenance of the interior fuel breaks.

Landscaping for the proposed project will follow the Landscaping Guidelines for Projects Located in the Wildland Urban Interface Fire Area developed by the RCFD (2019a). By following the guideline, the proposed landscaping would not create hazardous conditions due to wildland fires. In addition, the existing vegetation fuel management plan for Central Park will continue to be implemented for the undeveloped portions of the Park as long as needed. Therefore, the Project would not contribute to fire hazard risk and no significant impact would occur.

Mitigation Measures: No mitigation is required.

- 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.

Refer to Response 3.4.20(b) above. The Project would not contribute to fire hazard risk and no significant impact would occur.

Mitigation Measures: No mitigation is required.

- 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?**

No Impact. The land within and in the vicinity of the Project Site is relatively flat. The Project site is not located within a 100-year floodplain (FEMA 2015). The Project site is not located in any other flood inundation area (BonTerra 2010). The proposed Project would not exacerbate any flooding or landslide risks associated with post-fire conditions, therefore, no impacts are expected.

Mitigation Measures: No mitigation is required.

3.4.21 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		X		
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.)			X	
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion:

- 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 Impact with Mitigation Incorporated.

As discussed in Section 3.4.4, Biological Resources, the Project is located in an urban area and does not provide biological habitat for species of concern or for federally listed species. With the implementation of Regulatory Compliance Measures RCM-1 through RCM-4, the proposed Project would not have the potential to substantially degrade the quality of the existing environment, reduce habitat of fish or wildlife species, threaten plant or animal communities, and/or reduce the number or restrict the range of rare plants or animals.

In addition, as discussed in Section 3.4.5, Cultural Resources, the Project site is assessed as having a low sensitivity for cultural resources within undisturbed subsurface deposits. However, adherence to Mitigation Measures **CUL-1** through **CUL-3** and **GEO-1** would be required in the event unexpected resources are uncovered during the grading and excavation process. Tribal

Cultural Resources that may be inadvertently unearthed during the Project's ground disturbing activities. In order to reduce potential impacts to related to tribal cultural resources to less than significant, Mitigation Measures **TCR-1** through **TCR-7** will be implemented. With implementation of recommended mitigation, the proposed Project is not expected to eliminate important examples of the major periods of California history or prehistory, and impacts would be less than significant.

Mitigation Measures: Implement Mitigation Measures **CUL-1** through **CUL-3**, **GEO-1**, **TCR-1** through **TCR-7**.

- 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 Impact.

Since the Project involves improvements to an existing park, the Project would serve to enhance the City's park facilities. The Project would not result in substantial population growth within the area, either directly or indirectly. Although the Project may incrementally affect other resources at a less than significant level, the Project's contribution to these effects is not considered “cumulatively considerable”, in consideration of the relatively nominal impacts of the Project and the mitigation measures provided to lessen impacts. Therefore, cumulative impacts would be considered less than significant.

Mitigation Measures: No additional mitigation is required beyond what is already included previously.

- c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?**

Less than Significant Impact with Mitigation Incorporated.

Previous sections of this Initial Study/Mitigated Negative Declaration reviewed the proposed Project's potential impacts related to aesthetics, air quality, geology and soils, greenhouse gases, hydrology/water quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed Project would result in less than significant environmental impacts with implementation of the mitigation measures (e.g., for noise); therefore, the proposed Project would not result in environmental impacts that would cause substantial adverse effects on human beings and impacts would be less than significant.

Mitigation Measures: Implement Mitigation Measure **NOISE-1** to mitigate Project noise impacts.

4.0 LIST OF PREPARERS

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APPENDIX A

AIR QUALITY AND GREENHOUSE GAS EMISSIONS



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Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Rancho Cucamonga Central Park Amphitheatre
San Bernardino-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	0.92	Acre	0.92	40,075.20	0
City Park	10.08	Acre	10.08	439,084.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Amphitheater = 40,000 sq. ft.

Project Area = 11 acres

Construction Phase -

Estimated (conservative) construction days per phase, total 12 months

- Site Preparation = 20 days

- Grading = 80 days

- Building Construction = 160 days

- Paving = 80 days

- Architectural Coating = 40 days

Off-road Equipment - Default

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment -

Estimated 2 dozers, 4 tractors/loaders/backhoes

Trips and VMT - Default

Demolition -

No Demolition

Grading -

Project Area = 11 acres

Material export per project Grading Plan

Architectural Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Vehicle Trips - Events are being relocated from an existing facility 2.5 miles away from the project, therefore impacts from vehicle trips to the project will be negligible.

Road Dust -

Area Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Energy Use - Default

Water And Wastewater -

Arena - Default

City Park - Outdoor: Landscape irrigation calculated based on pervious area (8.40 acres)

$27,154 \text{ (gal/acre-in)} \times 8.40 \text{ (acres)} \times 1.5 \text{ (in/wk)} \times 1.10 \text{ (safety factor)} \times 52 \text{ (wk/year)} = 19,570,430.88 \text{ gal/year}$

Solid Waste - Default

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Per BMPs for fugitive dust control

Mobile Land Use Mitigation -

Energy Mitigation -

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Water Mitigation -

Operational Off-Road Equipment - Estimated

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,038.00	6,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	60,113.00	1,320.00
tblArchitecturalCoating	ConstArea_Parking	0.00	87,000.00
tblAreaCoating	Area_Nonresidential_Exterior	20038	6000
tblAreaCoating	Area_Nonresidential_Interior	60113	1320
tblAreaCoating	Area_Parking	0	87000
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	300.00	160.00
tblConstructionPhase	NumDays	30.00	80.00
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	200.00	11.00
tblGrading	MaterialExported	0.00	35,350.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblSequestration	NumberOfNewTrees	0.00	250.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblWater	OutdoorWaterUseRate	12,010,132.00	19,570,430.88

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

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					
2021	15.8099	84.7435	59.9876	0.1775	12.2118	3.0085	13.7249	6.6649	2.7889	8.0570	0.0000	17,784.7223	17,784.7223	3.0141	0.0000	17,860.0735
Maximum	15.8099	84.7435	59.9876	0.1775	12.2118	3.0085	13.7249	6.6649	2.7889	8.0570	0.0000	17,784.7223	17,784.7223	3.0141	0.0000	17,860.0735

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					
2021	15.8099	84.7435	59.9876	0.1775	6.3096	3.0085	9.3181	2.8715	2.7889	5.2083	0.0000	17,784.7223	17,784.7223	3.0141	0.0000	17,860.0735
Maximum	15.8099	84.7435	59.9876	0.1775	6.3096	3.0085	9.3181	2.8715	2.7889	5.2083	0.0000	17,784.7223	17,784.7223	3.0141	0.0000	17,860.0735

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

	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
Percent Reduction	0.00	0.00	0.00	0.00	48.33	0.00	32.11	56.92	0.00	35.36	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
Mobile	0.3479	1.9693	0.9856	2.9500e-003	1.2100e-003	1.5900e-003	2.8000e-003	3.2000e-004	1.4700e-003	1.7900e-003		309.0794	309.0794	0.0507		310.3456
Offroad	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	1.3655	2.6210	1.5225	5.6000e-003	1.2100e-003	0.0415	0.0427	3.2000e-004	0.0413	0.0417		767.8473	767.8473	0.0626	7.6900e-003	771.7039

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

2.2 Overall Operational

Mitigated Operational

	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					
Area	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
Mobile	0.3479	1.9693	0.9856	2.9500e-003	1.2100e-003	1.5900e-003	2.8000e-003	3.2000e-004	1.4700e-003	1.7900e-003		309.0794	309.0794	0.0507		310.3456
Offroad	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	1.3655	2.6210	1.5225	5.6000e-003	1.2100e-003	0.0415	0.0427	3.2000e-004	0.0413	0.0417		767.8473	767.8473	0.0626	7.6900e-003	771.7039

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/4/2021	1/29/2021	5	20	
2	Grading	Grading	2/1/2021	5/21/2021	5	80	
3	Building Construction	Building Construction	4/26/2021	12/3/2021	5	160	
4	Paving	Paving	8/16/2021	12/3/2021	5	80	
5	Architectural Coating	Architectural Coating	11/8/2021	12/31/2021	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,320; Non-Residential Outdoor: 6,000; Striped Parking Area: 87,000 (Architectural Coating – sqft)

OffRoad Equipment

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,419.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	201.00	79.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021

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					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911		2,858.3047	2,858.3047	0.9244		2,881.4155
Total	2.8418	29.5258	17.1165	0.0295	12.0442	1.5120	13.5562	6.6205	1.3911	8.0115		2,858.3047	2,858.3047	0.9244		2,881.4155

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0762	0.0471	0.6210	1.6500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		164.1121	164.1121	4.6700e-003		164.2289
Total	0.0762	0.0471	0.6210	1.6500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		164.1121	164.1121	4.6700e-003		164.2289

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					5.1489	0.0000	5.1489	2.8302	0.0000	2.8302			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155
Total	2.8418	29.5258	17.1165	0.0295	5.1489	1.5120	6.6609	2.8302	1.3911	4.2213	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.2 Site Preparation - 2021

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
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
Worker	0.0762	0.0471	0.6210	1.6500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		164.1121	164.1121	4.6700e-003		164.2289
Total	0.0762	0.0471	0.6210	1.6500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		164.1121	164.1121	4.6700e-003		164.2289

3.3 Grading - 2021

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					6.2179	0.0000	6.2179	3.3335	0.0000	3.3335			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	6.2179	1.9853	8.2032	3.3335	1.8265	5.1601		6,007.0434	6,007.0434	1.9428		6,055.6134

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.3 Grading - 2021

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	0.3282	12.5989	1.9514	0.0429	0.9667	0.0356	1.0023	0.2650	0.0341	0.2991		4,558.1415	4,558.1415	0.2443		4,564.2499
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
Worker	0.1016	0.0628	0.8280	2.2000e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		218.8161	218.8161	6.2300e-003		218.9718
Total	0.4298	12.6617	2.7793	0.0451	1.1902	0.0371	1.2273	0.3243	0.0354	0.3597		4,776.9576	4,776.9576	0.2506		4,783.2217

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					2.6581	0.0000	2.6581	1.4251	0.0000	1.4251			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	2.6581	1.9853	4.6435	1.4251	1.8265	3.2516	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.3 Grading - 2021

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	0.3282	12.5989	1.9514	0.0429	0.9009	0.0356	0.9366	0.2489	0.0341	0.2830		4,558.1415	4,558.1415	0.2443		4,564.2499
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
Worker	0.1016	0.0628	0.8280	2.2000e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		218.8161	218.8161	6.2300e-003		218.9718
Total	0.4298	12.6617	2.7793	0.0451	1.1070	0.0371	1.1441	0.3039	0.0354	0.3393		4,776.9576	4,776.9576	0.2506		4,783.2217

3.4 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021

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
Vendor	0.2044	7.6186	1.4336	0.0213	0.5060	0.0131	0.5190	0.1457	0.0125	0.1582		2,248.2555	2,248.2555	0.1421		2,251.8075
Worker	1.0213	0.6313	8.3211	0.0221	2.2467	0.0144	2.2611	0.5958	0.0132	0.6091		2,199.1018	2,199.1018	0.0626		2,200.6666
Total	1.2257	8.2498	9.7546	0.0434	2.7527	0.0274	2.7801	0.7415	0.0257	0.7673		4,447.3574	4,447.3574	0.2047		4,452.4741

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.4 Building Construction - 2021

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
Vendor	0.2044	7.6186	1.4336	0.0213	0.4735	0.0131	0.4866	0.1377	0.0125	0.1502		2,248.2555	2,248.2555	0.1421		2,251.8075
Worker	1.0213	0.6313	8.3211	0.0221	2.0709	0.0144	2.0853	0.5527	0.0132	0.5659		2,199.1018	2,199.1018	0.0626		2,200.6666
Total	1.2257	8.2498	9.7546	0.0434	2.5445	0.0274	2.5719	0.6904	0.0257	0.7161		4,447.3574	4,447.3574	0.2047		4,452.4741

3.5 Paving - 2021

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.5 Paving - 2021

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
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
Worker	0.0762	0.0471	0.6210	1.6500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		164.1121	164.1121	4.6700e-003		164.2289
Total	0.0762	0.0471	0.6210	1.6500e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		164.1121	164.1121	4.6700e-003		164.2289

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.5 Paving - 2021

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
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
Worker	0.0762	0.0471	0.6210	1.6500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		164.1121	164.1121	4.6700e-003		164.2289
Total	0.0762	0.0471	0.6210	1.6500e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		164.1121	164.1121	4.6700e-003		164.2289

3.6 Architectural Coating - 2021

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					
Archit. Coating	10.9293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.1482	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2021

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
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
Worker	0.2032	0.1256	1.6559	4.4000e-003	0.4471	2.8600e-003	0.4500	0.1186	2.6300e-003	0.1212		437.6322	437.6322	0.0125		437.9436
Total	0.2032	0.1256	1.6559	4.4000e-003	0.4471	2.8600e-003	0.4500	0.1186	2.6300e-003	0.1212		437.6322	437.6322	0.0125		437.9436

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					
Archit. Coating	10.9293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.1482	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

3.6 Architectural Coating - 2021

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
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
Worker	0.2032	0.1256	1.6559	4.4000e-003	0.4121	2.8600e-003	0.4150	0.1100	2.6300e-003	0.1126		437.6322	437.6322	0.0125		437.9436
Total	0.2032	0.1256	1.6559	4.4000e-003	0.4121	2.8600e-003	0.4150	0.1100	2.6300e-003	0.1126		437.6322	437.6322	0.0125		437.9436

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

	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					
Mitigated	0.3479	1.9693	0.9856	2.9500e-003	1.2100e-003	1.5900e-003	2.8000e-003	3.2000e-004	1.4700e-003	1.7900e-003		309.0794	309.0794	0.0507		310.3456
Unmitigated	0.3479	1.9693	0.9856	2.9500e-003	1.2100e-003	1.5900e-003	2.8000e-003	3.2000e-004	1.4700e-003	1.7900e-003		309.0794	309.0794	0.0507		310.3456

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	30.66	0.00	0.00	48	48
City Park	19.05	229.32	168.74	154	154
Total	49.71	229.32	168.74	202	202

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	0.00	0.00	0.00	0.00	81.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
City Park	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
NaturalGas Mitigated	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
NaturalGas Unmitigated	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	3567.24	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
City Park	0	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
Total		0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	3,567.24	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
City Park	0	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
Total		0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

6.0 Area Detail

6.1 Mitigation Measures Area

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

	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					
Mitigated	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Unmitigated	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.1198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.1198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pressure Washers	1	8.00	260	13	0.30	Diesel

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Summer

UnMitigated/Mitigated

	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
Equipment Type	lb/day										lb/day					
Pressure Washers	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Rancho Cucamonga Central Park Amphitheatre
San Bernardino-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	0.92	Acre	0.92	40,075.20	0
City Park	10.08	Acre	10.08	439,084.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Amphitheater = 40,000 sq. ft.

Project Area = 11 acres

Construction Phase -

Estimated (conservative) construction days per phase, total 12 months

- Site Preparation = 20 days

- Grading = 80 days

- Building Construction = 160 days

- Paving = 80 days

- Architectural Coating = 40 days

Off-road Equipment - Default

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment -

Estimated 2 dozers, 4 tractors/loaders/backhoes

Trips and VMT - Default

Demolition -

No Demolition

Grading -

Project Area = 11 acres

Material export per project Grading Plan

Architectural Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Vehicle Trips - Events are being relocated from an existing facility 2.5 miles away from the project, therefore impacts from vehicle trips to the project will be negligible.

Road Dust -

Area Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Energy Use - Default

Water And Wastewater -

Arena - Default

City Park - Outdoor: Landscape irrigation calculated based on pervious area (8.40 acres)

$27,154 \text{ (gal/acre-in)} \times 8.40 \text{ (acres)} \times 1.5 \text{ (in/wk)} \times 1.10 \text{ (safety factor)} \times 52 \text{ (wk/year)} = 19,570,430.88 \text{ gal/year}$

Solid Waste - Default

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Per BMPs for fugitive dust control

Mobile Land Use Mitigation -

Energy Mitigation -

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Water Mitigation -

Operational Off-Road Equipment - Estimated

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,038.00	6,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	60,113.00	1,320.00
tblArchitecturalCoating	ConstArea_Parking	0.00	87,000.00
tblAreaCoating	Area_Nonresidential_Exterior	20038	6000
tblAreaCoating	Area_Nonresidential_Interior	60113	1320
tblAreaCoating	Area_Parking	0	87000
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	300.00	160.00
tblConstructionPhase	NumDays	30.00	80.00
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	200.00	11.00
tblGrading	MaterialExported	0.00	35,350.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblSequestration	NumberOfNewTrees	0.00	250.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblWater	OutdoorWaterUseRate	12,010,132.00	19,570,430.88

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

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					
2021	15.8252	84.7457	58.8634	0.1730	12.2118	3.0093	13.7249	6.6649	2.7898	8.0570	0.0000	17,329.1299	17,329.1299	3.0420	0.0000	17,405.1804
Maximum	15.8252	84.7457	58.8634	0.1730	12.2118	3.0093	13.7249	6.6649	2.7898	8.0570	0.0000	17,329.1299	17,329.1299	3.0420	0.0000	17,405.1804

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					
2021	15.8252	84.7457	58.8634	0.1730	6.3096	3.0093	9.3189	2.8715	2.7898	5.2091	0.0000	17,329.1299	17,329.1299	3.0420	0.0000	17,405.1804
Maximum	15.8252	84.7457	58.8634	0.1730	6.3096	3.0093	9.3189	2.8715	2.7898	5.2091	0.0000	17,329.1299	17,329.1299	3.0420	0.0000	17,405.1804

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

	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
Percent Reduction	0.00	0.00	0.00	0.00	48.33	0.00	32.10	56.92	0.00	35.35	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
Mobile	0.2903	1.8988	1.2108	2.6200e-003	1.2100e-003	1.7200e-003	2.9300e-003	3.2000e-004	1.6000e-003	1.9200e-003		272.8158	272.8158	0.0577		274.2571
Offroad	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	1.3078	2.5505	1.7478	5.2700e-003	1.2100e-003	0.0416	0.0428	3.2000e-004	0.0415	0.0418		731.5837	731.5837	0.0696	7.6900e-003	735.6154

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

2.2 Overall Operational

Mitigated Operational

	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					
Area	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Energy	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
Mobile	0.2903	1.8988	1.2108	2.6200e-003	1.2100e-003	1.7200e-003	2.9300e-003	3.2000e-004	1.6000e-003	1.9200e-003		272.8158	272.8158	0.0577		274.2571
Offroad	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	1.3078	2.5505	1.7478	5.2700e-003	1.2100e-003	0.0416	0.0428	3.2000e-004	0.0415	0.0418		731.5837	731.5837	0.0696	7.6900e-003	735.6154

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/4/2021	1/29/2021	5	20	
2	Grading	Grading	2/1/2021	5/21/2021	5	80	
3	Building Construction	Building Construction	4/26/2021	12/3/2021	5	160	
4	Paving	Paving	8/16/2021	12/3/2021	5	80	
5	Architectural Coating	Architectural Coating	11/8/2021	12/31/2021	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,320; Non-Residential Outdoor: 6,000; Striped Parking Area: 87,000 (Architectural Coating – sqft)

OffRoad Equipment

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,419.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	201.00	79.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021

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					12.0442	0.0000	12.0442	6.6205	0.0000	6.6205			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911		2,858.3047	2,858.3047	0.9244		2,881.4155
Total	2.8418	29.5258	17.1165	0.0295	12.0442	1.5120	13.5562	6.6205	1.3911	8.0115		2,858.3047	2,858.3047	0.9244		2,881.4155

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2021

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
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
Worker	0.0764	0.0496	0.5093	1.4800e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.2247	147.2247	4.1000e-003		147.3271
Total	0.0764	0.0496	0.5093	1.4800e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.2247	147.2247	4.1000e-003		147.3271

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					5.1489	0.0000	5.1489	2.8302	0.0000	2.8302			0.0000			0.0000
Off-Road	2.8418	29.5258	17.1165	0.0295		1.5120	1.5120		1.3911	1.3911	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155
Total	2.8418	29.5258	17.1165	0.0295	5.1489	1.5120	6.6609	2.8302	1.3911	4.2213	0.0000	2,858.3047	2,858.3047	0.9244		2,881.4155

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.2 Site Preparation - 2021

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
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
Worker	0.0764	0.0496	0.5093	1.4800e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		147.2247	147.2247	4.1000e-003		147.3271
Total	0.0764	0.0496	0.5093	1.4800e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		147.2247	147.2247	4.1000e-003		147.3271

3.3 Grading - 2021

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					6.2179	0.0000	6.2179	3.3335	0.0000	3.3335			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	6.2179	1.9853	8.2032	3.3335	1.8265	5.1601		6,007.0434	6,007.0434	1.9428		6,055.6134

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.3 Grading - 2021

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	0.3431	12.6463	2.2286	0.0418	0.9667	0.0361	1.0028	0.2650	0.0346	0.2996		4,438.6852	4,438.6852	0.2654		4,445.3189
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
Worker	0.1018	0.0661	0.6791	1.9700e-003	0.2236	1.4300e-003	0.2250	0.0593	1.3200e-003	0.0606		196.2995	196.2995	5.4600e-003		196.4361
Total	0.4449	12.7124	2.9077	0.0438	1.1902	0.0376	1.2278	0.3243	0.0359	0.3602		4,634.9848	4,634.9848	0.2708		4,641.7550

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					2.6581	0.0000	2.6581	1.4251	0.0000	1.4251			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	4.1912	46.3998	30.8785	0.0620	2.6581	1.9853	4.6435	1.4251	1.8265	3.2516	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.3 Grading - 2021

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	0.3431	12.6463	2.2286	0.0418	0.9009	0.0361	0.9371	0.2489	0.0346	0.2835		4,438.6852	4,438.6852	0.2654		4,445.3189
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
Worker	0.1018	0.0661	0.6791	1.9700e-003	0.2061	1.4300e-003	0.2075	0.0550	1.3200e-003	0.0563		196.2995	196.2995	5.4600e-003		196.4361
Total	0.4449	12.7124	2.9077	0.0438	1.1070	0.0376	1.1446	0.3039	0.0359	0.3398		4,634.9848	4,634.9848	0.2708		4,641.7550

3.4 Building Construction - 2021

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2021

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
Vendor	0.2169	7.5375	1.6769	0.0205	0.5060	0.0134	0.5194	0.1457	0.0128	0.1585		2,160.9275	2,160.9275	0.1575		2,164.8645
Worker	1.0235	0.6640	6.8251	0.0198	2.2467	0.0144	2.2611	0.5958	0.0132	0.6091		1,972.8103	1,972.8103	0.0549		1,974.1832
Total	1.2404	8.2014	8.5020	0.0403	2.7527	0.0278	2.7805	0.7415	0.0261	0.7676		4,133.7379	4,133.7379	0.2124		4,139.0477

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	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.4 Building Construction - 2021

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
Vendor	0.2169	7.5375	1.6769	0.0205	0.4735	0.0134	0.4870	0.1377	0.0128	0.1506		2,160.9275	2,160.9275	0.1575		2,164.8645
Worker	1.0235	0.6640	6.8251	0.0198	2.0709	0.0144	2.0853	0.5527	0.0132	0.5659		1,972.8103	1,972.8103	0.0549		1,974.1832
Total	1.2404	8.2014	8.5020	0.0403	2.5445	0.0278	2.5723	0.6904	0.0261	0.7165		4,133.7379	4,133.7379	0.2124		4,139.0477

3.5 Paving - 2021

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.5 Paving - 2021

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
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
Worker	0.0764	0.0496	0.5093	1.4800e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.2247	147.2247	4.1000e-003		147.3271
Total	0.0764	0.0496	0.5093	1.4800e-003	0.1677	1.0700e-003	0.1687	0.0445	9.9000e-004	0.0455		147.2247	147.2247	4.1000e-003		147.3271

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	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.5 Paving - 2021

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
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
Worker	0.0764	0.0496	0.5093	1.4800e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		147.2247	147.2247	4.1000e-003		147.3271
Total	0.0764	0.0496	0.5093	1.4800e-003	0.1546	1.0700e-003	0.1556	0.0413	9.9000e-004	0.0422		147.2247	147.2247	4.1000e-003		147.3271

3.6 Architectural Coating - 2021

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					
Archit. Coating	10.9293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	11.1482	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2021

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
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
Worker	0.2037	0.1321	1.3582	3.9400e-003	0.4471	2.8600e-003	0.4500	0.1186	2.6300e-003	0.1212		392.5991	392.5991	0.0109		392.8723
Total	0.2037	0.1321	1.3582	3.9400e-003	0.4471	2.8600e-003	0.4500	0.1186	2.6300e-003	0.1212		392.5991	392.5991	0.0109		392.8723

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					
Archit. Coating	10.9293					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	11.1482	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

3.6 Architectural Coating - 2021

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
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
Worker	0.2037	0.1321	1.3582	3.9400e-003	0.4121	2.8600e-003	0.4150	0.1100	2.6300e-003	0.1126		392.5991	392.5991	0.0109		392.8723
Total	0.2037	0.1321	1.3582	3.9400e-003	0.4121	2.8600e-003	0.4150	0.1100	2.6300e-003	0.1126		392.5991	392.5991	0.0109		392.8723

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

	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					
Mitigated	0.2903	1.8988	1.2108	2.6200e-003	1.2100e-003	1.7200e-003	2.9300e-003	3.2000e-004	1.6000e-003	1.9200e-003		272.8158	272.8158	0.0577		274.2571
Unmitigated	0.2903	1.8988	1.2108	2.6200e-003	1.2100e-003	1.7200e-003	2.9300e-003	3.2000e-004	1.6000e-003	1.9200e-003		272.8158	272.8158	0.0577		274.2571

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	30.66	0.00	0.00	48	48
City Park	19.05	229.32	168.74	154	154
Total	49.71	229.32	168.74	202	202

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	0.00	0.00	0.00	0.00	81.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
City Park	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
NaturalGas Mitigated	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
NaturalGas Unmitigated	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	3567.24	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
City Park	0	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
Total		0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Arena	3,567.24	0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694
City Park	0	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
Total		0.0385	0.3497	0.2938	2.1000e-003		0.0266	0.0266		0.0266	0.0266		419.6755	419.6755	8.0400e-003	7.6900e-003	422.1694

6.0 Area Detail

6.1 Mitigation Measures Area

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

	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					
Mitigated	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Unmitigated	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.1198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	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
SubCategory	lb/day										lb/day					
Architectural Coating	0.1198					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8161					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-004	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003
Total	0.9360	1.0000e-005	1.1200e-003	0.0000		0.0000	0.0000		0.0000	0.0000		2.4100e-003	2.4100e-003	1.0000e-005		2.5700e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Toilet

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pressure Washers	1	8.00	260	13	0.30	Diesel

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UnMitigated/Mitigated

	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
Equipment Type	lb/day										lb/day					
Pressure Washers	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863
Total	0.0431	0.3020	0.2421	5.5000e-004		0.0133	0.0133		0.0133	0.0133		39.0900	39.0900	3.8500e-003		39.1863

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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Rancho Cucamonga Central Park Amphitheatre
San Bernardino-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Arena	0.92	Acre	0.92	40,075.20	0
City Park	10.08	Acre	10.08	439,084.80	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Amphitheater = 40,000 sq. ft.

Project Area = 11 acres

Construction Phase -

Estimated (conservative) construction days per phase, total 12 months

- Site Preparation = 20 days

- Grading = 80 days

- Building Construction = 160 days

- Paving = 80 days

- Architectural Coating = 40 days

Off-road Equipment - Default

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Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment - Default

Off-road Equipment -

Estimated 2 dozers, 4 tractors/loaders/backhoes

Trips and VMT - Default

Demolition -

No Demolition

Grading -

Project Area = 11 acres

Material export per project Grading Plan

Architectural Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Vehicle Trips - Events are being relocated from an existing facility 2.5 miles away from the project, therefore impacts from vehicle trips to the project will be negligible.

Road Dust -

Area Coating -

NR Interior = 1 backstage building 1,320 sf

NR Exterior = 1 backstage building 1,320 sf + 2 stages 2,600 sf + other park areas = 6,000 sf

Parking area = 87,000 sf

Energy Use - Default

Water And Wastewater -

Arena - Default

City Park - Outdoor: Landscape irrigation calculated based on pervious area (8.40 acres)

$27,154 \text{ (gal/acre-in)} \times 8.40 \text{ (acres)} \times 1.5 \text{ (in/wk)} \times 1.10 \text{ (safety factor)} \times 52 \text{ (wk/year)} = 19,570,430.88 \text{ gal/year}$

Solid Waste - Default

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation -

Per BMPs for fugitive dust control

Mobile Land Use Mitigation -

Energy Mitigation -

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Water Mitigation -

Operational Off-Road Equipment - Estimated

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Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,038.00	6,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	60,113.00	1,320.00
tblArchitecturalCoating	ConstArea_Parking	0.00	87,000.00
tblAreaCoating	Area_Nonresidential_Exterior	20038	6000
tblAreaCoating	Area_Nonresidential_Interior	60113	1320
tblAreaCoating	Area_Parking	0	87000
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	300.00	160.00
tblConstructionPhase	NumDays	30.00	80.00
tblConstructionPhase	NumDays	20.00	80.00
tblConstructionPhase	NumDays	10.00	20.00
tblGrading	AcresOfGrading	200.00	11.00
tblGrading	MaterialExported	0.00	35,350.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblSequestration	NumberOfNewTrees	0.00	250.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CC_TL	8.40	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CNW_TL	6.90	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblVehicleTrips	CW_TL	16.60	0.00
tblWater	OutdoorWaterUseRate	12,010,132.00	19,570,430.88

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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					
2021	0.7363	5.2881	4.2195	0.0111	0.6491	0.2040	0.8531	0.2752	0.1895	0.4647	0.0000	1,006.2022	1,006.2022	0.1746	0.0000	1,010.5661
Maximum	0.7363	5.2881	4.2195	0.0111	0.6491	0.2040	0.8531	0.2752	0.1895	0.4647	0.0000	1,006.2022	1,006.2022	0.1746	0.0000	1,010.5661

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					
2021	0.7363	5.2881	4.2195	0.0111	0.4169	0.2040	0.6209	0.1558	0.1895	0.3453	0.0000	1,006.2016	1,006.2016	0.1746	0.0000	1,010.5655
Maximum	0.7363	5.2881	4.2195	0.0111	0.4169	0.2040	0.6209	0.1558	0.1895	0.3453	0.0000	1,006.2016	1,006.2016	0.1746	0.0000	1,010.5655

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	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
Percent Reduction	0.00	0.00	0.00	0.00	35.78	0.00	27.22	43.38	0.00	25.69	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-4-2021	4-3-2021	1.7132	1.7132
2	4-4-2021	7-3-2021	1.8016	1.8016
3	7-4-2021	9-30-2021	1.1506	1.1506
		Highest	1.8016	1.8016

2.2 Overall Operational

Unmitigated Operational

	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					
Area	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	199.0855	199.0855	6.6800e-003	2.3800e-003	199.9620
Mobile	0.0179	0.1256	0.0763	1.8000e-004	8.0000e-005	1.1000e-004	1.8000e-004	2.0000e-005	1.0000e-004	1.2000e-004	0.0000	17.2158	17.2158	3.1800e-003	0.0000	17.2952
Offroad	5.6000e-003	0.0393	0.0315	7.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	4.6100	4.6100	4.5000e-004	0.0000	4.6214
Waste						0.0000	0.0000		0.0000	0.0000	0.1928	0.0000	0.1928	0.0114	0.0000	0.4778
Water						0.0000	0.0000		0.0000	0.0000	0.3929	74.6950	75.0879	0.0434	1.5900e-003	76.6480
Total	0.2013	0.2286	0.1615	6.3000e-004	8.0000e-005	6.6900e-003	6.7600e-003	2.0000e-005	6.6800e-003	6.7000e-003	0.5858	295.6066	296.1923	0.0652	3.9700e-003	299.0047

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2.2 Overall Operational

Mitigated Operational

	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					
Area	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Energy	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	199.0855	199.0855	6.6800e-003	2.3800e-003	199.9620
Mobile	0.0179	0.1256	0.0763	1.8000e-004	8.0000e-005	1.1000e-004	1.8000e-004	2.0000e-005	1.0000e-004	1.2000e-004	0.0000	17.2158	17.2158	3.1800e-003	0.0000	17.2952
Offroad	5.6000e-003	0.0393	0.0315	7.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	4.6100	4.6100	4.5000e-004	0.0000	4.6214
Waste						0.0000	0.0000		0.0000	0.0000	0.1928	0.0000	0.1928	0.0114	0.0000	0.4778
Water						0.0000	0.0000		0.0000	0.0000	0.3670	74.3559	74.7229	0.0408	1.5300e-003	76.1964
Total	0.2013	0.2286	0.1615	6.3000e-004	8.0000e-005	6.6900e-003	6.7600e-003	2.0000e-005	6.6800e-003	6.7000e-003	0.5598	295.2675	295.8273	0.0625	3.9100e-003	298.5531

	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
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.43	0.11	0.12	4.11	1.51	0.15

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	177.0000
Vegetation Land Change	343.9000
Total	520.9000

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	1/4/2021	1/29/2021	5	20	
2	Grading	Grading	2/1/2021	5/21/2021	5	80	
3	Building Construction	Building Construction	4/26/2021	12/3/2021	5	160	
4	Paving	Paving	8/16/2021	12/3/2021	5	80	
5	Architectural Coating	Architectural Coating	11/8/2021	12/31/2021	5	40	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 11

Acres of Paving: 0

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 1,320; Non-Residential Outdoor: 6,000; Striped Parking Area: 87,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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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	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	4,419.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	201.00	79.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	40.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2021

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					0.1204	0.0000	0.1204	0.0662	0.0000	0.0662	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.2953	0.1712	2.9000e-004		0.0151	0.0151		0.0139	0.0139	0.0000	25.9301	25.9301	8.3900e-003	0.0000	26.1398
Total	0.0284	0.2953	0.1712	2.9000e-004	0.1204	0.0151	0.1356	0.0662	0.0139	0.0801	0.0000	25.9301	25.9301	8.3900e-003	0.0000	26.1398

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3.2 Site Preparation - 2021

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	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	6.9000e-004	5.2000e-004	5.3400e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3649	1.3649	4.0000e-005	0.0000	1.3658
Total	6.9000e-004	5.2000e-004	5.3400e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3649	1.3649	4.0000e-005	0.0000	1.3658

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					0.0515	0.0000	0.0515	0.0283	0.0000	0.0283	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0284	0.2953	0.1712	2.9000e-004		0.0151	0.0151		0.0139	0.0139	0.0000	25.9301	25.9301	8.3900e-003	0.0000	26.1397
Total	0.0284	0.2953	0.1712	2.9000e-004	0.0515	0.0151	0.0666	0.0283	0.0139	0.0422	0.0000	25.9301	25.9301	8.3900e-003	0.0000	26.1397

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3.2 Site Preparation - 2021

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	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	6.9000e-004	5.2000e-004	5.3400e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3649	1.3649	4.0000e-005	0.0000	1.3658
Total	6.9000e-004	5.2000e-004	5.3400e-003	2.0000e-005	1.5200e-003	1.0000e-005	1.5300e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3649	1.3649	4.0000e-005	0.0000	1.3658

3.3 Grading - 2021

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					0.2487	0.0000	0.2487	0.1333	0.0000	0.1333	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1677	1.8560	1.2351	2.4800e-003		0.0794	0.0794		0.0731	0.0731	0.0000	217.9799	217.9799	0.0705	0.0000	219.7424
Total	0.1677	1.8560	1.2351	2.4800e-003	0.2487	0.0794	0.3281	0.1333	0.0731	0.2064	0.0000	217.9799	217.9799	0.0705	0.0000	219.7424

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3.3 Grading - 2021

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	0.0134	0.5160	0.0829	1.7000e-003	0.0380	1.4300e-003	0.0395	0.0104	1.3700e-003	0.0118	0.0000	163.5825	163.5825	9.2000e-003	0.0000	163.8125
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	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.7700e-003	6.0000e-005	8.8300e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843
Total	0.0171	0.5188	0.1114	1.7800e-003	0.0468	1.4900e-003	0.0483	0.0128	1.4200e-003	0.0142	0.0000	170.8617	170.8617	9.4000e-003	0.0000	171.0968

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					0.1063	0.0000	0.1063	0.0570	0.0000	0.0570	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1677	1.8560	1.2351	2.4800e-003		0.0794	0.0794		0.0731	0.0731	0.0000	217.9797	217.9797	0.0705	0.0000	219.7421
Total	0.1677	1.8560	1.2351	2.4800e-003	0.1063	0.0794	0.1857	0.0570	0.0731	0.1301	0.0000	217.9797	217.9797	0.0705	0.0000	219.7421

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3.3 Grading - 2021

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	0.0134	0.5160	0.0829	1.7000e-003	0.0355	1.4300e-003	0.0369	9.8100e-003	1.3700e-003	0.0112	0.0000	163.5825	163.5825	9.2000e-003	0.0000	163.8125
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	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.0900e-003	6.0000e-005	8.1400e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843
Total	0.0171	0.5188	0.1114	1.7800e-003	0.0435	1.4900e-003	0.0450	0.0120	1.4200e-003	0.0134	0.0000	170.8617	170.8617	9.4000e-003	0.0000	171.0968

3.4 Building Construction - 2021

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	0.1521	1.3946	1.3260	2.1500e-003		0.0767	0.0767		0.0721	0.0721	0.0000	185.3098	185.3098	0.0447	0.0000	186.4275
Total	0.1521	1.3946	1.3260	2.1500e-003		0.0767	0.0767		0.0721	0.0721	0.0000	185.3098	185.3098	0.0447	0.0000	186.4275

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3.4 Building Construction - 2021

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	0.0168	0.6149	0.1251	1.6800e-003	0.0399	1.0600e-003	0.0409	0.0115	1.0100e-003	0.0125	0.0000	160.5048	160.5048	0.0108	0.0000	160.7752
Worker	0.0740	0.0560	0.5730	1.6200e-003	0.1763	1.1500e-003	0.1775	0.0468	1.0600e-003	0.0479	0.0000	146.3120	146.3120	4.1000e-003	0.0000	146.4144
Total	0.0908	0.6708	0.6981	3.3000e-003	0.2162	2.2100e-003	0.2184	0.0583	2.0700e-003	0.0604	0.0000	306.8168	306.8168	0.0149	0.0000	307.1895

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	0.1521	1.3946	1.3260	2.1500e-003		0.0767	0.0767		0.0721	0.0721	0.0000	185.3096	185.3096	0.0447	0.0000	186.4273
Total	0.1521	1.3946	1.3260	2.1500e-003		0.0767	0.0767		0.0721	0.0721	0.0000	185.3096	185.3096	0.0447	0.0000	186.4273

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3.4 Building Construction - 2021

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	0.0168	0.6149	0.1251	1.6800e-003	0.0373	1.0600e-003	0.0384	0.0109	1.0100e-003	0.0119	0.0000	160.5048	160.5048	0.0108	0.0000	160.7752
Worker	0.0740	0.0560	0.5730	1.6200e-003	0.1626	1.1500e-003	0.1637	0.0435	1.0600e-003	0.0445	0.0000	146.3120	146.3120	4.1000e-003	0.0000	146.4144
Total	0.0908	0.6708	0.6981	3.3000e-003	0.1999	2.2100e-003	0.2021	0.0543	2.0700e-003	0.0564	0.0000	306.8168	306.8168	0.0149	0.0000	307.1895

3.5 Paving - 2021

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	0.0502	0.5168	0.5861	9.1000e-004		0.0271	0.0271		0.0249	0.0249	0.0000	80.0939	80.0939	0.0259	0.0000	80.7415
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0502	0.5168	0.5861	9.1000e-004		0.0271	0.0271		0.0249	0.0249	0.0000	80.0939	80.0939	0.0259	0.0000	80.7415

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3.5 Paving - 2021

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	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	2.7600e-003	2.0900e-003	0.0214	6.0000e-005	6.5800e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.4594	5.4594	1.5000e-004	0.0000	5.4632
Total	2.7600e-003	2.0900e-003	0.0214	6.0000e-005	6.5800e-003	4.0000e-005	6.6200e-003	1.7500e-003	4.0000e-005	1.7900e-003	0.0000	5.4594	5.4594	1.5000e-004	0.0000	5.4632

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	0.0502	0.5168	0.5861	9.1000e-004		0.0271	0.0271		0.0249	0.0249	0.0000	80.0938	80.0938	0.0259	0.0000	80.7414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0502	0.5168	0.5861	9.1000e-004		0.0271	0.0271		0.0249	0.0249	0.0000	80.0938	80.0938	0.0259	0.0000	80.7414

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3.5 Paving - 2021

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	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	2.7600e-003	2.0900e-003	0.0214	6.0000e-005	6.0700e-003	4.0000e-005	6.1100e-003	1.6200e-003	4.0000e-005	1.6600e-003	0.0000	5.4594	5.4594	1.5000e-004	0.0000	5.4632
Total	2.7600e-003	2.0900e-003	0.0214	6.0000e-005	6.0700e-003	4.0000e-005	6.1100e-003	1.6200e-003	4.0000e-005	1.6600e-003	0.0000	5.4594	5.4594	1.5000e-004	0.0000	5.4632

3.6 Architectural Coating - 2021

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					
Archit. Coating	0.2186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3800e-003	0.0305	0.0364	6.0000e-005		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	5.1065	5.1065	3.5000e-004	0.0000	5.1153
Total	0.2230	0.0305	0.0364	6.0000e-005		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	5.1065	5.1065	3.5000e-004	0.0000	5.1153

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3.6 Architectural Coating - 2021

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	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	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.7700e-003	6.0000e-005	8.8300e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843
Total	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.7700e-003	6.0000e-005	8.8300e-003	2.3300e-003	5.0000e-005	2.3800e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843

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					
Archit. Coating	0.2186					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3800e-003	0.0305	0.0364	6.0000e-005		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	5.1065	5.1065	3.5000e-004	0.0000	5.1153
Total	0.2230	0.0305	0.0364	6.0000e-005		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	5.1065	5.1065	3.5000e-004	0.0000	5.1153

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3.6 Architectural Coating - 2021

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	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	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.0900e-003	6.0000e-005	8.1400e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843
Total	3.6800e-003	2.7800e-003	0.0285	8.0000e-005	8.0900e-003	6.0000e-005	8.1400e-003	2.1600e-003	5.0000e-005	2.2100e-003	0.0000	7.2792	7.2792	2.0000e-004	0.0000	7.2843

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	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					
Mitigated	0.0179	0.1256	0.0763	1.8000e-004	8.0000e-005	1.1000e-004	1.8000e-004	2.0000e-005	1.0000e-004	1.2000e-004	0.0000	17.2158	17.2158	3.1800e-003	0.0000	17.2952
Unmitigated	0.0179	0.1256	0.0763	1.8000e-004	8.0000e-005	1.1000e-004	1.8000e-004	2.0000e-005	1.0000e-004	1.2000e-004	0.0000	17.2158	17.2158	3.1800e-003	0.0000	17.2952

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Arena	30.66	0.00	0.00	48	48
City Park	19.05	229.32	168.74	154	154
Total	49.71	229.32	168.74	202	202

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Arena	0.00	0.00	0.00	0.00	81.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Arena	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944
City Park	0.553113	0.036408	0.180286	0.116335	0.016165	0.005101	0.018218	0.063797	0.001357	0.001565	0.005903	0.000808	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	129.6035	129.6035	5.3500e-003	1.1100e-003	130.0672
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	129.6035	129.6035	5.3500e-003	1.1100e-003	130.0672
NaturalGas Mitigated	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949
NaturalGas Unmitigated	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	1.30204e+006	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949
City Park	0	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
Total		7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Arena	1.30204e+006	7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949
City Park	0	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
Total		7.0200e-003	0.0638	0.0536	3.8000e-004		4.8500e-003	4.8500e-003		4.8500e-003	4.8500e-003	0.0000	69.4820	69.4820	1.3300e-003	1.2700e-003	69.8949

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	406763	129.6035	5.3500e-003	1.1100e-003	130.0672
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		129.6035	5.3500e-003	1.1100e-003	130.0672

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Arena	406763	129.6035	5.3500e-003	1.1100e-003	130.0672
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		129.6035	5.3500e-003	1.1100e-003	130.0672

6.0 Area Detail

6.1 Mitigation Measures Area

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

	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					
Mitigated	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Unmitigated	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

6.2 Area by SubCategory

Unmitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1489					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

6.2 Area by SubCategory

Mitigated

	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
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0219					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1489					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004
Total	0.1708	0.0000	1.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.7000e-004	2.7000e-004	0.0000	0.0000	2.9000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Toilet

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	74.7229	0.0408	1.5300e-003	76.1964
Unmitigated	75.0879	0.0434	1.5900e-003	76.6480

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.23846 / 0.0790509	5.8108	0.0406	1.0000e-003	7.1231
City Park	0 / 19.5704	69.2771	2.8600e-003	5.9000e-004	69.5249
Total		75.0879	0.0434	1.5900e-003	76.6480

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Arena	1.15673 / 0.0790509	5.4458	0.0379	9.3000e-004	6.6715
City Park	0 / 19.5704	69.2771	2.8600e-003	5.9000e-004	69.5249
Total		74.7229	0.0408	1.5200e-003	76.1964

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1928	0.0114	0.0000	0.4778
Unmitigated	0.1928	0.0114	0.0000	0.4778

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.08	0.0162	9.6000e-004	0.0000	0.0402
City Park	0.87	0.1766	0.0104	0.0000	0.4375
Total		0.1928	0.0114	0.0000	0.4778

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Arena	0.08	0.0162	9.6000e-004	0.0000	0.0402
City Park	0.87	0.1766	0.0104	0.0000	0.4375
Total		0.1928	0.0114	0.0000	0.4778

9.0 Operational Offroad

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Pressure Washers	1	8.00	260	13	0.30	Diesel

UnMitigated/Mitigated

	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
Equipment Type	tons/yr										MT/yr					
Pressure Washers	5.6000e-003	0.0393	0.0315	7.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	4.6100	4.6100	4.5000e-004	0.0000	4.6214
Total	5.6000e-003	0.0393	0.0315	7.0000e-005		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	4.6100	4.6100	4.5000e-004	0.0000	4.6214

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	520.9000	0.0000	0.0000	520.9000

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Scrub	7 / 0	-100.1000	0.0000	0.0000	-100.1000
Trees	0 / 4	444.0000	0.0000	0.0000	444.0000
Total		343.9000	0.0000	0.0000	343.9000

Rancho Cucamonga Central Park Amphitheatre - San Bernardino-South Coast County, Annual

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	250	177.0000	0.0000	0.0000	177.0000
Total		177.0000	0.0000	0.0000	177.0000



APPENDIX B
BIOLOGICAL RESOURCES



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APPENDIX B1
2019 Biological Resources Report



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CENTRAL PARK AMPHITHEATER

CITY OF RANCHO CUCAMONGA, SAN BERNARDINO COUNTY, CALIFORNIA

Habitat Assessment

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August 2019

CENTRAL PARK AMPHITHEATER

CITY OF RANCHO CUCAMONGA, SAN BERNARDINO COUNTY, CALIFORNIA

Habitat Assessment

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



Travis J. McGill
Biologist/Director



Thomas J. McGill, Ph.D.
Managing Director

August 2019

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APPENDIX

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Section 1 Introduction

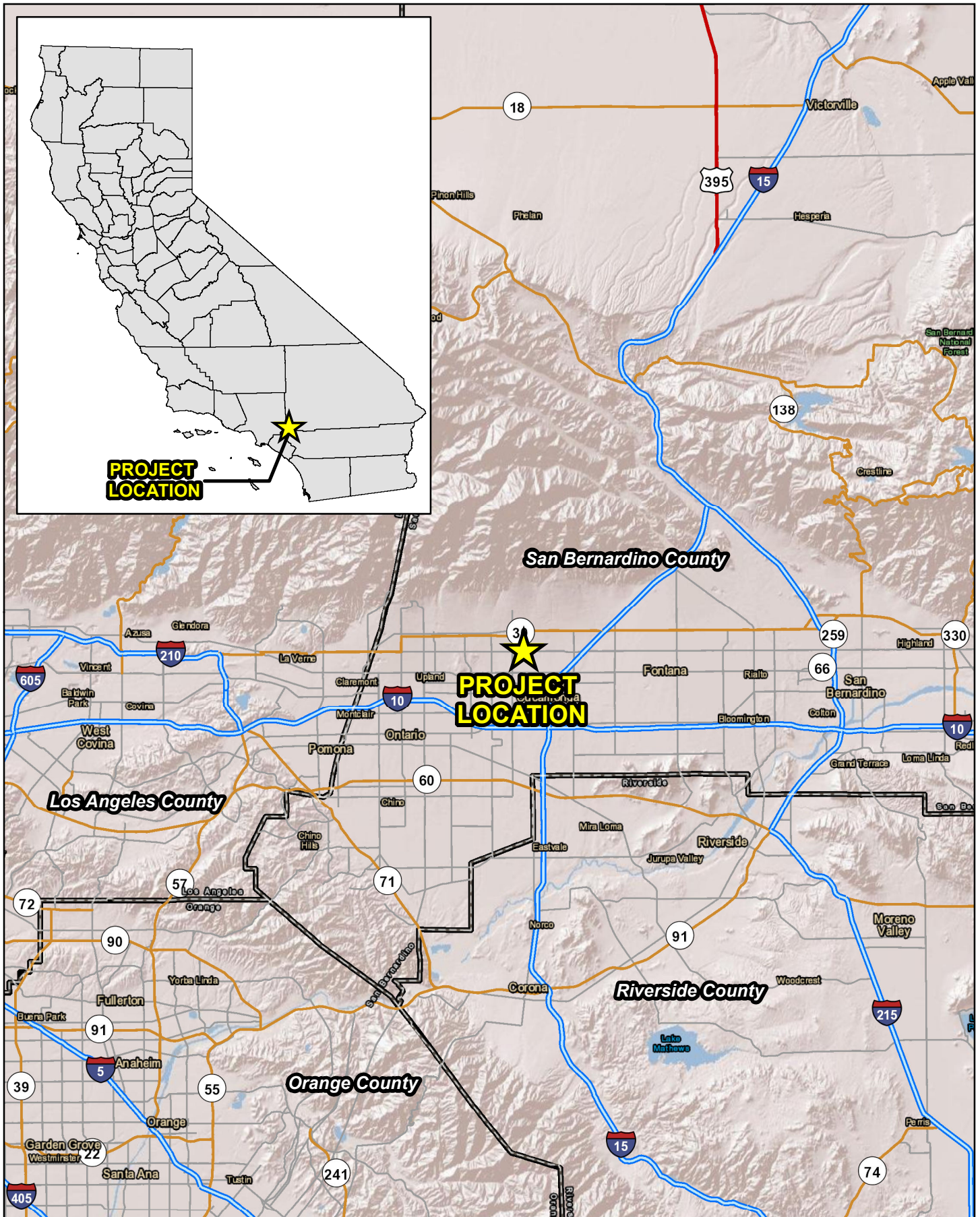
This report contains the findings of ELMT Consulting’s (ELMT) Habitat Assessment for the Central Park Amphitheater (project site or site) located in the City of Rancho Cucamonga, San Bernardino County, California. ELMT Biologists Thomas J. McGill, Ph.D., Travis J. McGill, and Jacob H. Lloyd Davies inventoried and evaluated the condition of the habitat within the project site on July 17, 2019. The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence of special-status plant and wildlife species that could pose a constraint to project implementation. This report provides an in-depth assessment of the suitability of the on-site habitat to support burrowing owl (*Athene cunicularia*), California gnatcatcher (*Polioptila californica californica*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*), as well as other special-status plant and wildlife species identified by the California Natural Diversity Data Base (CNDDDB) and other electronic databases as potentially occurring in the vicinity of the project site.

1.1 PROJECT LOCATION

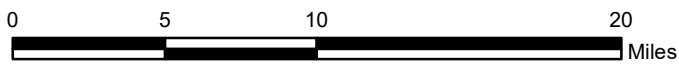
The project site is generally located north of Interstate 10, south of State Route 210, west of Interstate 15, and west of state route 83 in the City of Rancho Cucamonga, San Bernardino County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Guasti quadrangle of the United States Geological Survey’s (USGS) 7.5-minute topographic map series in Section 36, Township 1 North, Range 7 West (Exhibit 2, *Site Vicinity*). Specifically, the project site located in the northwest corner of the intersection of Baseline Road and Central Park, which is located on the southeast corner of the remaining vacant property bordered to the north by the Pacific Electric Trail, to the east by Milliken Avenue, to the south by Baseline Road, and to the west by the Deer Creek Channel (Exhibit 1, *Project Site*).

1.2 PROJECT DESCRIPTION

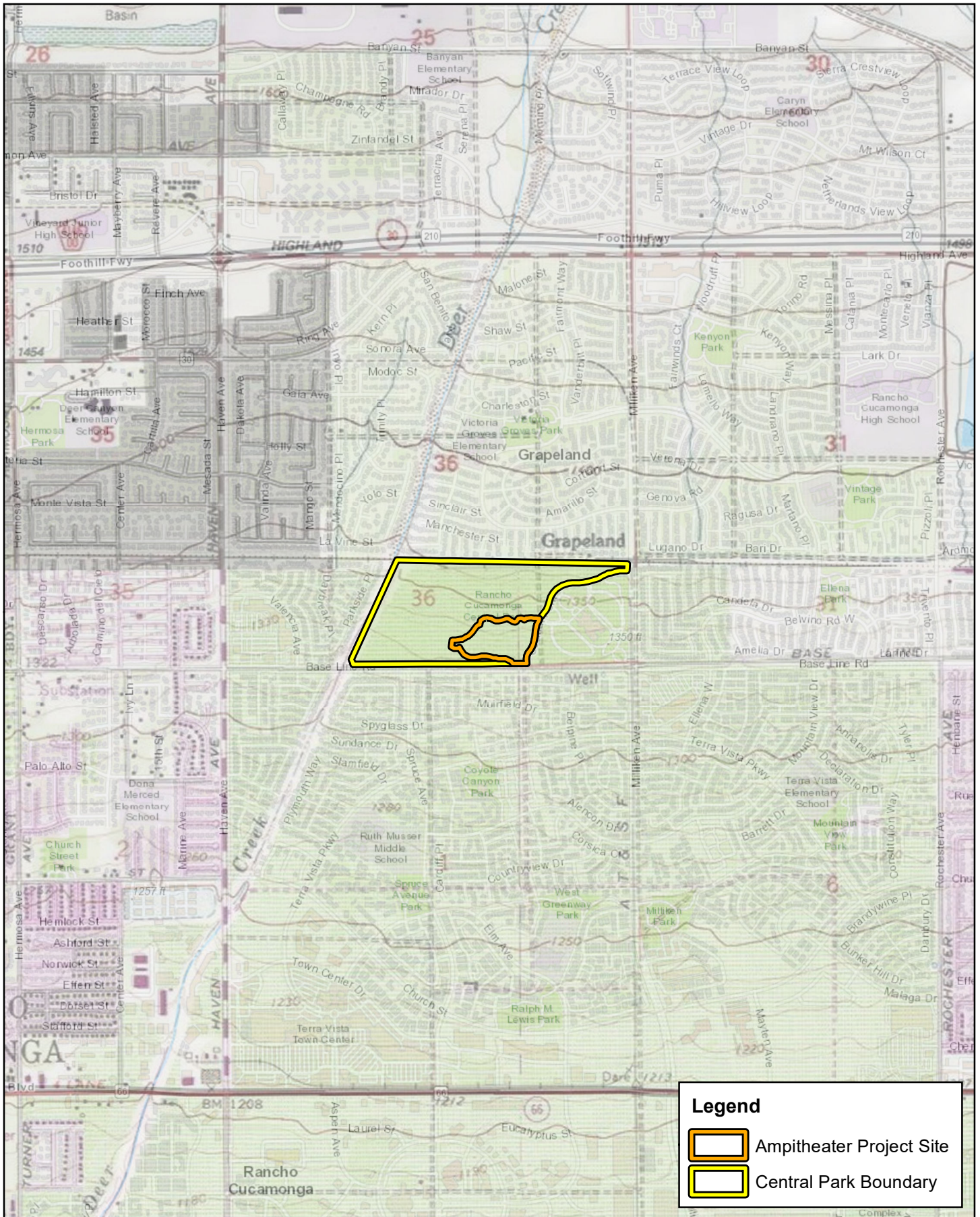
The project proposes to initiate Phase II construction of the Rancho Cucamonga Central Park Master Plan and erect an amphitheater in the southeast corner of the approximately 70 remaining undeveloped acres of the 103.4-acre City-owned property. Refer to Appendix A, *Central Park Phasing Plan – Amphitheater*.



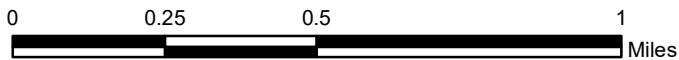
CENTRAL PARK AMPITHEATER PROJECT
 HABITAT ASSESSMENT
Regional Vicinity



Source: Federal Highway Administration, US Department of Transportation



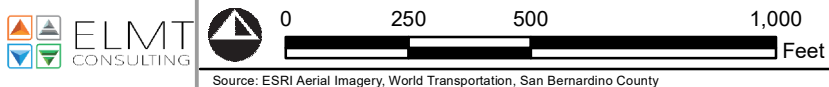
CENTRAL PARK AMPITHEATER PROJECT
 HABITAT ASSESSMENT
Site Vicinity



Source: USA Topographic Map, San Bernardino County



CENTRAL PARK AMPITHEATER PROJECT
 HABITAT ASSESSMENT
Project Site



Section 2 Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted. The field investigation was conducted to document existing conditions within the project site and assess the potential for special-status biological resources to occur.

2.1 LITERATURE REVIEW

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred on the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1994-2018);
- San Bernardino County General Plan;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Soil Survey;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring on the subject property. The CNDDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

2.2 FIELD INVESTIGATION

ELMT biologists Thomas J. McGill, Ph.D. Travis J. McGill, and Jacob H. Lloyd Davies evaluated the extent and conditions of the plant communities found within the boundaries of the project site on July 17,

2019. Plant communities identified on aerial photographs during the literature review were verified in the field by walking meandering transects through the on-site plant communities and along boundaries between plant communities. The plant communities were evaluated for their potential to support special-status plant and wildlife species. In addition, field staff identified any natural corridors and linkages that may support the movement of wildlife through the area. Special attention was given to special-status habitats and/or undeveloped areas, which have higher potentials to support special-status plant and wildlife species.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities, and presence of potential jurisdictional drainage and/or wetland features were noted.

2.3 SOIL SERIES ASSESSMENT

On-site and adjoining soils were researched prior to the field survey using the USDA NRCS Soil Survey for San Bernardino County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site has undergone.

2.4 PLANT COMMUNITIES

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), CDFW (2010) and Holland (1986), delineated on an aerial photograph, and then digitized into ArcGIS. The ArcGIS application was used to compute the area of each plant community in acres.

2.5 PLANTS

Common plant species observed during the field survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

2.6 WILDLIFE

Wildlife species detected during field surveys by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included *The Sibley Field Guide to the Birds of Western North America* (Sibley 2003), *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are fairly well standardized, scientific names are provided immediately following common names in this report (first reference only).

2.7 JURISDICTIONAL DRAINAGES AND WETLANDS

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program “My Waters” data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

San Bernardino County is characterized by cool winter temperatures and warm summer temperatures, with its rainfall occurring almost entirely in the winter. Relative to other areas in Southern California, winters are colder with chilly to cold morning temperatures common. Climatological data obtained for the City of Rancho Cucamonga indicates the annual precipitation averages 16.8 inches per year. Almost all of the precipitation occurs in the months between December and March, with hardly any occurring in the months between May and October. The wettest month is January, with a monthly average total precipitation of 3.50 inches. The average maximum and minimum temperatures for the region are 78.4- and 52.5-degrees Fahrenheit (F) respectively with July (monthly average 93.7° F) being the hottest month and December and January (monthly average 41.4° F) being the coldest. The temperature during the site visit was in the high-80s to low-90s° F with no cloud cover overhead and calm winds.

3.2 TOPOGRAPHY AND SOILS





On-site surface elevation ranges from approximately 1,335 to 1,347 feet and generally slopes from north to south. The proposed project site is relatively flat with no areas of significant topographic relief. Based on the USDA NRCS Web Soil Survey, the project site is underlain by the following soil units: Tujunga loamy sand (0 to 5 percent slopes) and Tujunga gravelly loamy sand (0 to 9 percent slopes) (Exhibit 4, *Soils*). Soils onsite have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural, clearing/grading, and storage activities).

3.3 SURROUNDING LAND USES

The project site is located in an urbanized area and is primarily surrounded by existing development. The entire Central Project boundary is bordered existing residential developments to the north, south, east and west. The proposed amphitheater project site by site is bordered by undeveloped, vacant land within the Central Park boundary to the west and north, institutional developments (James L. Brulte Senior Center and Goldy S. Lewis Community Center) to the east, and residential development to the south. The James L. Brulte Senior Center and Goldy S. Lewis Community Center were constructed during Phase I of the Central Park Master Plan.

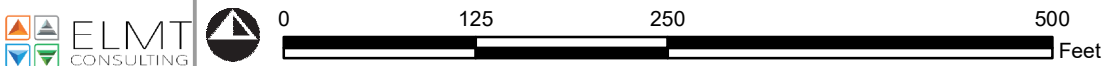


Legend

-  Amphitheater Project Site
-  Central Park Boundary
-  Tujunga gravelly loamy sand, 0 to 9 percent slopes (TvC)
-  Tujunga loamy sand, 0 to 5 percent slopes (TuB)

CENTRAL PARK AMPITHEATER PROJECT
HABITAT ASSESSMENT

Soils



Source: ESRI Aerial Imagery, Soil Survey Geographic Database, World Transportation, San Bernardino County

Section 4 Discussion

4.1 SITE CONDITIONS

The project site consists of both disturbed and undeveloped land that has been subject to a variety of direct and indirect human-related disturbances from historical agricultural activities, grading activities, adjacent development, weed abatement, and storage activities. In the decades since active agricultural activities (i.e., grape vineyards) ceased, native vegetation communities typical of disturbed areas have reestablished onsite. In late 2003, a drainage channel was constructed on the northern portion of the project site to accommodate stormwater runoff associated with construction from Phase I of the Central Park Master Plan. Stormwater continues to enter the site via a culvert in the middle of the northern boundary of the site and flows to the west and off-site into Deer Creek Channel. In the middle and eastern portions of the project site, disturbed areas were observed in association with construction staging and storage areas.

4.2 VEGETATION

Onsite anthropogenic disturbances have greatly disturbed the natural plant communities that once occurred within the boundaries of the project site, reducing their ability to provide suitable habitat for special-status plant and wildlife species. Refer to Attachment B, *Site Photographs*, for representative site photographs. One (1) plant community was observed within the boundaries of the project site during the habitat assessment: California buckwheat scrub (Exhibit 5, *Vegetation*). The project site also supports two land cover types that would be classified as disturbed and developed. The plant community and land cover types are described in further detail below.

4.2.1 California Buckwheat Scrub

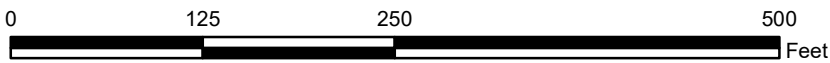
The California buckwheat scrub plant community was observed throughout the western, central, and northern portions of the project site. This plant community supports a monoculture of California buckwheat (*Eriogonum fasciculatum*). Buckwheat scrub plant communities often reestablish after disturbed areas are allowed to revegetate with native plants. Other plant species observed in this plant community include deer weed (*Acmispon glaber*), California croton (*Croton californicus*), common phacelia (*Phacelia distans*), chia (*Salvia columbariae*), California sagebrush (*Artemisia californica*), western ragweed (*Ambrosia psilostachya*), white sage (*Salvia apiana*), common cryptantha (*Cryptantha intermedia*), mulefat (*Baccharis salicifolia*), prickly pear (*Opuntia littoralis*), slender buckwheat (*Eriogonum gracile*), pine goldenbush (*Ericameria pinifolia*), and telegraph weed (*Heterotheca grandiflora*).

4.2.2 Disturbed

Disturbed areas are generally areas that have been subject to a high level of human disturbances and no longer comprise a native plant community. These areas are unpaved and are primarily or entirely devoid of vegetation, or support ruderal/weedy plant species. The disturbed areas of the project site are associated with ongoing weed abatement activities, materials storage, and construction staging activities. Plant species observed within this plant community include short-podded mustard (*Hirschfeldia incana*), wild oat (*Avena fatua*), flax-leaved horseweed (*Erigeron bonariensis*), and tacolote (*Centaurea melitensis*).



CENTRAL PARK AMPITHEATER PROJECT
 HABITAT ASSESSMENT
Vegetation



Source: ESRI Aerial Imagery, World Transportation, San Bernardino County

4.2.3 Developed

The developed portions of the project site include two areas in the northwest and southwest corners of the site, and one area near the northern boundary. These areas have been paved for pedestrian access and landscaped with ornamental plant species. No plant species other than the non-native/ornamental plant species were observed within the developed portions of the site. The northern area includes the drainage culvert and associated paving and riprap.

4.3 WILDLIFE

Plant communities provide foraging habitat, nesting and denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed during the field survey or that are expected to occur within the project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather condition in which the field survey was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation.

4.3.1 Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) with frequent sources of water that would provide suitable habitat for fish were observed on or within the vicinity of the project site. Therefore, no fish are expected to occur and are presumed absent from the project site.

4.3.2 Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. Therefore, no amphibians are expected to occur on the project site and are presumed absent.

4.3.3 Reptiles

The project site provides a limited amount of habitat for a few reptile species adapted to a high degree of human disturbance associated with onsite disturbances and surrounding development. The only reptilian species observed onsite during the field investigation was common side-blotched lizard (*Uta stansburiana elegans*). Other common reptilian species expected to occur on-site include gopher snake (*Pituophis catenifer*), Great Basin fence lizard (*Sceloporus occidentalis longipes*) and southern alligator lizard (*Elgaria multicarinata*).

4.3.4 Birds

The project site provides suitable foraging and cover habitat for a variety of resident and migrant bird species. Bird species detected during the field survey include Anna's hummingbird (*Calypte anna*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaida macroura*), California towhee (*Melospiza crissalis*), Bewick's wren (*Thryomanes bewickii*), American crow (*Corvus brachyrhynchos*), Cassin's kingbird (*Tyrannus vociferans*), house finch (*Haemorhous mexicanus*), red-tailed hawk (*Buteo jamaicensis*), northern rough-winged swallow (*Stelgidopteryx serripennis*),

California thrasher (*Toxostoma redividum*), barn swallow (*Hirundo rustica*), bushtit (*Psaltriparus minimus*), lesser nighthawk (*Chordeiles acutipennis*), and European starling (*Sturnus vulgaris*).

4.3.5 Mammals

The project site and surrounding areas have the potential to support mammalian species adapted to human presence and disturbance. The only mammalian species observed during the field survey was desert cottontail (*Sylvilagus audubonii*). Other common mammalian species expected to occur include coyote (*Canis latrans*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*). No bat species are expected to occur due to a lack of suitable roosting habitat (i.e., trees, crevices, abandoned structures) within and surrounding the project site.

4.4 NESTING BIRDS

No active nests or birds displaying nesting behavior were observed during the field survey. The project site and surrounding area provides suitable foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments. In addition, the project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground and those acclimated to routine disturbances (i.e., killdeer (*Charadrius vociferus*)). A pre-construction nesting bird clearance survey should be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

4.5 WILDLIFE CORRIDORS AND LINKAGES

Habitat linkages provide links between larger undeveloped habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site has not been identified as a wildlife corridor or linkage in accordance with the San Bernardino County General Plan. The proposed development will be confined to existing areas that have been heavily disturbed and surrounded by development. The project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the project site to the San Gabriel Mountains. As such, development of the project site is not expected to impact wildlife movement opportunities or prevent existing wildlife movement corridors in the region from functioning. Therefore, impacts to wildlife corridors or linkages are not expected to occur.

4.6 STATE AND FEDERAL JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge and/or fill materials into “waters of the United States” pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act and the CDFW regulates alterations to streambed and associated plant communities pursuant to Section 1602 of the California Fish and Game Code.

In late 2003, a drainage channel was constructed on the northern portion of the project site to accommodate stormwater runoff associated with construction from Phase I of the Central Park Master Plan. Stormwater continues to enter the site via a culvert in the middle of the northern boundary of the site and flows to the west and off-site into Deer Creek Channel. Deer Creek is tributary to Cucamonga Creek, which is tributary to Mill Creek and the Santa Ana River (Relatively Permeant Water), which is ultimately tributary to the Pacific Ocean (traditional Nag viable Water). As a result, the onsite drainage feature exhibits a surface hydrologic connection to downstream waters of the U.S. and falls under the regulatory authority of the Corps, Regional Board, and the CDFW.

If the onsite drainage feature will be impacted from implementation of the proposed project, the City will need to obtain the following regulatory approvals prior to impacts occurring within the identified jurisdictional areas: Corps CWA Section 404 Permit; Regional Board CWA Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement (SAA). The preparation of a formal jurisdictional delineation is recommended if site development will impact the onsite drainage feature.

4.7 SPECIAL-STATUS BIOLOGICAL RESOURCES

The CNDDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Cucamonga Peak and Guasti USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirty-seven (37) special-status plant species, fifty-three (53) special-status wildlife species, and four (4) special-status plant communities as having potential to occur within the Cucamonga Peak and Guasti quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Appendix C. Refer to Table C-1 for a determination regarding the potential occurrence of special-status plant and wildlife species within the project site.

4.7.1 Special-Status Plants

According to the CNDDDB and CNPS, thirty-seven (37) special-status plant species have been recorded in the Cucamonga Peak and Guasti quadrangles (refer to Appendix C). The project site consists of both disturbed and undeveloped land that has been subject to a variety of direct and indirect human-related disturbances from historical agricultural activities, grading activities, adjacent development, weed abatement, and storage activities. These disturbances and surrounding development have isolated the project site from undisturbed native plant communities and have reduced, if not eliminated, the ability of the project site to provide suitable habitat for special-status plant species. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the project site.

4.7.2 Special-Status Wildlife

According to the CNDDDB, fifty-three (53) special-status wildlife species have been reported in the Cucamonga Peak and Guasti quadrangles (refer to Appendix C). No special-status wildlife species were observed onsite during the habitat assessment. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site has a high potential to provide suitable habitat for Cooper's hawk (*Accipiter cooperii*); and a low potential to provide suitable habitat for great egret (*Ardea alba*), great blue heron (*Ardea herodias*), bells sage sparrow (*Artemisospiza belli belli*), burrowing owl, northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Dulzura kangaroo rat (*Dipodomys simulans*), snowy egret (*Egretta thula*), California horned lark (*Eremophila alpestris actia*), loggerhead shrike (*Lanius ludovicianus*), California gull (*Larus californicus*), San Diego desert woodrat (*Neotoma lepida intermedia*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and rufous hummingbird (*Selasphorus rufus*). Further it was determined that the project site does not provide suitable habitat for any of the other special-status wildlife species known to occur in the area since the project site has been heavily disturbed from onsite disturbances and surrounding development.

None of the aforementioned species are federally or state listed as endangered or threatened. In order to ensure impacts to Cooper's hawk, great egret, great blue heron, bells sage sparrow, burrowing owl, snowy egret, California horned lark, loggerhead shrike, California gull, and rufous hummingbird do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey shall be conducted within three (3) days prior to ground disturbance. With implementation of mitigation through the pre-construction nesting bird clearance survey, impacts to the aforementioned special-status avian species will be less than significant.

Northwestern San Diego pocket mouse, Dulzura kangaroo rat, San Diego desert woodrat, and Los Angeles pocket mouse were not captured onsite during the 2008 San Bernardino Kangaroo Rat Trapping Study conducted for the overall Central Park Project (LSA 2008). Even though the project site was determined have a low potential to support these special-status mammal species, due to the results of the trapping study, they are presumed absent from the project site and no impacts will occur to these species from site development.

Based on regional significance, the potential occurrence of burrowing owl, San Bernardino kangaroo rat and California gnatcatcher within the project site are described in further detail below.

Burrowing Owl

Burrowing owl is currently designated as a California Species of Special Concern. The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with level to gently-sloping areas characterized by open vegetation and bare ground. The western burrowing owl (*A.c. hypugaea*), which occurs throughout the western United States including California, rarely digs its own burrows and is instead dependent upon the presence of burrowing mammals (i.e., California ground squirrels, coyotes, and badgers) whose burrows are often used for roosting and nesting. The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. They also require low growth or open vegetation allowing line-of-sight observation of the surrounding habitat to forage and watch for predators. In California, the burrowing owl breeding season extends from the beginning of February through the end of August.

Despite a systematic search of the project site, no burrowing owls or recent sign (i.e., pellets, feathers, castings, or white wash) was observed during the field investigation. The project site provides minimal line-of-sight opportunities favored by burrowing owls. However, the majority of the project site lacks suitable burrows (>4 inches in diameter) capable of providing roosting and nesting opportunities. As a result, burrowing owl was determined to have a low potential to occur onsite. Further, no burrowing owls were observed onsite during the 2008 focused survey prepared by LSA. Out of abundance of caution and to ensure burrowing owl remain absent from the project site, it is recommended that a pre-construction burrowing owl clearance survey be conducted prior to ground disturbance.

San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat, federally listed as endangered, is one of several kangaroo rat species in its range. The Dulzura, the Pacific kangaroo rat (*Dipodomys agilis*) and the Stephens kangaroo rat (*Dipodomys stephensi*) occur in areas occupied by the San Bernardino kangaroo rat, but these other species have a wider habitat range. The habitat of the San Bernardino kangaroo rat is described as being confined to pioneer and intermediate Riversidean Alluvial Fan Sage Scrub (RAFSS) habitats, with sandy soils deposited by fluvial (water) rather than Aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs.

The San Bernardino kangaroo rat is one of three subspecies of the Merriam's kangaroo rat. The Merriam's kangaroo rat is a widespread species that can be found from the inland valleys to the deserts. The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainages. Most of the drainages have been historically altered as a result of flood control efforts and the resulting increased use of river resources, including mining, off-road vehicle use and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San

Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species (USFWS, 1998a). Primary Constituent Elements (PCE's) are physical or biological features essential to the conservation of a species for which its designated critical habitat is based on. Examples of PCE's include food, water, space for individual and population growth, cover or shelter, etc. The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for San Bernardino kangaroo rat are:

1. River, creek, stream, and wash channels; alluvial fans, flood plains, flood benches and terraces; and historic braided channels that are subject to dynamic geomorphological and hydrological processes;
2. Alluvial sage scrub and associated vegetation such as coastal sage scrub and chamise chaparral with a moderately open canopy;
3. Soil series consisting of sand, sandy loam, or loam within its geographical range; and
4. Upland areas proximal to flood plains containing suitable habitat (land adjacent to alluvial fan that provides Refugia).

The project site does not support Riversidian alluvial fan sage scrub plant communities, and is no longer exposed to hydrological processes needed to maintain the openness of suitable San Bernardino kangaroo rat habitat, and does not contain upland areas proximal to flood plains that contain suitable refuge habitat for San Bernardino kangaroo rat. The channelization of Deer Creek and surrounding development has eliminated the project site from being subjected to scouring regimes historically associated with Deer Creek that would have had the potential to provide suitable habitat for San Bernardino kangaroo rat. Based on these conditions, it was determined that the project site does not provide the requisite PCEs which are needed by San Bernardino kangaroo rat to be present. Therefore, it was determined that San Bernardino kangaroo rat is presumed absent from the project site. Further, San Bernardino kangaroo rat was not captured onsite during the 2008 focused trapping study conducted by LSA.

California Gnatcatcher

California gnatcatcher is a federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation. California gnatcatchers breed between mid-February and the end of August, with peak activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of California gnatcatcher remaining. Declines are attributed to loss of sage scrub habitat due to development, as well as cowbird nest parasitism.

The PCEs essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for California gnatcatcher are:

1. Dynamic and Successional sage scrub Habitats and Associated Vegetation (RAFSS, Coastal Sage-Chaparral Scrub, etc.) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and

2. Non-sage scrub habitats such as chaparral, grassland, and riparian areas, in proximity to sage scrub habitats that provide linkages to help with dispersal, foraging and nesting.

Non-sage scrub habitats such as chaparral, grassland, and riparian areas, in proximity to sage scrub habitats have the potential to provide linkages to help with dispersal, foraging and nesting.

The buckwheat scrub plant community onsite has been degraded from existing anthropogenic disturbances, and is isolated from occupied sage scrub habitats in the region. Based on these conditions, it was determined that the project site does not provide the requisite PCEs which are needed by California gnatcatcher to be present. Therefore, it was determined that California gnatcatcher is presumed absent from the project site. Further, California gnatcatcher was not observed onsite during the 2007 and 2008 focused surveys conducted by LSA.

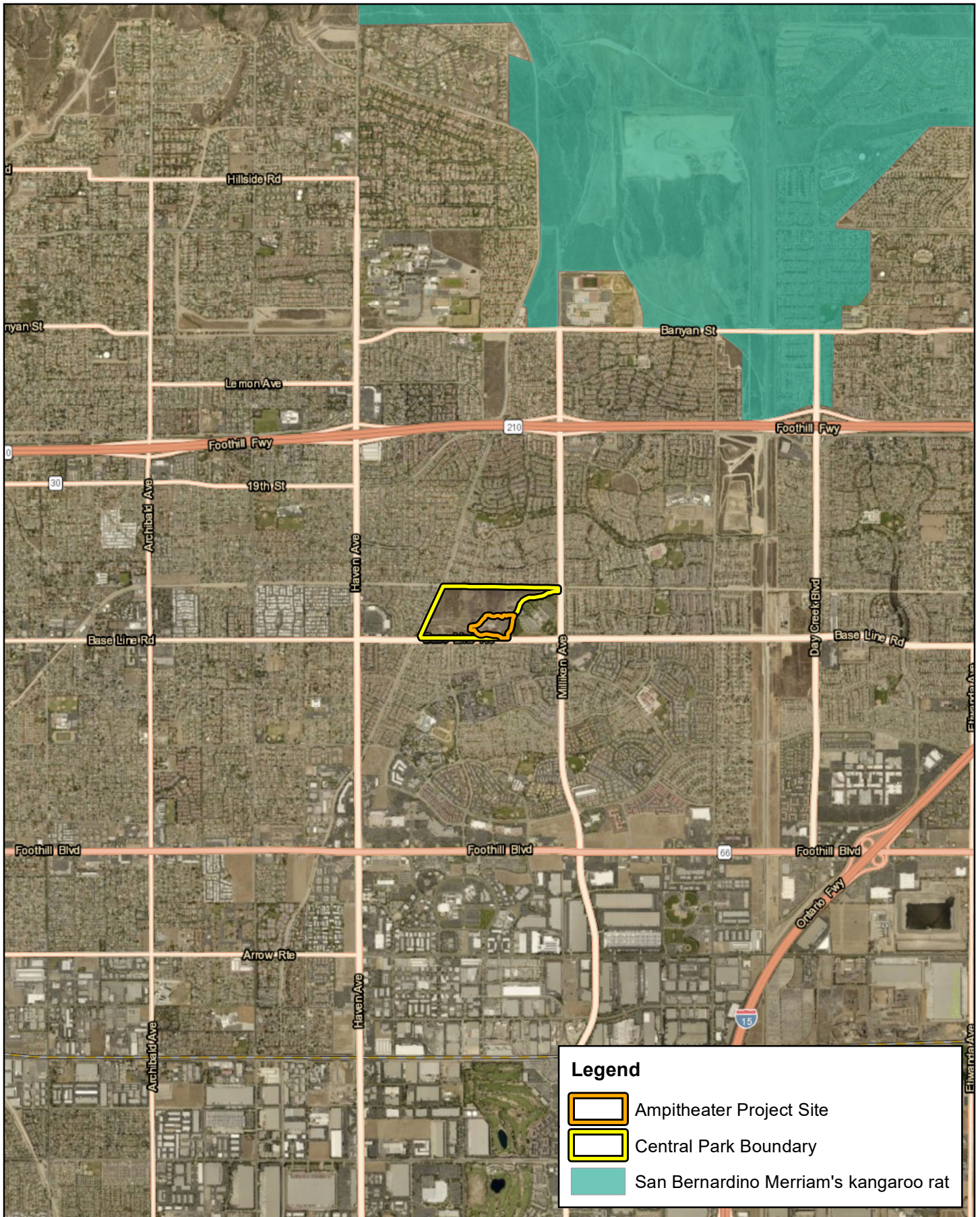
4.7.3 Special-Status Plant Communities

The CNDDDB lists four (4) special-status plant community as being identified within the Cucamonga Peak and Guasti USGS 7.5-minute quadrangles: California Walnut Woodland, Coastal and Valley Freshwater Marsh, Riversidean Alluvial Fan Sage Scrub, and Southern Sycamore Alder Riparian Woodland. No special-status plant communities were observed on-site.




4.8 CRITICAL HABITAT

Under the federal Endangered Species Act, “Critical Habitat” is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located within federally designated Critical Habitat. The closest Critical Habitat designation is located approximately 1.6 miles northwest of the project site for San Bernardino kangaroo rat (Exhibit 6, *Critical Habitat*). Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed project.

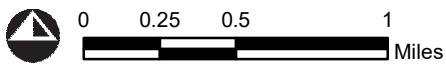


Legend

-  Ampitheater Project Site
-  Central Park Boundary
-  San Bernardino Merriam's kangaroo rat

CENTRAL PARK AMPITHEATER PROJECT
HABITAT ASSESSMENT

Critical Habitat



Source: ESRI Aerial Imagery, USFWS Critical Habitat, San Bernardino County

Section 5 Conclusion and Recommendations

The project site is located in an urbanized area and is primarily surrounded by existing development. The entire Central Project boundary is bordered existing residential developments to the north, south, east and west. The project site consists of both disturbed and undeveloped land that has been subject to a variety of direct and indirect human-related disturbances from historical agricultural activities, grading activities, adjacent development, weed abatement, and storage activities. In the decades since active agricultural activities (i.e., grape vineyards) ceased, native vegetation communities typical of disturbed areas have reestablished onsite.

Onsite anthropogenic disturbances have greatly disturbed the natural plant communities that once occurred within the boundaries of the project site, reducing their ability to provide suitable habitat for special-status plant and wildlife species. One (1) plant community was observed within the boundaries of the project site during the habitat assessment: buckwheat scrub. The project site also supports two land cover types that would be classified as disturbed and developed. The plant community and land cover types are described in further detail below.

In late 2003, a drainage channel was constructed on the northern portion of the project site to accommodate stormwater runoff associated with construction from Phase I of the Central Park Master Plan. Stormwater continues to enter the site via a culvert in the middle of the northern boundary of the site and flows to the west and off-site into Deer Creek Channel. The onsite drainage feature exhibits a surface hydrologic connection to downstream waters of the U.S. and falls under the regulatory authority of the Corps, Regional Board, and the CDFW. If the onsite drainage feature will be impacted from implementation of the proposed project, the City will need to obtain the following regulatory approvals prior to impacts occurring within the identified jurisdictional areas: Corps CWA Section 404 Permit; Regional Board CWA Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement (SAA).

No special-status plant species were observed onsite during the field survey. Onsite disturbances have reduced, if not eliminated, the ability of the project site to provide suitable habitat for special-status plant species. Based on habitat requirements for specific special-status plant species and the availability and quality of habitat needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species that were determined to have the potential to occur in the vicinity of the project site.

No special-status wildlife species were observed during the field investigation. Based on the field investigation, it was determined that the project site has a high potential to provide suitable habitat for Cooper's hawk; and a low potential to provide suitable habitat for great egret, great blue heron, bells sage sparrow, burrowing owl, northwestern San Diego pocket mouse, *Dulzura* kangaroo rat, snowy egret, California horned lark, loggerhead shrike, California gull, San Diego desert woodrat, Los Angeles pocket mouse, and rufous hummingbird. All remaining special-status wildlife species are presumed to be absent from the project site based on habitat requirements, availability and quality of habitat needed by each species, and known distributions.

Based on the proposed project footprint, and with the implementation of a pre-construction nesting bird clearance survey, none of the special-status species known to occur in the general vicinity of the project site will be directly or indirectly impacted from implementation of the proposed project. Therefore, it was determined that this project will have “no effect” on federally or State listed species or habitats known to occur in the general vicinity of the project site. Additionally, the project will have “no effect” on designated Critical Habitats.

Migratory Bird Treaty Act and Fish and Game Code Compliance

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Section 6 References

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**Appendix A Central Park Phasing Plan –
Amphitheater**



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| <ul style="list-style-type: none"> A. PACIFIC ELECTRIC TRAIL HEAD B. TERRACED GARDENS C. WATER CONSERVATION / DEMONSTRATION GARDEN D. AMPHITHEATER E. UNIVERSAL ACCESSIBLE PLAYGROUND F. VITICULTURE PAVILION G. UPPER PICNIC AREA AND EVENT AREA H. EVENT PARKING AREA | <ul style="list-style-type: none"> I. ADVENTURE AREA J. DOG PARK K. MULTI-PURPOSE FACILITY AND PARKING L. RECREATION POOL M. TENNIS COURTS N. MAINTENANCE YARD O. DEER CREEK CHANNEL TRAIL |
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NOTES:
 1. Phase order does not represent actual sequence of areas for improvement.
 2. Sub-phasing of improvements may occur within each identified phase.

Appendix B Site Photographs



Photograph 1: Looking north towards the northeast corner of the project site.



Photograph 2: Looking south towards the northeast corner of the project site.



Photograph 3: Looking northeast from the middle of the southern boundary of the project site.



Photograph 4: Looking southeast from the middle of the northern boundary of the project site.



Photograph 5: Looking south from the center of the eastern portion of the project site.



Photograph 6: Looking north from the center of the eastern portion of the project site.



Photograph 7: Looking west from the middle of the project site.



Photograph 8: Looking south from the middle of the northern boundary of the project site.



Photograph 9: Looking west over the outflowing culvert.



Photograph 10: Looking west along the drainage feature on the northern boundary of the project site.

Appendix C Potentially Occurring Special-Status Biological Resources

Table C-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES				
<i>Accipiter cooperii</i> Cooper's hawk	Fed: None CA: WL	Common yearlong resident of California. Typically forages in broken woodland and habitat edges with dense stands of coast live oak (<i>Quercus agrifolia</i>), riparian deciduous, or other forest habitat near water. Usually nests in dense riparian areas, usually near streams.	No	High: There is suitable foraging habitat throughout the site, but no suitable nesting opportunities onsite. This species is adapted to urban environments and occurs commonly.
<i>Agelaius tricolor</i> tricolored blackbird	Fed: None CA: CEND/ SSC	Highly colonial yearlong resident of California that frequents emergent wetlands, croplands, grassy fields, flooded land and along edges of ponds. Usually nests near fresh water, preferably in emergent wetland with tall, dense cattails (<i>Typha sp.</i>) or tules (<i>Schoenoplectus sp.</i>), but also in thickets of willow (<i>Salix sp.</i>), blackberry (<i>Rubus sp.</i>), and tall herbs.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Aimophila ruficeps canescens</i> southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (<i>Artemisia californica</i>), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	Presumed Absent: No suitable habitat is present within the project site.
<i>Anniella stebbinsi</i> southern California legless lizard	Fed: None CA: SSC	Occurs in sparsely vegetated habitat types including coastal sand dunes, chaparral, pine-oak woodland, desert scrub, open grassland, and riparian areas. Requires sandy or loose loamy substrates conducive to burrowing.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Ardea alba</i> great egret	Fed: None CA: None	Yearlong resident throughout California, except for the high mountains and deserts. Feeds and rests in fresh, and saline emergent wetlands, along the margins of estuaries, lakes, and slow-moving streams, on mudflats and salt ponds, and in irrigated croplands and pastures.	No	Low: The project site provides minimal foraging habitat, but no suitable nesting opportunities.
<i>Ardea herodias</i> great blue heron	Fed: None CA: None	Fairly common all year throughout most of California, in shallow estuaries and fresh and saline emergent wetlands. Less common along riverine and rocky marine shores, in croplands, pastures, and in mountains about foothills.	No	Low: The project site provides minimal foraging habitat, but no suitable nesting opportunities.
<i>Arizona elegans occidentalis</i> California glossy snake	Fed: None CA: SSC	Occurs in a wide variety of habitat types including open desert, grasslands, shrublands, chaparral, and woodlands. Prefers areas where the soil is loose and sandy which allows for burrowing.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Artemisospiza belli belli</i> Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	Low: Although isolated, the buckwheat scrub provides minimal habitat onsite.
<i>Asio otus</i> long-eared owl	Fed: None CA: SSC	Requires riparian or other thickets with small, densely canopied trees for roosting and nesting. Also occurs in dense conifer stands at higher elevations.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Aspidoscelis hyperythra</i> orange-throated whiptail	Fed: None CA: WL	Inhabits low-elevations coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats. Semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, and coastal chaparral.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	Fed: None CA: SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Athene cunicularia</i> burrowing owl	Fed: None CA: SSC	Common yearlong resident of southern California. Prefers open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Requires fossorial burrows for roosting and nesting surrounded by relatively short vegetation and open habitat for foraging and watching for predators. Also known to occupy man-made structures including drain pipes, debris piles, and development pads.	No	Low: The project site provides minimal habitat.
<i>Batrachoseps gabrieli</i> San Gabriel slender salamander	Fed: None CA: None	Known from select localities in the San Gabriel Mountains and the Mt. Baldy area of Los Angeles County and the western end of the San Bernardino Mountains in San Bernardino Co., with an elevation range of 1,200- 5,085 feet. Occurs on talus slopes surrounded by a variety of conifer and montane hardwood species, including bigcone spruce, pine, white fir, incense cedar, canyon live oak, black oak, and California laurel.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Bombus crotchii</i> Crotch bumble bee	Fed: None CA: None	Exclusive to coastal California east towards the Sierra-Cascade Crest; less common in western Nevada.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Calypte costae</i> Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Chaetodipus fallax fallax</i> northwestern San Diego pocket mouse	Fed: None CA: SSC	Occurs in desert and coastal habitats in southern California, Mexico, and northern Baja California, from sea level to at least 1,400 meters above msl. Found in a variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Requires low growing vegetation or rocky outcroppings, as well as sandy soils for burrowing.	No	Low: Although isolated, the buckwheat scrub provides minimal habitat onsite.
<i>Circus cyaneus</i> northern harrier	Fed: None CA: SSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	Fed: None CA: None	Prefers rocky areas in coastal sage and chaparral within granite or rocky outcrops. Occurs in coastal and cismontane southern California from interior Ventura Co. south.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Diadophis punctatus modestus</i> San Bernardino ringneck snake	Fed: None CA: None	Common in open, relatively rocky areas within valley-foothill, mixed chaparral, and annual grass habitats.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Dipodomys merriami parvus</i> San Bernardino kangaroo rat	Fed: END CA: SSC	Primarily found in Riversidean alluvial fan sage scrub (RAFSS) and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May also occur at lower densities in Riversidean upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to RAFSS habitat. Tends to avoid rocky substrates.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Dipodomys simulans</i> Dulzura kangaroo rat	Fed: None CA: None	Relatively common in chaparral, coastal sage scrub, Riversidean alluvial fan sage scrub, and peninsular juniper woodland habitats.	No	Low: Although isolated, the buckwheat scrub provides minimal habitat onsite.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	Fed: END CA: THR	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Egretta thula</i> snowy egret	Fed: None CA: None	Widespread in California along shores of coastal estuaries, fresh and saline emergent wetlands, ponds, slow-moving rivers, irrigation ditches, and wet fields. In southern California, common yearlong in the Imperial Valley and along the Colorado River.	No	Low: The project site provides minimal foraging habitat, but no suitable nesting opportunities.
<i>Elanus leucurus</i> white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Empidonax traillii</i> willow flycatcher	Fed: None CA: END	A rare to locally uncommon, summer resident in wet meadow and montane riparian habitats (2,000 to 8,000 ft) in the Sierra Nevada and Cascade Range. Most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	Fed: END CA: END	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Eremophila alpestris actia</i> California horned lark	Fed: None CA: WL	Occurs in meadows, grasslands, open fields, prairie, and alkali flats. This subspecies is typically found in coastal regions.	No	Low: The project site provides minimal foraging habitat.
<i>Eumops perotis californicus</i> western mastiff bat	Fed: None CA: SSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Lampropeltis zonata (parvirubra)</i> California mountain kingsnake (San Bernardino population)	Fed: None CA: CSC	Found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, Manzanita, and coastal sage scrub. Wooded areas near a stream with rock outcrops, talus or rotting logs that are exposed to the sun.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Lanius ludovicianus</i> loggerhead shrike	Fed: None CA: SSC	Common yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover. Requires suitable perches including trees, posts, fences, utility lines, or other perches.	No	Low: The project site provides minimal foraging habitat, but no suitable nesting opportunities.
<i>Larus californicus</i> California gull	Fed: None CA: WL	Require isolated islands in rivers, reservoirs and natural lakes for nesting, where predations pressures from terrestrial mammals are diminished. Uses both fresh and saline aquatic habitats at variable elevations and degrees of aridity for nesting and for opportunistic foraging.	No	Low: The project site provides minimal foraging habitat, but no suitable nesting opportunities.
<i>Lasiurus xanthinus</i> western yellow bat	Fed: None CA: SSC	Occurs in valley/foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts under palm trees and feeds in, and near, palm oases and riparian habitats.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Laterallus jamaicensis coturniculus</i> California black rail	Fed: None CA: THR/FP	Suitable habitat includes salt marshes, freshwater marshes, and wet meadows. In tidal areas they require dense cover of upland vegetation for protection from predators.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	Fed: None CA: SSC	Occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats, agricultural fields, or sparse coastal scrub.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	Fed: None CA: SSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	Low: Although isolated, the buckwheat scrub provides minimal habitat onsite.
<i>Nycticorax nycticorax</i> black-crowned night heron	Fed: None CA: None	Common in wetlands across North America, including saltmarshes, freshwater marshes, swamps, streams, rivers, lakes, ponds, lagoons, tidal mudflats, and wet agricultural fields. They require aquatic habitat for foraging and terrestrial vegetation for cover.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Onychomys torridus ramona</i> southern grasshopper mouse	Fed: None CA: SSC	Inhabits alkali desert scrub and other desert scrub habitats, and to a lesser extent succulent shrubs, desert washes, desert riparian, coastal scrub, mixed chaparral, and sagebrush habitats. Generally rare in valley foothill and montane riparian habitats. Prefers low to moderate shrub cover and requires friable soils.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Ovis canadensis nelsoni</i> desert bighorn sheep	Fed: None CA: FP	Require a variety of habitat characteristics related to topography, visibility, forage quality and quantity, and water availability (USFWS 2000). Prefer areas on or near mountainous terrain that are visually open, as well as steep and rocky. Alluvial fans and washed in flatter terrain is also used for foraging, water, and connectivity between mountainous areas. Tend to avoid dense vegetation and higher elevations that support chaparral.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	Fed: None CA: SSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	Low: Although isolated, the buckwheat scrub provides minimal habitat onsite.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	Fed: END CA: SSC	Associated with fine grain, sandy substrates in coastal strand, coastal dunes, river alluvium and coastal sage scrub habitats.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Phalacrocorax auritus</i> double-crested cormorant	Fed: None CA: WL	Prefers water less than 30 feet deep with rocky or gravel bottom. Rests in daytime and roosts overnight beside water on offshore rocks, islands, cliffs, dead branches of trees, wharfs, jetties, or even transmission lines.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Phrynosoma blainvillii</i> coast horned lizard	Fed: None CA: SSC	Found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Polioptila californica californica</i> coastal California gnatcatcher	Fed: THR CA: SSC	Common yearlong resident of southern California in sage scrub habitats that are dominated by California sagebrush (<i>Artemisia californica</i>). Prefers scrub habitat with more low-growing vegetation. Species generally occurs below 750 feet above mean sea level (msl) along the coast and below 1,500 feet above msl within inland regions.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Rana muscosa</i> southern mountain yellow-legged frog	Fed: END CA: END ; WL	Prefers high-altitude mountain streams, typically those with boulders in them. Always found in the water, on rocks, or within a foot or two of the water's edge.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Rhaphiomidas terminatus abdominalis</i> Delhi Sands flower-loving fly	Fed: END CA: None	DSF habitat is limited to areas that include Delhi fine sand, an aeolian (wind-deposited) soil type. The highest density of DSF have been found in habitat that includes a variety of plants including California buckwheat, California croton, deerweed, and telegraph weed.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Salvadora hexalepis virgultea</i> coast patch-nosed snake	Fed: None CA: SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Requires friable soils for burrowing.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Selasphorus rufus</i> rufous hummingbird	Fed: None CA: None	Breed in open or shrubby areas, forest openings, yards, and parks. During migration they are commonly found in disturbed areas where its food flowers are in bloom.	No	Low: The project site provides minimal habitat.
<i>Setophaga petichia</i> yellow warbler	Fed: None CA: SSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Spea hammondi</i> western spadefoot	Fed: None CA: SSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Spinus lawrencei</i> Lawrence's goldfinch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Spizella breweri</i> Brewer's sparrow	Fed: None CA: None	Habitats include sagebrush and brushy plains.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Thamnophis hammondi</i> two-striped garter snake	Fed: None CA: SSC	Occurs in or near permanent fresh water, often along streams with rocky beds and riparian growth up to 7,000 feet in elevation.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	Fed: None CA: SSC	Occurs in freshwater emergent wetlands, and moist, open areas along croplands and mud flats of lacustrine habitats. Prefers to nest in dense wetland vegetation characterized by tules, cattails, or other similar plant species along the border of lakes and ponds.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
SPECIAL-STATUS PLANT SPECIES				
<i>Acanthoscyphus parishii</i> var. <i>parishii</i> Parish's oxytheca	Fed: None CA: None CNPS: 4.2	Habitats include sandy or shale chaparral. Found at elevations ranging from 3,750 to 6,748 feet above mean sea level (msl). Blooming period is from June to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i> San Gabriel manzanita	Fed: None CA: None CNPS: 1B.2	Habitat includes rocky chaparral. Found at elevations ranging from 1,952 to 4,921 feet above msl. Blooming period is March.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Asplenium vespertinum</i> western spleenwort	Fed: None CA: None CNPS: 4.2	Occurs on rocky soils in chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 590 to 3,280 feet above msl. Blooming period is from February to June.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Calochortus catalinae</i> Catalina mariposa-lily	Fed: None CA: None CNPS: 4.2	Grows in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Found at elevations ranging from 49 to 2,297 feet. Blooming period is from March to June.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Calochortus plummerae</i> Plummer's mariposa-lily	Fed: None CA: None CNPS: 4.2	Prefers openings in chaparral, foothill woodland, coastal sage scrub, valley and foothill grasslands, cismontane woodland, lower montane coniferous forest and yellow pine forest. Often found on dry, rocky slopes and soils and brushy areas. Can be very common after a fire. From 328 to 5,577 feet in elevation. Blooming period is from May to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet. Blooming period is from April to June.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Cladium californicum</i> California saw-grass	Fed: None CA: None CNPS: 2B.2	Found in meadows and seeps, marshes and alkaline swamps or freshwater habitats. Found at elevations ranging from 197 to 5,249 feet. Blooming period is from June to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Claytonia lanceolata</i> var. <i>peirsonii</i> Peirson's spring beauty	Fed: None CA: None CNPS: 3.1	Habitats include subalpine coniferous forest and upper montane coniferous forest. Found at elevations ranging from 4,954 to 9,005 feet above msl. Blooming period is from March to June.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Deinandra paniculata</i> paniculate tarplant	Fed: None CA: None CNPS: 4.2	Occurs in coastal scrub, vernal pools, valley and foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet. Blooming period is from April to November.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Diplacus johnstonii</i> Johnston's monkeyflower	Fed: None CA: None CNPS: 4.3	Occurs in lower montane coniferous forest (scree, disturbed areas, rocky or gravelly roadside) habitat. Found at elevations ranging from 3,199 to 9,580 feet above msl. Blooming period is from May to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Eriogonum microthecum</i> var. <i>alpinum</i> alpine slender buckwheat	Fed: None CA: None CNPS: 4.3	Associated with alpine dwarf scrub and great basin scrub. Found at elevations ranging from 8,202 to 10,862 feet above msl. Blooming period is from July to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Eriogonum microthecum</i> var. <i>johnstonii</i> Johnston's buckwheat	Fed: None CA: None CNPS: 1B.3	Grows in rocky soils within subalpine coniferous forest and upper montane coniferous forest. Found at elevations ranging from 6,000 to 9,600 feet above msl. Blooming period is from July to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Eriogonum umbellatum</i> var. <i>minus</i> alpine sulphur-flowered buckwheat	Fed: None CA: None CNPS: 4.3	Occurs in gravelly soils within subalpine coniferous forest and upper montane coniferous forests. Found at elevations ranging from 5,906 to 10,066 feet above msl. Blooming period is from June to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Eriophyllum lanatum</i> var. <i>obovatum</i> southern Sierra woolly sunflower	Fed: None CA: None CNPS: 4.3	Found in sandy loam soils within lower and upper montane coniferous forests. Found at elevations ranging from 3,655 to 8,202 feet above msl. Blooming period is from June to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Fritillaria pinetorum</i> pine fritillary	Fed: None CA: None CNPS: 4.3	Associated with granitic and metamorphic soils within chaparral, lower montane coniferous forest, upper montane coniferous forest, subalpine coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 5,692 to 10,826 feet above msl. Blooming period is from May to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Galium angustifolium</i> ssp. <i>gabrielense</i> San Antonio Canyon bedstraw	Fed: None CA: None CNPS: 4.3	Grows in granitic, sandy or rocky soils within chaparral and lower montane coniferous forests. Found at elevations ranging from 3,937 to 8,694 feet above msl. Blooming period is from April to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Galium jepsonii</i> Jepson's bedstraw	Fed: None CA: None CNPS: 4.3	Found in granitic, rocky or gravelly soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 5,052 to 8,202 feet above msl. Blooming period is from July to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Galium johnstonii</i> Johnston's bedstraw	Fed: None CA: None CNPS: 4.3	Preferred habitats include chaparral, riparian woodland, lower montane coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 4,003 to 7,546 feet above msl. Blooming period is from June to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Heuchera caespitosa</i> urn-flowered alumroot	Fed: None CA: None CNPS: 4.3	Grows in rocky soils within cismontane woodland, lower montane coniferous forest, riparian forest, and upper montane coniferous forest. Found at elevations ranging from 3,789 to 8,694 feet above msl. Blooming period is from May to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	Fed: None CA: None CNPS: 1B.1	Occurs on sandy or gravelly soils in chaparral, woodlands, and coastal scrub plant communities. Found at elevations ranging from 230 to 2,657 feet. Blooming period is from February to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Juglas californica</i> southern California black walnut	Fed: None CA: None CNPS: 4.2	Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet. Blooming period is from March to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Juncus duranii</i> Duran's rush	Fed: None CA: None CNPS: 4.3	Habitats include lower and upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 5,801 to 9,199 feet above msl. Blooming period is from July to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Lepechinia fragrans</i> fragrant pitcher sage	Fed: None CA: None CNPS: 4.2	Occurs in chaparral habitat. Found at elevations ranging from 66 to 4,298 feet above msl. Blooming period is from March to October.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> ocellated humboldt lily	Fed: None CA: None CNPS: 4.2	Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet in elevation above msl. Blooming period is from March to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Lilium parryi</i> lemon lily	Fed: None CA: None CNPS: 1B.2	Prefers lower montane coniferous forest, riparian forests, upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 4,003 to 9,006 feet above msl. Blooming period is from July to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Linanthus concinnus</i> San Gabriel linanthus	Fed: None CA: None CNPS: 1B.2	Occurs in rocky, openings within chaparral, lower montane and upper montane coniferous forests. Found at elevations ranging from 4,987 to 9,186 feet above msl. Blooming period is from April to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Monardella australis</i> ssp. <i>jokerstii</i> Jokerst's monardella	Fed: None CA: None CNPS: 1B.1	Habitat includes chaparral and lower montane coniferous forest. Found on steep or talus slopes between breccia, secondary alluvial benches along drainages and washes. Found at elevations ranging from 4,429 to 5,741 feet above msl. Blooming period is from July to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Muhlenbergia californica</i> California muhly	Fed: None CA: None CNPS: 4.3	Found in mesic, seeps, and streambanks within chaparral, coastal scrub, lower montane coniferous forest, and meadows and seeps. Found at elevations ranging from 328 to 6,562 feet. Blooming period is from June to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	Fed: None CA: None CNPS: 1B.1	Coastal scrub, valley and foothill grasslands, and vernal pools. Grows in elevation from 49 to 2,297 feet in elevation. Blooming period ranges from April to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Oreonana vestita</i> woolly mountain-parsley	Fed: None CA: None CNPS: 1B.3	Associated with gravel and talus soils within lower montane coniferous forest, subalpine coniferous forest, and upper montane coniferous forest. Found at elevations ranging from 5,299 to 11,483 feet above msl. Blooming period is from March to September.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Phacelia mohavensis</i> Mojave phacelia	Fed: None CA: None CNPS: 4.3	Occurs in sandy or gravelly soils within cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Found at elevations ranging from 4,593 to 8,202 feet above msl. Blooming period is from April to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.

Scientific Name Common Name	Status	Habitat	Observed Onsite	Potential to Occur
<i>Phacelia stellaris</i> Brand's star phacelia	Fed: None CA: None CNPS: 1B.1	Occurs in coastal dunes and coastal sage scrub habitats. Grows in elevations ranging from 3 to 1,312 feet. Blooming period is from March to June.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	Fed: None CA: None CNPS: 2B.2	Chaparral, cismontane woodland, coastal scrub, riparian woodlands in sandy gravelly soils. Grows in elevation from 3 to 6,890 feet in elevation. Blooming period ranges from July to December.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Sagittaria sanfordii</i> Sanford's arrowhead	Fed: None CA: None CNPS: 1B.2	Grows in freshwater marshes and swamps. Found at elevations ranging from 0 to 2,132 feet above msl. Blooming period is from May to November.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	Fed: None CA: None CNPS: 4.3	Associated with chaparral and lower montane coniferous forest. Found at elevations ranging from 2,198 to 8,202 feet above msl. Blooming period is from May to August.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	Fed: None CA: None CNPS: 1B.2	Grows in cismontane woodland, coastal scrub, montane/coniferous forest, meadows, seeps, marshes, swamps, and valley/foothill grassland (vernally mesic). Can be found growing near ditches, streams, and springs within these habitats. Found at elevations ranging from 7 to 6,693 feet. Blooming period is from July to November.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
<i>Viola pinetorum</i> var. <i>grisea</i> grey-leaved violet	Fed: None CA: None CNPS: 1B.3	Associated with upper montane coniferous forest, subalpine coniferous forest, meadows and seeps. Found at elevations ranging from 4,921 to 11,155 feet above msl. Blooming period is from April to July.	No	Presumed Absent: There is no suitable habitat within or adjacent to the project site.
SPECIAL-STATUS PLANT COMMUNITIES				
California Walnut Woodland	CDFW Sensitive Habitat	Occurs on valley slopes and in valley bottoms, as well as around rocky outcrops. This habitat usually occurs in areas with relatively moist, fine soils. It can intergrade with coast live oak woodland and coast live oak forest in more mesic areas. The canopy is relatively open and is dominated by California walnut with a grassy understory.	No	Absent
Coastal and Valley Freshwater Marsh	CDFW Sensitive Habitat	Found along the coast and in coastal valleys near river mouths and around the margins of lakes and springs. Site lacks significant current and is permanently flooded by fresh water. Prolonged saturation permits accumulations of deep, peaty soils.	No	Absent
Riversidian Alluvial Fan Sage Scrub	CDFW Sensitive Habitat	Occur within broad washes of sandy alluvial drainages that carry rainfall runoff sporadically in winter and spring, but remain relatively dry through the remainder of the year. Is restricted to drainages and floodplains with very sandy substrates that have a dearth of decomposed plant material. These areas do not develop into riparian woodland or scrub due to the limited water resources and scouring by occasional floods.	No	Absent
Southern Sycamore Alder Riparian Woodland	CDFW Sensitive Habitat	Below 2,000 meters in elevation, sycamore and alder often occur along seasonally-flooded banks; cottonwoods and willows also are often present. Poison-oak, mugwort, elderberry and wild raspberry may be present in the understory.	No	Absent

U.S. Fish and Wildlife Service (USFWS) - Federal

END - Federally Endangered
THR - Federally Threatened

California Department of Fish and Wildlife (CDFW) - California

END - State Endangered
CEND - State Candidate Endangered
SSC - Species of Special Concern
WL - Watch List
FP - Fully Protected

California Native Plant Society (CNPS)

California Rare Plant Rank

1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
4 Plants of Limited Distribution – A Watch List

Threat Ranks

0.1 - Seriously threatened in California
0.2 - Moderately threatened in California
0.3 - Not very threatened in California

Appendix D Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits “take” of threatened or endangered species. “Take” under the ESA is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct.” The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered “take.” This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” and “rare” species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in “take” of individuals (defined in CESA as; “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by CDFW. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the

absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

- 1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
- 1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

- 2A- Plants Presumed Extirpated in California, But More Common Elsewhere
- 2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- 3- Plants about Which More Information is Needed - A Review List
- 4- Plants of Limited Distribution - A Watch List

Threat Ranks

- .1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- .2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- .3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of “waters of the U.S.,” including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define “fill material” to include any “material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States.” Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and “materials used to create any structure or infrastructure in the waters of the United States.” In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term “waters of the United States” is defined as follows:

- (i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
- (ii) All interstate waters, including interstate wetlands¹.
- (iii) The territorial seas.
- (iv) All impoundments of waters otherwise defined as waters of the United States under the definition.
- (v) All tributaries² of waters identified in paragraphs (i) through (iii) mentioned above.
- (vi) All waters adjacent³ to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

¹ The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

² The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

³ The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

- (vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernal pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) mentioned above.
- (viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as “waters of the United States” even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

- (i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.
- (ii) Prior converted cropland.
- (iii) The following ditches:
 - (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
 - (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
 - (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.
- (iv) The following features:
 - (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
 - (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
 - (C) Artificial reflecting pools or swimming pools created in dry land;
 - (D) Small ornamental waters created in dry land;
 - (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
 - (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
 - (G) Puddles.
- (v) Groundwater, including groundwater drained through subsurface drainage systems.
- (vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

- (vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

- (1) substantially obstruct or divert the natural flow of a river, stream, or lake;
- (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake;
or
- (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state’s authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although “waste” is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.



APPENDIX B2
2007 Biological Resources Report

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**GENERAL BIOLOGICAL RESOURCES
ASSESSMENT REPORT**

**CENTRAL PARK PROJECT
CITY OF RANCHO CUCAMONGA
SAN BERNARDINO COUNTY, CALIFORNIA**

LSA

October 1, 2007

**GENERAL BIOLOGICAL RESOURCES
ASSESSMENT REPORT**

**CENTRAL PARK PROJECT
CITY OF RANCHO CUCAMONGA
SAN BERNARDINO COUNTY, CALIFORNIA**

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LSA

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RESULTS AND EXISTING AND ADJACENT LAND USE

Topography and Soils

The site is relatively flat and ranges in elevation from approximately 1,300 to 1,360 feet. The soils present on site, as mapped by the Soil Conservation Service (USDA 2005), are Tujunga loamy sand (0–5% slopes) and Tujunga gravelly loamy sand (0–9% slopes). The proposed site is bordered on the north by a recreation trail and housing, on the east by community and senior center and Milliken Avenue, on the south by Base Line Road, and on the west by Deer Creek Channel.

Vegetation

The dominant plant community on-site is California sagebrush scrub (Holland 1996; Sawyer and Keeler-Wolf 1995). Dominant species identified in this plant community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), horehound (*Marrubium vulgare*), and deerweed (*Lotus scoparius*). Figure 3 is a vegetation map with photograph locations, and Figures 3A through 3C show typical conditions currently found on the site. A complete list of plant species observed is attached in Appendix A.

Wildlife

Typical wildlife observed or other presence noted (e.g., scat, tracks, and burrows) during the survey included desert cottontail (*Sylvilagus audubonii*), coyote (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), red-tailed hawk (*Buteo jamaicensis*), and Say's phoebe (*Sayornis saya*). A complete list of animal species observed is attached in Appendix A.

The literature review revealed a total of 69 sensitive species with the potential to occur within the nine USGS quadrangles surrounding the area of the proposed project site. Appendix B lists these species with a data summary for each and a determination as to the likelihood of the species occurring on the project site.

Other Species of Special Concern

Of the 54 other sensitive species identified in Appendix B, 41 are considered to be absent from the project site based on a lack of suitable habitat. One sensitive species, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), has a moderate probability of occurrence on the site. Twelve sensitive species (listed below) have a low probability for occurrence on the proposed site.

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*);
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*);
- Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*);
- Chaparral nolina (*Nolina cismontana*);
- Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*);
- Coastal western whiptail (*Aspidoscelis tigris stejnegeri*);

EXECUTIVE SUMMARY

LSA Associates, Inc. (LSA) was retained by the City of Rancho Cucamonga to prepare a general biological resources assessment for the proposed development of approximately 70 acres located at the northwest corner of Base Line Road and Milliken Avenue in the City of Rancho Cucamonga, San Bernardino County, California.

The following is a list of additional surveys required to complete environmental review.

- The southwest corner of the 100-acre parcel has been developed leaving approximately 70 acres of disturbed coastal sage scrub habitat.
- There is a drainage feature on the project site; thus, a formal jurisdictional delineation is recommended.
- The proposed project site does not lie within designated critical habitat for any listed species; however, presence/absence surveys are required for coastal California gnatcatcher (*Poliioptila californica californica*). Due to the presence of suitable habitat (approximately 35 acres of coastal sage scrub), there is potential for isolated pair(s) of gnatcatchers to be present on the proposed project site.
- The proposed project site does have suitable habitat for the listed San Bernardino Merriam's kangaroo rat (*Dipodomys merriami parvus*). The Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), a California Department of Fish and Game species of concern, also has a potential for occurrence on the project site. Small mammal trapping for these species is needed to determine their presence or absence on the proposed project site.
- The burrowing owl (*Athene cunicularia hypugaea*), a CDFG species of concern, has the potential to occur within the remnant vineyard and/or drainage feature on the project site. Focused presence/absence surveys are required to avoid impacts to any nesting owls that may occupy the site.

INTRODUCTION

LSA Associates, Inc. (LSA) conducted a biological resources assessment survey for the proposed development project. The southeast portion of the parcel (approximately 30 acres) has already been developed leaving approximately 70 acres for development. The project site is located at the northwest corner of Milliken Avenue and Base Line Road in the City of Rancho Cucamonga, San Bernardino County, California. This report presents the results of a literature review, a field survey, and identification of potential jurisdictional waters.

PROJECT DESCRIPTION AND LOCATION

The proposed project is to develop the remaining approximately 70 acres of the 100-acre site. Specifically, the site is located in the southeast $\frac{1}{4}$ and a portion of the southwest $\frac{1}{4}$ of the southeast $\frac{1}{4}$ of Section 36, Township 1 North, Range 7 West, in the City of Rancho Cucamonga, San Bernardino County, California, as shown on the *Cucamonga Peak, California* and *Guasti, California* 7.5-minute series U.S. Geological Survey (USGS) topographic maps (Figure 1).

The project includes the development of Central Park Phase II. Phase I is developed (Figure 2). Phase II will encompass the remaining 70 acres of the Central Park site. Proposed uses for Phase II of Central Park include a tennis complex, a gymnasium, an aquatic center, an indoor pool, a fire station, maintenance yard, an amphitheater, overnight family camping, group picnic facilities, lake development, potential parking structure, equestrian facilities, adjacent regional trail, and associated parking.

BACKGROUND

Species of Special Concern

"Species of Special Concern" is a designation assigned by the California Department of Fish and Game (CDFG) to animals and plants that are thought to be at the beginning stage of becoming threatened or endangered. Legal protection for sensitive species varies widely, from the comprehensive protection extended to listed threatened/endangered species to no legal status at present. The CDFG, U.S. Fish and Wildlife Service (USFWS), local agencies, and special interest groups, such as the California Native Plant Society (CNPS), publish watch lists of declining species. Species on watch lists can be included as part of the sensitive species assessment. Non-listed species that are considered sensitive species, species of concern or are candidates for state and/or federal listing are also included in the species of special concern discussion.

Inclusion in the sensitive species analysis is based on the following criteria:

1. Direct observation of the species or its sign in the study area or immediate vicinity during surveys conducted for this study or reported in previous biological studies;
2. Sighting by other qualified observers;
3. Record reported by the California Natural Diversity Data Base (CNDDDB) published by CDFG;
4. Presence or location of specific species lists provided by private groups (e.g., CNPS); or
5. Study area lies within known distribution of a given species and contains appropriate habitat.

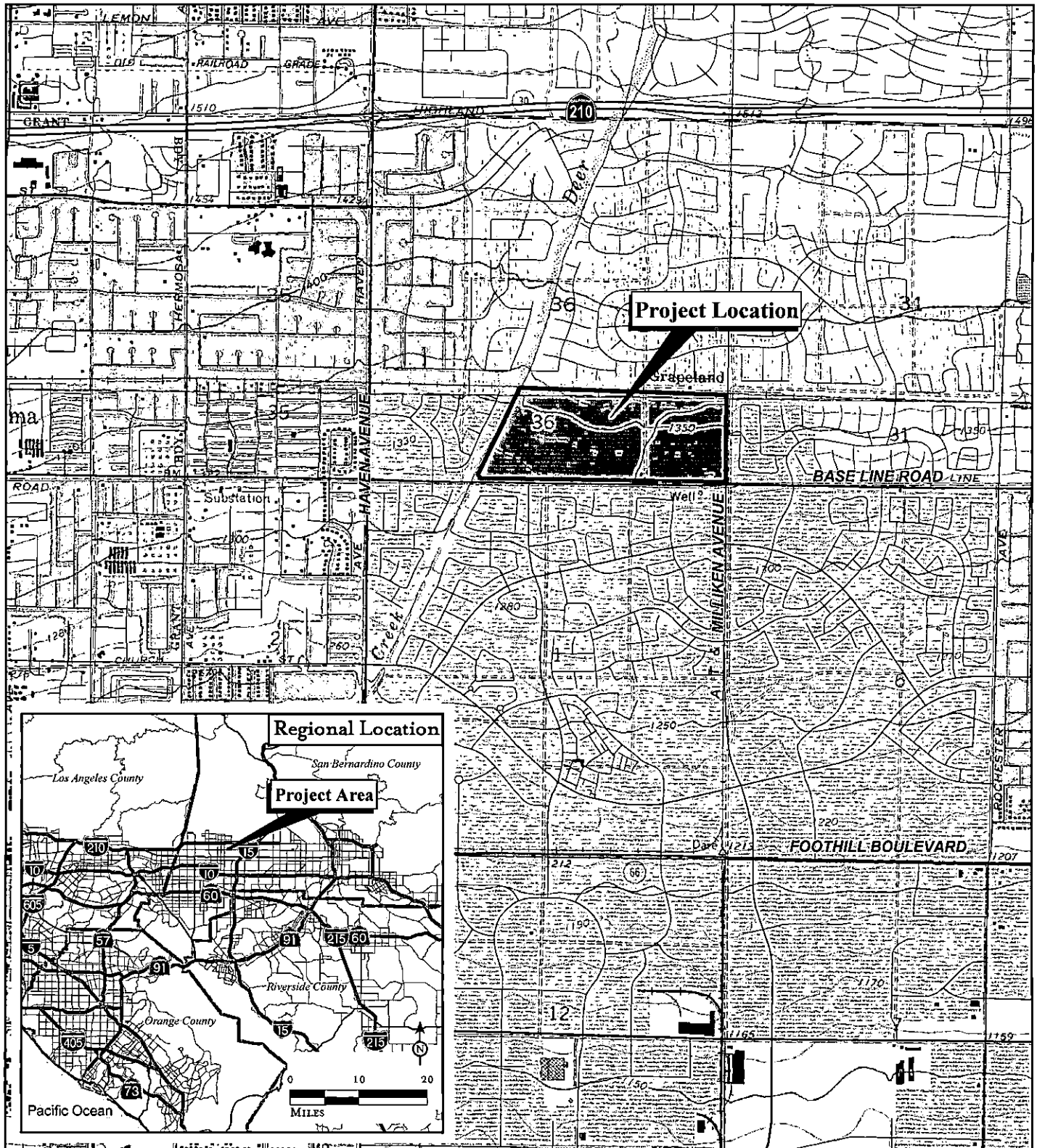
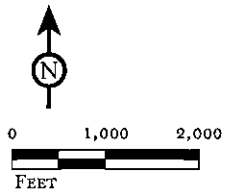


FIGURE 1

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SOURCE: USGS 7.5' Quads: Cucamonga Peak(1988), Guasti (1981), CA; Thomas Bros., 2006

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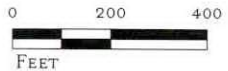
Central Park
General Biological Report

Regional and Project Location



FIGURE 2

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SOURCE: RJM Design Group Inc, 2007.

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Threatened and Endangered Listed Species

The USFWS designates as threatened or endangered, species that are at risk of extinction. The USFWS may also adopt recovery plans that identify specific areas that are essential to the conservation of a listed species. Critical habitat areas which may require special management considerations or protections can also be designated.

Protected Bird Species

Most bird species are protected under the Migratory Bird Treaty Act (MBTA) and under the California Fish and Game Code. It is unlawful to take, possess, or needlessly destroy any bird of prey or the nests or eggs of any kind of bird species except as otherwise provided in California Fish and Game Codes and regulations. Disturbance of any active bird nest during the breeding season is prohibited. Disturbances at the active nesting territories should be avoided during the nesting season, typically February 1 through August 31.

Jurisdictional Waters and Streambeds

The U.S. Army Corps of Engineers (ACOE), under Section 404 of the Federal Clean Water Act (CWA), regulates discharges of dredged or fill material into "waters of the United States." These waters include wetlands and non-wetland areas including ephemeral drainage courses. The ACOE typically regulates as non-wetland waters of the U.S. any drainage displaying an "ordinary high water mark" (OHWM). In order to be considered a jurisdictional wetland under Section 404 of the CWA, an area must possess hydrophytic vegetation, hydric soils, and wetland hydrology.

The Regional Water Quality Control Board (RWQCB) is responsible for the administration of Section 401 of the CWA, through water quality certification of any activity that may result in a discharge to jurisdictional waters of the U.S. The RWQCB also regulates discharges to "waters of the State," including wetlands, under the California Porter-Cologne Water Quality Control Act. The CDFG, under Sections 1600 et seq. of the California Fish and Game Code, regulates alterations to lakes, rivers, and streams. A stream is defined by the presence of a channel bed and banks and at least an ephemeral flow of water.

Wildlife Movement, Corridors, and Nursery Sites

Wildlife movement includes seasonal movement along migration corridors, as well as daily movements for foraging and may include movement of large mammals, riparian corridors providing cover for migrating birds, routes between breeding waters and upland habitat for amphibians, and between roosting and feeding areas for birds.

Local Policies and Ordinances Protecting Biological Resources

City and county general plans and development ordinances may include regulations or policies governing biological resources. For example, policies may include tree preservation, locally designated species survey areas, local species of interest, and significant ecological areas.

Direct Effects

Direct effects are impacts that occur at the same time and in the location of the actual construction work. The associated impacts with construction activities have the potential to result in the destruction, disturbance, and removal of plants, animals, watercourses, and natural communities.

Indirect Effects

Indirect effects are impacts caused by the project action but are later in time or farther in distance from the actual construction work. Indirect effects include growth inducement, changes in land use patterns, increased human intrusion, population growth, noise, and impacts to air quality, wind movements, water quality, hydrology, plant communities, wildlife movement, and regional ecosystems.

Cumulative Effects

Cumulative impacts refer to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects. Cumulative impact assessments are difficult because the consequences triggered by the impacts affect resources that function as part of a larger complex natural system, and because the effects may be removed in time and space and may not be apparent when only considering the local and short-term direct impacts.

METHODS

Literature Search

A literature review was conducted to determine the existence or potential occurrence of sensitive plant and animal species on the proposed project site or in the vicinity. Database records for the *Cucamonga Peak, California; Guasti, California; Corona North, California; Fontana, California; Ontario, California; Mt. Baldy, California; Devore, California; Prado Dam, California; and Riverside West, California* USGS 7.5-minute quadrangles were reviewed on June 27, 2007, using the CDFG's *Rarefind 3 California Natural Diversity Data Base (CNDDDB) 2007* and the *CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPS 2007)*. A current aerial photograph (Eagle Aerial 2006) was also reviewed. Maps of USFWS-designated critical habitat were used to determine the location of critical habitats relative to the project site.

General Biological Survey

A reconnaissance-level field survey was conducted on June 28, 2007, by LSA Assistant Wildlife Biologist Lisa Wadley, who noted general site conditions, vegetation, potential jurisdictional areas of ACOE and CDFG, and suitability of habitat for various sensitive elements. All plant and animal species observed or otherwise detected during this field survey were noted. A list of plants and animals observed is provided in Appendix A.

RESULTS AND EXISTING AND ADJACENT LAND USE

Topography and Soils

The site is relatively flat and ranges in elevation from approximately 1,300 to 1,360 feet. The soils present on site, as mapped by the Soil Conservation Service (USDA 2005), are Tujunga loamy sand (0–5% slopes) and Tujunga gravelly loamy sand (0–9% slopes). The proposed site is bordered on the north by a recreation trail and housing, on the east by community and senior center and Milliken Avenue, on the south by Base Line Road, and on the west by Deer Creek Channel.

Vegetation

The dominant plant community on-site is California sagebrush scrub (Holland 1996; Sawyer and Keeler-Wolf 1995). Dominant species identified in this plant community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), horehound (*Marrubium vulgare*), and deerweed (*Lotus scoparius*). Figure 3 is a vegetation map with photograph locations, and Figures 3A through 3C show typical conditions currently found on the site. A complete list of plant species observed is attached in Appendix A.

Wildlife

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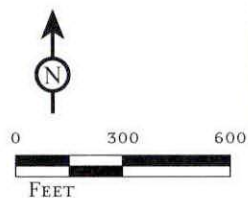
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Of the 54 other sensitive species identified in Appendix B, 41 are considered to be absent from the project site based on a lack of suitable habitat. One sensitive species, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), has a moderate probability of occurrence on the site. Eleven sensitive species (listed below) have a low probability for occurrence on the proposed site.

- Chaparral sand-verbena (*Abronia villosa* var. *aurita*);
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- Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*);
- Chaparral nolina (*Nolina cismontana*);
- Belding's orange-throated whiptail (*Aspidoscelis hyperythra beldingi*);
- Coastal western whiptail (*Aspidoscelis tigris stejnegeri*);



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- | | | |
|----------------------|----------------------|-------------------|
| PHASE BOUNDARY | DRAINAGE FEATURE | REMNANT VINEYARDS |
| COASTAL SAGE SCRUB | GRADED/DISCED AREAS | STAGING/STORAGE |
| DEVELOPED (PHASE I) | NON-NATIVE GRASSLAND | |
| PHOTOGRAPH LOCATIONS | | |

FIGURE 3

Central Park
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Vegetation, Existing Land Use, Site Photograph Map



PHOTOGRAPH 1: *View of earthen drainage feature as seen from north boundary facing south.*



PHOTOGRAPH 2: *View of recreational trail that borders project site's north boundary as seen facing west from north boundary.*

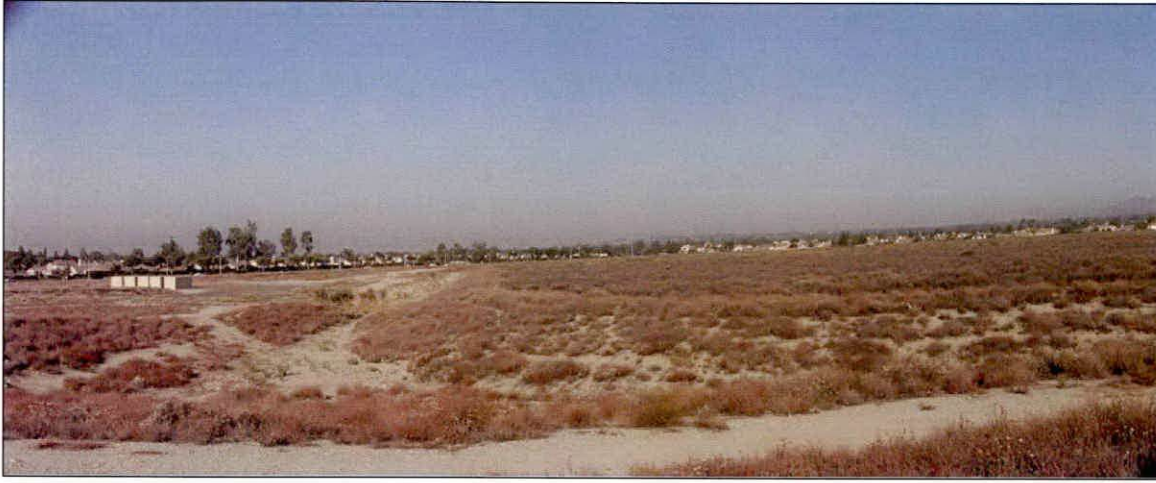


PHOTOGRAPH 3: *Panoramic view of graded/disked area and storage area as seen from the northeast corner of the site facing west.*

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FIGURE 3A

*Central Park
General Biological Report
Site Photographs*



PHOTOGRAPH 4: *View of Coastal Sage Scrub vegetation and drainage feature as seen from the center of the project site facing southwest.*



PHOTOGRAPH 5: *View of drainage feature in south half of the project site as seen facing west.*

FIGURE 3B

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*Central Park
General Biological Report*

Site Photographs



PHOTOGRAPH 7: *View of drainage feature and culvert on project site as seen facing Base Line Road (south boundary).*



PHOTOGRAPH 8: *View of access road found along west boundary of the project site.*

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FIGURE 3C

*Central Park
General Biological Report
Site Photographs*



PHOTOGRAPH 7: *View of drainage feature as shown facing southwest towards Baseline Road.*



PHOTOGRAPH 8: *View of culvert in the center of the site as seen facing southeast. Showing mule fat and California buckwheat.*

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FIGURE 3D

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Site Photographs

- Northern red-diamond rattlesnake (*Crotalus ruber ruber*);
- Bell's sage sparrow (*Amphispiza belli belli*);
- Western burrowing owl (*Athene cunicularia hypugaea*);
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*); and
- San Diego desert woodrat (*Neotoma lepida intermedia*).

Potential Jurisdictional Waters and Wetlands

The drainage feature present on-site flows from the north boundary to a culvert at the southwest corner of the project site. Currently, the channel is earthen and appears to flow beneath Base Line Road and tie into the Deer Creek Channel. Vegetation identified in the drainage feature includes mule fat (*Baccharis salicifolia*), tree tobacco (*Nicotiana glauca*), California buckwheat, and London rocket (*Sisymbrium irio*). This drainage feature is a potential jurisdictional area and a formal jurisdictional delineation is required since the drainage is tributary to traditional navigable waters.

CEQA Impact Significance Criteria and Thresholds of Significance

The proposed project will have a significant effect on the environment if it will cause any of the following to occur:

- The proposed project would substantially and adversely affect, either directly or through habitat modifications, any candidate for listing, any listed threatened, or endangered species of plant or animal or the habitat of the species; or
- The proposed project would substantially affect any riparian habitat or other sensitive natural community identified in local or regional plan, policies, regulations, or by the CDFG or USFWS; or
- The proposed project would substantially and adversely affect federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruptions, or other means; or
- The proposed project would interfere substantially with the movement of any 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; or
- The proposed project would conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance; or
- The proposed project would conflict with provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Special Interest Plant Communities

The proposed project site's dominant plant community is disturbed coastal sage scrub. This plant community is not considered to be a sensitive natural community.

Threatened and Endangered Species

In total, 15 federal/state listed species were identified as potentially present in the project vicinity. Thirteen of the federal/state listed species are considered to be absent from the project site based on a lack of suitable habitat.

One listed mammal, the San Bernardino Merriam's kangaroo rat, has a low potential of occurrence on the proposed project site. There is a small drainage feature that meanders through the proposed project site that provides marginally suitable habitat (gravelly and sandy soils). The nearest occurrence of this species is approximately ten miles north of the site. Small mammal trapping for this species is needed to determine its presence or absence on the proposed project site.

Coastal California Gnatcatcher. The federally threatened coastal California gnatcatcher (*Polioptila californica californica*) (CAGN) has a low potential of occurring within the project site. Typically the CAGN occurs in or near sage scrub habitat. The majority of plant species found in sage scrub habitat are low-growing, drought-deciduous shrubs and sub-shrubs. Generally, most sage scrub habitats are dominated by one or more of the following: California sagebrush, California buckwheat, California encelia (*Encelia californica*), brittlebush (*Encelia farinosa*), white sage (*Salvia apiana*), purple sage (*Salvia leucophylla*), and black sage (*Salvia mellifera*). Often the sage scrub occurs in a patchy, or mosaic, distribution pattern throughout the range of the CAGN. CAGN also uses chaparral, grassland, and riparian habitats; these areas are used for foraging and dispersal.

The CAGN is nonmigratory and defends breeding territories ranging in size from 2 to 4 acres and has a reported home range of between 13 and 39 acres in size. The breeding season for the CAGN extends from late February through July, with the peak of nest initiations (startups) occurring from mid-March through mid-May. Dispersal of juveniles generally requires a corridor of native vegetation providing certain foraging and shelter requisites to link larger patches of appropriate sage scrub vegetation. Juvenile CAGN are capable of dispersing long distances (up to 14 miles) across fragmented and highly disturbed sage scrub habitat, like those found along highway and utility corridors or remnant mosaics of habitat adjacent to developed lands. Generally, however, the species disperses short distances through contiguous undisturbed habitat (Federal Register Notice/Volume 68, No. 79 Thursday April 24, 2003).

In the CDFG CNDDDB, two occurrences have been reported within 5 miles east of the project site. The first reported occurrence is "0.25 mile east/southeast of the intersection of Willow Drive and the south end of Poplar Avenue, in the Jurupa Mountains" (CNDDDB 1998) a. The second reported occurrence is "south side of Base Line Road, 0.75 mile west of Etiwanda Avenue, between Fontana and Rancho Cucamonga" (CNDBB 1998)b.

Approximately 35 acres of coastal sage scrub is present on the project site that provides moderately suitable nesting and foraging habitat for this listed species. A focused survey for this species is

needed to determine its presence or absence on the proposed project site. If CAGN are found to be present on the site, consultation with the CDFG will be required to obtain impact minimization, avoidance, and relocation procedures.

Non-listed Sensitive Species

The sensitive species identified in Appendix B as potentially present on the proposed project site have limited population distribution in southern California and land development is further reducing their ranges and numbers. These species have no official state or federal protection status, but require consideration under the CEQA. Because the proposed project site is bordered by existing development and soon-to-be developed land, impacts to these sensitive species are not considered significant.

Los Angeles Pocket Mouse. The Los Angeles pocket mouse is a CDFG species of special concern that has a moderate potential of occurrence within the project site. Specific habitat identified on site includes sandy soil for burrowing, a gravelly drainage feature, and California sagebrush scrub. The nearest occurrence of this species is two miles northeast of the site, north of San Bernardino freeway (I-10), west side of Etiwanda Avenue, Fontana. Small mammal trapping for this species is needed to determine its presence or absence on the proposed project site.

Western Burrowing Owl. The burrowing owl is protected by the MBTA and under the California Fish and Game Code. It is unlawful to take, possess, or needlessly destroy any bird of prey or the nests or eggs of any kind of bird species except as otherwise provided in CDFG Codes and regulations. Disturbance of any active bird nest during the breeding season is prohibited. Disturbances at the active nesting territories should be avoided during the nesting season; for the burrowing owl nesting season is typically February 1 through August 31.

Suitable habitat is present on the project site in the form of remnant vineyards adjacent to an earthen drainage feature. Both areas provide suitable burrows that can be occupied and utilized by the burrowing owl. A focused burrowing owl survey is recommended to determine the presence or absence of this species and to avoid impacts to a CDFG sensitive species. A pre-construction survey may also be necessary. If owls are found to be present on the site, consultation with the CDFG will be required to obtain impact minimization, avoidance, and relocation procedures.

Jurisdictional Waters

Potential jurisdictional waters regulated by the ACOE and CDFG are present on the site. A jurisdictional delineation is required to determine extent of jurisdiction.

Habitat Fragmentation and Wildlife Movement

The project site is surrounded by residential housing borders on the north, south, and west. A community center and senior citizen center borders the site on the east. The development of the 70

acres will not have a significant impact related to habitat fragmentation or wildlife movement in the area.

Local Policies and Ordinances

There are no additional local policies or ordinances that the project site would need to observe.

Adopted Habitat Conservation Plans

The site does not lie within a draft or adopted habitat conservation plan area.

Cumulative Effects

Cumulative impacts refer to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects (Section 15130 of the *CEQA Guidelines*) (State of California 2007). Due to continuing development growth in the City of Rancho Cucamonga, impacts are not considered to be cumulatively significant.

CONCLUSIONS

The approximately 70-acre site is vegetated by disturbed California sagebrush scrub, 35 acres of this has the potential to provide suitable California gnatcatcher habitat. Impacts to this plant community are not considered significant.

There are potential jurisdictional areas regulated by the ACOE and CDFG on the project site. A drainage feature is present that flows from the north boundary to a culvert at the southwest corner of the project site. This drainage feature is most likely to be jurisdictional and a delineation survey and report is recommended to document extent of potential waters of the U.S.

The proposed project site does not lie within designated critical habitat for any listed species; however, presence/absence surveys are required for coastal California gnatcatcher. Due to the presence of suitable habitat (approximately 35 acres of coastal sage scrub), there is potential for isolated, pair(s) of gnatcatchers to be present on the proposed project site. If CAGN are found to be present on the site, consultation with the CDFG will be required to obtain impact minimization, avoidance, and relocation procedures.

The proposed project site has suitable habitat for the listed San Bernardino Merriam's kangaroo rat (SBKR). The Los Angeles pocket mouse, a CDFG species of concern, also has a potential for occurrence on the project site. Small mammal trapping for these species is needed to determine their presence or absence on the proposed project site. If the SBKR or Los Angeles pocket mouse is found to be present on the site, consultation with the agencies will be required to obtain impact minimization, avoidance, and relocation procedures.

The burrowing owl is protected by the MBTA and under the California Fish and Game Code. Suitable habitat is present on the project site. A focused burrowing owl survey is recommended to determine

the presence or absence of this species and to avoid impacts to a CDFG sensitive species. A pre-construction survey may also be necessary. If owls are found to be present on the site, consultation with the CDFG will be required to obtain impact minimization, avoidance, and relocation procedures.

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Species Observed

Scientific Name	Common Name
Asteraceae	Sunflower family
<i>Artemisia californica</i>	California sagebrush
<i>Baccharis salicifolia</i>	Mule fat
<i>Ericameria pinifolia</i>	Pine goldenbush
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Pseudognaphalium stramineum</i>	Cottonbatting plant
<i>Senecio flaccidus</i>	Shrubby butterweed
Boraginaceae	Borage family
<i>Cryptantha</i> sp.	Cryptantha
Brassicaceae	Mustard family
<i>Hirschfeldia incana</i>	Shortpod mustard
<i>Sisymbrium irio</i>	London rocket
Cactaceae	Cactus family
<i>Opuntia basilaris</i>	Beavertail cactus
Fabaceae	Pea family
<i>Lotus scoparius</i>	Deerweed
Lamiaceae	Mint family
<i>Marrubium vulgare</i>	Horehound
Polygonaceae	Buckwheat family
<i>Eriogonum fasciculatum</i>	California buckwheat
Scrophulariaceae	Figwort family
<i>Penstemon spectabilis</i>	Royal penstemon
Solanaceae	Nightshade family
<i>Nicotiana glauca</i>	Tree tobacco
Vitaceae	Grape family
<i>Vitis vinifera</i>	Cultivated grape
Poaceae	Grass family
<i>Schismus barbatus</i> (non-native species)	Common Mediterranean grass
ANIMALS OBSERVED	
Birds	
Accipitridae	Kites, Hawks, and Eagles
<i>Buteo jamaicensis</i>	Red-tailed hawk
Falconidae	Falcons
<i>Falco sparverius</i>	American kestrel
Charadriidae	Plovers and Lapwings
<i>Charadrius vociferus</i>	Killdeer

Species Observed

Scientific Name	Common Name
Trochilidae	Hummingbirds
<i>Archilochus alexandri</i>	Black-chinned hummingbird
<i>Calypte anna</i>	Anna's hummingbird
<i>Selasphorus rufus</i>	Rufous hummingbird
Tyrannidae	Tyrant Flycatchers
<i>Sayornis saya</i>	Say's phoebe
<i>Tyrannus verticalis</i>	Western kingbird
Hirundinidae	Swallows
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	House finch
Mammals	
Leporidae	Rabbits and Hares
<i>Sylvilagus audubonii</i>	Desert cottontail
Sciuridae	Squirrels
<i>Spermophilus beecheyi</i>	California ground squirrel
Canidae	Foxes, Wolves and Dogs
<i>Canis latrans</i>	Coyote

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Plants				
<i>Abronia villosa</i> var. <i>aurita</i> Chaparral sand-verbena	US: - CA: SP CNPS: 1B	Sandy areas in chaparral and coastal sage scrub 80 to 1,600 meters (300 to 5,300 feet) elevation. Known only from Riverside, Orange (believed extirpated), and San Diego Counties.	January through August (annual herb)	Absent: The proposed project site lies outside the known range for this species.
<i>Ambrosia pumila</i> San Diego ambrosia	US: FE CA: SP CNPS: 1B	Occurs in open habitats in coarse substrates near drainages, and in upland areas on clay slopes or on the dry margins of vernal pools. This species occurs in a variety of associations dominated by sparse grasslands or marginal wetland habitats such as river terraces, pools, and alkali playas. Known populations in Riverside County are associated with silty alkaline soils in open, gently-sloped grasslands. Known from western San Diego County, southwestern Riverside County (at Skunk Hollow, and north of Lake Elsinore along Nichols Road), and Baja California from 20 to 415 meters (70 to 1,400 feet) elevation.	Generally non-flowering (perennial herb)	Absent: Suitable habitat (open habitats in coarse substrates near drainages or upland areas on clay slopes or on the dry margins of vernal pools) is not present on the proposed project site for this species.
<i>Arenaria paludicola</i> Marsh sandwort	US: FE CA: SE CNPS: 1B	Found in freshwater marshes and swamps. This plant was historically found in scattered colonies in California and Washington. Currently, the only known extant population is on Nipomo Mesa; elevations 3 to 180 meters (10 to 600 feet). The last known record of this species in Riverside and San Bernardino Counties is from 1899.	May through August	Absent: Suitable habitat (freshwater marshes and swamps) is not present on the proposed project site for this species.
<i>Aster greatae</i> Greata's aster	US: - CA: SP CNPS: 1B	Broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland/mesic; elevation 300 to 2,010 meters (1,000 to 6,600 feet). Known from Los Angeles County.	June through October (perennial herb)	Absent: Suitable habitat (upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland/mesic) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Atriplex coulteri</i> Coulter's saltbush	US: – CA: SP CNPS: 1B	Alkaline or clay soils in ocean bluffs and ridgetops and alkaline low places in coastal bluff scrub, coastal dunes, coastal sage scrub, and valley and foothill grasslands below 460 meters (1,500 feet) elevation. In California, known only from Los Angeles, Orange, Santa Barbara, San Bernardino, and San Diego Counties. Reports of this species from Riverside County are based on misidentification of <i>Atriplex serenana</i> ssp. <i> davidsonii</i> (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	March through October (perennial herb)	Absent: Suitable habitat (alkaline or clay soils) is not present on the proposed project site for this species.
<i>Berberis nevinii</i> Nevin's barberry	US: FE CA: SE CNPS: 1B	Gravelly wash margins in alluvial scrub, or coarse soils in chaparral; typically 275 to 825 meters (900 to 2,700 feet) elevation; Los Angeles, San Bernardino, Riverside, and San Diego Counties.	Blooms March through April (evergreen shrub, survey year-round)	Absent: Suitable habitat (gravelly wash margins in alluvial scrub or coarse soils in chaparral) is not present on the proposed project site for this species.
<i>Calochortus clavatus</i> var. <i> gracilis</i> Slender mariposa lily	US: – CA: SP CNPS: 1B	Shaded foothill canyons in areas of chaparral; typically 360 to 1,000 meters (1,200 to 3,300 feet) elevation; known only from San Gabriel Mountains of Los Angeles and San Bernardino Counties.	March	Absent: Suitable habitat (foothill canyons in areas of chaparral) is not present on the proposed project site for this species.
<i>Calochortus plummerae</i> Plummer's mariposa lily	US: – CA: SP CNPS: 1B	Sandy or rocky sites of (usually) granitic or alluvial material in valley and foothill grassland, coastal scrub, chaparral, cismontane woodland, and lower montane coniferous forest at 100 to 1,700 meters (300 to 5,600 feet) elevation. Known from the Santa Monica Mountains to San Jacinto Mountains in Riverside, San Bernardino, Los Angeles, and Ventura Counties. In the western Riverside County area, this species is known from the foothills of the San Bernardino Mountains, northeastern Santa Ana Mountains, Box Springs Mountains, and from the Lake Skinner area (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	Blooms May through July (perennial herb)	Absent: Suitable habitat (sandy or rocky sites of granitic or alluvial material in valley and foothill grassland, coastal scrub, chaparral, cismontane woodland, and lower montane coniferous forest) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Calochortus weedii</i> var. <i>intermedius</i> Intermediate mariposa lily	US: – CA: SP CNPS: 1B MSHCP: P	Rocky areas in hills with annual grassland and coastal sage scrub. 180 to 855 meters (600 to 2,800 feet) elevation. Los Angeles, Orange, and Riverside Counties. In the western Riverside County area, this species is known from the hills and valleys west of Lake Skinner and Vail Lake (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	June through July	Absent: Suitable habitat (rocky areas in hills with annual grassland and coastal sage scrub) is not present on the proposed project site for this species.
<i>Centromadia pungens</i> ssp. <i>laevis</i> Smooth tarplant	US: – CA: SP CNPS: 1B MSHCP: S	Alkaline areas in chenopod scrub, meadows, playas, riparian woodland, valley and foothill grassland below 480 meters (1,600 feet) elevation. Known from Riverside and San Bernardino Counties, extirpated from San Diego County.	Blooms April through November (annual herb)	Absent: The proposed project site is above the known elevation range for this species and suitable habitat (alkaline areas in chenopod scrub, meadows, playas, riparian woodland, and valley and foothill grassland) is not present on the proposed project site for this species.
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	US: – CA: SP CNPS: 3	Dry sandy soils in chaparral or coastal scrub at 40 to 1,750 meters (100 to 5,700 feet) elevation. Known only from Riverside and San Bernardino Counties and possibly extending into Los Angeles County.	April through June (annual herb)	Low: Marginally suitable habitat (dry sandy soils in coastal scrub) is present on the proposed project site for this species.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i> White-bracketed spineflower	US: – CA: SP CNPS: 1B	Mojave desert scrub and pinyon and juniper woodland 300 to 1,200 meters (900 to 4,000 feet) elevation. Reported from Los Angeles, Riverside, and San Bernardino Counties. However, reports of this species from western Riverside County are doubtful (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	April through June (annual herb)	Absent: Suitable habitat (Mojave desert scrub and pinyon and juniper woodland) is not present on the proposed project site for this species.
<i>Claytonia lanceolata</i> var. <i>peirsonii</i> Peirson's spring beauty	US: – CA: SP CNPS: 1B	This subspecies known only from San Bernardino County in subalpine and upper montane coniferous forest of the San Gabriel Mountains; gravelly soils or scree; elevations 2,135 to 2,750 meters (7,000 to 9,000 feet).	May through June	Absent: Suitable habitat (subalpine and upper montane coniferous forest) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Cordylanthus maritimus</i> spp. <i>maritimus</i> Salt marsh bird's beak	US: FE CA: SE CNPS: 1B	Coastal dunes and salt marshes below 30 meters (100 feet) elevation. In California, known from Los Angeles, Orange, Santa Barbara, San Diego, San Luis Obispo, and Ventura Counties. Historical collections referred to this taxon from alkaline meadow in vicinity of San Bernardino Valley are intermediate to <i>C. maritimus</i> ssp. <i>canescens</i> .	Blooms May through October (annual herb)	Absent: The proposed project site is above the elevational range for this species and suitable habitat (coastal dunes and salt marshes) is not present on the proposed project site for this species.
<i>Dodecahema leptoceras</i> Slender-horned spineflower	US: FE CA: SE CNPS: 1B MSHCP: S	In the Vail Lake area, occurs in gravel soils of Temecula arkose deposits in openings in chamise chaparral. In other areas, occurs in sandy cobbly riverbed alluvium in alluvial fan sage scrub (usually late seral stage), on floodplain terraces and benches that receive infrequent overbank deposits from generally large washes or rivers, where it is most often found in shallow silty depressions dominated by leather spineflower (<i>Lastarriaea coriacea</i>) and other native annual species, and is often associated with cryptogamic soil crusts composed of bryophytes, algae and/or lichens. Occurs at 200 to 760 meters (600 to 2,500 feet) elevation. Known only from Los Angeles, Riverside, and San Bernardino Counties.	Blooms April through June (annual herb)	Absent: Suitable habitat (gravel soils of Temecula arkose deposits) is not present on the proposed project site for this species.
<i>Dudleya multicaulis</i> Many-stemmed dudleya	US: - CA: SP CNPS: 1B MSHCP: S	Often on clay soils also around granitic outcrops in chaparral, coastal sage scrub, and grassland; below 790 meters (2,600 feet) elevation. Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.	Blooms May through June (perennial herb)	Absent: Suitable habitat (clay soils) is not present on the proposed project site for this species.
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i> Santa Ana River woollystar	US: FE CA: SE CNPS: 1B	Sandy soils of floodplains and terraced fluvial deposits of the Santa Ana River and larger tributaries (Lytle and Cajon Creeks, lower portions of City and Mill Creeks) at 120 to 625 meters (400 to 2,100 feet) elevation in San Bernardino and Riverside Counties.	Blooms June through September	Absent: Suitable habitat (sandy soils of floodplains and terraced fluvial deposits of the Santa Ana River) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Eriogonum microthecum</i> var. <i>johnstonii</i> Johnston's buckwheat	US: – CA: SP CNPS: 1B	Upper montane and subalpine coniferous forest of the San Gabriel Mountains; 2,150 to 2,900 meters (7,000 to 9,500 feet) elevation.		Absent: Suitable habitat (upper montane and subalpine-coniferous forest) is not present on the proposed project site for this species.
<i>Horkelia cuneata</i> ssp. <i>puberula</i> Mesa horkelia	US: – CA: SP CNPS: 1B	Sandy or gravelly soils in chaparral, or rarely in cismontane woodland or coastal scrub at 70 to 825 meters (200 to 2,700 feet) elevation. Occurs in San Luis Obispo, Santa Barbara, Ventura, Los Angeles, and Orange Counties. Believed extirpated from San Bernardino, Riverside, and San Diego Counties.	February through September	Absent: Suitable habitat (sandy or gravelly soils in chaparral, or rarely in cismontane woodland or coastal scrub) is not present on the proposed project site for this species.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	US: – CA: SP CNPS: 1B	Annual herb usually found on alkaline soils in marshes, playas, vernal pools, and valley and foothill grassland below 1,400 meters (4,600 feet) elevation. Known from Kern, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, and Ventura Counties. Also occurs on Santa Rosa Island and Baja California, Mexico.	Blooms February through June (annual herb)	Absent: Suitable habitat (alkaline soils in marshes, playas, vernal pools, and valley and foothill grassland) is not present on the proposed project site for this species.
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	US: – CA: SP CNPS: 1B	Dry soils in coastal sage scrub and chaparral, typically below 500 meters (1,600 feet) elevation. In California, known only from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, and San Diego Counties.	January through July	Low: Marginally suitable habitat (dry soils in coastal sage scrub) is present on the proposed project site for this species.
<i>Lilium parryi</i> Lemon lily	US: – CA: SP CNPS: 1B MSHCP: P	Bulbiferous perennial herb of wet areas in meadows and riparian and montane coniferous forests at 1,300 to 2,790 meters (4,300 to 9,200 feet) elevation. In California, known from Los Angeles, Riverside, San Bernardino, and San Diego Counties.	Blooms July through August	Absent: Suitable habitat (wet areas in meadows and riparian and montane coniferous forests) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Linanthus concinnus</i> San Gabriel linanthus	US: – CA: SP CNPS: 1B	Lower and upper montane coniferous forest; found on dry rocky slopes, often in Jeffrey pine/canyon oak forest; 1,675 to 2,800 meters (5,500 to 9,200 feet) elevation; known only from Los Angeles and San Bernardino Counties.	May through July (annual herb)	Absent: Suitable habitat (lower and upper montane coniferous forest) is not present on the proposed project site for this species.
<i>Lycium parishii</i> Parish's desert-thorn	US: – CA: SP CNPS: 2	Deciduous shrub of coastal scrub and Sonoran desert scrub at 305 to 1,000 meters (1,000 to 3,300 feet) elevation. In California, known from Imperial and San Diego Counties. Report from Riverside County is based on a misidentification. Known only historically from San Bernardino County (benches and/or foothills north of San Bernardino).	Blooms March through April	Absent: Suitable habitat (Sonoran desert scrub) is not present on the proposed project site for this species.
<i>Monardella macrantha</i> ssp. <i>hallii</i> Hall's monardella	US: – CA: SP CNPS: 1B MSHCP: C	Dry slopes and ridges in openings in chaparral, woodland, and forest at 695 to 2,195 meters (2,280 to 7,200 feet) elevation. Known only from San Diego, Orange, Riverside, and San Bernardino Counties. In the western Riverside County area, known only from higher elevations in the Santa Ana and Aqua Tibia Mountains (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	June through August (perennial herb)	Absent: The proposed project site is outside the known range for this species and suitable habitat (dry slopes and ridges in openings in chaparral, woodland, and forest) is not present on the proposed project site for this species.
<i>Monardella pringlei</i> Pringle's monardella	US: – CA: SP CNPS: 1A	Sandy hills in coastal sage scrub at 300 to 400 meters (980 to 1,300 feet) elevation. Known only from two occurrences west of Colton. Last seen in 1941. Habitat lost to urbanization. Presumed extinct.	May through June	Absent: The proposed project site is outside the known range for this species.
<i>Navarretia prostrata</i> Prostrate navarretia	US: – CA: SP CNPS: 1B MSHCP: S	Vernal pools in coastal scrub or valley and foothill grassland (alkaline) of Los Angeles, Merced, Monterey, Orange, Riverside, San Diego and possibly San Bernardino Counties; 15 to 700 meters (50 to 2,300 feet) elevation.	Blooms April through July (annual herb)	Absent: Suitable habitat (vernal pools in coastal scrub or valley and foothill grassland (alkaline)) is not present on the proposed project site for this species.

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Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Nolina cismontana</i> Chaparral nolina	US: – CA: SP CNPS: 1B	Evergreen shrub found in chaparral, coastal sage scrub, sandstone or gabbro; elevations from 140 to 1,275 meters (500 to 4,200 feet). Known from Los Angeles, Orange, San Diego, and Ventura Counties.	Blooms May through July; with foliage year-round	Absent: The proposed project is outside the known range for this species.
<i>Oreonana vestita</i> Woolly mountain-parsley	US: – CA: SP CNPS: 1B	Scree, talus, or gravel on high ridges in subalpine coniferous forest and upper montane coniferous forest at 2285 to 3500 meters (7,500 to 11,500 feet) elevation. Known only from Los Angeles and San Bernardino Counties.	May through September (perennial herb)	Absent: The proposed project site is below the known elevational range for this species and suitable habitat (scree, talus, or gravel on high ridges in subalpine coniferous forest and upper montane coniferous forest) is not present on the proposed project site for this species.
<i>Orobancha valida</i> spp. <i>valida</i> Rock Creek broomrape	US: – CA: SP CNPS: 4	Parasitic on various chaparral shrubs. Found in granitic soils of chaparral, pinyon-juniper woodland; elevation 1,250 to 2,000 meters (4,100 to 6,600 feet). Known from only three occurrences in Los Angeles and Ventura Counties.	June through September (perennial herb)	Absent: The proposed project site is below the known elevational range for this species and suitable habitat (granitic soils of chaparral, pinyon-juniper woodland) is not present on the proposed project site for this species.
<i>Symphotrichum defoliatum</i> (<i>Aster defoliatum</i>) San Bernardino aster	US: – CA: SP CNPS: 1B	Vernally wet sites (such as ditches, streams, and springs) in many plant communities below 2,040 meters (6,700 feet) elevation. In California, known from Ventura, Kern, San Bernardino, Los Angeles, Orange, Riverside, and San Diego Counties. In the western Riverside County area, this species is scarce, and documented only from Temescal and San Timoteo Canyons (<i>The Vascular Plants of Western Riverside County, California</i> . F.M. Roberts et al., 2004).	Blooms July through November (perennial herb)	Absent: Suitable habitat (vernally wet sites (such as ditches, streams, and springs) is not present on the proposed project site for this species.

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Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	US: - CA: SP CNPS: 2	Sandy and gravelly creek bottoms of the coastal slope below 2,100 meters (6,900 feet) elevation. Known in California from Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, and Ventura Counties. Also known from Arizona, New Mexico, Texas, and Mexico.	Generally blooms August through November	Absent: Suitable habitat (sandy and gravelly creek bottoms of the coastal slope) is not present on the proposed project site for this species.
Invertebrates				
<i>Rhaphiomidas terminatus abdominalis</i> Delhi sands flower-loving fly	US: FE CA: SA MSHCP: S	Restricted to Delhi series sands in western Riverside and San Bernardino Counties.	Above ground emergence August and September. Not visible during the rest of the year.	Absent: Suitable habitat (Delhi series sands) is not present on the proposed project site for this species.
Fish				
<i>Catostomus santaanae</i> Santa Ana sucker	US: FT CA: CSC	The Santa Ana sucker's historical range includes the Los Angeles, San Gabriel, and Santa Ana River drainage systems located in Southern California. An introduced population also occurs in the Santa Clara River drainage system in southern California. Found in shallow, cool, running water.	Year-round	Absent: Suitable habitat (shallow, cool, running water) is not present on the proposed project site for this species.
<i>Gila orcutti</i> Arroyo chub	US: - CA: CSC	Perennial streams or intermittent streams with permanent pools; slow water sections of streams with mud or sand substrates; spawning occurs in pools. Native to Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita River systems; introduced in Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and smaller coastal streams.	Year-round	Absent: Suitable habitat (perennial streams or intermittent streams with permanent pools; slow water sections of streams with mud or sand substrates) is not present on the proposed project site for this species.
<i>Rhinichthys osculus</i> ssp. 3 Santa Ana speckled dace	US: - CA: CSC	Found in the headwaters of the Santa Ana and San Gabriel River drainages. Found in riffles in small streams and shore areas with abundant gravel and rock.	Year-round	Absent: Suitable habitat (riffles in small streams and shore areas with abundant gravel and rock) is not present on the proposed project site for this species.

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Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Amphibians				
<i>Rana muscosa</i> Mountain yellow-legged frog	US: FE CA: CSC	Ponds, lakes, and streams at moderate to high elevation; appears to prefer bodies of water with open margins and gently sloping bottom. Sierra Nevada Mountains and Transverse Ranges.	March through June	Absent: Suitable habitat (ponds, lakes, and streams) is not present on the proposed project site for this species.
<i>Taricha torosa torosa</i> Coast Range newt	US: – CA: CSC	Breeds in ponds, reservoirs, and slow-moving streams; uses nearby upland areas including grassland, chaparral, and woodland; coastal drainages from Mendocino County south to San Diego County, with populations from San Luis Obispo County south designated as sensitive.	October through May	Absent: Suitable habitat (ponds, reservoirs, or slow-moving streams) is not present on the proposed project site for this species.
Reptiles				
<i>Aspidoscelis hyperythra beldingi</i> Belding's orange-throated whiptail	US: – CA: CSC	Prefers chaparral, coastal sage scrub, juniper woodland, and oak woodland from sea level to 915 meters (3,000 feet) elevation; inland and coastal valleys of Riverside, Orange, San Diego and extreme southern San Bernardino Counties, and Baja California.	March through July with reduced activity August through October	Low: Suitable habitat (coastal sage scrub) is present on the proposed project site for this species.
<i>Aspidoscelis tigris stejnegeri</i> Coastal western whiptail	US: – CA: SA	Wide variety of habitats including coastal sage scrub, sparse grassland, and riparian woodland; coastal and inland valleys and foothills; Ventura County to Baja California.	April through August	Low: Suitable habitat (coastal sage scrub) is present on the proposed project site for this species.
<i>Coleonyx variegatus abbotti</i> San Diego banded gecko	US: – CA: SA	Often associated with rocks. Coastal sage scrub and chaparral, most often on granite or rocky outcrops in these habitats. Interior Ventura County south.	Nocturnal April through October	Absent: Suitable habitat (granite or rocky outcrops in coastal sage scrub or chaparral) is not present on the proposed project site for this species.
<i>Crotalus ruber ruber</i> Northern red-diamond rattlesnake	US: – CA: CSC	Desert scrub, thornscrub, open chaparral and woodland; occasional in grassland and cultivated areas. Prefers rocky areas and dense vegetation. Morongo Valley in San Bernardino and Riverside Counties to the west and south to Baja California.	Mid-spring through mid-fall	Low: Marginally suitable habitat (rocky areas in dense vegetation) is present on a portion of the proposed project site for this species.

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Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Emys (=Clemmys) marmorata pallida</i> Southwestern pond turtle	US: – CA: CSC	Inhabits permanent or nearly permanent water below 1,830 meters (6,000 feet) from central California, west of the Sierra-Cascade crest south to north-western Baja California. Absent from desert regions, except in the Mojave Desert along the Mojave River and its tributaries. Requires basking sites such as partially submerged logs, rocks, or open mud banks.	Year-round with reduced activity November through March	Absent: Suitable habitat (permanent or nearly permanent water) is not present on the proposed project site for this species.
<i>Phrynosoma coronatum</i> Coast horned lizard	US: – CA: CSC	Occurs in annual grassland, coastal sage scrub, chaparral, and woodland communities. Prefers open country, especially sandy areas, washes, and floodplains. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants or other insects. Occurs in Siskiyou County, in the Central Valley and adjacent foothills below 1,200 meters (4,000 feet) elevation, in coastal areas of central California, and in non-desert areas of southern California below 1,830 meters (6,000 feet) elevation, and throughout the Baja California Peninsula.	April through July with reduced activity August through October	Low: Marginally suitable habitat (sandy areas with open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants or other insects) is present on a portion of the proposed project site for this species.
Birds				
<i>Agelaius tricolor</i> (nesting colony) Tricolored blackbird	US: – CA: CSC	Open country in western Oregon, California, and northwestern Baja California. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, tall herbs and forages in grassland and cropland habitats. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs.	Year-round	Absent: Suitable habitat (freshwater, emergent wetland with tall, dense cattails or tules, thickets of willow, blackberry, wild rose, tall herbs) is not present on the proposed project site for this species.

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Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Aimophila ruficeps canescens</i> Southern California rufous-crowned sparrow	US: – CA: CSC	Steep, rocky coastal sage scrub and open chaparral habitats, particularly scrubby areas mixed with grasslands. From Santa Barbara County to northwestern Baja California.	Year-round, diurnal activity	Absent: Suitable habitat (steep, rocky coastal sage scrub and open chaparral habitats) is not present on the proposed project site for this species.
<i>Amphispiza belli belli</i> Bell's sage sparrow	US: – CA: CSC	Occupies chaparral and coastal sage scrub from west central California to northwestern Baja California.	Year-round, diurnal activity	Low: Suitable habitat (coastal sage scrub habitat) is present on the proposed project site for this species.
<i>Aquila chrysaetos</i> Golden eagle	US: – CA: CSC, CFP	Generally open country of the Temperate Zone worldwide. Nesting primarily in rugged mountainous country. Uncommon resident in southern California.	Year-round diurnal	Absent: Suitable habitat (open country, mountainous country) is not present on the proposed project site for this species.
<i>Asio otus</i> (nesting) Long-eared owl	US: – CA: CSC	Scarce and local in forests and woodlands throughout much of the Northern Hemisphere. Rare resident in coastal southern California. Nests and roosts in dense willow-riparian woodland and oak woodland, but forages over wider areas. Breeds from valley foothill hardwood up to ponderosa pine habitat.	Nocturnal Year-round	Absent: Suitable habitat (forests and woodlands, dense willow-riparian woodland, oak woodland) is not present on the proposed project site for this species.
<i>Athene cucularia</i> (burrow sites) Burrowing owl	US: – CA: CSC	Open country in much of North and South America. Usually occupies ground squirrel burrows in open, dry grasslands, agricultural and range lands, railroad rights-of-way, and margins of highways, golf courses, and airports. Often utilizes man-made structures, such as earthen berms, cement culverts, cement, asphalt, rock, or wood debris piles.	Year-round	Low to Moderate Suitable habitat (remnant vineyards (agricultural), sandy, earthen drainage feature) is present on the proposed project site for this species.
<i>Coccyzus americanus occidentalis</i> (nesting) Western yellow-billed cuckoo	US: FC CA: SE	Breeds and nests in extensive stands of dense cottonwood/willow riparian forest along broad, lower flood bottoms of larger river systems at scattered locales in western North America; winters in South America.	May through September	Absent: Suitable habitat (extensive stands of dense cottonwood/willow/riparian forest) is present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Cypseloides niger</i> Black swift	US: – CA: CSC	Most frequently seen in the air feeding on tiny airborne insects. Usually seen near cliffs in mountainous regions; occasionally coastal. Nests in crevices in deep canyon cliffs near waterfalls or in sea cliffs. In California, breeds very locally in the Sierra Nevada and Cascade Range, the San Gabriel, San Bernardino, and San Jacinto Mountains, and in coastal bluffs and mountains from San Mateo County south to probably San Luis Obispo County.		Absent: Suitable habitat (cliffs in mountainous regions; deep canyon cliffs near waterfalls or sea cliffs) is present on the proposed project site for this species.
<i>Dendroica petechia brewsteri</i> (nesting) California yellow warbler	US: – CA: CSC	Riparian woodland while nesting in the western U.S. and northwestern Baja California; more widespread in brushy areas and woodlands during migration and winter, when occurring from western Mexico to northern South America. Migrants belonging to other subspecies are widespread and common.	Summer, winter, or Year-round, depending on locale	Absent: Suitable habitat (riparian woodland) is present on the proposed project site for this species.
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	US: FE CA: SE	Rare and local breeder in extensive riparian areas of dense willows or (rarely) tamarisk, usually with standing water, in the southwestern U.S. and (formerly?) northwestern Mexico. Winters in Central and South America.	May through September	Absent: Suitable habitat (riparian areas of dense willows or (rarely) tamarisk usually in standing water) is present on the proposed project site for this species.
<i>Icteria virens</i> (nesting) Yellow-breasted chat	US: – CA: CSC	Riparian thickets of willow, brushy tangles near watercourses. Nests in riparian woodland throughout much of western North America. Winters in Central America.	Summer in California	Absent: Suitable habitat (riparian thickets of willow, brushy tangles near watercourses) is present on the proposed project site for this species.
<i>Poliophtila californica californica</i> Coastal California gnatcatcher	US: FT CA: CSC	Inhabits coastal sage scrub in low-lying foothills and valleys in cismontane southwestern California and Baja California.	Year-round	Low: Suitable habitat (coastal sage scrub in low-lying foothills and valleys) is present on the proposed project site. Nearest recorded occurrence is approximately 5 miles east of site.
<i>Vireo bellii pusillus</i> Least Bell's vireo	US: FE CA: SE	Riparian forests and willow thickets. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	Absent: Suitable habitat (riparian forests and willow thickets) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Mammals				
<i>Antrozous pallidus</i> Pallid bat	US: – CA: CSC	Day roosts in caves, crevices, mines and occasionally hollow trees and buildings. Night roosts may be more open sites, such as porches and open buildings. Hibernation sites are probably rock crevices. Grasslands, shrublands, woodlands, and forest in western North America.	Year-round Nocturnal	Absent: Suitable habitat (caves, crevices, mines and hollow trees and buildings) is not present on the proposed project site for this species.
<i>Chaetodipus fallax fallax</i> Northwestern San Diego pocket mouse	US: – CA: CSC	Found in sandy herbaceous areas, usually associated with rocks or coarse gravel in coastal scrub, chaparral, grasslands, and sagebrush, from Los Angeles County through southwestern San Bernardino, western Riverside, and San Diego Counties to northern Baja California.	Year-round	Low: Suitable habitat (sandy herbaceous areas, with rocks or coarse gravel in coastal scrub) is present on the proposed project site for this species.
<i>Chaetodipus fallax pallidus</i> Pallid Sand Diego pocket mouse	US: – CA: CSC	Found in sandy herbaceous areas, usually associated with rocks or coarse gravel in desert wash, desert scrub, desert succulent scrub, pinyon-juniper woodlands, etc. in desert border areas of Southern California into Mexico.	Nocturnal, active year-round	Absent: Suitable habitat (sandy herbaceous areas, with rocks or coarse gravel in desert scrub and desert wash) is not present on the proposed project site for this species.
<i>Dipodomys merriami parvus</i> San Bernardino Merriam's kangaroo rat	US: FE CA: CSC	Gravelly and sandy soils of alluvial fans, braided river channels, active channels and terraces; San Bernardino Valley (San Bernardino County) and San Jacinto Valley (Riverside County).	Nocturnal, active year-round	Low: Marginally suitable habitat (gravelly and sandy soils of alluvial fans) is present on the proposed project site for this species. Nearest occurrence of species approximately ten miles north of site.
<i>Dipodomys stephensi</i> Stephens' kangaroo rat	US: FE CA: ST	Found in plant communities transitional between grassland and coastal sage scrub, with perennial vegetation cover of less than 50%. Most commonly associated with <i>Artemesia tridentata</i> , <i>Eriogonum fasciculatum</i> , and <i>Erodium</i> . Requires well-drained soils with compaction characteristics suitable for burrow construction. Not found in soils that are highly rocky, less than 20 inches deep, or heavily alkaline or clay, or in areas exceeding 25% slope. Occurs only in western	Year-round	Absent: Suitable habitat (plant communities transitional between grassland and coastal sage scrub) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
		Riverside County, northern San Diego County, and extreme southern San Bernardino County, below 915 meters (3,000 feet) elevation. In northwestern Riverside County, known only from east of Interstate 15.		
<i>Eumops perotis</i> Western mastiff bat	US: – CA: CSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in vertical cliff faces, high buildings, and tunnels, and travels widely when foraging.	Primarily the warmer months	Absent: Suitable habitat (cliff faces, high buildings, tunnels in open, semi-arid to arid habitats, conifer and deciduous woodlands, coastal scrub, grasslands etc;) is not present on the proposed project site for this species.
<i>Lasiurus xanthinus</i> Western yellow bat	US: – CA: SA	Occurs in southern California in palm oases and in residential areas with untrimmed palm trees. Roosts primarily in trees, especially the dead fronds of palm trees. Forages over water and among trees.	Primarily the warmer months	Absent: Suitable habitat (untrimmed palm trees) is not present on the proposed project site for this species.
<i>Lepus californicus bennettii</i> San Diego black-tailed jackrabbit	US: – CA: CSC	Variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino, and Santa Rosa Mountain ranges.	Year-round, diurnal and crepuscular activity	Absent: Suitable habitat (desert scrub areas, early stages of open forest and chaparral) is not present on the proposed project site for this species.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	US: – CA: CSC	Found in desert scrub and coastal sage scrub habitat, especially in association with cactus patches. Builds stick nests around cacti, or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Year-round, mainly nocturnal, occasionally crepuscular and diurnal	Low: Marginally suitable habitat (coastal sage scrub habitat with patches of cactus) is present on the proposed project site for this species.
<i>Nyctinomops macrotis</i> Big free-tailed bat	US: – CA: CSC	Inhabits rugged, rocky canyon country in southwestern United States. Found from northern South America and the Caribbean Islands northward to the western United States. In the southwestern U.S., populations appear to be scattered.		Absent: Suitable habitat (rugged, rocky canyon country) is not present on the proposed project site for this species.

Special Interest Species Summary

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
<i>Ovis canadensis nelsoni</i> Nelson's bighorn sheep	US: – CA: SA	Occurs in open, rocky, steep areas with available water and herbaceous forage; widely distributed from the White Mountains in Mono County to the Chocolate Mountains in Imperial County.		Absent: Suitable habitat (open, rocky, steep areas with available water and herbaceous forage) is not present on the proposed project site for this species.
<i>Perognathus longinembris brevinasus</i> Los Angeles pocket mouse	US: – CA: CSC	Prefers sandy soil for burrowing, but has been found on gravel washes and stony soils. Found in coastal sage scrub in Los Angeles, Riverside, and San Bernardino Counties.	Nocturnal. Active late spring to early fall.	Moderate: Suitable habitat (sandy soil for burrowing, gravelly drainage feature, coastal sage scrub) is present on the proposed project site for this species. Nearest occurrence of species two miles northeast of site.

LEGEND

US: Federal Classifications

- FE Taxa listed as Endangered.
- FT Taxa listed as Threatened.
- FC Candidate for listing as Threatened or Endangered.

CA: State Classifications

- SE Taxa State-listed as Endangered.
- ST Taxa State-listed as Threatened.
- CSC California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
- CFP California Fully Protected. Refers to animals protected from take under Fish and Game Code sections 3511, 4700, 5050, and 5515.
- SA Special Animal. Refers to any other animal monitored by the Natural Diversity Data Base, regardless of its legal or protection status.
- SP Special Plant. Refers to any other plant monitored by the Natural Diversity Data Base, regardless of its legal or protection status.

CNPS: California Native Plant Society Classifications

- 1A Plants presumed extinct in California.
- 1B Plants considered by CNPS to be rare, threatened, or endangered in California and elsewhere.
- 2 Plants considered by CNPS to be rare, threatened, or endangered in California, but more common elsewhere.
- 3 Plants about which more information is needed – a CNPS review list.
- 4 Plants of limited distribution whose status is monitored by CNPS.

MSHCP: Western Riverside County MSHCP Status

- S Species is adequately conserved under the MSHCP, but surveys are required within indicated habitats and/or survey areas.
- C Species is adequately conserved under the MSHCP.
- P Species is covered but not considered adequately conserved pending completion of MSHCP specified requirements.



APPENDIX B3
2008 Jurisdictional Delineation Report



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JURISDICTIONAL DELINEATION REPORT

CENTRAL PARK PROJECT
CITY OF RANCHO CUCAMONGA
SAN BERNARDINO COUNTY, CALIFORNIA

LSA

January 2008

JURISDICTIONAL DELINEATION REPORT

CENTRAL PARK PROJECT
CITY OF RANCHO CUCAMONGA
SAN BERNARDINO COUNTY, CALIFORNIA

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LSA

January 2008

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APPENDIX

A: COPIES OF WETLAND DATA FORMS

INTRODUCTION

LSA Associates, Inc. (LSA) was retained by the City of Rancho Cucamonga to conduct a wetlands/jurisdictional delineation at the approximately 70-acre Central Park Phase II project site. This evaluation of regulatory jurisdiction has been prepared for use primarily by the United States Army Corps of Engineers (Corps), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWQCB) as part of their evaluation for permit authorization under Section 404 of the federal Clean Water Act (CWA) for Streambed Alteration Agreement processing under Section 1600 et seq. of the California Fish and Game Code and certification under Section 401 of the CWA, respectively. This jurisdictional delineation is also an important source of California Environmental Quality Act (CEQA) information for the evaluation of potential impacts associated with the proposed expansion of the City of Rancho Cucamonga Central Park.

PROPOSED PROJECT

The City of Rancho Cucamonga proposes to develop the remaining approximately 70 acres of the original 100-acre site. The project includes the development of Central Park Phase II. Phase I is developed (Figure 1). Proposed uses for Phase II of Central Park include a tennis complex, a gymnasium, an aquatic center, an indoor pool, a fire station, a maintenance yard, an amphitheater, overnight family camping, group picnic facilities, lake development, a parking structure, equestrian facilities, an adjacent regional trail, and associated parking.

PROPERTY DESCRIPTION

The study area consists of approximately 70 acres located in the southeast $\frac{1}{4}$ and a portion of the southeast $\frac{1}{4}$ of the southwest $\frac{1}{4}$ of Section 36, Township 1 North, Range 7 West, in the City of Rancho Cucamonga, San Bernardino County, California, as shown on the *Cucamonga Peak, California* and *Guasti, California* 7.5-minute series United States Geological Survey (USGS) topographic maps (Figure 1).

The dominant plant community on site is California sagebrush scrub (Holland 1996; Sawyer and Keeler-Wolf 1995). Dominant species identified in this plant community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), horehound (*Marrubium vulgare*), and deerweed (*Lotus scoparius*).

The site is relatively flat and ranges in elevation from approximately 1,320 to 1,380 feet (ft). The soils present on site, as mapped by the Soil Conservation Service (USDA 2005), are Tujunga loamy sand (0–5 percent slopes) and Tujunga gravelly loamy sand (0–9 percent slopes). The proposed site is bordered on the north by a recreation trail and housing, on the east by a community and senior center and Milliken Avenue, on the south by Base Line Road, and on the west by the Deer Creek Channel.

The entire study area is located within the Santa Ana River Watershed, which has an overall size of 2,800 square miles. The average annual rainfall for this area is 13 inches. This delineation followed an abnormally dry rainy season. In the 2006/2007 rainy season, the counties received only 2.1 inches of rainfall. However, the fieldwork for this delineation was completed three days after a December 1 rainfall event that deposited up to 1.5 inches in the project area.

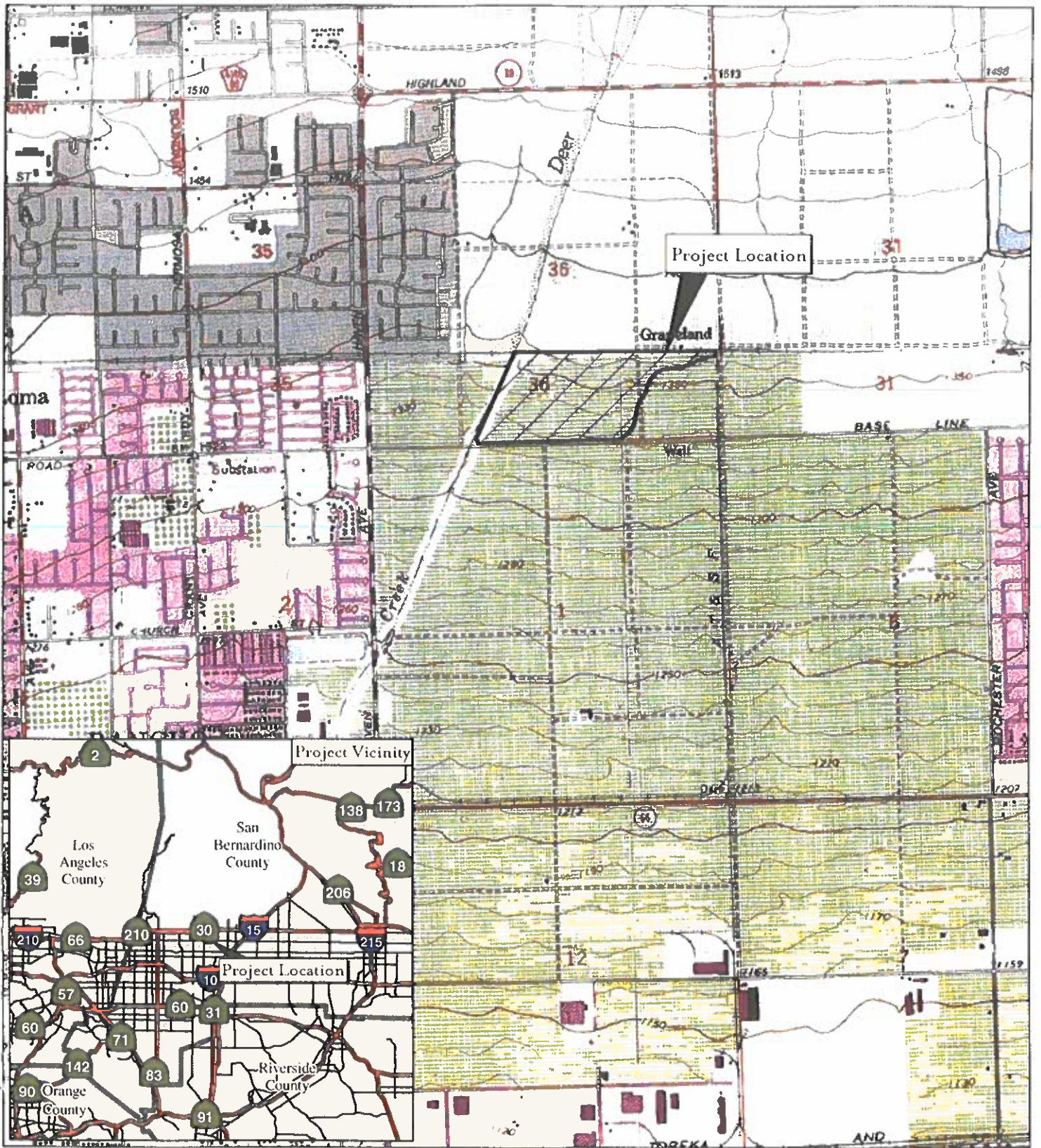


FIGURE 1

LEGEND

 Project Boundary



Central Park Phase II

Project Location Map

SOURCE: USGS 7.5' QUAD - CUCAMONGA PEAK (88), GUASTI (81); CALIF. IACRG0701GIS\FIGURE_1.mxd (1/14/2008)

Wetlands

Wetland delineations for Section 404 purposes must be conducted according to the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Regional Supplement) (Corps 2006) and the Corps of Engineers 1987 Wetland Delineation Manual (1987 Manual) (Environmental Laboratory 1987). Where there are differences between the two documents, the Regional Supplement takes precedence over the 1987 Manual.

The Corps and Environmental Protection Agency (EPA) define wetlands as follows:

“Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.”

In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. Several parameters (indicators) may be analyzed to determine whether the criteria are satisfied.

Hydrophytic vegetation and hydric soils indicators provide evidence that episodes of inundation have lasted more than a few days or have occurred repeatedly over a period of years, but do not confirm that an episode has occurred recently. Conversely, wetland hydrology provides evidence that an episode of inundation or soil saturation occurred recently, but does not provide evidence that episodes have lasted more than a few days or have occurred repeatedly over a period of years. Because of this, if an area lacks one of the three characteristics under normal circumstances, the area is considered nonwetland under most circumstances.

Determination of wetland limits may be obfuscated by a variety of natural environmental factors or human activities (collectively called difficult wetland situations), including cyclic periods of drought and flooding or highly ephemeral stream systems. During periods of drought, for example, bank return flows are reduced and water tables are lowered. This results in a corresponding lowering of ordinary high water and an invasion of upland plant species into wetland areas. Conversely, extreme flooding may create physical evidence of high water well above what might be considered ordinary and may allow the temporary invasion of hydrophytic species into nonwetland areas. In highly ephemeral systems typical of Southern California, these problems are encountered frequently. In these situations, professional judgment based on years of practical experience and extensive knowledge of local ecological conditions comes into play in delineating wetlands. The Regional Supplement provides additional guidance for difficult wetland situations.

Hydrophytic Vegetation. Hydrophytic vegetation is plant life that grows and is typically adapted for life in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, herb, and woody vine layers) are considered hydrophytic. Hydrophytic species are those included on the *National List of Plant Species That Occur in Wetlands: California (Region 0)* (Reed 1988), published by the United States Fish and Wildlife Service (USFWS). Each species on the list is rated according to a wetland indicator category, as shown in Table A.

Table A: Hydrophytic Vegetation

Category		Probability
Obligate Wetland	OBL	Almost always occurs in wetlands (estimated probability > 99 percent)
Facultative Wetland	FACW	Usually occurs in wetlands (estimated probability 67–99 percent)
Facultative	FAC	Equally likely to occur in wetlands and nonwetlands (estimated probability 34–66 percent)
Facultative Upland	FACU	Usually occurs in nonwetlands (estimated probability 67–99 percent)
Obligate Upland	UPL	Almost always occurs in nonwetlands (estimated probability > 99 percent)

To be considered hydrophytic, the species must have wetland indicator status (i.e., be rated as obligate wetland [OBL], facultative wetland [FACW], or facultative [FAC]).

The delineation of hydrophytic vegetation is typically based on the most dominant species from each vegetative stratum (strata are considered separately); when more than 50 percent of these dominant species are hydrophytic (i.e., FAC, FACW, or OBL), the vegetation is considered hydrophytic. In particular, the Corps recommends the use of the “50/20” rule (also known as the dominance test) from the Regional Supplement for determining dominant species. Under this method, dominant species are the most abundant species that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species composing 20 percent or more of the total dominance measure for the stratum. In cases where indicators of hydric soil and wetland hydrology are present but the vegetation initially fails the dominance test, the prevalence index must be used. The prevalence index is a weighted average of all plant species within a sampling point. The prevalence index is particularly useful when communities only have one or two dominant species, where the species are present at roughly equal coverage, or when strata differ greatly in total plant cover. In addition, Corps guidance provides that morphological adaptations may be considered when determining hydrophytic vegetation when indicators of hydric soil and wetland hydrology are present (Corps 2006). If the plant community passes either the dominance test or prevalence index after reconsidering the indicator status of any plant species that exhibit morphological adaptations for life in wetlands, then the vegetation is considered hydrophytic.

Hydric Soils.¹ Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.² Soils are considered likely to meet the definition of a hydric soil when one or more of the following criteria are met:

¹ The hydric soil definition and criteria included in the 1987 Manual are obsolete. Users of the Manual are directed to the United States Department of Agriculture (USDA) Natural Resources Conservation Service Web site for the most current information on hydric soils.

² Current definition as of 1994 (FR, July 13, 1994).

- All Histels except Folistels and Histosols except Folists;
- Soils that are frequently ponded for long durations or very long durations¹ during the growing season; or
- Soils that are frequently flooded for long durations or very long durations during the growing season.

Hydric soils develop under conditions of saturation and inundation combined with microbial activity in the soil that causes a depletion of oxygen. While saturation may occur at any time of year, microbial activity is limited to the growing season, when soil temperature is above biologic zero (the soil temperature at a depth of 50 centimeters [cm], below which the growth and function of locally adapted plants are negligible). Biogeochemical processes that occur under anaerobic conditions during the growing season result in the distinctive morphologic characteristics of hydric soils.

The Regional Supplement has a number of field indicators that may be used to identify hydric soils. The Natural Resources Conservation Service (NRCS) (2003) has also developed a number of field indicators that may demonstrate the presence of hydric soils. These indicators include hydrogen sulfide generation; accumulation of organic matter; and the reduction, translocation and/or accumulation of iron and other reducible elements. These processes result in soil characteristics that persist during both wet and dry periods. Separate indicators have been developed for sandy soils and for loamy and clayey soils.

Wetland Hydrology. Under natural conditions, development of hydrophytic vegetation and hydric soils is dependent on a third characteristic: wetland hydrology. Areas with wetland hydrology are those where the presence of water has an overriding influence on vegetation and soil characteristics due to anaerobic and reducing conditions, respectively (Environmental Laboratory 1987). The wetland hydrology parameter is satisfied if the area is seasonally inundated or saturated to the surface for a minimum of 14 consecutive days during the growing season in most years (Corps 2006).

Hydrology is often the most difficult criterion to measure in the field due to seasonal and annual variations in water availability. Some of the indicators that are commonly used to identify wetland hydrology include visual observation of inundation or saturation, watermarks, recent sediment deposits, surface scour, and oxidized root channels (rhizospheres) resulting from prolonged anaerobic conditions.

California Department of Fish and Game

The CDFG, through provisions of the California Fish and Game Code (Section 1600 et seq.), is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks and at least an intermittent flow of water. The CDFG regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFG.

¹ Long duration is defined as a single event ranging from 7 to 30 days; very long duration is defined as a single event that lasts longer than 30 days.

In obtaining CDFG agreements, the limits of wetlands are not typically determined. The reason for this is that the CDFG generally includes, within the jurisdictional limits of streams and lakes, any riparian habitat present. Riparian habitat includes willows, mulefat, and other vegetation typically associated with the banks of a stream or lake shorelines. In most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFG jurisdiction based on riparian habitat will automatically include any wetland areas and may include additional areas that do not meet Corps criteria for soils and/or hydrology (e.g., where riparian woodland canopy extends beyond the banks of a stream away from frequently saturated soils).

Regional Water Quality Control Board

The California RWQCB is responsible for the administration of Section 401 of the CWA. Typically, the areas subject to RWQCB jurisdiction coincide with those of the Corps (i.e., waters of the United States, including any wetlands). The RWQCB also asserts authority over waters of the State under waste discharge requirements pursuant to the Porter-Cologne Act.

METHODOLOGY

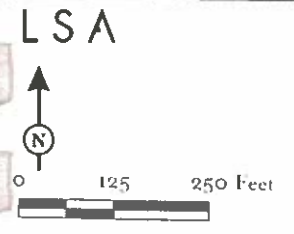
The fieldwork for this evaluation was conducted by LSA senior biologist Leo Simone on December 4, 2007. The field map of the area to be surveyed was prepared using a 2007 aerial photograph base at a scale of 1 inch = 250 ft. The project area was surveyed on foot, and all areas of potential jurisdiction were evaluated according to Corps, CDFG, and RWQCB criteria. Data were recorded either directly onto the field map or with a handheld global positioning system (GPS) device.

Areas supporting hydrology or species of plant life potentially indicative of wetlands were evaluated according to routine wetland delineation procedures described in the Regional Supplement. One representative sample point was selected and examined in the field in an area where wetland jurisdiction was in question. Figure 2 shows the location of the sample point and the potential jurisdictional features identified. At the sample point, the dominant and subdominant plant species were identified and their wetland indicator status was noted (Reed 1988). A small sample pit (approximately 20 inches deep) was dug at the point in order to examine soil characteristics and composition. Soil matrix colors were classified according to the Munsell Soil Color Charts (Munsell Color 2000). Hydrological conditions, including any surface inundation, saturated soils, groundwater levels, and/or other wetland hydrology indicators, were recorded. General site characteristics were also noted. A Wetland Determination Data Form – Arid West Region was completed for the sample point; a copy of the data form is included as Appendix A of this report.

RESULTS

Corps Jurisdiction: Nexus to Navigable Waters

The study area is located east of the Deer Creek Channel, a concrete lined channel at this location. Surface water occurring on site is conveyed into Deer Creek via an unnamed ephemeral drainage. Deer Creek is tributary to Cucamonga Creek, which is tributary to the Santa Ana River (Figure 2). The Santa Ana River ultimately flows into the Pacific Ocean. At least a portion of the Santa Ana



- LEGEND
- Project Boundary
 - Potential Jurisdictional Waters/Streambeds
 - Width of Jurisdictional Waters Federal / State
 - Sample Point (with ID)
 - ↑ Photographic Location (with ID)

FIGURE 2

Central Park Phase II
 Jurisdictional Delineation
 Potential Waters of the U.S./Streambeds of the State
 and Photographic Locations

SOURCE: Air Photo USA (2007)
 FACRG0701GISbio_drainage.mxd (1/14/2008)

River is considered traditional navigable water due to tidal influences at its mouth approximately 60 miles from the project area. Other portions of the Santa Ana River are relatively permanent waters, if not traditional navigable waters. The determination of traditional navigable waters will be made by the Corps.

During report preparation, the study area was assessed and all drainages were assigned a letter designation. The study area is discussed by drainage below. There are five ephemeral drainage courses where potential Corps jurisdiction occurs within the project site, identified as Drainage A through E (Figure 2). All five drainages are well-drained ephemeral channels. None of these drainages satisfies all three criteria for Corps jurisdictional wetlands. Drainage A conveys storm water and nuisance flows into Deer Creek via a storm drain outlet. Drainages B through E are tributary to Drainage A. A breakdown of the location, size, and general characteristics of each drainage is provided in Table B as well. Please refer to the attached Wetland Determination Data Form – Arid West Region (Appendix A) for a full description of the sample point results.

Drainage A

Drainage A (Figure 2) is an ephemeral drainage that originates near the northeast corner of the project site. This drainage traverses the study area in a southwesterly direction for approximately 2,862 ft before exiting at the southwestern site boundary where flows empty into a 3 ft diameter concrete-lined culvert before entering Deer Creek on the south side of Base Line Road. Drainage A is fed primarily by nuisance flows from adjacent residential and park development. Most of the western portion of the drainage is engineered and lined with imported cobble and river-rock, while the eastern portion of the drainage has a natural gravelly/sandy bottom (Figure 3). The eastern half of the drainage is small and well-defined, with vegetation consisting primarily of upland sage/scrub species: California buckwheat (*Eriogonum fasciculatum*, UPL), California sagebrush (*Artemisia californica*, UPL), and brome (*Bromus* spp., UPL). Near the center of the drainage (Sample Point 1) nuisance runoff from adjacent development is fed into the drainage via an approximately 5 x 3 ft concrete-lined storm drain outlet. Temporary ponding appears to occur in the area of the storm drain outlet, with vegetation dominated primarily by mulefat (*Baccharis salicifolia*, FACW) and arroyo willow (*Salix lasiolepis*, FACW).

The OHWM in this drainage was determined by a number of factors, including water staining on rocks, scouring, shelving, and changes in the vegetation cover. Sample Point 1 was taken within this drainage, and indicators of hydric soils were not found. Drainage A cross sections between the OHWM range in width from approximately 1 to 4 ft. Within Drainage A, approximately 0.117 acre of jurisdictional nonwetland waters occurs within the OHWM, as determined from width measurements taken in the field. There are no wetland waters within this drainage.

Drainage B

Drainage B (Figure 2) is a small ephemeral drainage that flows in a north to south direction for approximately 70 ft before entering Drainage A. Vegetation associated with this drainage consists entirely of upland sage/scrub species. Soils within this drainage are a mix of gravelly sand and sandy loam that does not meet the criteria for hydric soils.

Table B: Potential Corps, CDFG, and RWQCB Jurisdictional Areas

Drainage ID	County	Linear Feet	UTM-Begin	UTM-End	California Quadrangle	Hydrologic Regime	Likely Corps Jurisdictional Status ¹	Potential Corps Nonwetland Waters (acres)	Potential Corps Wetlands (acres)	Total Potential Corps (acres)	CDFG (acres)	RWQCB (acres)	Corps OHWM (ft)	CDFG Streambed (ft)	Depth Estimate (ft)	Side Slope Estimate	Primary Substrate	Hydrologic Indicators	Chemical Characteristics	Biological Characteristics
A	San Bernardino	2862	0448259 3776123	0447403 3775805	Guasti, Cucamonga Pk.	Partially engineered ephemeral	Jurisdictional	0.117	0	0.0.117	0.758	0.117	1-4	6-25	0.5	2:1	Loam/sand/gravel/cobbles	Defined OHWM	None	Sage scrub, mulefat, arroyo willow
B	San Bernardino	70	0447605 3775904	0447611 3775914	Guasti, Cucamonga Pk.	Ephemeral	Jurisdictional	0.003	0	0.003	0.008	0.003	1-2	3-5	0.2	4:1	Gravelly sand/loam	Defined OHWM	None	Sage scrub
C	San Bernardino	986	0447702 3776180	0447709 3776070	Guasti, Cucamonga Pk.	Ephemeral	Jurisdictional	0.042	0	0.042	0.167	0.042	1-3	2-12	0.2	4:1	Gravelly sand loam	Defined OHWM	None	Sage scrub
D	San Bernardino	512	0448074 3776174	0448068 3776064	Guasti, Cucamonga Pk.	Engineered ephemeral	Jurisdictional	0.018	0	0.018	0.047	0.018	1-2	3-5	0.3	3:1	Sand/gravel	Defined OHWM	None	Bare ground
E	San Bernardino	71	0448126 3776109	0448130 3776094	Guasti, Cucamonga Pk.	Ephemeral	Jurisdictional	0.002	0	0.002	0.006	0.002	2-4	4-6	0.2	4:1	Gravelly sand/loam	Defined OHWM	None	Sage scrub
Total - Entire Study Area								0.182	0	0.182	0.986	0.182								



Photo 1: Storm drain outlet with associated remnant hydrophytic vegetation at Drainage A, near middle of site looking southwest.



Photo 2: Channelized portion of Drainage A, lined with imported cobble and river-rock looking southwest.



Photo 3: Near southwest end of Drainage A, vegetation consists entirely of upland sage scrub species; photograph looking southwest.



Photo 4: Culvert under Base Line Road leading into Deer Creek at terminus of Drainage A; photograph looking south.

LSA

FIGURE 3

Central Park Phase II
Site Photos

Cross sections of Drainage B between the OHWM range in width from approximately 1 to 2 ft. Within Drainage B, approximately 0.003 acre of jurisdictional nonwetland waters occurs within the OHWM, as determined from width measurements taken in the field. There are no wetland waters within this drainage.

Drainage C

Drainage C (Figure 2) is an ephemeral drainage that originates at the northern edge of the project site approximately 500 ft east of the Deer Creek Channel. This drainage flows in a general north to south direction for approximately 986 ft before entering Drainage A. Vegetation associated with this drainage consists entirely of upland sage/scrub species. Soils within this drainage are a mixture of gravelly sand and sandy loam and do not meet the criteria for hydric soils.

Cross sections of Drainage C between the OHWM range in width from approximately 1 to 3 ft. Within Drainage C, approximately 0.042 acre of jurisdictional nonwetland waters occurs within the OHWM, as determined from width measurements taken in the field. There are no wetland waters within this drainage.

Drainage D

Drainage D (Figure 2) appears to be an engineered earthen-lined, trapezoidal-shaped ephemeral drainage that originates at an 18-inch storm drain outlet on the north edge of the project site. This drainage flows in a north to south direction for approximately 512 ft before entering Drainage A. This drainage feature is fed primarily by nuisance flows from adjacent residential development. Soils within this drainage are composed of coarse gravelly sand and do not meet the criteria for hydric soils.

Within Drainage D, approximately 0.018 acre of jurisdictional nonwetland waters occurs within the OHWM, as determined from width measurements taken in the field. Cross sections of Drainage D between the OHWM range in width from approximately 1 to 2 ft. There are no wetland waters within this drainage.

Drainage E

Drainage E (Figure 2) is a small ephemeral drainage that flows in a northeast to southwest direction for approximately 71 ft before entering Drainage A. Vegetation associated with this drainage consists entirely of upland sage/scrub species. Soils within this drainage are a mix of coarse gravelly sand and sandy loam and do not meet the criteria for hydric soils.

Cross sections of Drainage E between the OHWM range in width from approximately 1 to 2 ft. Within Drainage E, approximately 0.002 acre of jurisdictional nonwetland waters occurs within the OHWM, as determined from width measurements taken in the field. There are no wetland waters within this drainage.

Vegetation

Dominant vegetation observed in the drainage courses consisted primarily of upland species, including California buckwheat, California sagebrush, and brome grass. Hydrophytic vegetation potentially indicative of wetlands, primarily consisting of mulefat and arroyo willow, was primarily observed at the storm drain outlet in the central part of Drainage A, identified on Figure 2 at Sample Point 1. Scattered, isolated mulefat shrubs were present at several locations throughout this drainage. All of the areas examined lacked wetland hydrology and hydric soil indicators.

Soils

The Soil Survey of San Bernardino County Southwestern Part, California describes the soil expected to be found in the study area as Tujunga series.

The following Tujunga series mapping unit was identified as present in the study area by the *Soil Survey*:

- TuB: Tujunga loamy sand (0–5 percent slopes) and
- TvC: Tujunga gravelly, loamy sand, 0–9 percent slopes

The Tujunga series consists of somewhat excessively drained, nearly level to moderately sloping soils that formed on alluvial fans in granitic alluvium. Runoff is very slow to slow, and hazard of erosion is slight because of the gravelly surface layer.

Hydric soil indicators were not observed in any of the soils examined within the study area.

Hydrology

All of the five drainage courses exhibited an OHWM consisting primarily of a scoured channel bed. Indicators of wetland hydrology were not observed.

Based on the very limited extent of riparian vegetation (present at the storm drain outlet in the central part of Drainage A), it is concluded that all five drainage courses are ephemeral and do not meet the Corps three-parameter definition required to qualify as jurisdictional wetlands under Section 404 of the CWA.

CONCLUSIONS

Corps Jurisdiction

Each of the ephemeral drainages shown in Figure 2 requires a significant nexus determination, per Rapanos guidance, in order to assess its jurisdictional status. Based on the jurisdictional delineation, LSA has concluded that within the study area, Table B shows the total potential Corps jurisdictional areas within the study area. Approximately 0.182 acre is potentially jurisdictional nonwetland waters of the United States; none of the area meets the three parameters required to qualify as jurisdictional wetlands under Section 404 of the CWA.

CDFG Jurisdiction

All of the areas satisfying the Corps jurisdictional criteria for waters of the United States, as described above, are also subject to CDFG jurisdiction pursuant to Section 1602 of the California Fish and Game Code. Potential CDFG jurisdiction encompasses approximately 0.986 acre of stream bed habitat. See Figure 2 for the extent of CDFG jurisdiction. Table B shows the total potential CDFG jurisdictional areas within the project area.

RWQCB Jurisdiction

Since there is no public guidance on determining RWQCB jurisdictional areas, jurisdiction was determined based on the federal definition of wetlands (three parameters) and other waters (OHWM) as recommended by the September 2004 Workplan. Therefore, potential RWQCB jurisdiction encompasses 0.182 acre. The total area of potential RWQCB jurisdiction is shown in Table B.

This jurisdictional determination is subject to verification by the Corps, CDFG, and RWQCB.

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APPENDIX A

COPY OF WETLAND DATA FORM – ARID WEST REGION

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: CENTRAL PARK-RANCHO CUCAMONGA City/County: RANCHO CUCAMONGA SAN BERNARDINO Sampling Date: 12/4/07
 Applicant/Owner: CITY OF RANCHO CUCAMONGA State: CA Sampling Point: 1
 Investigator(s): L. SIMONE Section, Township, Range: S36, T1N, R7W
 Landform (hillslope, terrace, etc.): ALLUVIAL FAN Local relief (concave, convex, none): NONE Slope (%): 5-10%
 Subregion (LRR): C Lat: 34°07'30" Long: 117°34'30" Datum: 1929
 Soil Map Unit Name: TUJUNGA NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation NO, Soil NO, or Hydrology NO significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation NO, Soil NO, or Hydrology NO naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: <u>HYDROPHYTIC VEGETATION ASSOCIATED WITH RUNOFF FROM STORM DRAIN OUTFALL. SOILS CONSIST OF COARSE GRAINY SAND. NO EVIDENCE OF WITHIN-D HYDROLOGY PRESENT</u>			

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
4. _____				
Total Cover: <u>0</u>				
Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>BACCHARIS SALICIFOLIA</u>	<u>40</u>		<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. <u>SALIX LASIOLEPIS</u>	<u>30</u>		<u>FACW</u>	OBL species _____ x 1 = _____
3. _____				FACW species <u>2</u> x 2 = <u>4</u>
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
6. _____				UPL species _____ x 5 = _____
7. _____				Column Totals: _____ (A) _____ (B)
8. _____				Prevalence Index = B/A = <u>2</u>
Total Cover: <u>70</u>				
Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>BROMUS SP</u>	<u>10</u>		<u>UPL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. _____				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
Total Cover: <u>10</u>				
Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____				
Total Cover: <u>0</u>				
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks: <u>HYDROPHYTIC VEGETATION IS ISSUATED AND APPEARS TO BE PRESENT BECAUSE OF NEARBY RUNOFF ASSOCIATED WITH STORM DRAIN FROM ADJACENT DEVELOPMENT</u>				

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2"	5Y 2.5/2						Loamy Sand	
2-20"	5Y 3/1						Loamy Sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F5)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

³Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: SOILS CONSIST OF LOAMY SANDS. NO HYDRIC INDICATORS PRESENT.

HYDROLOGY

Wetland Hydrology Indicators:

<u>Primary Indicators (any one indicator is sufficient)</u>	<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Biotic Crust (B12)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Flowed Soils (C6)	
<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations:

Surface Water Present? Yes _____ No ✓ Depth (inches): _____

Water Table Present? Yes _____ No ✓ Depth (inches): _____

Saturation Present? Yes _____ No ✓ Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: NO HYDROLOGIC INDICATORS PRESENT



APPENDIX B4
2008 Protocol Burrowing Owl Survey Letter

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January 11, 2008

City of Rancho Cucamonga
Planning Department
Attn: Ms. Karen McGuire-Emery
10500 Civic Center Drive
Rancho Cucamonga, California 91730

Subject: Results of Focused Burrowing Owl Survey for Central Park Project located in the City of Rancho Cucamonga, San Bernardino County (LSA Project No. CRG0703)

Dear Ms. McGuire-Emery:

This letter report was prepared for City of Rancho Cucamonga to document the results of a focused survey for the western burrowing owl (*Athene cunicularia hypugaea*) conducted by LSA Associates, Inc. (LSA) at the above-referenced site. The proposed project is to develop the remaining approximately 70 acres of the Central Park project. The site is located in the south ½ of the southeast ¼ and a portion of the southeast ¼ of the southwest ¼ of Section 36, Township 1 North, Range 7 West, in the City of Rancho Cucamonga, San Bernardino County, California, as shown on the *Cucamonga Peak, California* and *Guasti, California* 7.5-minute series U.S. Geological Survey (USGS) topographic maps (attached Figure 1). Figure 2 shows the conceptual site plan.

No burrowing owls were detected during the December 2007 focused surveys for this species.

BURROWING OWL BACKGROUND

The burrowing owl is protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711) and under Sections 3500, 3503, and 3800 of the California Fish and Game Code (Code). These sections of the Code prohibit take, possession, or destruction of birds, their nests, or eggs. When the owl is present, avoidance of take requires that project-related disturbance be avoided during the critical phases of the nesting cycle (typically from February 1 through August 31 in San Bernardino County).

The western burrowing owl is a small ground-dwelling owl with a round head that lacks the feather tufts on the head typical of other owls. It has white eyebrows, yellow eyes, and long stilt-like legs. The owl is sandy-colored on the head, back, and upper parts of the wings and white-to-cream with barring on the breast and belly. Unlike most owls, the male is slightly larger than the female, and the females are usually darker than the males.

The western burrowing owl is found in western North America from Canada to Mexico and east to Texas and Louisiana. In certain areas of its range, it is migratory (in the northern areas of the Great

Plains and Great Basin). Although the burrowing owl in northern California is thought to migrate, owls within central and southern California are predominantly non-migratory.

Burrowing owls are found in open, dry grasslands, agricultural and range lands, and desert habitats often associated with burrowing animals. They also inhabit grass, forb, shrub stages of pinyon and ponderosa pine habitats. The owl can be found at elevations ranging from 200 feet below sea level to 9,000 feet above mean sea level (AMSL). In California, the highest elevation where this species has been found is 5,300 feet in Lassen County. The owl commonly perches on fence posts or on top of mounds outside its burrow. These owls can commonly be found at the margins of airports and golf courses and in vacant urban lots. They are active day and night but usually less active during the peak of day.

Burrowing owls tend to be opportunistic feeders. Large arthropods, mainly beetles and grasshoppers, comprise a large portion of their diet. Small mammals, especially mice, rats, gophers, and ground squirrels, are also important food items. Other prey animals include reptiles and amphibians, scorpions, young rabbits, bats, and birds, such as sparrows and horned larks (*Eremophila* sp.). Consumption of insects increases during the breeding season. Burrowing owls are primarily crepuscular (active at dusk and dawn) but will hunt throughout a 24-hour period.

As their name suggests, burrowing owls nest in burrows in the ground, often in old ground squirrel burrows or badger dens. They can dig their own burrows but prefer deserted excavations of other animals. They are also known to use artificial burrows, such as pipes, concrete debris piles, or rock outcrops.

Burrowing owl nesting season begins between February and April and lasts until the end of August. The peak of the nesting season is from April 15 through July 15. The owls often line their nests with an assortment of dry materials. Adults usually return to the same burrow or nearby area each year.

One or more "satellite" burrows can usually be found near the nest burrow and are used by adult males during the nesting period and by juvenile owls for a few weeks after they emerge from the nest. The female will lay five to six (sometimes 3–11) white eggs a day apart, which are incubated for 28 to 30 days by the female. The male brings food to the female during incubation and stands guard near the burrow by day. At 14 days of age, the young may be seen roosting at the entrance to the burrow, waiting for the adults to return with food. The young leave the nest at about 40–45 days of age and begin chasing live insects between 49 and 56 days of age.

METHODS

The burrowing owl survey was conducted in accordance with the recommendations of the California Burrowing Owl Consortium, Santa Cruz Predatory Bird Research Group Burrowing Owl Survey Protocol (1993), and California Department of Fish and Game (CDFG) internal memo (February 1995).

A focused burrow survey was conducted by LSA Assistant Wildlife Biologist Lisa Wadley on December 3, 2007, in order to determine locations of fossorial mammal burrows and/or burrows with burrowing owl sign (e.g., individuals, feathers, pellets, whitewash, or prey remnants) or other

structures with the potential for the owl(s) to inhabit (e.g., drainage pipes, concrete refuse piles, debris piles, and detention basins) within the project area.

Burrowing owl surveys were conducted by Lisa Wadley on the mornings of December 5, 13, 17, 2007, and on the morning of January 2, 2008 (Table A).

Table A: Focused Survey Dates and Weather Conditions

Survey	Date	Time (24-Hour) (start/finish)	Temp. (°F) (start/finish)	Wind (mph) (start/finish)	Weather Conditions
Burrow Survey	December 3, 2007	0830-1015	56 / 67	0-3 / 0-2	clear
Presence/Absence Survey 1	December 5, 2007	0630-0745	51 / 61	0-2 / 0-1	clear / 5%
Presence/Absence Survey 2	December 13, 2007	0640-0750	44 / 55	0-3 / 0	25% / 15%
Presence/Absence Survey 3	December 17, 2007	0640-0750	42 / 42	0-1 / 0-1	10% / 5%
Presence/Absence Survey 4	January 2, 2008	0650-0815	50 / 52	0-3 / 0-2	100% / 70%

The focused survey provided 100 percent site coverage by observing areas with suitable burrows within the project area. Observations were made with binoculars and spotting scope at point locations adjacent to suitable burrowing owl habitat (remnant vineyards and non-native grassland areas) (Figure 3). The survey did not include the 150-meter zone of influence transects where that area is under separate ownership, due to the lack of authorization to enter adjacent properties. However, suitable habitat adjacent to the project site was observed through binoculars and spotting scope during the survey. See Figure 3 for location of owl survey areas and Figures 3A–3D for site photographs.

ENVIRONMENTAL SETTING

The proposed project is to develop the remaining approximately 70 acres of the 100-acre site. The project includes the development of Central Park Phase II. Phase I is developed (Figure 3). Proposed uses for Phase II of Central Park include a tennis complex, a gymnasium, an aquatic center, an indoor pool, a fire station, maintenance yard, an amphitheater, overnight family camping, group picnic facilities, lake development, potential parking structure, equestrian facilities, adjacent regional trail, and associated parking.

The site is relatively flat and ranges in elevation from approximately 1,300 to 1,360 feet. The soils present on site, as mapped by the Soil Conservation Service (USDA 2005), are Tujunga loamy sand (0–5% slopes) and Tujunga gravelly loamy sand (0–9% slopes). The proposed site is bordered on the north by a recreation trail and housing, on the east by the Community and Senior Center and Milliken Avenue, on the south by Base Line Road, and on the west by Deer Creek Channel.

The dominant plant community on site is California sagebrush scrub (Holland 1996; Sawyer and Keeler-Wolf 1995). Dominant species identified in this plant community include California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), horehound

(*Marrubium vulgare*), and deerweed (*Lotus scoparius*). Figure 3 includes a vegetation map with photograph locations, and Figures 3A through 3D show typical conditions currently found on the site. A complete list of plant species observed is attached in Table B.

RESULTS

Fossorial mammal burrows were observed within the remnant vineyard area and the non-native grassland area on the site (Figure 3). Although the sizes of the burrows are suitable for burrowing owls, no owl sign was found, and no owls were observed utilizing these burrows at the time of the surveys. Since the burrowing owl is a mobile species, it has a potential to subsequently occupy any suitable burrows on site. Therefore, a pre-construction survey will be required to ensure that no owls have subsequently occupied the site prior to grading activities.


CERTIFICATION

I hereby certify that I have read this report and that the statements furnished herein and in the attached exhibits present the data and information required for this biological evaluation; and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Please do not hesitate to contact me with any questions or comments you may have.

Sincerely,

LSA ASSOCIATES, INC.



Lisa Wadley
Assistant Wildlife Biologist

Phone: (951) 781-9310

E-mail: Lisa.Wadley@lsa-assoc.com

ATTACHMENTS:

- Figure 1: Regional and Project Location
- Figure 2: Site Plan
- Figure 3: Vegetation, Land Use and Site Photograph Locations
- Figure 3A: Site Photographs
- Figure 3B: Site Photographs
- Figure 3C: Site Photographs
- Figure 3D: Site Photographs
- Table B: Plants and Animals Observed

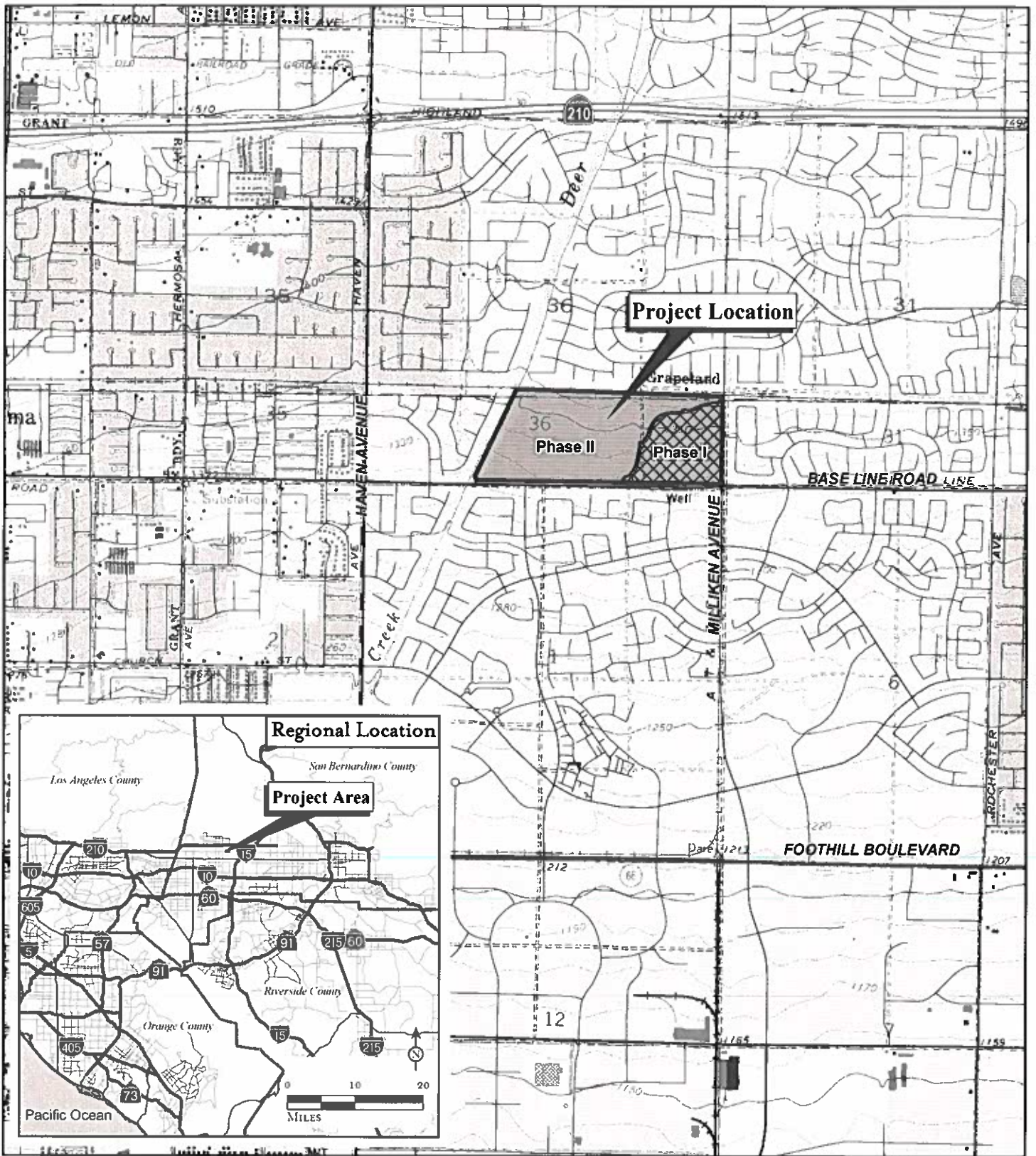
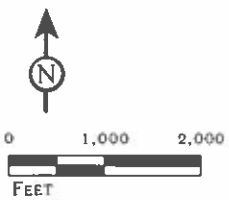


FIGURE 1

LSA



SOURCE: USGS 7.5' Quads Cucamonga Peak (1988), Guasti (1981), CA; Thomas Bros., 2006

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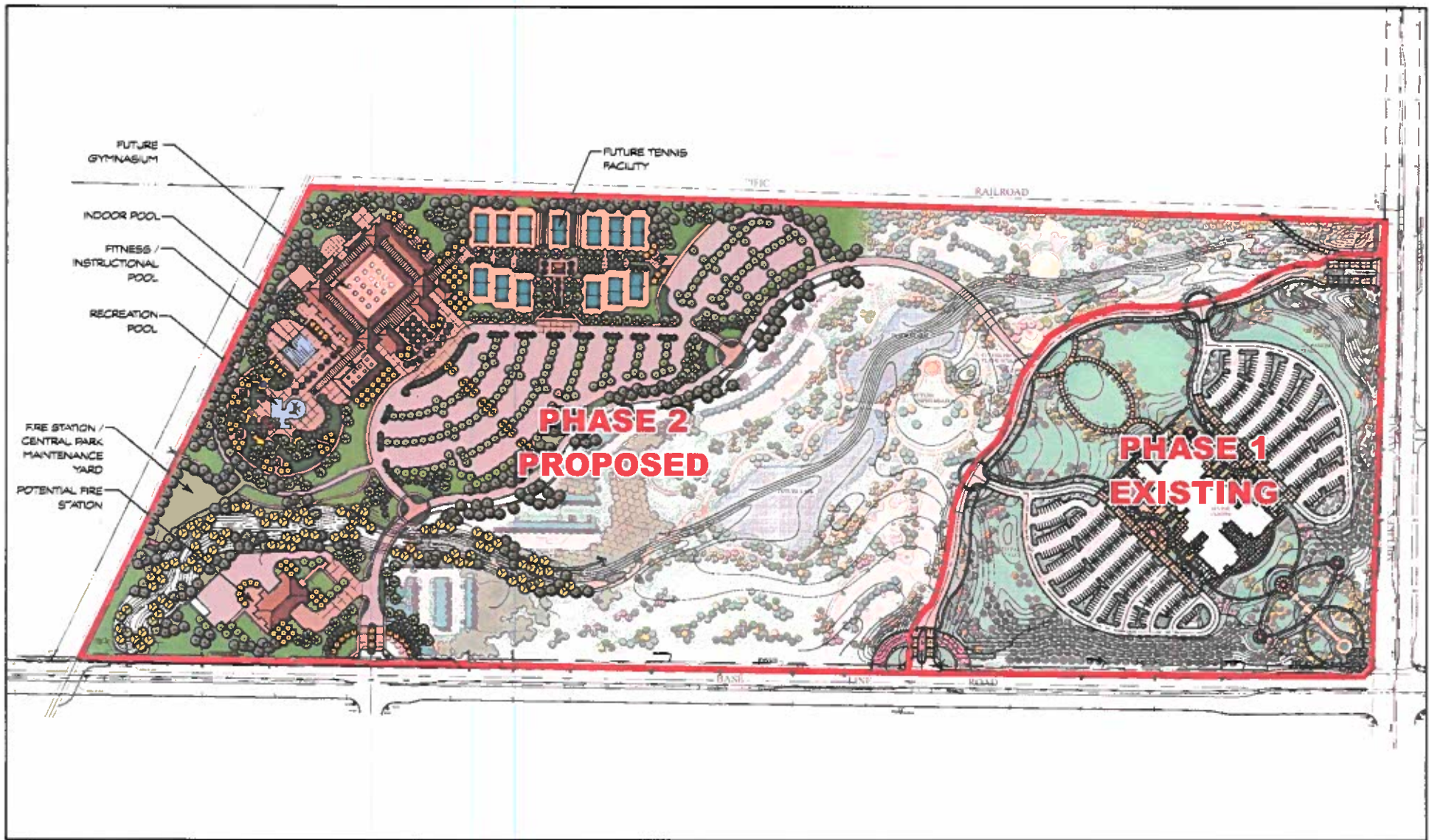


FIGURE 2

LSA



SOURCE: RJM Design Group Inc. 2007.

I:\CRG0703\Reports\BUOW\ConceptualSitePlan.mxd (01/14/08)

Central Park
Focused Burrowing Owl Survey Report

Conceptual Site Plan



PHOTOGRAPH 1: *View of earthen drainage feature as seen from north boundary facing south.*



PHOTOGRAPH 2: *View of recreational trail that borders project site's north boundary as seen facing west along north boundary.*

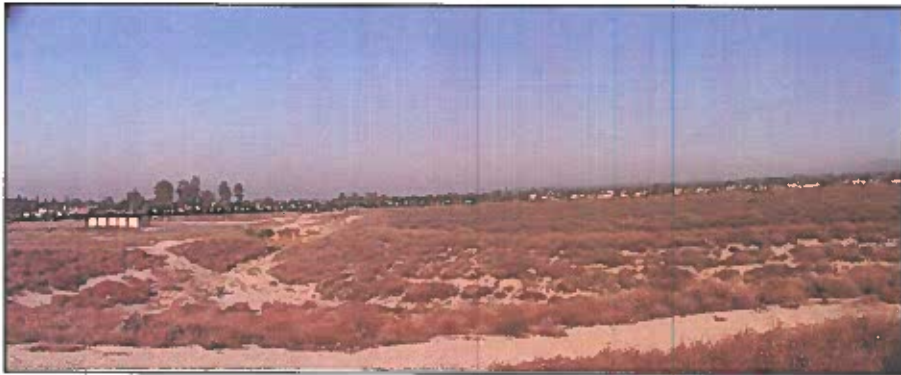


PHOTOGRAPH 3: *Panoramic view of graded/disked area and storage area as seen from the northeast corner of the site facing west.*

FIGURE 3A

LSA

Central Park
Focused Burrowing Owl Survey Report
Site Photographs



PHOTOGRAPH 4: *View of Coastal Sage Scrub vegetation and drainage feature as seen from the center of the project site facing southwest.*



PHOTOGRAPH 5: *View of drainage feature in south half of the project site as seen facing west.*

PHOTOGRAPH 6: *View of remnant vineyards present in the south half of the project site as seen facing northeast/easterly.*



FIGURE 3B

LSA

Central Park
Focused Burrowing Owl Survey Report

Site Photographs



PHOTOGRAPH 7: *View of drainage feature and culvert on project site as seen facing Base Line Road (southwest corner).*



PHOTOGRAPH 8: *View of access road found along west boundary of the project site.*

LSA

FIGURE 3C

*Central Park
Focused Burrowing Owl Survey Report
Site Photographs*



PHOTOGRAPH 7: *View of drainage feature as shown facing southwest towards Base line Road.*



PHOTOGRAPH 8: *View of culvert in the center of the site as seen facing southeast. Showing mule fat and California buckwheat.*

LSA

FIGURE 3D

*Central Park
Focused Burrowing Owl Survey Report
Site Photographs*

Table B: Plants and Animals Observed

SCIENTIFIC NAME	COMMON NAME
PLANTS	
Asteraceae	Sunflower family
<i>Artemisia californica</i>	California sagebrush
<i>Baccharis salicifolia</i>	Mule fat
<i>Ericameria pinifolia</i>	Pine goldenbush
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Pseudognaphalium stramineum</i>	Cottonbatting plant
<i>Senecio flaccidus</i>	Shrubby butterweed
Boraginaceae	Borage family
<i>Cryptantha</i> sp.	Cryptantha
Brassicaceae	Mustard family
<i>Hirschfeldia incana</i> (Non-native species)	Shortpod mustard
<i>Sisymbrium irio</i> (Non-native species)	London rocket
Cactaceae	Cactus family
<i>Opuntia basilaris</i>	Beavertail cactus
Fabaceae	Pea family
<i>Lotus scoparius</i>	Deerweed
Lamiaceae	Mint family
<i>Marrubium vulgare</i> (Non-native species)	Horehound
Polygonaceae	Buckwheat family
<i>Eriogonum fasciculatum</i>	California buckwheat
Scrophulariaceae	Figwort family
<i>Penstemon spectabilis</i>	Royal penstemon
Solanaceae	Nightshade family
<i>Nicotiana glauca</i> (Non-native species)	Tree tobacco
Vitaceae	Grape family
<i>Vitis vinifera</i> (Non-native species)	Cultivated grape
Poaceae	Grass family
<i>Schismus barbatus</i> (Non-native species)	Common Mediterranean grass
BIRDS	
Accipitridae	Kites, Hawks, and Eagles
<i>Buteo jamaicensis</i>	Red-tailed hawk
Falconidae	Falcons
<i>Falco sparverius</i>	American kestrel
Charadriidae	Plovers and Lapwings
<i>Charadrius vociferus</i>	Killdeer
Laridae	Skuas, Gulls, Terns, Skimmers
<i>Larus californicus</i>	California gull
Columbidae	Pigeons and Doves
<i>Zenaida macroura</i>	Mourning dove
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird

Table B: Plants and Animals Observed

SCIENTIFIC NAME	COMMON NAME
Picidae	Woodpeckers
<i>Colaptes auratus</i>	Northern flicker
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	Black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Tyrannus verticalis</i>	Western kingbird
Hirundinidae	Swallows
<i>Stelgidopteryx serripennis</i>	Northern rough-winged swallow
Parulidae	Wood Warblers
<i>Dendroica coronata</i>	Yellow-rumped warbler
Emberizidae	Emberizines
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	House finch
MAMMALS	
Leporidae	Rabbits and Hares
<i>Sylvilagus audubonii</i>	Desert cottontail
Sciuridae	Squirrels
<i>Spermophilus beecheyi</i>	California ground squirrel
Canidae	Foxes, Wolves and Dogs
<i>Canis latrans</i>	Coyote



APPENDIX B5

2008 Protocol Coastal California Gnatcatcher Survey Letter



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May 1, 2007

Ms. Sandra Marquez
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, California 92009

Dr. John R. Gustafson
California Department of Fish and Game
Wildlife Branch
1416 Ninth Street, 12th Floor
Sacramento, California 95814

Subject: Results of a Focused California Gnatcatcher Survey for Central Park Phase II Project Site in the City of Rancho Cucamonga, San Bernardino County (LSA Project Number CRG0703)

Dear Ms. Marquez and Dr. Gustafson:

This letter provides the results of a focused presence/absence survey for California gnatcatcher (*Poliophtila californica californica*) by LSA Associates, Inc. (LSA) on the above-referenced approximately 70-acre project site in the City of Rancho Cucamonga, San Bernardino County. The Central Park Phase II project site is located at the north edge of Baseline Road between Deer Creek Channel and Milliken Avenue, within the south ½ of Section 36, Township 1 North, Range 7 West as shown on the *Guasti, California* and *Cucamonga Peak, California* 7.5-minute series U.S. Geological Survey (USGS) topographic maps (see attached Figure 1). Development on the project site will include a fire station, recreational park, campground, maintenance area, and associated parking.

The approximately 70-acre project site is bordered on the north by a recreation trail and housing, on the east by the Community and Senior Center and Milliken Avenue, on the south by Base Line Road, and on the west by Deer Creek Channel (see attached Figure 2). The site supports about 35 acres of coastal sage scrub habitat. The remainder of the site consists of non-native grassland, remnants of a vineyard, and areas that are unvegetated or with predominantly ruderal or ornamental vegetation. Dominant species within the coastal sage scrub areas include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), horehound (*Marrubium vulgare*), and deerweed (*Lotus scoparius*). The remnant vineyard area is dominated by cultivated grapes and horehound. The area of non-native grassland is dominated by common cryptantha (*Cryptantha intermedia*), tocalote (*Centaurea melitensis*), redstem stork's bill (*Erodium cicutarium*), and Mediterranean schismus (*Schismus barbatus*).

METHODS

The California gnatcatcher survey was conducted by LSA Senior Biologist Stan Spencer under LSA Federal 10(a)(1)(A) Permit TE-777965 and under a Letter of Agreement (LOA) from the California Department of Fish and Game in lieu of a Memorandum of Understanding between LSA and the CDFG. The survey was conducted in accordance with *Coastal California Gnatcatcher (Poliophtila californica californica) Presence/Absence Survey Protocol* (U.S. Fish and Wildlife Service, Revised July 28, 1997). The survey was conducted following the gnatcatcher survey guidelines for the non-breeding season survey

period (nine site visits, each at least two weeks apart). Suitable habitat within the project area consists of approximately 35 acres of coastal sage scrub.

All coastal sage scrub and immediately adjacent areas were surveyed. Average survey rate was about 10 acres per hour. Taped vocalizations were used periodically during each site visit. Table A provides the survey personnel, dates, and weather conditions for each site visit.

Table A – Survey Personnel, Dates and Weather Conditions

Personnel	Date	Time (24-hour) Start/Finish	Cloud Cover (%) Start-Finish	Wind (mph) Start/Finish	Temperature (°F) Start-Finish
Stan Spencer	12/10/07	0740/1040	0/0	<1/1-3	55/58
Stan Spencer	12/24/07	0730/1030	0/0	<1/1-3	56/73
Stan Spencer	1/8/08	0720/1100	20/20	<1/1-3	44/57
Stan Spencer	1/22/08	0730/1100	98/40	<1/<1	49/59
Stan Spencer	2/5/08	0726/1015	0/0	1-3/1-3	48/58
Stan Spencer	2/19/08	0730/1025	100/100	<1/<1	54/56
Stan Spencer	3/6/08	0735/1035	10/10	<1/<1	60/70
Stan Spencer	3/20/08	0725/1010	30/30	<1/1-3	55/61
Stan Spencer	4/4/08	0800/1050	0/0	1-3/<1	54/67

RESULTS

California gnatcatcher was not observed during the focused survey. A list of bird species observed during the focused survey is attached.

Please contact me if you require any additional information.

Sincerely,

LSA ASSOCIATES, INC.



Stanley C. Spencer, Ph.D.
Senior Biologist

Attachments: Certification
Figure 1: Regional and Project Location
Figure 2: Land Cover
List of Bird Species Observed

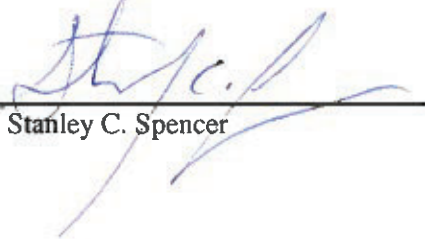
cc: Mr. Richard Erickson, LSA Associates, Inc.
Ms. Karen McGuire-Emery, City of Rancho Cucamonga

I CERTIFY THAT THE INFORMATION IN THIS SURVEY REPORT AND ATTACHED EXHIBITS FULLY AND ACCURATELY REPRESENTS MY WORK:

SURVEYOR:

PERMIT NUMBER

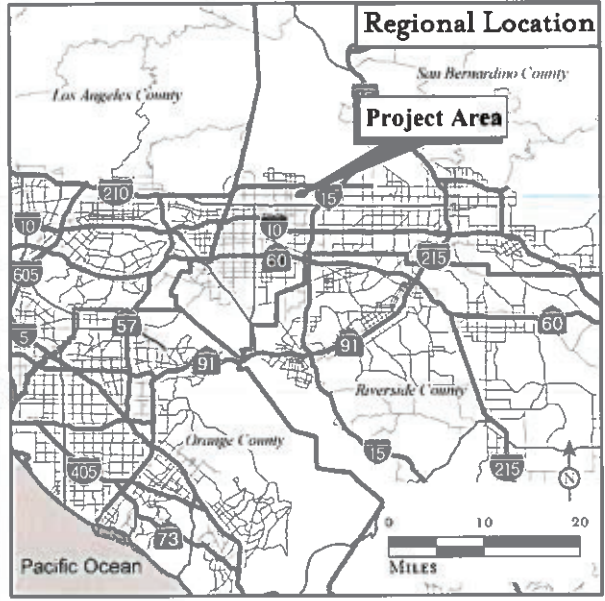
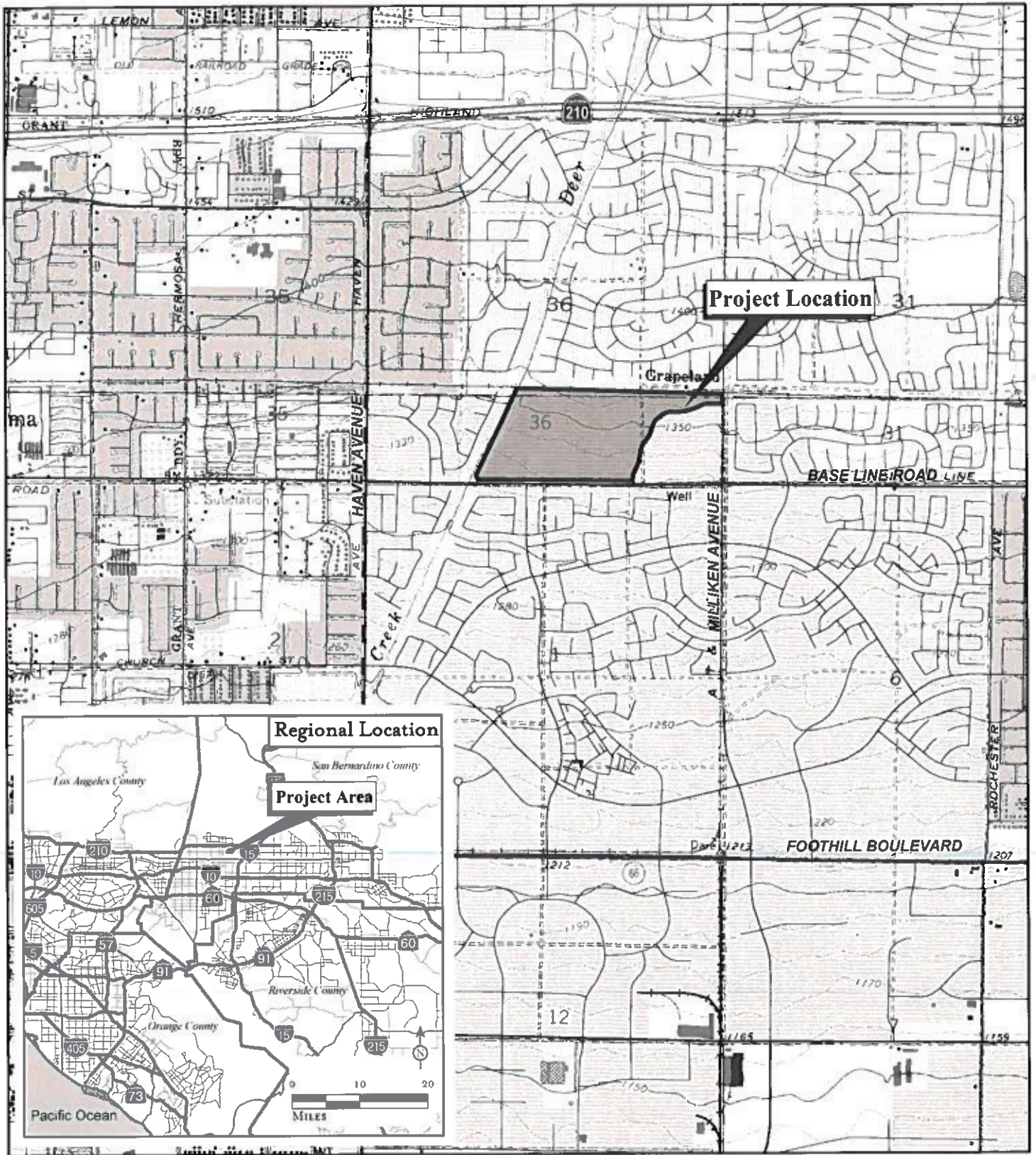
DATE:



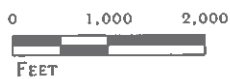
TE-777965-7

May 1, 2007

Stanley C. Spencer



LSA



SOURCE: USGS 7.5' Quads: Cucamonga Peak(1988), Guasti (1981), CA; Thomas Bros., 2006

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FIGURE 1

Central Park Phase II
California Gnatcatcher Survey

Regional and Project Location

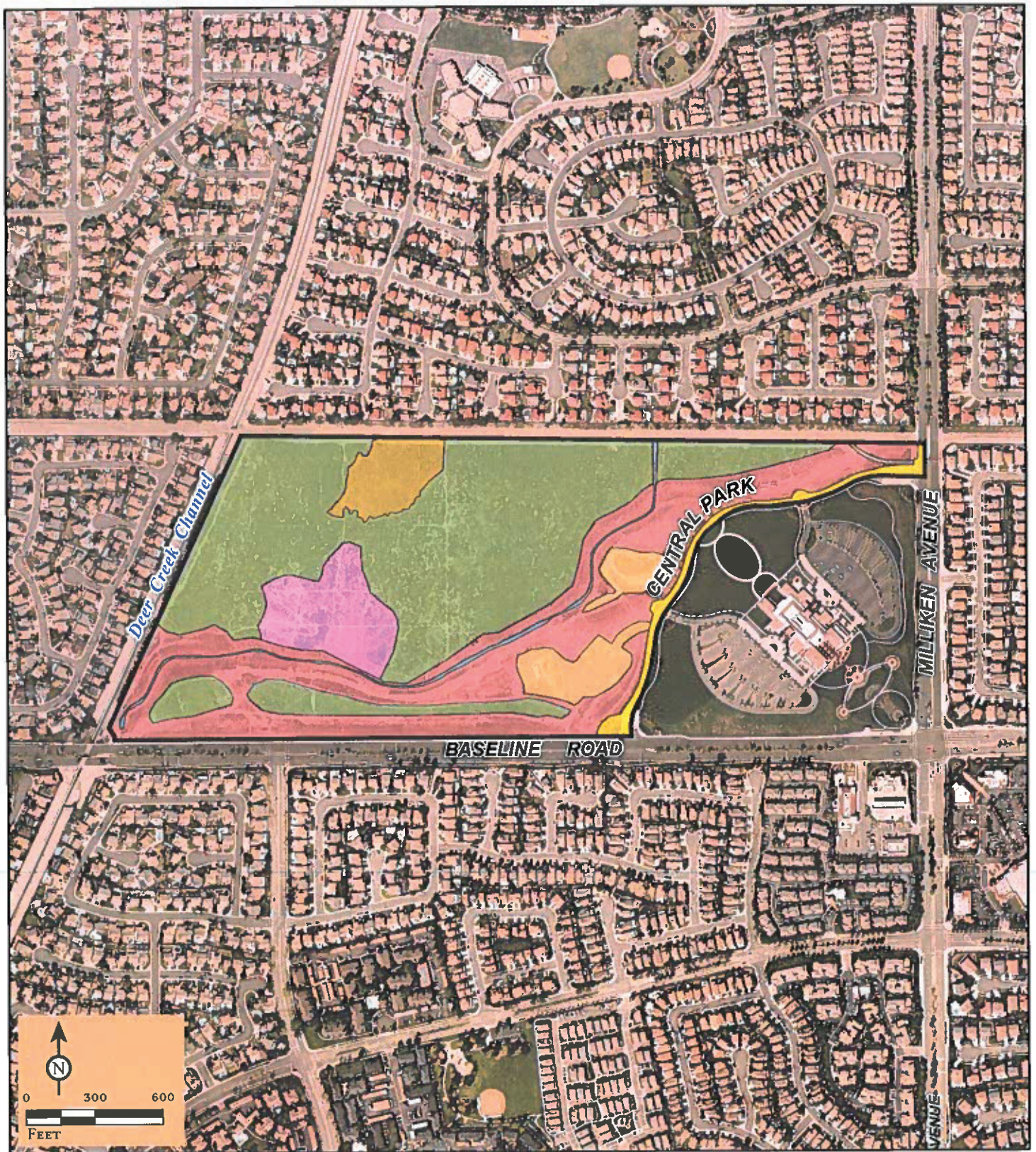










FIGURE 2

LSA

- | | |
|---|--|
|  PROJECT BOUNDARY |  GRADED/DISCED AREAS |
|  COASTAL SAGE SCRUB |  NON-NATIVE GRASSLAND |
|  DEVELOPED |  REMNANT VINEYARDS |
|  DRAINAGE FEATURE |  STAGING/STORAGE |

Central Park Phase II
California Gnatcatcher Survey

Land Cover

SOURCE: AirPhoto USA 2007; Thomas Bros., 2006

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BIRD SPECIES OBSERVED

Scientific Name	Common Name
Accipitridae	Kites, Hawks, and Eagles
<i>Accipiter cooperii</i>	Cooper's hawk
<i>Buteo jamaicensis</i>	Red-tailed hawk
Falconidae	Falcons
<i>Falco sparverius</i>	American kestrel
Columbidae	Pigeons and Doves
<i>Zenaida macroura</i>	Mourning dove
Trochilidae	Hummingbirds
<i>Calypte anna</i>	Anna's hummingbird
Picidae	Woodpeckers
<i>Colaptes auratus</i>	Northern flicker
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	Black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Tyrannus verticalis</i>	Western kingbird
Corvidae	Crows and Ravens
<i>Corvus corax</i>	Common raven
Aegithalidae	Bushtits
<i>Psaltriparus minimus</i>	Bushtit
Troglodytidae	Wrens
<i>Thryomanes bewickii</i>	Bewick's wren
Regulidae	Kinglets
<i>Regulus calendula</i>	Ruby-crowned kinglet
Sylviidae	Old World Warblers and Gnatcatchers
<i>Poliophtila caerulea</i>	Blue-gray gnatcatcher
Mimidae	Mockingbirds and Thrashers
<i>Mimus polyglottos</i>	Northern mockingbird
Parulidae	Wood Warblers
<i>Dendroica coronata</i>	Yellow-rumped warbler
Emberizidae	Emberizines
<i>Pipilo crissalis</i>	California towhee
<i>Melospiza melodia</i>	Song sparrow
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Icteridae	Blackbirds, Orioles and Allies
<i>Sturnella neglecta</i>	Western meadowlark

BIRD SPECIES OBSERVED

Scientific Name	Common Name
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	House finch
<i>Carduelis psaltria</i>	Lesser goldfinch
Passeridae	Old World Sparrows
<i>Passer domesticus</i> (Non-native species)	House sparrow

APPENDIX B6

2008 Focused San Bernardino Kangaroo Rat Small Mammal Trapping Survey Letter



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May 1, 2008

Ms. Sandra Marquez
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, California 92011

Dr. John Gustafson
Habitat Conservation Planning Branch
California Department of Fish and Game
1416 9th Street, 12th Floor
Sacramento, California 95814

Subject: 70-Acre Central Park Parcel in the City of Rancho Cucamonga, San Bernardino County, Kangaroo Rat Trapping, February 2008

Dear Ms. Marquez and Dr. Gustafson:

This letter report documents the results of five nights of small mammal live trapping on the approximately 70-acre project site located in the City of Rancho Cucamonga, San Bernardino County, California. Trapping was conducted within areas of suitable habitat. The trapping was conducted to determine the presence or absence of the endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*) according to survey guidelines established by the U.S. Fish and Wildlife Service. No San Bernardino kangaroo rats were captured.

STUDY AREA

The project site is located at the northwest corner of Milliken Avenue and Base Line Road in the City of Rancho Cucamonga, San Bernardino County, California. The southeast portion of the parcel (approximately 30 acres) has already been developed, leaving approximately 70 acres for development. Residential development surrounds the site on all sides. The undeveloped portion of the proposed project site consists of relatively undisturbed sage scrub vegetation. Geographically, the study area is located in the southeast $\frac{1}{4}$ and a portion of the southwest $\frac{1}{4}$ of the southeast $\frac{1}{4}$ of Section 36, Township 1 North, Range 7 West, in the City of Rancho Cucamonga, San Bernardino County, California, as shown on the *Cucamonga Peak, California* and *Guasti, California* 7.5-minute series U.S. Geological Survey (USGS) topographic maps (Figure 1; all figures attached). Approximate Universal Transverse Mercator (UTM) coordinates are $^{17}75^{500m}$ on the north, $^{17}76^{000m}$ on the south, $^{47}500m$ on the west, and $^{48}200m$ on the east. The elevation of the study area averages approximately 1,350 feet above mean sea level. Vegetation on site is dominated by coastal sage scrub.

METHODS

Richard Erickson and/or Leo Simone were present and responsible for the entire trapping effort pursuant to the LSA Associates, Inc. (LSA) Federal Fish and Wildlife Permit No. TE-777965-7 (May 10, 2004–May 9, 2007; renewal request submitted April 9, 2007, extending coverage indefinitely) and a temporary authorization from the California Department of Fish and Game

(Department) (May 12, 2003–March 31, 2007; renewal request submitted March 26, 2007, extending coverage indefinitely) in lieu of a Memorandum of Understanding between LSA and the Department.

A total of 100 Sherman live traps were set in three traplines, as shown in Figure 2. The traps were set and baited in the evening with a mixture of wild birdseed and rolled oats. Traps were checked at midnight and at dawn, at which time captured animals were identified and released unharmed.

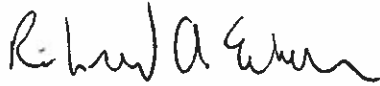
RESULTS

Trapping resulted in 10 small mammal captures involving two species. A summary of all trapping results is shown in Table A. No San Bernardino kangaroo rats were captured.

Please contact Richard Erickson or Leo Simone if you have any questions about this survey.

Sincerely,

LSA ASSOCIATES, INC.



Richard Erickson
Associate/Biologist



Leo Simone
Senior Biologist

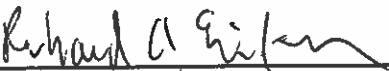
Attachments: Figures 1 and 2
Table A
CNDDDB Form

I CERTIFY THAT THE INFORMATION IN THIS SURVEY REPORT AND ATTACHED EXHIBITS FULLY AND ACCURATELY REPRESENT MY WORK:

SURVEYOR:

PERMIT NUMBER:

DATE:



Richard Erickson

TE-777965-7

May 1, 2008



Leo Simone

TE-777965-7

May 1, 2008

Table A: 70-Acre Rancho Cucamonga Site Trapping Summary, February 2008

Date	Capture Totals										Grand Total
	Feb. 2 p.m.	Feb. 26 a.m.	Feb. 26 p.m.	Feb. 27 a.m.	Feb. 27 p.m.	Feb. 28 a.m.	Feb. 28 p.m.	Feb. 29 a.m.	Feb. 29 p.m.	Mar. 1 a.m.	
Number of Traps Checked	100		100		100		100		100		500
Species											
Pacific/San Diego kangaroo rat <i>(Dipodomys agilis/simulans)</i>	0	0	1	0	1	0	0	0	0	0	2
Deer mouse <i>(Peromyscus maniculatus)</i>	1	0	2	1	2	0	0	2	0	0	8
Total Rodent Captures	1	0	3	1	3	0	0	2	0	0	10
California towhee <i>(Pipilo crissalis)</i>	0	0	0	1	0	0	0	0	0	0	1
White-crowned sparrow <i>(Zonotrichia leucophrys)</i>	0	0	0	3	0	3	0	2	0	0	8
Total Bird Captures	0	0	0	4	0	3	0	2	0	0	9

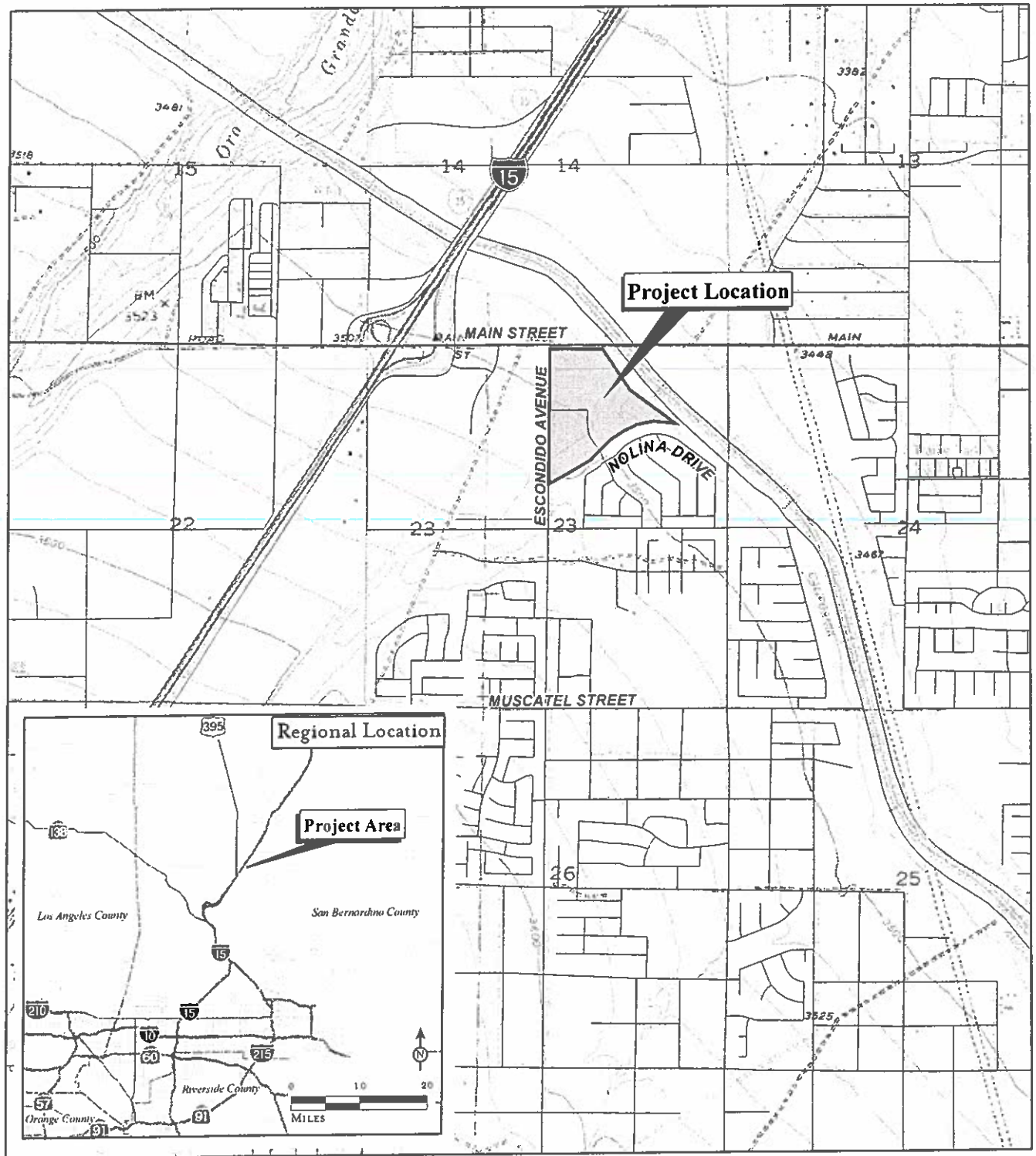


FIGURE 1

LSA



0 1,000 2,000



FEET

SOURCE USGS 7.5' Quads: Baldy Mesa (1988) and Hesperia (1980), CA, Thomas Bros. 2007

I:\GVS0702\Reports\Tortoise\reg_loc.mxd (03/20/08)

Hesperia Wal-Mart
Desert Tortoise Survey

Regional and Project Location



LSA



- LEGEND
- Project Boundary
 - Trapline

FIGURE 2

Central Park Phase II
Initial Study
Trapline Locations

SOURCE: Air Photo USA (2007)
I:\CRG070\GHS\traplines.mxd (3/12/2008)

Mail to:
 California Natural Diversity Database
 Department of Fish and Game
 1807 13th Street, Suite 202
 Sacramento, CA 95814
 Fax: (916) 324-0475 email: CNDDDB@dfg.ca.gov

For Office Use Only

Source Code _____ Quad Code _____
 Elm Code _____ Occ. No. _____
 EO Index No. _____ Map Index No. _____

Date of Field Work (mmddlyyy): 03/01/2008

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Dipodomys merriami parvus*

Common Name: San Bernardino kangaroo rat

Species Found? Yes No not present
 If not, why? _____
 Total No. Individuals _____ Subsequent Visit? yes no
 Is this an existing NDDDB occurrence? no unk.
 Yes, Occ. # _____
 Collection? If yes: _____
 Number _____ Museum / Herbarium _____

Reporter: Leo Simone
 Address: 20 Executive Park, Suite 200
Irvine, CA 92614
 E-mail Address: leo.simone@lsa-assoc.com
 Phone: (949) 553-0666

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

# adults	# juveniles	# larvae	# egg masses	# unknown
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
breeding	wintering	burrow site	rookery	nesting
				other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: San Bernardino Landowner / Mgr.: City of Rancho Cucamonga
 Quad Name: Cucamonga Peak Elevation: 1,350 ft.
 T IN R TW Sec 36, SE 1/4 of SW 1/4, Meridian: H M S Source of Coordinates (GPS, topo. map & type): _____
 T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H M S GPS Make & Model _____
DATUM: NAD27 NAD83 WGS84 Horizontal Accuracy _____ meters/feet
 Coordinate System: UTM Zone 10 UTM Zone 11 OR Geographic (Latitude & Longitude)
 Coordinates: _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope):
costal sage scrub

Other rare taxa seen at THIS site on THIS date:
 (separate form preferred)

Site Information Overall site/occurrence quality/viability (site + population): Excellent Good Fair Poor
 Immediate AND surrounding land use: City park, residential homes
 Visible disturbances: Adjacent development
 Threats:
 Comments:

Determination: (check one or more, and fill in blanks)

Keyed (cite reference): _____
 Compared with specimen housed at: _____
 Compared with photo / drawing in: _____
 By another person (name): _____
 Other: _____

Photographs: (check one or more)

Slide	Print	Digital
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Plant / animal	<input type="checkbox"/>	<input type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? yes no



APPENDIX B7

Plant Special-status Species Inventory and Potential Occurrence Determination



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The literature review provided a list of 37 special-status plant species (plant inventory). Table 2, *Special-Status Plant Inventory and Potential Occurrence within the Phase II Project Site Determination* contains the list of the plant inventory that was created through the literature review. Table 2 provides both the taxonomic name (scientific name) and common name of each plant species, describes each species' status in California, and describes each species' requirements and preferred habitat in California. Table 2 is organized in plant taxonomic order. Plant taxonomic order is based on *The Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al., 2012).

Each special-status plant species was assessed for its potential to occur within the Phase II project site by comparing its elevational range and distribution, retrieved from CNPS and other databases and literature, with the site's location and elevation range. A species was determined as having "no potential to occur" within the Phase II project site if the site is well outside the species' known distribution and/or the species' known elevation range.

Table 2 also summarizes conclusions from the literature review and field surveys regarding the potential occurrence of special-status plant species within the Phase II project site. While conducting the field surveys, the biologists evaluated whether the Phase II project site contained suitable and adequate biological and physical features that are needed to support plants. Note the detection of suitable habitat does not indicate presence or absence of a species. The potential for special-status plant species to occur within the Phase II project site was assessed based on the following criteria (Table 1, *Potential Occurrence Determination Descriptions*).

Table 1: Potential Occurrence Determination Descriptions

Potential for Plant to Occur within the Phase II Project Site	Description
Present	The special-status plant species was observed in the Phase II project site during the field surveys and/or has been recorded on-site by other qualified biologists
High	There are reported occurrences of the special-status plant species within the Phase II project site or the immediate project vicinity and/or some of the existing habitat and soils within the Phase II project site are highly suitable to support the species. The species has a high likelihood of being found on the site.
Moderate	There are reported occurrences of the special-status plant species within the Phase II project site or the immediate project vicinity and/or some of the existing habitat and soils within the Phase II project site are moderately suitable to support the species. The species has a moderate likelihood of being found on the site.
Low	There are no known recorded occurrences of the special-status plant species in the Phase II project site or the immediate project vicinity and/or the existing habitat and soils within the Phase II project site are of poor quality or are unsuitable to support the species. The species is not likely to be found on the site.
No	The Phase II project site is located outside the plant species' known distribution, elevation range, and/or the Phase II project site lacks suitable habitats and/or soils to support the plant species. It is highly unlikely for the plant species to have a potential to occur within the Phase II project site

Even with field surveys, the biologists assessed the probability of occurrence rather than make a definitive conclusion about species presence or absence. Population numbers and failure to detect the

presence of a plant species are not definitive and vary from year to year. This may be due to variable effects associated with weather, fires, drought, rainfall patterns, temperatures, and/or season. Those special-status plant species listed in Table 2 that were determined to have a no potential or low potential to occur within the Phase II project site are not discussed further in the report.

Table 2: Special-Status Plant Inventory and Potential Occurrence within the Phase II Project Site Determination

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Plant Elevation Range (feet amsl)	Phase II Project Site is Located within the Species' Known:		Potential to Occur	Rational
					Elevation Range	General Distribution		
Listed Endangered, Threatened, Candidate and State Rare Plants:								
Plants with official status under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA). A species may have other sensitive designations in addition to their federal or state listing.								
<i>Ambrosia pumila</i>	San Diego ambrosia (=dwarf burr ambrosia)	♦ FE ♦ CRPR: 1B.1	San Diego ambrosia is a perennial rhizomatous herb. Creek beds, seasonally dry drainages, and floodplains are the preferred historical habitat; usually on the periphery of willow woodlands without a protective tree canopy. Riverwash and sandy alluvium underlie these locales. San Diego ambrosia occurs in open habitats such as chaparral and coastal sage scrub in coarse substrates near drainages, and in upland areas on clay slopes or on the dry margins of vernal pools. This species occurs in a variety of associations that are dominated by sparse grasslands or marginal wetland habitats such as river terraces, pools, and alkali playas. This listed plant flowers from April to October.	66 - 1,361	yes	no	no	Even though the project site is located within this species' known elevational range, it is not located within the plant's general distribution and the project site does not contain suitable habitats and/or soils to support this species.
<i>Astragalus brauntonii</i>	Braunton's milk-vetch	♦ FE ♦ CRPR: 1B.1	Braunton's milk-vetch is a perennial herb that occurs in recently burned or disturbed chaparral areas particularly on limestone-derived calcareous soils. It is also found in valley grasslands, coastal sage scrub, and closed-pine cone coniferous forests. This species is closely associated with disturbed areas such as recent burns, firebreaks, and roads, germinating soon after the disturbance and declining as other vegetation recovers in later years. This listed plant flowers from January to August.	13 - 2,100	yes	no	no	Even though the project site is located within this species' known elevational range, it is not located within the plant's general distribution and the project site does not contain suitable habitats and/or soils to support this species.
Sensitive Plants:								
These plants have no official status under the ESA, the CESA, and/or the NPPA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.								
<i>Asplenium vespertinum</i>	western spleenwort	♦ CRPR: 4.2	Western spleenwort is a perennial rhizomatous herb that is found in rocky habitats within chaparral, cismontane woodlands, and coastal scrub. It grows in moist, shady, rocky places, such as the shadows beneath cliff overhangs. This sensitive plant flowers from February to June.	590 - 3,280	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species.
<i>Oreonana vestita</i>	woolly mountain-parsley	♦ CRPR: 1B.3	Woolly mountain-parsley is a perennial herb that prefers scree, talus or gravel on high ridge tops and slopes in lower montane coniferous forests, subalpine coniferous forests and upper montane coniferous forests. This sensitive plant flowers from March to September.	5,297 - 11,480	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Deinandra paniculata</i> (=Hemizonia paniculata)	paniculate tarplant (=San Diego tarweed)	♦ CRPR: 4.2	Paniculate tarplant is an annual herb that is found in coastal scrub and valley and foothill grasslands often in clay or clay loam soils or vernal moist situations, and frequently in disturbed sites. It is usually found in vernal mesic sites. Sometimes found in vernal pools or on Mima mounds near them. Habitat is variously described as vernal pool margins, grasslands, open habitats such as roadsides and disturbed areas and inland from the coast within its range on mesas and dry foothills. This sensitive plant flowers from April to November.	82 - 3,083	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species.
<i>Eriophyllum lanatum</i> var. <i>obovatum</i>	southern Sierra woolly sunflower	♦ CRPR: 4.3	Southern Sierra woolly sunflower is a perennial herb that is found in lower and upper montane coniferous forests within sandy loam soils. This sensitive plant flowers from June to July.	3,654 - 8,202	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Pseudognaphalium leucocephalum</i> (=Gnaphalium leucocephalum)	white rabbit-tobacco	♦ CRPR: 2B.2	White rabbit-tobacco is a biennial or short-lived perennial herb that occurs on sandy and gravelly sites within chaparral, cismontane woodlands (oak-sycamore, oak-pine, to pine woodlands), coastal scrub, and riparian woodlands; usually on dry stream bottoms, arroyos, and canyon bottoms. Commonly found in riparian vegetation. This sensitive plant flowers from (July) August to November (December). Months in parentheses are uncommon.	0 - 6,888	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species.
<i>Symphotrichum</i>	San Bernardino	♦ CRPR: 1B.2	San Bernardino aster is a perennial rhizomatous herb that is found in cismontane	7 - 6,691	yes	yes	low	The project site is located within this species' known

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Plant Elevation Range (feet amsl)	Phase II Project Site is Located within the Species' Known:		Potential to Occur	Rational
					Elevation Range	General Distribution		
<i>defoliatum</i> (= <i>Aster bernardinus</i>)	aster		woodlands, coastal scrub, lower montane coniferous forests, meadows and seeps, marshes and swamps, and vernal mesic valley and foothill grasslands. While this species usually occurs in meadows, springs and streams, it also occurs in upland habitats. Can be found near ditches, streams, springs or disturbed areas. Grows in seasonally moist fine alluvial soils. This sensitive plant flowers from July to November and sometimes December.					distribution and contains marginal habitats to support this plant onsite.
<i>Phacelia mohavensis</i>	Mojave phacelia	♦ CRPR: 4.3	Mojave phacelia is an annual herb that is found in sandy or gravelly sites within cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodlands. This sensitive plant flowers from April to August.	4,593 - 8,202	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Phacelia stellaris</i>	Brand's star phacelia (= <i>Brand's phacelia</i>)	♦ CRPR: 1B.1	Brand's star phacelia is an annual herb that is found on coastal dunes and/or coastal scrub in sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers and is restricted to clay soils. It is primarily associated with coastal dunes and/or coastal scrub. This listed plant flowers from March to June.	3 - 1,312	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species. One occurrence of <i>Phacelia stellaris</i> was documented from San Bernardino County in Rancho Cucamonga southwest of the intersection of Foothill Blvd. and Interstate 15 in 2003 but has since been extirpated by development.
<i>Streptanthus bernardinus</i>	Laguna Mountains jewel-flower	♦ CRPR: 4.3	Laguna Mountains jewel-flower is a perennial herb that is found in montane coniferous forests and chaparral. All reports indicate populations occur in association with conifers. While typically in mesic situations, it can occupy drier embankments in granitic gravels and sand. This sensitive plant flowers from May to August.	2,198 - 8,200	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Arctostaphylos glandulosa</i> ssp. <i>gabrielensis</i> (= <i>Arctostaphylos gabrielensis</i>)	San Gabriel manzanita	♦ CRPR: 1B.2	San Gabriel manzanita is a perennial evergreen shrub that is found within rocky habitats in chaparral. This sensitive plant flowers in March.	1,952 - 4,920	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species. Since this species is a perennial evergreen shrub that can grow to a height of 6.5 feet, it most likely would have been observed during the field surveys conducted within the project site.
<i>Juglans californica</i> (= <i>Juglans californica</i> var. <i>californica</i>)	Southern California black walnut	♦ CRPR: 4.2	California black walnut is a large perennial deciduous shrub or tree that utilizes a variety of habitats in Southern California. Scattered individuals commonly co-occur with laurel sumac on alluvium located at the base of hills and in canyons. Individuals also occur infrequently on south-facing slopes, and more commonly, on west-facing slopes. On mesic north-facing slopes this walnut is primarily a member of open woodlands of various types and sometimes produces pure stands. It is sometimes present within coastal sage scrub and rarely occurs in chaparral. Along intermittent streams it tolerates high salinity, alkalinity, prefers the dryer slopes that are almost never prone to flooding and erosional activity yet are near groundwater, and seasonal surface water. Found on slopes, hillsides, canyons, valleys, often near stream beds or washes. This sensitive plant flowers from March to August.	164 - 2,952	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species. Since this species is a perennial tree that can grow to a height of 75 feet, it most likely would have been observed during the field surveys conducted within the project site.
<i>Lepechinia fragrans</i>	fragrant pitcher sage	♦ CRPR: 4.2	Fragrant pitcher sage is a perennial shrub that is found in open areas in dry ravines, on rocky slopes and ridgetops often north facing where chaparral is the dominant cover. This sensitive plant flowers from March to October.	66 - 4,297	yes	no	no	Even though the project site is located within this species' known elevational range, it is not located within the plant's general distribution and the project site does not contain suitable habitats and/or soils to support this species. Since this species is a perennial shrub that can grow to a height of 5 feet, it most likely would have been observed during the field surveys conducted within the

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					Elevation Range	General Distribution		
								project site.
<i>Monardella australis</i> ssp. <i>jokersti</i>	Jokerst's monardella	♦ CRPR: 1B.1	Jokerst's monardella is a perennial rhizomatous herb that is found in chaparral and lower montane coniferous forests on steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes. This sensitive plant flowers from July to September.	4,428 - 5,740	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Claytonia lanceolata</i> var. <i>peirsonii</i>	Peirson's spring beauty (=western spring beauty)	♦ CRPR: 3.1	Peirson's spring beauty is a perennial herb that is found in upper montane coniferous forests and subalpine coniferous forests. Usually found on granitic scree slopes, often with a sandy or fine soil component and granitic cobbles. This sensitive plant flowers from May to June.	4,952 - 9,004	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Linanthus concinnus</i>	San Gabriel linanthus	♦ CRPR: 1B.2	San Gabriel linanthus is an annual herb that is found in chaparral, lower montane coniferous forests and upper montane coniferous forests. It is usually found on dry rocky slopes, often in Jeffrey pine/canyon oak forests. This sensitive plant flowers from April to July.	4,986 - 9,184	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia (=prostrate navarretia)	♦ CRPR: 1B.1	Prostrate vernal pool navarretia is an annual herb that is found within coastal sage scrub, valley and foothill grassland (alkaline washes) and vernal pools. This sensitive plant flowers from April to July.	49 - 3,969	yes	no	no	Even though the project site contains some habitats that could potentially support this species and is located within this species' known elevation range, it is located outside of this species' known general distribution.
<i>Acanthoscyphus parishii</i> var. <i>parishii</i>	Parish's oxytheca	♦ CRPR: 4.2	Parish's oxytheca is an annual herb that is found on sandy to gravelly flats and slopes within chaparral communities and montane conifer woodlands. This sensitive plant flowers from June to September.	4,002 - 8,530	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	♦ CRPR: 1B.1	Parry's spineflower is an annual herb that grows on dry, sandy soil of alluvium in flood plains and in washes of chaparral and coastal sage scrub. It is also found on dry slopes and flats of coastal sage scrub and chaparral and sometimes is found at an interface of two vegetation types such as chaparral and oak woodland. This sensitive plant flowers from April to June.	902 - 4,002	yes	yes	low	The project site is located within this species' known distribution and contains marginal habitats to support this plant onsite.
<i>Eriogonum microthecum</i> var. <i>alpinum</i>	alpine slender buckwheat (=northern limestone buckwheat)	♦ CRPR: 4.3	Alpine slender buckwheat is a perennial herb that is found on sandy to gravelly granitic or volcanic slopes within subalpine and alpine conifer woodlands and Great Basin scrub. This sensitive plant flowers from July to September.	8,202 - 10,826	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Eriogonum microthecum</i> var. <i>johnstonii</i>	Johnston's buckwheat	♦ CRPR: 1B.3	Johnston's buckwheat is a perennial deciduous shrub that is found in rocky substrates and granitic slopes within subalpine coniferous forests and upper montane coniferous forests. This sensitive plant flowers from July to September.	5,999 - 9,597	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species. Since this species is a perennial shrub, it most likely would have been observed during the field surveys conducted within the project site.
<i>Eriogonum umbellatum</i> var. <i>minus</i>	alpine sulfur-flowered buckwheat (=old Baldy sulphur flower)	♦ CRPR: 4.3	Alpine sulfur-flowered buckwheat is a perennial herb that is found on gravelly to rocky or talus slopes and ridges, sagebrush communities, and montane to subalpine conifer woodlands. This sensitive plant flowers from June to September.	5,905 - 10,065	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Horkelia cuneata</i> var. <i>puberula</i> (=Horkelia cuneata ssp. <i>puperula</i>)	mesa horkelia	♦ CRPR: 1B.1	Mesa horkelia is a perennial herb that is found in sandy or gravelly sites of maritime chaparral, coastal scrub, and cismontane woodlands. This sensitive plant flowers from February to September.	230 - 2,657	yes	yes	low	The project site is located within this species' known distribution and contains marginal and habitats to support this plant onsite.

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<i>Galium angustifolium</i> ssp. <i>gabrielense</i>	San Antonio Canyon bedstraw	♦ CRPR: 4.3	San Antonio Canyon bedstraw is a perennial herb that is found in granitic, sandy or rocky sites on slopes, ridges, within high chaparral and within open Lower montane coniferous forests. This sensitive plant flowers from April to August.	3,937 - 8,694	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Galium johnstonii</i>	Johnston's bedstraw	♦ CRPR: 4.3	Johnston's bedstraw is a perennial herb that grows within chaparral, lower montane coniferous forests, pinyon and juniper woodlands, and riparian woodlands. It tends to grow in open places. This sensitive plant flowers from June to July.	4,002 - 7,545	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Heuchera caespitosa</i> (= <i>Heuchera elegans</i>)	urn-flowered alumroot	♦ CRPR: 4.3	Urn-flowered alumroot is a perennial rhizomatous herb that is found on sandstone cliffs, sandstone outcrops, or other rocky areas, often near creeks or waterfalls, within cismontane woodlands, montane riparian forests, and lower and upper montane coniferous forests. This sensitive plant flowers from May to August.	3,788 - 8,692	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Viola pinetorum</i> var. <i>grisea</i> (= <i>Viola pinetorum</i> ssp. <i>grisea</i>)	grey-leaved violet	♦ CRPR: 1B.2	Grey-leaved violet is a perennial herb that is found on moderate slopes and sand flats bordering meadows and seeps, subalpine coniferous forests, and upper montane coniferous forests. It is usually found on dry mountain peaks and slopes. This sensitive plant flowers from April to July.	4,920 - 11,152	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	♦ CRPR: 1B.2	Sanford's arrowhead is a perennial rhizomatous herb (emergent) that is found in marshes and swamps (assorted shallow freshwater). It is also found growing in ditches, sloughs, ponds or slow-moving streams with silty or muddy substrates. This sensitive plant flowers from May to November.	0 - 2,132	yes	no	no	Even though the project site is located within this species' known elevational range, it is not located within the plant's general distribution and the project site does not contain suitable habitats and/or soils to support this species.
<i>Cladium californicum</i>	California sawgrass	♦ CRPR: 2B.2	California sawgrass is a perennial rhizomatous herb that is found in moist areas in several habitat types, often in alkaline soils: meadows and seeps and alkaline or freshwater marshes and swamps. This sensitive plant flowers from June to September.	197 - 2,837	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species.
<i>Juncus duranii</i> (= <i>Juncus mertensianus</i> var. <i>duranii</i>)	Duran's rush	♦ CRPR: 4.3	Duran's rush is a perennial rhizomatous herb that is found on creek banks and in wet (mesic) places in lower montane coniferous forests, meadows and seeps, and upper montane coniferous forests. This sensitive plant flowers from July to August.	5,799 - 9,197	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Calochortus catalinae</i>	Catalina mariposa lily	♦ CRPR: 4.2	Catalina mariposa lily is a perennial bulbiferous herb that is found in heavy soils, open slopes and openings of chaparral, valley and foothill grasslands, cismontane woodlands, and coastal sage scrub. This sensitive plant flowers from February to June.	49 - 2,296	yes	yes	low	The project site is located within this species' known distribution and contains marginal habitats to support this plant onsite.
<i>Calochortus plummerae</i>	Plummer's mariposa lily	♦ CRPR: 4.2	Plummer's mariposa lily is a perennial bulbiferous herb that prefers openings in chaparral, cismontane woodlands, coastal scrub, valley and foothill grasslands, and lower montane coniferous forests. It is found on dry, rocky slopes and soils and brushy areas and can be very common after fire. This sensitive plant flowers from May to July.	328 - 5,576	yes	yes	low	The project site is located within this species' known distribution and contains marginal habitats to support this plant onsite.
<i>Fritillaria pinetorum</i>	pine lily	♦ CRPR: 4.3	Pine lily is a perennial bulbiferous herb that is found in shaded granitic or metamorphic sites within chaparral, lower montane coniferous forests, pinyon and juniper woodlands, subalpine coniferous forests, and upper montane coniferous forests. This sensitive plant flowers from May to July (September).	5,692 - 10,826	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> (= <i>Lilium fairchildii</i>)	ocellated Humboldt lily	♦ CRPR: 4.2	Ocellated Humboldt lily is a perennial bulbiferous herb that is associated with riparian corridors in lower montane coniferous forest and coastal chaparral below 5,500 feet. This species typically occurs on lower stream benches but can also occur on shaded,	98 - 5,904	yes	no	no	Even though the project site is located within this species' known elevational range, it is not located within the plant's general distribution and the project site does not

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			dry slopes, beneath a dense coniferous canopy and cismontane oak woodlands. This sensitive plant flowers from March to July (August).					contain suitable habitats and/or soils to support this species.
<i>Lilium parryi</i> (= <i>Lilium parryi</i> var. <i>kessleri</i>)	lemon lily	♦ CRPR: 1B.2	Lemon lily is a perennial bulbiferous herb that prefers wet (mesic), mountainous terrain in forested areas. It is found within lower montane coniferous forests, meadows and seeps, riparian forests, and upper montane coniferous forests. Lemon lily requires moisture year-round and the distribution of this species is limited to the banks of seeps, springs and permanent streams. Typical habitat consists of forested, shady stream banks within narrow canyon bottoms. This sensitive plant flowers from July to August.	4,002 - 9,004	no	no	no	The project site is located outside of this species' general distribution and known elevational range and does not contain suitable habitats and/or soils to support this species.
<i>Muhlenbergia californica</i>	California muhly	♦ CRPR: 4.3	California muhly is a perennial rhizomatous herb that occurs in chaparral, coastal scrub, lower montane coniferous forests, and meadows, usually near mesic seeps or along streambanks. This sensitive plant flowers from June to September.	328 - 6,560	yes	yes	no	Even though the project site is located within this species' known elevational range and general distribution, it does not contain suitable habitats and/or soils to support this species.

Legend and Notes

Notes and Abbreviations:

- **amsl** = above mean sea level.
- A CNPS elevation range is provided for each taxon in feet above mean sea level. The stated range is for the California portion of a plant's range only (if the taxon also occurs outside the state). These CNPS elevation range data are accumulated from literature, herbarium specimens, and field survey information.
- The Phase II project site contains approximate elevations of 1,324 to 1,377 feet above mean sea level (amsl).
- **yes** = the project site is located within the plant species' known distribution and/or elevation range. The plant species has a potential to occur within the project site. Further evaluation is needed.
- **no** = the project site is located outside the plant species' known distribution and/or elevation range. It is highly unlikely for the plant species to have a potential to occur within the project site. No further evaluation is needed.

Federal Endangered Species Act (ESA) Listing Codes:

The ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened plants is published in 50 CFR § 17.12.

- **FE = federally listed as endangered:** any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.

California Rare Plant Ranks (Formerly known as CNPS Lists):

The CNPS is a statewide, nonprofit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFW officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CRPR). This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

- **CRPR: 1B = California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere:** plants with a CRPR of 1B are rare throughout their range with most of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.
- **CRPR: 2B = California Rare Plant Rank 2B - plants rare, threatened, or endangered in California, but more common elsewhere:** except for being common beyond the boundaries of California, plants with a CRPR of 2B would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the ESA. All the plants constituting CRPR 2B meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.
- **CRPR: 3 = California Rare Plant Rank 3 - plants about which more information is needed - a review list:** the plants that comprise CRPR 3 are united by one common theme - CNPS and CDFW lack the necessary information to assign them to one of the other ranks or to reject them. Nearly all the plants constituting CRPR 3 are taxonomically problematic. Some of the plants constituting CRPR 3 meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code and are eligible for state listing. CNPS strongly recommends that CRPR 3 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.
- **CRPR: 4 = California Rare Plant Rank 4 - plants of limited distribution - a watch list:** the plants in this category are of limited distribution or infrequent throughout a broader area in California. While CNPS and CDFW cannot call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Should the degree of endangerment or rarity of a CRPR 4 plant change, CNPS and CDFW will transfer it to a more appropriate rank. Some of the plants constituting CRPR 4 meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS strongly recommends that CRPR 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.
- **Considered but Rejected** = plants that have been considered for inclusion into the CNPS *Inventory* but were not included for various reasons.

California Native Plant Society (CNPS) Threat Ranks:

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Plant Elevation Range (feet amsl)	Phase II Project Site is Located within the Species' Known:		Potential to Occur	Rational
					Elevation Range	General Distribution		
<p>The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) (as a decimal code) and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. A Threat Rank is present for all CRPR 1B's, 2B's, 4's, and the majority of CRPR 3's. CRPR 4 plants are seldom assigned a Threat Rank of .1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a CRPR. In addition, all CRPR 1A and 2A (presumed extirpated in California), and some CRPR 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.</p> <ul style="list-style-type: none"> • .1 = seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat). • .2 = moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat). • .3 = not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known). 								

Sources for Table 2:

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. *The Jepson Manual: Vascular Plants of California, second edition*. University California Press, Berkeley.
- California Department of Fish and Game. 2005. *The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000-2004*. Sacramento, CA.
- California Department of Fish and Wildlife, Natural Diversity Database. 2019a. *Special Vascular Plants, Bryophytes, and Lichens List*. Quarterly publication. August 2019. 140 pp.
- California Department of Fish and Wildlife, Natural Diversity Database. 2019b. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. August 6, 2019.
- Individual species' petitions to list under the Federal Endangered Species Act.
- USFWS' recovery plans, recovery goals, and recovery outlines for individual species.
- USFWS' 5-Year Review reports for individual species.
- USFWS' Species Accounts for individual species.
- NCCP/HCP management plans.
- In-house data and records.

Websites used for Table 2:

- Calflora: www.calflora.org/.
- CNPS' Calscape: <https://calscape.org/>.
- CNPS' Inventory of Rare, Threatened, and Endangered Plants of California: www.rareplants.cnps.org/.
- eFloras.org: www.efloras.org/.
- The Jepson Herbarium: <http://ucjeps.berkeley.edu/eflora/>.
- NatureServe: www.natureserve.org/.

APPENDIX B8

Wildlife Special-status Species Inventory and Potential Occurrence Determination



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The literature review provided a list of 63 special-status wildlife species (wildlife inventory). Table 2, *Special-Status Wildlife Inventory and Potential Occurrence within the Phase II Project Site Determination* contains the wildlife inventory that was created through the literature review. Table 2 provides both the taxonomic name (scientific name) and common name of each wildlife species, describes each species' status in California, and describes each species' requirements and preferred habitat in California. Table 2 is organized by wildlife taxonomic order.

Each special-status wildlife species was assessed for its potential to occur within the Phase II project site by comparing its elevational range (if known) and distribution, retrieved from databases and literature, with the Phase II project site's location and elevation range. A species was determined as having "no potential to occur" within the Phase II project site if the Phase II project site is well outside the species' known distribution and/or the species' known elevation range.

Table 2 also summarizes conclusions from the literature review and field surveys regarding the potential occurrence of special-status wildlife species within the Phase II project site. While conducting the field surveys, the biologists evaluated whether the Phase II project site contained suitable and adequate biological and physical features that are needed to support wildlife. These include the following:¹

- Space for individual and population growth and for normal behavior.
- Cover or shelter.
- Food, water, air, light, minerals, or other nutritional or physiological requirements.
- Sites for breeding and rearing offspring.
- Habitats that are protected from disturbances.

Note that the detection of suitable habitat does not indicate presence or absence of a species. The potential for special-status wildlife species to occur within the Phase II project site was assessed based on the following criteria (Table 1, *Potential Occurrence Determination Descriptions*).

Table 1: Potential Occurrence Determination Descriptions

Potential for Wildlife to Occur within the Phase II Project Site	Description
Present	The special-status wildlife species was observed in the Phase II project site during the field surveys and/or has been recorded on-site by other qualified biologists.
High	There are reported sightings of the special-status wildlife species within the Phase II project site or the immediate project vicinity and/or areas within the Phase II project site contain highly suitable and adequate biological and physical features that are needed to support the species. The species has a high likelihood of being found on the Phase II project site.
Moderate	There are reported sightings of the special-status wildlife species within the Phase II project site or the immediate project vicinity and/or areas within the Phase II project site contain moderately suitable and adequate biological and physical features that are needed to support the species. The species has a moderate likelihood of being found on the Phase II project site.
Low	There are no known recorded occurrences of the special-status wildlife species within the Phase II project site or the immediate project vicinity and/or the Phase II project site

¹ USFWS website: www.fws.gov/midwest/endangered/saving/CriticalHabitatFactSheet.html.

Potential for Wildlife to Occur within the Phase II Project Site	Description
	contains scant suitable and adequate biological and physical features that are needed to support the species. The species is not likely to be found on the Phase II project site.
No	The Phase II project site is located outside the wildlife species' known distribution, elevation range; there are no known recorded occurrences of the special-status wildlife species within the Phase II project site; and/or the Phase II project site lacks suitable and adequate biological and physical features that are needed to support the species. It is highly unlikely for the wildlife species to have a potential to occur within the Phase II project site.
Absent	Focused wildlife surveys failed to detect the special-status wildlife species in the Phase II project site.

Even with field surveys, biologists assessed probability of occurrence rather than making definitive conclusions about species presence or absence. Failure to detect the presence of a wildlife species is not definitive and may be due to variable effects associated with migration, weather, fires, drought, rainfall patterns, temperatures, season, and/or time of day/year. Those special-status wildlife species listed in Table 2 that were determined to have a no potential or low potential to occur within the Phase II project site are not discussed further in the report.

Table 2: Special-Status Wildlife Inventory and Potential Occurrence within the Phase II Project Site Determination

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
Listed Endangered, Threatened, and Candidate Wildlife:					
Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.					
Listed Invertebrates					
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi sands flower-loving fly (DSFLF)	♦ FE	Found in sparsely vegetated areas of partly consolidated dunes composed of unique, fine, sandy soils known as the "Delhi series: sands." The specific native plants important to this fly are unknown, but California buckwheat, California croton, deerweed, California evening primrose and telegraph weed are dominant in its habitat. It spends most of the year underground in sandy soils where vegetation is generally low growing, providing sparse ground cover (10-20%). It emerges during an eight to ten-week period during the summer for reproduction. They probably live only a week or two. Oviposition (egg-laying) occurs within loose, sandy soils in late summer months and may primarily occur near telegraph weed. Larval stages develop completely underground and emerge as adults from July through September. The flight period begins as early as July 1. Adults are most active during the warmest, sunniest parts of the day, and both males and females extract nectar from California buckwheat and other plants.	no	The project site is located within this species' known distribution; however, it does not contain sandy Delhi series soils to support this species.
Listed Fish					
<i>Catostomus santaanae</i>	Santa Ana sucker	♦ FT ²	The Santa Ana sucker generally lives in small, shallow perennial streams, less than 25 feet in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. They are found in permanent streams in water ranging in depth from a few centimeters to a meter or more. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates. They appear to be most abundant where the water is cool, clean, and clear, although the species can tolerate seasonally turbid water. They use partially submersed emergent aquatic macrophytes and riparian vegetation as the predominant cover. Within the Santa Ana River, larvae and juveniles of the species are most abundant in near-shore edge habitats in long runs, with gradually tapering shallows and shallow backwaters, often with circular flow. Adult suckers concentrate in widely scattered deeper pools and wide areas of gravel and rock substrates in flowing sections of river. Overhanging riparian plants, mainly alders and sedges, provide cover for the fish. Santa Ana suckers utilize all areas and do not require streamside cover when larger, deeper holes and riffles are present for refuge, particularly for adult fish. They are intolerant of polluted or highly modified streams. The species is a non-migrant.	no	The project site is not located within the known distributional range of this sucker and it does not contain suitable freshwater aquatic systems and microhabitats for spawning, rearing, and foraging to support this species.
Listed Amphibians					
<i>Rana muscosa</i> ³	southern mountain yellow-legged frog - southern DPS ⁴	♦ FE ♦ SE	Associated with streams, lakes, and ponds in montane habitats. In southern California, it is restricted to rocky streams in ponderosa pine, montane hardwood-conifer, and montane riparian habitats. They occupy streams in narrow rock-walled canyons and streams in the chaparral belt. In the Sierra Nevada, it is associated with wet meadows, streams, lakes, ponds, isolated pools, and sunny riverbanks in montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitats. This aquatic species is always encountered within three feet of water. Absent from the smallest creeks because these have insufficient depth for adequate refuge and overwintering and it rarely occurs where predatory fishes have been introduced. During winter, adults apparently hibernate beneath ice-covered streams, lakes, and ponds. Both adults and larvae overwinter for up to nine months in the bottoms of lakes and ponds that are at least 5.6 feet deep. In lakes and ponds that do not freeze to the bottom in winter, they may overwinter in the shelter of bedrock crevices. They emerge from overwintering sites immediately following snowmelt. In southern California, some individuals aestivate within rodent burrows during especially dry periods of late summer. Reproduction is aquatic and they deposit their eggs underwater in clusters which they attach to rocks, gravel, vegetation, or under banks.	no	The project site is not located within the San Gabriel, San Jacinto, or the San Bernardino Mountains of Riverside, San Bernardino and Los Angeles counties where these frogs are known to occur. The project site does not contain suitable aquatic breeding or foraging sites within montane and alpine habitats to support this species.
Listed Birds					
<i>Coccyzus americanus occidentalis</i>	western yellow-billed	♦ FT ♦ SE	The western yellow-billed cuckoo is a neotropical migratory bird whose nesting habitat is restricted to relatively dense growths of trees and shrubs in riparian habitats that lines rivers and streams. They are confined to large blocks, or	no	The project site is located outside of this bird's known distribution and does not contain suitable and adequate breeding and foraging dense,

² Federal listing applies to populations in the Los Angeles, San Gabriel, and Santa Ana River basins.

³ *Rana muscosa* has been split into *Rana sierrae*, the Sierra Nevada yellow-legged frog, found in the northern and central Sierra Nevada and *Rana muscosa*, the southern mountain yellow-legged frog, found in the southern Sierra Nevada and southern California.

⁴ San Gabriel, San Jacinto, and San Bernardino Mountains only.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
	cuckoo (cuckoo)	♦ BCC *Season of Concern: breeding	contiguous areas, of cottonwood-willow riparian forests adjacent to sloughs and slow-moving rivers. Cuckoos have large home ranges, often exceeding 50 acres, and sometimes approaching 100 acres, in extent. Few cuckoos are found in forest habitat of less than 25 acres, and dense, low-level foliage is an important determination of nesting habitat. Sites with less than 40% canopy closure are unsuitable, those with 40%-65% are marginal to suitable, and those with greater than 65% are optimal.		wide riparian blocks with aquatic habitats to support this species.
<i>Laterallus jamaicensis coturniculus</i>	California black rail	♦ ST ♦ fully protected ♦ BCC	Suitable California black rail habitat generally includes salt, brackish and freshwater marshes. Most or all southwestern U.S. populations are non-migratory, and these habitat types serve for breeding, foraging, and overwintering. A highly secretive and rarely observed bird, there appears to be a preference in coastal areas for tidal salt marshes dominated by dense pickleweed with an open structure below. This provides a dense canopy for protective cover while providing nesting habitat and accessibility below the canopy. A dense canopy that provides optimal cover is essential for survival. Freshwater marshes are typically dominated by bulrushes and cattails. These sites are very shallow (usually less than three cm) but require a perennial water source. Too much water will prevent nesting and too little water will lead to abandonment of the site. They are also associated with plants of the upland/wetland interface, such as seep willow, arrowweed, saltgrass, and cottonwood. Nests are usually located in or along the edge of a marsh.	no	The project site is located outside of this bird's known distribution and does not contain suitable and adequate breeding marsh habitats and mudflat foraging habitats to support this species.
<i>Gymnogyps californianus</i>	California condor	♦ FE ♦ SE ♦ fully protected	Requires vast expanses of open woodlands, oak savannahs, grasslands, coniferous forests and foothill chaparral, with cliffs, large trees, and snags for roosting and nesting. Forages by soaring, often less than 2,000 feet above ground, looking for carrion. Prefers recently dead large animals, such as deer, sheep, or cattle. Dead cattle have provided the most important food source in recent decades. Food must be in open areas to enable landing and take-off. Often forages over areas 3 to 12 mi ² , or larger. May fly 35 miles or more, from roost to feeding sites. Traditional roosting sites are ledges or cavities on cliffs. Also uses old-growth Douglas-fir, ponderosa pine, and snags, in undisturbed areas. Nests in rugged mountainous terrain with forests and steep cliffs. Nest site is usually in cave or large crevice in cliff; sometimes in crevice among large rocks on steep slope, or in burned-out cavity in huge tree, such as coast redwood or giant sequoia. Nest is not constructed; egg laid on bare surface. Key characteristics of a suitable nest site are that it is in a location at least partially sheltered from the weather and in a location easily approachable from the air, such as on a cliff, steep slope, or tall tree.	no	The project site is located outside of this bird's known distribution and does not contain suitable and adequate habitats for nesting, foraging, or roosting to support this species.
<i>Empidonax traillii</i>	willow flycatcher	♦ SE ♦ BCC *Season of Concern: breeding	A rare to locally uncommon, summer resident. It winters in Mexico and South America. The habitat of the willow flycatcher is extensive willow thickets. This migratory bird most often occurs in broad, open river valleys or large mountain meadows with lush growth of shrubby willow. Most numerous where extensive thickets of low, dense willows edge on wet meadows, ponds, or backwaters. This species could occur at any desert spring with large cottonwood or willow trees but would primarily be observed in riparian areas.	no	The project site is located outside of this bird's known distribution and does not contain suitable and adequate breeding and foraging dense riparian and aquatic habitats to support this species.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher (SWFL)	♦ FE ♦ SE ♦ BCC *Season of Concern: breeding	The southwestern willow flycatcher (SWFL) is a rare to locally uncommon, summer resident. It winters in Mexico and South America. SWFLs breed and forage in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes and reservoirs. Suitable habitat should contain: 1) there is a) surface water, b) saturated soil, or c) presence of obligate/facultative herbaceous wetland plants present during the early summer months (surface water should be present at least throughout the month of May); 2) woody riparian vegetation is present and covers a minimum aerial extent of 20 percent over a 0.5 acre section of floodplain or adjacent streamside terrace; 3) dense clumps or stands of woody vegetation are present. The riparian patches used by breeding SWFLs may be relatively dense, linear, contiguous stands or irregularly shaped mosaics of dense vegetation with open areas. SWFL also nests in thickets dominated by the non-native tamarisk and Russian olive and in habitats where native and non-native trees and shrubs are present in essentially even mixtures.	no	The project site is located outside of this bird's known distribution and does not contain suitable and adequate breeding and foraging dense riparian and aquatic habitats to support this species.
<i>Vireo bellii pusillus</i>	least Bell's vireo (LBV)	♦ FE ♦ SE *Season of Concern: breeding	From their wintering ground in southern Baja California, Mexico, least Bell's vireos (LBV) migrate between mid-March and early April to southern California, where they remain until July or August. They are associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodland, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities. It uses habitat which is limited to the immediate vicinity of water courses, but also inhabits thickets along dry, intermittent streams. LBVs primarily occupy willow-dominated riverine riparian habitats with well-developed overstories, understories, and low densities of aquatic and herbaceous cover. The understory frequently contains dense subshrub or shrub thickets dominated by willow or mule fat. The understory shrub thickets provide nesting habitat and willows are most commonly used. Significant overstory species include mature willows with occasional cottonwoods and western sycamores. Oak woodland with a willow riparian understory	no	The project site is located within this bird's known distribution; however, it does not contain suitable and breeding and foraging riparian habitats to support this species.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
			is also used in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage. On the desert slopes mesquite and sandbar willow in canyon locations may be occupied.		
<i>Polioptila californica californica</i>	coastal California gnatcatcher (CAGN)	<ul style="list-style-type: none"> ♦ FT ♦ SSC 	The coastal California gnatcatcher (CAGN) is a non-migratory, permanent resident of coastal sage scrub habitat, which is a broad category of vegetation that includes the following plant communities; Venturan coastal sage scrub, Diegan coastal sage scrub, maritime succulent scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, southern coastal bluff scrub, and coastal sage-chaparral scrub. The majority of the plant species found in coastal sage scrub habitat are low-growing, drought-deciduous shrubs and sub-shrubs. Generally speaking, most types of sage scrub are dominated by one or more of the following; California sagebrush, California buckwheat, California encelia, brittlebush, black sage, white sage, and purple sage. In addition to coastal sage scrub, CAGNs use chaparral, grassland and riparian habitats next to coastal sage scrub, but these habitats are used for dispersal and foraging, especially in the non-breeding season.	absent	The project site is located within this bird's known distribution and contains coastal sage scrub habitats that could potentially support this species onsite; however, the buckwheat scrub plant community onsite has been degraded from existing anthropogenic disturbances and is isolated from occupied sage scrub habitats in the region. It was determined that the project site does not provide the requisite Primary Constituent Elements which are needed by CAGN to be present. Therefore, it was determined that CAGN is presumed absent from the project site. Further, CAGN was not observed onsite during the 2007/2008 protocol CAGN surveys conducted by LSA.
<i>Agelaius tricolor</i>	tricolored blackbird	<ul style="list-style-type: none"> ♦ SCE⁵ ♦ SSC ♦ BCC *Season of Concern: breeding colony	Tricolored blackbirds are permanent residents of California, but birds make extensive migrations and movements, both in the breeding season and in winter. Breeding tricolored blackbirds form large colonies, typically in freshwater wetlands dominated by cattails or bulrushes and thorny vegetation such as wild rose or blackberry. They may also nest in willows, thistles, and nettles. Preferred foraging habitats include agricultural crops such as rice, alfalfa, irrigated pastures, and ripening or cut grain fields (e.g., oats, wheat, silage, and rice), as well as annual grasslands, cattle feedlots, and dairies. They also forage in wet and dry vernal pools and other seasonal wetlands, riparian scrub habitats, and open marsh borders. They have three basic requirements for selecting their breeding colony sites: open, freshwater; a protected nesting site, provided by flooded, thorny, or spiny vegetation; and a suitable foraging space providing adequate insect prey within a few miles of the nesting colony.	no	The project site is located within this bird's known distribution; however, it does not contain suitable breeding freshwater wetland habitats or foraging grassland or agricultural lands to support this species.
Listed Mammals					
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat (SBKR)	<ul style="list-style-type: none"> ♦ FE ♦ SSC 	Typically, SBKR is found in Riversidean alluvial fan sage scrub, alluvial fans, river and stream terraces, flood plains, and along washes with nearby sage scrub. They are found primarily on sandy loam substrates, characteristic of alluvial fans and flood plains, where they can dig simple, shallow burrows. They are primarily associated with a variety of sage scrub vegetation with sandy soils and relatively open vegetation structure such as Riversidean alluvial fan sage scrub. Alluvial scrub includes elements from chaparral, coastal sage, and desert communities. They require open, sparse vegetation characterized by low shrub canopy cover (mostly 7 to 22 percent) and they rarely occur in dense vegetation and rocky substrates.	absent	The project site is located within this species' known distribution; however, it does not support Riversidean alluvial fan sage scrub plant communities and is no longer exposed to hydrological processes needed to maintain the openness of suitable SBKR habitat, and does not contain upland areas proximal to flood plains that contain suitable refuge habitat. Based on these conditions, it was determined that the project site does not provide the requisite Primary Constituent Elements which are needed by SBKR to be present. Therefore, it was determined that SBKR is presumed absent from the project site. Further, SBKR was not captured onsite during the 2008 focused trapping study conducted by LSA.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat (SKR)	<ul style="list-style-type: none"> ♦ FE ♦ ST 	SKR inhabits level or gently sloping topography and is found almost exclusively in open annual and perennial grasslands or sparse shrublands. They prefer areas with buckwheat, California sagebrush, chamise, brome grass and filaree. They avoid areas with dense grass cover (for example, non-native bromes). SKRs are typically found in transition areas, including grasslands that border coastal sage scrub, transition areas where sage scrub and grasslands are intermixed, areas of sparse sage scrub, and areas where native habitat has been removed or disturbed by agriculture and other uses. What each of these areas has in common is sparse, perennial vegetation covering less than 50% of the ground. Another common feature is the suitability of soils for SKR burrows and food sources. As a fossorial (burrowing) animal, the SKR typically is found in well drained, gravelly or sandy and sandy loam soils with low clay to gravel content. It is not found on extremely hard or sandy soils, heavily alkaline or clay soils, generally in floodplains; highly rocky soils; shallow soils less than 50 centimeters deep; soils in areas exceeding 25% slope, and; soils above approximately 3,000 feet in elevation.	absent	The project site is located within this species' known distribution; however, it does not contain suitable plant communities transitional between grassland and coastal sage scrub and soils with appropriate composition for burrow construction to support this species. In addition, SKR was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.
<i>Perognathus</i>	Pacific pocket	♦ FE	Found chiefly in association with fine-grained sandy or gravelly substrates in the immediate vicinity of the coast. Typical	no	The project site contains suitable coastal sage scrub that could

⁵ The California Fish and Game Commission, at its December 10, 2015, meeting in San Diego, California, accepted for consideration the petition submitted to list the tricolored blackbird as an endangered species. As a candidate species, the tricolored blackbird receives the same legal protection afforded to an endangered or threatened species (Fish and Game Code, § 2085).

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
<i>longimembris pacificus</i>	mouse	♦ SSC	habitat consists of coastal strand, coastal dunes, river alluvium, and coastal sage scrub growing on coastal terraces or in river valleys. The presence of loose or friable soils appears to be the most important factor in determining distribution. The mice appear to favor less densely vegetated areas. One of the known populations, located at Dana Point, occurs in sandy soils in association with coastal sage scrub of various densities on a coastal terrace. Another population located near San Mateo Creek is found in coastal sage scrub on ridges. The remaining population, located near the San Margarita River, is found in small patches of coastal sage scrub, bare ground, and in low-density non-native grassland within a larger matrix of dense non-native grassland, chiefly in sandy substrate. In winter, if environmental factors are unfavorable, the Pacific pocket mouse may hibernate underground until spring brings better conditions. But if adequate food supplies are available, the mouse will remain active during winter.		potentially support this mouse onsite; however, the site is located outside of this species' known distribution.
Sensitive Wildlife:					
These animals have no official status under the ESA and/or the CESA; however, they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.					
Sensitive Fish					
<i>Gila orcuttii</i>	arroyo chub	♦ SSC	Habitat includes headwaters, creeks, and small to medium rivers, often intermittent streams; permanent, small to moderate-sized, moderate to high gradient streams with more than 50% of the habitat as runs and pools < 10 cm deep and reaches of permanent water more than 2 km long; requires some flow. Arroyo Chub are adapted to survive in cool to warm (10 - 24°C) streams that fluctuate between large winter storm flows, and low summer flows, and the low dissolved oxygen and wide temperature fluctuations associated with this flow regime. They are most common in slow flowing or backwater areas with sand or mud substrate but may also inhabit areas with velocities in excess of 80 cm/s over coarse substrate. They feed on plants such as algae and water fern (Azolla), and on invertebrates such as insects and mollusks. Spawning takes place in pools and edge habitat from February to August with a peak in June and July. Several males may fertilize the eggs of one female. Fertilized eggs stick to plants or bottom substrate and hatch in about 4 days. Fry stay on the substrate for a few days, then rise to the surface and stay among plants or other cover for 3 - 4 months.	no	The project site is not located within the known distributional range of this chub. The project site does not contain suitable freshwater aquatic systems and microhabitats for spawning, rearing, and foraging to support this species.
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	♦ SSC	Santa Ana speckled dace are found mainly in perennial streams fed by cool springs that maintain summer water temperatures below 20°C. Surveys of streams in the Los Angeles basin found dace occupying shallow riffles dominated by gravel and cobble. Their habitat in the West Fork San Gabriel River was described as shallow (average depths of 15-30 cm), gravel-cobble dominated riffles with overhanging riparian vegetation. Other biologists characterized their preferred habitat as pools in low-gradient streams (0.5-2.5% slope) with sand to boulder substrates in slow-moving waters, noting that they were also found along stream edges by fast-moving water. Speckled Dace prefer habitat that includes clear, well oxygenated water, with movement due to a current or waves. In addition, the fish thrive in areas with deep cover or overhead protection from vegetation or woody debris. Speckled Dace predominantly occupy small streams of the second to third order where they feed and forage for aquatic insects. Stream dwellers spawn in riffles or gravelly areas, while the lake inhabitants spawn in tributaries or in shallow shoreline regions.	no	The project site is not located within the known distributional range of this dace. The project site does not contain suitable freshwater aquatic systems and microhabitats for spawning, rearing, and foraging to support this species.
Sensitive Amphibians					
<i>Spea hammondi</i>	western spadefoot	♦ SSC	Found in coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, but is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. They prefer open areas with sandy or gravelly soils, in a variety of habitats including sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Within these habitats they require rain pools or vernal pools in which to reproduce and persist with more than three weeks of standing water in which to metamorphose successfully. They can also breed in cattle tanks, and occasionally in pools of intermittent streams. Typically, the pools are turbid with little or no cover. Breeding takes place after heavy rainfall and the formation of temporary shallow rain pools. Water breeding sites must lack fish, bullfrogs, and crayfish for western spadefoot toads to successfully reproduce and metamorphose. They aestivate in the dry summer in upland habitats adjacent to potential breeding sites in burrows approximately one meter in depth.	no	The project site is located within this species' known distribution; however, it does not contain suitable substrates for burrowing or areas with temporary pools for reproduction to support this species.
<i>Taricha torosa</i>	Coast Range newt (=California)	♦ SSC ⁶	Occurs primarily in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub and mixed chaparral, but is also known from annual grassland and mixed conifer types. Optimum habitats are in or near streams in valley-foothill hardwood and hardwood-conifer habitats. Terrestrial individuals seek cover under surface objects such as rocks and	no	The project site is located outside of this species' known distribution and does not contain suitable and adequate breeding habitats that could support this species onsite.

⁶ Monterey County and south only.

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	newt)		logs, or in mammal burrows, rock fissures, or human-made structures such as wells. The first rains of fall usually initiate migration to breeding localities. Once at the breeding sites, adults become aquatic and may remain in or near these ponds and streams for several weeks. Breeding and egg-laying occur in slow-moving streams, permanent and semi-permanent ponds, lakes and large reservoirs. The eggs are normally laid in shallow water attached to the submerged portion of emergent vegetation, on submerged vegetation, and on the underside of rocks off the bottom. Aquatic larvae find cover beneath submerged rocks, logs, debris, and undercut banks. Adults migrate back to subterranean refuges in the spring, where they spend the summer aestivating.		
Sensitive Reptiles					
<i>Actinemys pallida</i> ^{7,8} (= <i>Emys marmorata pallida</i>)	southern western pond turtle	♦ SSC	Aquatic turtle that requires stagnant or slow-moving water in aquatic habitats. They only leave the water to lay eggs, aestivate, and to overwinter. Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Uncommon in high gradient streams most likely due to low water temperatures, high current velocity, and low food resources, which may limit their local distribution. Logs, rocks, cattail mats, and exposed banks are required for basking. Active from February to November. They hibernate underwater during several months in the winter. They cluster in the shallow end of the pond. A pond turtle will estivate during summer droughts by burying itself in soft bottom mud. From April and August, females climb onto land to dig a nest, usually along stream or pond margins, where they lay a clutch of eggs. Requires suitable upland habitat adjacent to the aquatic habitat for egg laying. Digs the nest in soil with high clay or silt content on an unshaded south-facing slope. Nest site is generally within 656 feet from the aquatic habitat but can be up to 1,319 feet.	no	The project site is located within this species' known distribution; however, it does not contain suitable stagnant or slow-moving permanent or nearly permanent water in aquatic habitats within basking sites to support this species.
<i>Anniella stebbinsi</i>	southern California legless lizard	♦ SSC ⁹	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of coastal beach dunes, chaparral, oak woodland and mixed conifer forest, desert scrub, sandy washes and alluvial fans, and stream terraces with sycamores, cottonwoods, or oaks. Much of the coastal dune habitat has been destroyed by coastal development between Ventura County and the Mexican Border. Fortunately, a large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens. Lives mostly underground, burrowing in loose sandy soil. Forages in loose soil, sand, and leaf litter during the day. Sometimes found on the surface at dusk and at night. Apparently active mostly during the morning and evening when they forage beneath the surface of loose soil or leaf litter which has been warmed by the sun.	low	The project site is located within this species' known distribution; however, it does not contain suitable moist, warm, loose substrates, leaf litter, and surface objects to support this species.
<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko	♦ SSC	The San Diego banded gecko occurs in a wide variety of sage scrub and chaparral habitats, where suitable cover exists associated with granitic outcrops and boulder fields where there is also ground debris (i.e., yucca stalks). They require scattered to extensive exfoliated rocky outcrops with weathered, well-drained, coarse to rocky sandy loam soil, and healthy, mature sage scrub and chaparral habitat with an open understory. San Diego banded gecko is uncommon but typically found, in coastal scrub and chaparral, preferring granite or rocky outcrops in these habitats. Often associated with rocks and may seek shelter beneath or in crevices. Boards and other litter also serve as diurnal refuge for the banded gecko. Additionally, it may utilize mammal burrows for refuge. The San Diego banded gecko hibernates through the winter (generally November to February).	no	The project site is located within this species' known distribution; however, it does not contain suitable granite or rocky outcrops and surface debris within coastal scrub or chaparral habitats to support this species.
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard (=coast horned lizard)	♦ SSC	Found in a wide variety of habitats including coastal sage scrub, annual grassland, chaparral, oak woodland, pine-cypress, juniper, riparian woodland and coniferous forest. They inhabit open country, especially sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. They require open areas for sunning, bushes for cover, patches of loose soil for burial and abundant supply of ants and other insects. Forage on the ground in open areas, usually between shrubs and often near ant nests. They are primarily ant-eating reptiles (harvester ants). Periods of inactivity and winter hibernation are spent burrowed into the soil under surface objects such as logs or rocks, in	present	According to the <i>City of Rancho Cucamonga Central Park Fire Hazard Reduction and Vegetation Management Plan</i> , this species occupies the undeveloped portions of the Central Park property. The project site is located within this species' known distribution and contains areas for shelter, an abundance of open areas for basking, and plenty of native ants and other insects for feeding to support this species. Even though

⁷ The western pond turtle has been split into two species (*Actinemys marmorata* and *Actinemys pallida*) following the previous split of the species into two subspecies, *Actinemys marmorata marmorata* and *Actinemys marmorata pallida*.

⁸ The genus for pond turtles in California has fluctuated between *Clemmys*, *Actinemys*, and *Emys*.

⁹ Legless lizards in California were traditionally considered 1 species, but are now considered 5 species. The prior and current Species of Special Concern (SSC) project evaluated the traditional single species taxon and determined all legless lizards in California to be an SSC. Therefore, the SSC status is carried over to the new taxon concepts until further notice.

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			mammal burrows, or in crevices. Emerges from hibernation in late March and is surface active mostly during April-July, after which time most adults aestivate. They then reappear again briefly in August disappearing into overwintering sites from late August through early October.		this species was not observed during the 2007, 2008, or 2019 surveys, this species has a high potential to occur onsite.
<i>Aspidoscelis hyperythra beldingi</i> (=Cnemidophorus hypythrus beldingi)	Belding's orange-throated whiptail	♦ WL	Habitat types include chaparral, non-native grassland, (Riversidean) coastal sage scrub, juniper woodland and oak woodland. Associations include alluvial fan scrub and riparian areas. Prefers washes and other sandy areas with patches of brush and rocks. Tied to perennial vegetation because its major food source, termites, requires perennial plants as a food base. California buckwheat, California sagebrush, black sage, and white sage are an important indicator of favorable habitat. Friable soil appears to be a necessary requirement for excavating burrows and hiding eggs. During periods of inactivity individuals seek cover under surface objects such as rocks, logs, decaying vegetation, and boards, or in rock crevices. They typically occupy open, sparsely covered land. Well-drained sandy or loose soils are usually present, often with rocks. Dry, sandy washes are especially favored.	high	The project site is located within this species' known distribution and contains suitable coastal sage scrub and microhabitats to support this species.
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail (=San Diegan tiger whiptail)	♦ SSC	Habitat types include chaparral, non-native grassland, (Riversidean) coastal sage scrub, juniper woodland and oak woodland. Associations include alluvial fan scrub and riparian areas. Prefers washes and other sandy areas with patches of brush and rocks. Friable soil appears to be a necessary requirement for excavating burrows and hiding eggs. During periods of inactivity individuals seek cover under surface objects such as rocks, logs, decaying vegetation, and boards, or in rock crevices. They typically occupy open, sparsely covered land. Well-drained sandy or loose soils are usually present, often with rocks. Dry, sandy washes are especially favored.	high	The project site is located within this species' known distribution and contains suitable coastal sage scrub and microhabitats to support this species.
<i>Arizona elegans occidentalis</i>	California glossy snake	♦ SSC	The California glossy snake usually inhabits open areas with sandy or loamy soils, typically riparian areas and wash habitats, and also occurs in coastal sage scrub, chaparral, grassland, riparian, stream courses, and sparse oak woodlands, typically in areas with sparse vegetation and loose soils (sandy and loamy soils), but also rocky areas. Refugia takes the form of mammal burrows, rock outcrops, and to a lesser extent, under surface objects.	present	According to the <i>City of Rancho Cucamonga Central Park Fire Hazard Reduction and Vegetation Management Plan</i> , this species occupies the undeveloped portions of the Central Park property. The project site is located within this species' known distribution and contains suitable coastal sage scrub habitats to support this species. Even though this species was not observed during the 2007, 2008, or 2019 surveys, this species has a high potential to occur onsite.
<i>Lampropeltis multifasciata</i> ¹⁰ (=Lampropeltis zonata parvirubra)	Coast mountain kingsnake (San Bernardino population)	♦ WL	In southern California, it is primarily associated with montane coniferous forests and mixed coniferous forests and secondarily associated with riparian woodland, oak woodland, chaparral, and coastal sage scrub. It occurs in well illuminated canyons with rocky outcrops or rocky talus in association with bigcone spruce and various canyon chaparral species at lower elevations, and with California black oak, incense cedar, Jeffrey pine, and ponderosa pine at higher elevations. Usually found most commonly in wooded areas in vicinity of rock outcrops or boulders near streams or lake shores, where it may utilize rotting logs, talus and seeks cover under dense shrubs. The rocky outcrops or talus likely provide hibernation and refuge sites. Where oviposition sites are generally located is not known, but rocky outcrops and talus areas may also provide suitable oviposition sites. It spends most of the time underground, under surface objects, or inside rock crevices. They enter winter hibernation typically around November, emerging some time from February to April, depending on location and weather conditions.	no	The project site is located outside of this species' known distribution and does not contain vegetation communities and microhabitats to support this species.
<i>Salvadora hexalepis virgultea</i>	coast patch-nosed snake	♦ SSC	Associated with brushy or shrubby vegetation, such as chaparral in canyons and rocky hillsides. They seem to require at least a low shrub structure of minimum density since they are not found in habitats lacking this structural component. Coast patch-nosed snakes are presumed to take refuge and perhaps over winter in burrows or woodrat nests, so the presence of one or more burrow- or refuge-creating mammals may be necessary for this snake to be present. The coast patch-nosed snake is recorded as emerging from overwintering sites in March and disappearing to overwintering sites in October. May and June are the typical months of peak activity.	no	The project site is located within this species' known distribution; however, it does not contain vegetation communities and microhabitats to support this species. The site contains shrubby coastal sage scrub habitat; however, the site lacks chaparral, canyons, rocky hillsides, and woodrat nests and burrows.
<i>Thamnophis hammondi</i>	two-striped garter snake	♦ SSC	This snake is highly aquatic and it is rarely found far from water. It is found in or near permanent or intermittent freshwater, often along streams with rocky beds and bordered by willows or other streamside growth. Generally found around pools, creeks, cattle tanks, stock ponds, large sandy riverbeds and other water sources. It has also been found in oak woodlands, chaparral and sparse coniferous forests. During the day it often basks on streamside rocks or on densely	no	The project site is located within this species' known distribution; however, it does not contain suitable vegetation communities and microhabitats (permanent or semi-permanent bodies of water bordered by dense vegetation and basking sites) to support this snake.

¹⁰ The SSAR has recognized that the species California Mountain Kingsnake, which formerly was viewed as one species with seven subspecies, now consists of two separate species and not subspecies: coast mountain kingsnake (*Lampropeltis multifasciata*) and California Mountain Kingsnake (*Lampropeltis zonata*). According to Myers et al (Myers, E. A., J. A. Rodríguez-Robles, D. F. DeNardo, R. E. Staub, A. Stropoli, S. Ruane, and F. T. Burbrink. 2013) "*Lampropeltis zonata* is composed of all populations in the Sierra Nevada Mountains and the Coast Ranges north of Monterey Bay, California, north into the Klamath Mountains, in Oregon, plus an additional, disjunct population along the Columbia Gorge, in the great state of Washington." "*Lampropeltis multifasciata* is composed of all populations in the Peninsular Ranges and in the Transverse Ranges, north into the Coast Ranges just south of Monterey Bay, California, including the disjunct population on Isla Sur of Islas Todos Santos, Baja California, Mexico." They also show that the southern species (*Lampropeltis multifasciata*) contains two lineages - the southern species, and the Peninsular Range lineage.

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			vegetated stream banks. The preferred nocturnal retreats of this active diurnal snake are thought to be holes, especially mammal burrows, crevices, and surface objects. They also serve as winter refuges. Young are born alive.		
<i>Crotalus ruber</i>	red diamond rattlesnake	♦ SSC	Although recorded from several vegetation types, it is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, and desert slope scrub (creosote scrub) associations are known to carry populations, however, chamise and red shank associations may offer better structural habitat for refuges and food resources for this species than other habitats. It retreats into rodent burrows, into cracks in rocks or under surface cover objects for cover. Young are live-born and thus require a quiet and safe place for birth, probably in burrows or under substantial cover objects such as large rocks. This rattlesnake emerges from hibernation in late February.	no	The project site is located outside of this species' known distribution and does not contain suitable arid and semiarid habitats that provide dense vegetation or rocky cover to support this species.
Sensitive Birds					
<i>Cypseloides niger</i>	black swift	♦ SSC ♦ BCC *Season of Concern: breeding	Breeding black swifts are restricted to a very limited supply of potential nesting locations: behind or beside permanent or semi-permanent waterfalls, on perpendicular cliffs near water (above Sierran rivers or on the seacoast), and in sea caves. Nests in moist crevice or cave on sea cliffs above the surf, or on cliffs behind, or adjacent to, waterfalls in deep canyons. Nest constructed of mud mixed with moss, ferns, seaweed, or other plant materials; located in deep, dark crevice, in cave, or under overhang. Nests in colony of a few pairs. Nest usually kept moist by mist from the surf or waterfall. Forages widely over many habitats. In migration, rare and irregular outside the breeding range. Feeds exclusively on flying insects, captured in sustained, long-distance foraging flights, usually high in the air. Apparently the only regular resting places are on steep, rocky, often moist, cliffs such as those used for nesting.	no	Black swifts occur in California as a summer resident and migrant. They do not winter in the state. The project site is located outside of this bird's known distribution and does not contain suitable breeding habitats near aquatic sites to support this species.
<i>Calypte costae</i>	Costa's hummingbird	♦ BCC *Season of Concern: breeding	Occurs in more arid habitats than other hummingbirds in California. Primary habitats are desert wash, desert riparian and valley foothill riparian woodlands, coastal scrub, desert scrub, desert succulent shrub, lower-elevation chaparral, piñon pine-juniper woodland, and palm oasis. Nest placed in a wide variety of trees, cacti, shrubs, woody forbs, and sometimes vines.	low	The project site is located within this species' known distribution and contains marginal coastal sage scrub habitats to support this bird.
<i>Selasphorus rufus</i>	rufous hummingbird	♦ BCC *Season of Concern: breeding	Rufous hummingbirds use riparian areas, open woodlands, chaparral, mountain meadows, and other habitats rich in nectar-producing flowers, including gardens and orchards. They use valley foothill hardwood, valley foothill hardwood-conifer, riparian, and various chaparral habitats in both northward and southward migration; montane riparian, aspen, and high mountain meadows (to tree-line and above) used in southward migration. Trees and shrubs in many habitats provide cover, including lowland riparian, open woodlands, scrub, and chaparral, also mountain meadows extending to and above tree line.	present	Observed during the 2007 bio reconnaissance survey. The LSA bio report does not give information about this observation, only that it was sighted. The rufous humming is a common migrant and uncommon summer resident of California. A rare, winter resident in southern California. The project site is not located within coniferous forests or woodlands of northwestern coastal areas or northern and eastern-central Sierras where this species is known to breed. The project site does not contain suitable breeding and foraging habitats to support this species. Low potential to occur in the winter or during migration.
<i>Selasphorus sasin</i>	Allen's hummingbird	♦ BCC	Breeders are most common in coastal scrub, valley foothill hardwood, and valley foothill riparian habitats, but also are common in closed-cone pine-cypress, redwood habitats, well-wooded urban and suburban habitats, and city parks. Males set up breeding territories overseeing open areas of coastal scrub vegetation or riparian shrubs, including dogwood, poison oak, and especially willows, where they often perch conspicuously on exposed leafless branches or twigs at tops of shrubs, or on lateral branches of trees overlooking territory. Occurs in a variety of woodland and scrub habitats as a migrant. Winters mostly in foothills and mountain forests in Mexico.	low	The project site is located outside of this bird's known distribution and does not contain suitable breeding and foraging woodland or forest habitats to support this species. Low potential to occur during migration.
<i>Larus californicus</i>	California gull	♦ WL *Season of Concern: breeding colony	A common colonial nester at alkali and freshwater lacustrine habitats east of the Sierra Nevada and Cascades, and an abundant visitor to coastal and interior lowlands in nonbreeding season. A colonial nester on islets in large interior lakes, either fresh or strongly alkaline. Preferred winter habitats along the coast are sandy beaches, mudflats, rocky intertidal, and pelagic areas of marine and estuarine habitats, as well as fresh and saline emergent wetlands. Inland, frequents lacustrine, riverine, and cropland habitats, landfill dumps, and open lawns in cities.	present	Observed during the 2007/2008 BUOW protocol surveys. The LSA BUOW report does not give information about this observation, only that it was sighted. The project site is located within this bird's known distribution; however, it does not contain suitable and adequate foraging or breeding habitats that could support this bird onsite. Any occurrence would most likely be restricted to flyovers.
<i>Phalacrocorax auritus</i>	double-crested cormorant	♦ WL *Season of Concern: breeding colony	They require lakes, rivers, reservoirs, estuaries, bays, coasts, or ocean for foraging. Very adaptable, may be found in almost any aquatic habitat, from rocky northern coasts to mangrove swamps to large reservoirs to small inland ponds. Rests in daytime and roosts overnight beside water on offshore rocks, islands, steep cliffs, dead branches of trees, wharfs, jetties, or even transmission lines. Perching sites must be barren of vegetation. Must visit perches periodically in	no	The project site is located within this bird's known distribution; however, it lacks suitable breeding habitats, roosting sites, or large aquatic feeding grounds and adequate food supplies to support this species.

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			day to dry plumage. Requires considerable length of water, or elevated perch, for labored take-off. Requires undisturbed nest-sites beside water, on islands or mainland. Uses wide rock ledges on cliffs; rugged slopes; and live or dead trees, especially tall ones. Suitable nest-site must be within 5-10 miles of dependable food supply. They nest in colonies of a few to hundreds of pairs, or even thousands.		
<i>Elanus leucurus</i>	white-tailed kite	♦ fully protected *Season of Concern: breeding	White-tail kites forage in undisturbed, open grasslands, meadows, emergent wetlands, farmlands, crops, pastures, and other cultivated habitats. Substantial groves of dense, broad-leaved deciduous trees used for nesting and roosting. Nest placed near top of dense oak, willow, or other tree stand; usually 20-100 feet above ground. Adjacent to their nesting woodland must be open foraging grasslands, where the birds can find their small mammal prey. Main requirements seem to be trees for perching and nesting, and open ground with high populations of rodents.	high potential to use the site for foraging	The project site is located within this bird's known distribution and contains suitable foraging habitats; however, suitable breeding habitats are absent from the project site.
<i>Circus cyaneus</i>	northern harrier	♦ SSC *Season of Concern: breeding	Northern harriers breed and forage in a variety of open (treeless) habitats that provide adequate vegetative cover, an abundance of suitable prey, and scattered hunting, plucking, and lookout perches such as shrubs or fence posts. Such habitats include open wetlands, freshwater marshes, brackish and saltwater marshes, meadows, weedy borders of lakes, rivers and streams, annual and perennial grasslands (including those with vernal pools), weed fields, fallow fields, ungrazed or lightly grazed pastures, some croplands (especially alfalfa, grain, sugar beets, tomatoes, and melons), sagebrush flats, and desert sinks. They are seldom found in wooded areas. Northern harriers are ground nesters, with the nest placed in dense, often tall, vegetation in undisturbed areas. Mostly nests in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water.	low	The project site is located within this bird's known distribution; however, it does not contain suitable breeding or foraging open (treeless) habitats that provide adequate vegetative cover and an abundance of suitable prey.
<i>Accipiter striatus</i>	sharp-shinned hawk	♦ WL *Season of Concern: breeding	Sharp-shinned hawks are seldom-seen nesters that breed mainly in large stands of deciduous, coniferous, and mixed pine-hardwood forests with a closed canopy dense enough that the nest is completely hidden. Nest trees are generally located near openings and brushy areas where prey is abundant, and cover is enough for the perch and dash foraging style. During migration, they use most habitat types with vegetative cover, avoiding open bare areas and extensive openings. It is not uncommon to find them at lower elevations in desert scrub, desert washes, Joshua tree woodland, and other vegetation. Riparian areas are probably the most important habitat on wintering grounds, providing foraging opportunities and roost sites for avian predators and prey species.	high potential to use the site for foraging	The project site is located within this bird's known distribution and contains suitable foraging habitats; however, the project site does not contain suitable breeding woodland habitats to support this species.
<i>Accipiter cooperii</i>	Cooper's hawk	♦ WL *Season of Concern: breeding	The Cooper's hawks hunt in broken woodland and habitat edges. They have been found breeding at low densities virtually throughout the state, predominantly in deciduous, conifer, and mixed woodlands typically those with tall trees and with openings or edge habitat nearby. In southern California, it generally favors extensive riparian bottomlands and oak woodlands, but is also found in montane forests, and desert oases. Most nests in a California study were in groves of six or more deciduous trees, with two or more trees close enough together that the crowns formed one continuous canopy. The Cooper's hawk seems much more tolerant of human activities near the nest and is seen more often nesting in urban/residential areas. In winter and during migration, they may be observed briefly at any location throughout the state in a wide variety of habitats.	present	This hawk was observed during the 2007/2008 CAGN protocol surveys. The LSA CAGN report does not give information about this observation, only that it was sighted. The project site is located within this bird's known distribution and contains suitable foraging habitats; however, the project site does not contain suitable breeding woodland habitats to support this species. This species is adapted to urban environments and occurs commonly. High potential to use the site for foraging only.
<i>Aquila chrysaetos</i>	golden eagle	♦ fully protected ♦ WL ♦ BCC *Season of Concern: breeding and wintering	Golden eagles occur primarily in mountainous canyon land, rimrock terrain of open desert and grassland areas. Habitat typically includes open rolling foothills of grasslands, oak savannas, oak and juniper woodlands, chaparral, mountain areas, and desert. They usually avoid heavily forested areas and extensive croplands. They may be found in coniferous habitat when open space is available (e.g. fire breaks, clear-cuts, burned areas, pasture-land, etc.). Golden eagles are typically not found in heavily forested areas, extensive croplands, or on the immediate coast and are almost never detected in urbanized environments. Golden eagles usually nest on cliffs. Nesting is primarily restricted to rugged, mountainous country and open habitats with canyons and escarpments. Golden eagles will also nest in trees, on ground, clay cliffs, riverbanks, and human-made structures, including windmills, observation towers, powerline poles, electricity transmission towers, nesting platforms, abandoned gold dredges, and electrical transmission towers. Many nests have an unobstructed wide view of the surrounding area or are on prominent escarpments. These eagles require a huge territory to forage for prey. They typically forage in open habitats including grasslands, deserts, savannas, and shrublands. Preferred territory sites include those that have a favorable nest site, a dependable food supply, and broad expanses of open country for foraging. Hilly or mountainous country deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	no	The project site is located within this bird's known distribution; however, the project site does not contain suitable breeding nest sites, a dependable food supply, and broad expanses of open country for foraging. In addition, golden eagles are almost never detected in urbanized environments. Any occurrence would most likely be restricted to flyovers.
<i>Athene cunicularia</i>	burrowing owl (BUOW)	♦ SSC ♦ BCC *Season of	The burrowing owl (BUOW) is a small, ground-inhabiting owl. Typical BUOW habitat is open, dry, flat ground or low rolling hills with sparse vegetation and available burrows. BUOWs are generally found in open country, where tree or shrub canopies cover less than 30% of the habitat. Typical habitats include annual and perennial grasslands, shortgrass	absent	The project site is located within this species' known distribution; however, despite a systematic search of the project site, no burrowing owls or recent sign (i.e., pellets, feathers, castings, or whitewash) was

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		Concern: burrowing sites and some wintering sites	prairies open agricultural areas (particularly rangelands), deserts floors, and vacant lots in residential areas and university campuses. Other habitats include oak savannah; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; sandy beaches and coastal dunes; and river bottom lands. BUOWs inhabiting urban landscaped areas may live in vacant fields/lots, pastures, airports, athletic fields, golf courses, cemeteries, city parks, road shoulders, drainage sumps, railroad beds, irrigation ditches, and road cuts. Nest and roost burrows of the BUOW in California are most commonly dug by California ground squirrels (<i>Spermophilus beecheyi</i>). BUOWs in Imperial County often use the small holes of round-tailed ground squirrels (<i>Citellus tereticaudus</i>) and Botta's pocket gophers (<i>Thomomys bottae</i>), but they also can dig their own burrows in the soft banks of irrigation canals and ditches. Where burrows are scarce, man-made structures, such as culverts, piles of concrete, rubble, or debris, pipes, asphalt, artificial nest boxes, and openings beneath cement or asphalt pavement also are used as nest sites.		observed during the field investigations. The project site provides minimal line of-sight opportunities favored by burrowing owls. However, most of the project site lacks suitable burrows (>4 inches in diameter) capable of providing roosting and nesting opportunities. As a result, burrowing owl was determined to have a low potential to occur onsite. In addition, the protocol BUOW surveys failed to detect the species within the project site.
<i>Asio otus</i>	long-eared owl	♦ SSC *Season of Concern: breeding	Long-eared owls frequent dense, riparian and live oak thickets near meadow edges, and nearby woodland and forest habitats. They are also, found in dense conifer stands at higher elevations. They breed from valley foothill hardwood up to ponderosa pine habitats. They do not build their own nests. They use abandoned nests built by other birds, such as crows, ravens, magpies, hawks, and heron in a variety of trees with dense canopies. Nests are usually 10-50 feet above ground, rarely on ground or in tree or snag cavity. Riparian or other thickets with small, densely canopied trees are required for roosting and nesting. They forage over open areas and fields, occasionally in open woods, flying back and forth a few feet above the ground.	no	The project site is located within this bird's known distribution; however, it does not contain suitable breeding, roosting, or foraging woodland/forest habitats to support this species.
<i>Picoides nuttallii</i>	Nuttall's woodpecker	♦ BCC	The Nuttall's woodpecker is a common resident of low-elevation oak (any species) woodlands, especially where mixed with California sycamores and deciduous riparian habitats, but they are also found in riparian willow woodlands away from oaks and rarely in conifer forests. They excavate nests mostly in riparian habitat in a dead (occasionally live) trunk or limb of willow, sycamore, cottonwood, or alder and rarely in oaks. They require snags and dead limbs for nest excavation.	no	The project site is located within this bird's known distribution; however, it does not contain suitable breeding, roosting, or foraging woodland/forest habitats to support this species.
<i>Lanius ludovicianus</i>	loggerhead shrike	♦ SSC ♦ BCC *Season of Concern: breeding	The loggerhead shrike is a large, predatory songbird. They are known to inhabit and forage over open country within areas of short vegetation and well-spaced shrubs or low trees, particularly those with spines or thorns. They frequent agricultural fields, pastures with fence rows, old orchards, savannas, prairies mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs. They prefer tall shrubs or trees (also fences or power lines) for hunting perches and territorial advertisement; open areas of short grasses, forbs, or bare ground for hunting; and large shrubs or trees for nest placement. Human disturbance does not seem to be a major concern with this species. The shrike is often seen next to well-traveled roads and near houses built in suitable habitat. In California, loggerhead shrikes breed mainly in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground. They often nest in isolated trees or large shrubs.	low	The project site is located within this species' known distribution; however, it does not contain suitable foraging open habitats and nest sites to support this species.
<i>Eremophila alpestris actia</i>	California horned lark	♦ WL	California horned larks are residents of a variety of open habitats, usually where trees and large shrubs are absent. They are found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline. They prefer short, sparsely vegetated prairies, deserts, and agricultural lands. With regards to agricultural land, it may be recently plowed land, with or without emerging crops, or land used the previous year for crops, and then mowed short and left fallow, or very sparse, heavily grazed annual grassland. Or it may simply be a large expanse of mowed weeds. These birds breed primarily in open fields from March through July, with peak activity in May. They usually build a cup-shaped grass-lined nest in a depression on the ground in the open. These birds forage on the ground in either bare areas or in agricultural fields with short vegetation.	low	The project site is located within this bird's known distribution and contains marginal foraging habitats; however, suitable breeding habitats are absent from the project site.
<i>Baeolophus inornatus</i>	oak titmouse	♦ BCC *Season of Concern: breeding	The oak titmouse is found primarily in oak or oak-pine woodlands of the Pacific slope. Along Pacific seaboard, occurs most commonly in oak woodland, including areas where oaks meet streamside trees or pines; also, in well-wooded suburbs, rarely in coniferous forest in mountains. Despite clear preference for oaks, populations in some areas have adapted locally to warm, dry environments without oaks. Such habitats include western juniper woodland in extreme northern California, open pine forests (digger pine, Coulter pine, Jeffrey pine) on San Benito Mtn. in central California, and single-leaf piñon or California juniper mixed with Joshua trees at eastern limits of range in Kern, San Bernardino, and Riverside Counties. Nests are constructed in natural tree cavities, in old woodpecker holes, or in a bird box. Often breeds near water.	no	The project site is located within this bird's known distribution; however, it does not contain suitable breeding or foraging oak or oak-pine woodlands to support this species.
<i>Spinus lawrencei</i>	Lawrence's	♦ BCC	Typically occupies arid and open woodlands within the near vicinity of 3 habitat components: chaparral or other brushy	low	The project site is located within this bird's known distribution;

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	goldfinch	*Season of Concern: breeding	areas; tall annual weed fields; and a water source such as a stream, small lake, or farm pond. Live oaks and blue oaks are predominant trees where this species nests. To a lesser extent, the species also uses riparian woodland; chaparral; coastal scrub; open coniferous and broadleaf evergreen forests; pinyon-juniper woodlands; plantings of cypress, cedars, or junipers; and ranches and other rural residential areas near weedy fields and water sources. A water source within 0.5 km is probably necessary. Nests are in evergreen oaks, conifers, or deciduous trees.		however, the project site contains marginal foraging coastal scrub habitats. The condition of the habitat is not suitable enough to support the species onsite. Any occurrence would most likely be restricted to using the project site for short term foraging, cover, or shelter.
<i>Setophaga petechia</i> (=Dendroica petechia)	yellow warbler	♦ SSC ♦ BCC *Season of Concern: breeding	Yellow warbler occurs principally as a migrant and summer resident from late March through early October; breeds from April to late July. For breeding, the yellow warbler is restricted to the deciduous trees of the riparian woodland from coastal desert woodlands to the Sierra Nevada - willows, cottonwoods, aspens, California sycamores, and alders. Yellow warblers generally occupy riparian vegetation near water along streams and in wet meadows and nesting habitat must contain dense understory vegetation, such as shrubby willows, California wild rose or mule fat. Also breeds in montane chaparral, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush. Nests are deep cups, placed in an upright fork in a deciduous sapling or shrub, typically 2 to 16 feet high.	no	The project site is located within this bird's known distribution; however, it lacks suitable breeding and foraging riparian, montane chaparral, or mixed conifer habitats to support this species.
<i>Icteria virens</i>	yellow-breasted chat	♦ SSC *Season of Concern: breeding	Yellow-breasted chats nest and forage in dense riparian thickets of willows, vines, and brush associated with streams and other wetland habitats. Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, rivers, and the borders of small ponds. Nesting habitat must have dense understory vegetation and larger trees that are used for singing perches. California Wild rose, blackberry, wild grape, mule fat, various shrubby willows, and other plants that form dense thickets and tangles are frequently selected as nesting strata. Cottonwoods, alders, and larger willows typically form the canopy and are required for song perches. The nest is an open cup typically placed in dense shrubs or thickets within 3 to 8 feet above ground along a stream or river. Chats will also nest in tamarisk, Himalayan blackberry, Russian olive, and other non-native plants that provide dense shrub layers.	no	The project site is located within this bird's known distribution; however, it lacks suitable breeding and foraging riparian habitats with adequate strata to support this species.
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	♦ WL	These sparrows are found on moderate to steep, dry, grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush. Optimal habitat consists of sparse, low brush or grass, hilly slopes preferably interspersed with boulders and outcrops. The species may occur on steep grassy slopes without shrubs if rock outcrops are present. It is frequently found in open shrubland in valley foothill hardwood-conifer savannah and open chaparral. It is generally absent from dense, unbroken stands of coastal sage scrub and chaparral. Nests are placed in small depressions on the ground usually at base of grass or forb patches, rocks, under a shrub, and very rarely in a shrub.	no	The project site is located within this bird's known distribution; however, it does not contain suitable breeding and foraging habitats with low shrub cover interspersed with grasses/forbs and rock outcrops to support this species.
<i>Artemisiospiza belli belli</i> (=Amphispiza belli belli)	Bell's sage sparrow	♦ WL ♦ BCC	Bell's sage sparrow is a breeder in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains. In transmontane California, it occupies sagebrush, alkali desert scrub, desert scrub, and similar habitats. In cismontane California, it frequents chaparral dominated by chamise, and coastal scrub dominated by sage. The preference for chamise chaparral appears to occur only in the more northern parts of its range. Bell's sage sparrow is also found in big sagebrush at higher elevations in southern mountains. They seek cover in dense stands in chaparral and scrub habitats in the breeding season, and they forage on the ground beneath and between shrubs. They rarely or never use grassland habitat except possibly for dispersal.	low	The project site is located within this bird's known distribution; however, it contains only marginal breeding and foraging shrub habitats to support this species.
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	♦ SSC *Season of Concern: breeding	Yellow-headed blackbirds breed almost exclusively in marshes with tall emergent vegetation, such as tules or cattails, generally in open areas and edges over relatively deep water. Nests are fabricated from dry vegetation and placed in dense cover. Because of the need for deeper water, breeding marshes often are on the edges of water bodies such as lakes, reservoirs, or larger ponds. Males choose territories with ample open water, and within these females tend to choose edges with moderately dense vegetation and extensive channels, characteristics suited for adequate support for nests and safety from predators, respectively. Most nests are attached to cattails and tules, but rarely some are built in willows and tamarisk. Feeds in emergent vegetation, along moist shorelines, and in nearby grasslands and croplands, preferably near water or on moist ground.	no	The project site is located within this bird's known distribution; however, it lacks suitable foraging grassland and cropland habitats or suitable breeding marsh and aquatic habitats to support this species.
Sensitive Mammals					
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	♦ SSC	A common resident of open, sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California. Inhabits sage scrub (coastal sage scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub), sage scrub/grassland ecotones, and chaparral (including red shank chaparral) communities. To a less extent, other natural habitats include desert wash, desert scrub, desert succulent shrub, pinyon-juniper, alkali playa, coast live oak woodland, riparian, and coniferous forest, and natural habitats adjacent to croplands, grove/orchard, and residential/urban/exotic	absent	The project site is located within this species' known distribution. Although isolated, the buckwheat scrub provides minimal habitat onsite. In addition, this species was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
			areas. Generally, exhibits a strong microhabitat affinity for moderately gravelly and rocky substrates, and, to a lesser extent, shrubby areas. Burrows can be found in sandy or gravelly soils.		
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	♦ SSC	Common resident of sandy herbaceous areas, usually in association with rocks or coarse gravel. Prefer low density to sparse vegetation communities with loose and sandy soils, which allow for easy burrowing. Pallid San Diego pocket mouse prefers gravelly and rocky soil, preferring to burrow underneath rocks in coastal sage scrub vegetation.	absent	The project site is located outside of this species' known distribution and does not contain suitable sandy herbaceous areas, with rocks or coarse gravel to support this species. In addition, this species was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse (LAPM)	♦ SSC	This subspecies probably inhabits open ground of fine, sandy soils and may utilize these soil types for burrowing. It may be restricted to lower elevation grassland, alluvial sage scrub, and coastal sage scrub in areas with soils composed of fine sands. Pocket mice require soils that allow them to construct burrows 2-3 feet deep for escape from the desert heat and predators. It probably prefers sparsely vegetated habitats. Pocket mice usually avoid dense grass cover because of difficulty locomoting and finding seeds.	absent	The project site is located within this species' known distribution. Although isolated, the buckwheat scrub provides minimal habitat onsite. In addition, this species was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	♦ SSC	Occurs in desert scrublands of California, but it also occurs in large numbers in other habitats right down to the Pacific Ocean. Suitable habitat for the San Diego desert woodrat includes chaparral, coastal sage scrub (including Riversidean and Diegan coastal sage scrub), oak woodlands, desert scrub, pinyon-juniper woodlands, juniper woodland and scrub, and Riversidean alluvial fan sage scrub. They require an abundant supply of downed wood, sticks, bark, and miscellaneous plant materials to build stick houses (dens/nests) called middens. Houses are constructed with wood, twigs, sticks, cactus parts, rocks, bones, urine, feces, leaves, seeds, and fruits, depending on availability of building materials. These dens are above ground and are associated with rock outcrops, boulders, cactus patches and dense undergrowth. San Diego desert woodrats commonly select large cactus patches and <i>Yucca</i> plants in which to establish their stick nests. If not within clumps of these plants, woodrats often construct their nests in crevices in rocky outcrops or in the cracks between boulders where succulent plant material is available nearby as a combined food and water source. Houses are used for nesting, food caching, and predator escape. They are highly arboreal, and thick-leaved trees and shrubs are important habitat components. They typically avoid open areas that do not provide adequate refuge sites.	absent	The project site is located within this species' known distribution. Although isolated, the buckwheat scrub provides minimal habitat onsite. The project site does not contain suitable microhabitats (rock outcrops, boulders, cactus patches and dense undergrowth) for nest construction to support this species. No woodrat nests/middens were observed during the surveys. In addition, this species was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.
<i>Onychomys torridus ramona</i>	southern grasshopper mouse (=Ramona grasshopper mouse)	♦ SSC	Found among scattered brush on flat, sandy, gravelly, valley floor habitats. This taxon probably inhabits a variety of low, open and semi-open scrub habitats including coastal sage scrub, mixed chaparral, low sagebrush, riparian scrub, and annual grassland with scattered shrubs. Low to moderate shrub cover is preferred. They require relatively large expanses of habitat for viable populations. They nest in burrows, and while they may dig their own burrows in sandy or other friable substrates, they often use burrows dug by other rodents. Frequents scrub habitats with friable soils for digging.	absent	The project site is located within this species' known distribution. Although isolated, the buckwheat scrub provides minimal habitat onsite. In addition, this species was not captured onsite during the 2008 focused SBKR small mammal trapping study conducted by LSA.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	♦ SSC	The San Diego black-tailed jackrabbit occupies many diverse habitats but is primarily found in arid regions supporting shortgrass habitats. They occur in open habitats with unobscured visibility, primarily including grasslands, coastal sage scrub, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral, Great Basin sagebrush, desert scrub, playas, juniper woodlands, oak woodlands, southern willow scrub, disturbed habitats and agriculture. Jackrabbits typically are not found in high grass or dense brush where it is difficult for them to locomote, and the openness of open scrub habitat probably is preferred over dense scrub areas. Jackrabbits are common in grasslands that are overgrazed by cattle and they are well adapted to using low-intensity agricultural habitats. They are usually not found in high mountain forests. They typically do not construct burrows or dens. During the day, they will lie quietly and motionless in a shallow scrape beneath a bush or beside some other type of cover. They are primarily nocturnal and have no need to stay close to dense cover, and commonly feed in the open.	no	The project site is located within this species' known distribution; however, it does not contain suitable open habitats to support this species.
<i>Eumops perotis californicus</i>	western mastiff bat	♦ SSC	In California, it is most frequently encountered in broad open areas. Its foraging habitat includes desert scrub, desert washes, flood plains, chaparral, coastal sage scrub, oak woodland, open ponderosa pine forest, grassland, and agricultural areas. The species is present only where there are significant rock features offering suitable roosting habitat. It is primarily a crevice dwelling species. They primarily roost in crevices in vertical cliffs, usually granite or consolidated sandstone, and in broken terrain with exposed rock faces. They may also be found occasionally in high buildings, trees, and tunnels. Roost sites may change from season to season. Because of its large size, this bat needs vertical faces to drop from in order to take flight (about 10 feet). It does not undergo prolonged hibernation and it does not migrate.	no	The project site is located within this bat's known distribution; however, it does not contain suitable and adequate foraging, roosting, or breeding habitats that could support this bat onsite.

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<i>Nyctinomops macrotis</i>	big free-tailed bat	♦ SSC	This species is believed to be a seasonal migrant. This species appears to be mainly an inhabitant of rugged, rocky habitats/canyons in arid landscapes. It has been found in a variety of plant associations, including desert shrub, woodlands, and evergreen forests. It roosts mainly in the crevices of rocks in cliff situations, although there is some documentation of roosting in buildings, caves, and tree cavities. Small nursery colonies are formed in rocky crevices in high cliffs.	no	Although this species may occur almost anywhere in the state, it is likely very rare, and it probably does not breed in California. The project site does not contain suitable foraging habitats and roosting sites free from human disturbance to support this species.
<i>Lasiurus xanthinus</i>	western yellow bat	♦ SSC	This species occurs year-round in California and has been found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. They roost and feed in, and near, palm oases and riparian habitats. Yellow bats are found in desert regions, where they show an association with palms and other desert riparian habitats. They are known to occur in a number of palm oases, but are also believed to be expanding their range with the increased usage of ornamental palms in landscaping. In California, this foliage-roosting species appears to roost exclusively in the skirts of palm trees, and to be limited in its distribution by the availability of palm habitat. This species is thought to be non-colonial, although aggregations of up to 15 have been found in the same roost site. Individuals usually roost in trees, hanging from the underside of a leaf. At least some individuals or populations may be migratory. Yellow bats probably do not hibernate.	no	The project site is located within this bat's known distribution; however, it does not contain suitable foraging desert habitats and roosting sites (palms trees) to support this species.
<i>Antrozous pallidus</i>	pallid bat	♦ SSC	In California, the species occurs throughout the state in a variety of habitats including desert, oak woodland, coastal redwood and giant sequoia forests, coniferous forests, non-coniferous woodlands, brushy terrain, rocky canyons, open farmland, extending up to 9,810 feet elevation in the Sierra Nevada. Pallid bats are colonial, with a typical colony containing 30-70 animals, although colonies of several hundred have been found. They may use a variety of roosting habitats. Common roost sites are crevices in rocky outcrops and cliffs, old buildings, bridges, caves, mines, and live and hollow trees (snags). Pallid bats are also one of the species most predictably associated with bridges. They sometimes roost in expansion joints by day, but more commonly are found night roosting, particularly under concrete girder structures. They have different day and night roost sites. Pallid bats are not known to migrate and are presumed to spend the winter hibernating close to their summer roosts.	no	The project site is located within this bat's known distribution; however, it does not contain suitable foraging habitats and roosting sites to support this species.
<i>Ovis canadensis nelsoni</i>	desert bighorn sheep (=Nelson's bighorn sheep)	♦ fully protected	They inhabit desert mountains, which are arid, rocky, sparsely vegetated lands. Within the desert, preferred habitat of bighorn is primarily on or near mountainous terrain above the desert floor. They graze along open slopes, washes and alluvial fans where they can see approaching predators, while steep canyons and rock bluffs serve as escape terrain. They avoid higher elevations, likely because of decreased visibility associated with dense vegetation, such as chaparral. Bighorns prefer open areas of low-growing vegetation for feeding, with proximity to steep, rugged terrain for escape, lambing, bedding, an adequate source of water, and travel routes linking these areas. Low rolling terrain and washes seasonally provide an important source of high-quality forage, with a greater diversity of browse species than in steeper terrain. Areas of flat terrain, such as valley floors, serve as important linkages between neighboring mountainous regions, thereby allowing sheep temporary access to resources (forage, water, or lambing habitat) in neighboring areas, and allowing gene flow to occur between subpopulations. The desert bighorns need water about every three days in the summer, drinking from springs, water in depressions, and wildlife refuge artificial water holes.	no	The project site is located outside of this species' known distribution and does not contain suitable open desert habitats with areas of low-growing vegetation for feeding; appropriate escape terrain; suitable lambing and bedding sites; and an adequate source of water to support this species.

Legend and Notes

Notes and Abbreviations:

- **amsl** = above mean sea level.
- **DPS = distinct population segment:** a DPS, or a distinct population segment, is a vertebrate population or group of populations that is discrete from other populations of the species and significant in relation to the entire species. The ESA provides for listing species, subspecies, or distinct population segments of vertebrate species.
- **ESU = evolutionarily significant unit:** a Pacific salmon population or group of populations that is substantially reproductively isolated from other conspecific populations and that represents an important component of the evolutionary legacy of the species.
- ***Season of Concern:** given the distribution and abundance of many taxa in California vary greatly seasonally, the "Season of Concern" corresponds to the season, or seasons, for which a specific taxon is ranked for conservation priority on the California Bird Species of Special Concern list.

Federal Endangered Species Act (ESA) Listing Codes:

The ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened animals is published in 50 CFR § 17.11.

- **FE = federally listed as endangered:** any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
- **FT = federally listed as threatened:** any species of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

Scientific Name (=Synonym)	Common Name (=Synonym)	Status in California	General Habitat Description in California	Potential to Use the Site	Rational
<u>California Endangered Species Act (CESA) Listing Codes:</u>					
The CESA is administered by CDFW. The official listing of <i>Animals of California Declared To Be Endangered or Threatened</i> is contained in the California Code of Regulations, Title 14, § 670.5. Species and subspecies of California native animals are declared to be endangered or threatened as defined by §§ 2062 and 2067 of the Fish and Game Code. The CESA does not allow listing of insects.					
<ul style="list-style-type: none"> • SE = state-listed as endangered: "endangered species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (Fish and Game Code § 2062). • ST = state-listed as threatened: "threatened species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts (Fish and Game Code § 2067). • SCE = state candidate for listing as endangered: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of endangered species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068). 					
<u>California Department of Fish and Wildlife (CDFW) Designations:</u>					
For some wildlife species, the CNDDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nesting colonies. For many species of birds, the primary emphasis is on the breeding population in California. For some species which do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering					
<ul style="list-style-type: none"> • SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. • Fully protected: fully protected animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock. Lists were created for fish (Fish and Game Code § 5515), amphibians and reptiles (Fish and Game Code § 5050), birds (Fish and Game Code § 3511) and mammals (Fish and Game Code § 4700). • WL = watch list: this list includes birds identified in the <i>California Bird Species of Special Concern</i> (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species. 					
<u>United States Fish and Wildlife Service (USFWS) Designations:</u>					
<ul style="list-style-type: none"> • BCC = bird of conservation concern: a bird of conservation concern is listed in the USFWS' 2008 <i>Birds of Conservation Concern</i> report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing. 					

Sources used for Table 2:

- American Ornithologists' Union. 1998. The AOU Check-list of North American Birds. 7th Edition. American Ornithologists' Union, Washington, D.C. 829 pp.
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- USFWS' recovery plans, recovery goals, and recovery outlines for individual species.
- USFWS' 5-Year Review reports for individual species.
- USFWS' Species Accounts for individual species.
- NCCP/HCP management plans.
- In-house data and records.

Websites used for Table 2:

Invertebrates

- Butterflies and Moths of North America: www.butterfliesandmoths.org/.
- CDFW's Special Status Invertebrate Species Accounts: www.wildlife.ca.gov/Data/CNDDDB/Invertebrates.
- Xerces Society for Invertebrate Conservation: www.xerces.org/#.

Fish

- American Fisheries Society: www.fisheries.org/.
- CalFish: www.calfish.org/.
- CDFW Inland Sport Fishing: www.wildlife.ca.gov/Fishing/Inland.
- UC Davis Center for Watershed Sciences - Fish Data: www.pisces.ucdavis.edu/fish.
- UC Davis Division of Agriculture and Natural Resources - California Fish Website: www.calfish.ucdavis.edu/species/.
- USGS' American Fisheries Society Imperiled Freshwater and Diadromous Fishes of North America: www.usgs.gov/centers/wetland-and-aquatic-research-center-warc/science/american-fisheries-society-imperiled?qt-science_center_objects=0#qt-science_center_objects.

Amphibians and Reptiles

- Amphibiweb: www.amphibiweb.org/search/index.html.
- California Herps: www.californiaherps.com.
- Center for North American Herpetology: www.cnah.org/.
- Society for the Study of Amphibians and Reptiles: www.ssarherps.org/.
- USGS' A Field Guide to the Reptiles and Amphibians of Coastal Southern California: www.werc.usgs.gov/Project.aspx?ProjectID=75.

Birds

- American Ornithologists' Union: www.americanornithology.org.
- Audubon Guide to North American Birds: www.audubon.org/bird-guide?search_api_views_fulltext=abeandfield_bird_family_tid=Allandfield_bird_region_tid=All.
- California Partners in Flight: www.prbo.org/calpif/.
- The Cornell Lab of Ornithology Birds of North America: birdsna.org/Species-Account/bna/home.

Mammals

- American Society of Mammalogists: www.mammalsociety.org/.
- Mammals' Planet: www.planet-mammiferes.org/drupal/en/node/20.

Wildlife

- CDFW's California Wildlife Habitat Relationships - Online Life History Accounts and Range Maps; www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range.
- NatureServe: www.natureserve.org/.
- NOAA Fisheries West Coast Region: www.westcoast.fisheries.noaa.gov/.



APPENDIX B9
NRCS Soils Report



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United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for San Bernardino County Southwestern Part, California



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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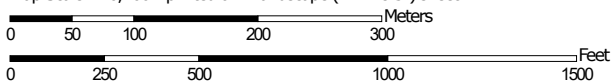
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



Map Scale: 1:6,100 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)




















Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
 Survey Area Data: Version 10, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 10, 2018—Jun 5, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
TuB	Tujunga loamy sand, 0 to 5 percent slopes	42.3	41.7%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	59.1	58.3%
Totals for Area of Interest		101.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

Custom Soil Resource Report

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San Bernardino County Southwestern Part, California

TuB—Tujunga loamy sand, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2sx6y

Elevation: 650 to 3,110 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 62 to 65 degrees F

Frost-free period: 325 to 365 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Tujunga, loamy sand, and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tujunga, Loamy Sand

Setting

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from granite

Typical profile

A - 0 to 6 inches: loamy sand

C1 - 6 to 18 inches: loamy sand

C2 - 18 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 5 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Tujunga, gravelly loamy sand

Percent of map unit: 10 percent

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Custom Soil Resource Report

Across-slope shape: Linear

Hydric soil rating: No

Hanford, sandy loam

Percent of map unit: 5 percent

Landform: Alluvial fans

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

TvC—Tujung gravelly loamy sand, 0 to 9 percent slopes

Map Unit Setting

National map unit symbol: hcl2

Elevation: 10 to 1,500 feet

Mean annual precipitation: 10 to 25 inches

Mean annual air temperature: 59 to 64 degrees F

Frost-free period: 250 to 350 days

Farmland classification: Not prime farmland

Map Unit Composition

Tujung and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tujung

Setting

Landform: Alluvial fans

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium derived from granite

Typical profile

H1 - 0 to 36 inches: gravelly loamy sand

H2 - 36 to 60 inches: gravelly sand

Properties and qualities

Slope: 0 to 9 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water storage in profile: Low (about 3.8 inches)

Custom Soil Resource Report

Interpretive groups

Land capability classification (irrigated): 4s

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 5 percent

Landform: Drainageways

Hydric soil rating: Yes

Soboba, gravelly loamy sand

Percent of map unit: 5 percent

Hydric soil rating: No

Delhi, fine sand

Percent of map unit: 5 percent

Hydric soil rating: No



APPENDIX B10

Plant and Wildlife Species Recorded during the Field Surveys



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Table 1, *Plant Species Observed during the Field Surveys*, contains the list of vascular plant taxa recorded during the 2007, 2008, and 2019 biological surveys conducted within the Phase II project site. Ornamental and landscaped vegetation associated with the development are not included. Plant nomenclature and taxonomic order is based on *The Jepson Manual: Vascular Plants of California*, second Edition (Baldwin et al., 2012).

Table 1: Plant Species Observed during the Field Surveys

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Cal-IPC Rating	Status in California
Eudicots				
Asteraceae (=Compositae): Sunflower Family				
<i>Ambrosia acanthicarpa</i>	annual bur ragweed (=annual bur-sage)			
<i>Ambrosia psilostachya</i>	western ragweed			
<i>Artemisia californica</i>	California sagebrush			
<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i> (= <i>Baccharis salicifolia</i>)	mule fat (=seep willow)			
<i>Centaurea melitensis</i>	tocalote (=Malta star thistle)	X	Moderate	
<i>Cirsium occidentale</i>	western thistle (=cobwed thistle)			
<i>Encelia farinosa</i>	brittlebush (=incienso)			
<i>Ericameria pinifolia</i>	pine scented goldenbush (=pine-bush)			
<i>Erigeron bonariensis</i> (= <i>Conyza bonariensis</i>)	flax-leaved horseweed	X		
<i>Erigeron canadensis</i> (= <i>Conyza canadensis</i>)	horseweed (=mare's tail)			
<i>Heterotheca grandiflora</i>	telegraph weed			
<i>Lactuca serriola</i>	prickly lettuce (=wild lettuce)	X		
<i>Lepidospartum squamatum</i>	scale-broom			
<i>Lessingia glandulifera</i> var. <i>glandulifera</i>	valley lessingia			
<i>Pseudognaphalium californicum</i> (= <i>Gnaphalium californicum</i>)	California everlasting (=green everlasting, =ladies tobacco)			
<i>Pseudognaphalium stramineum</i> (= <i>Gnaphalium stramineum</i>)	cotton-batting plant			
<i>Senecio flaccidus</i>	threadleaf ragwort (=shrubby butterweed)			
Boraginaceae: Borage or Waterleaf Family				
<i>Amsinckia</i> sp.	fiddleneck			
<i>Cryptantha intermedia</i>	common cryptantha			
<i>Eriodictyon trichocalyx</i>	hairy yerba santa (=yerba santa)			
<i>Phacelia distans</i>	common phacelia			
Brassicaceae (=Cruciferae): Mustard Family				
<i>Hirschfeldia incana</i> (= <i>Brassica geniculata</i>)	short-podded mustard (=Mediterranean mustard)	X	Moderate	
<i>Sisymbrium irio</i>	London rocket	X	Moderate	

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Cal-IPC Rating	Status in California
Cactaceae: Cactus Family				
<i>Opuntia basilaris</i>	beavertail cactus			
<i>Opuntia littoralis</i>	coastal prickly pear			
Euphorbiaceae: Spurge Family				
<i>Croton californicus</i>	California croton			
<i>Euphorbia</i> sp.				
Fabaceae (=Leguminosae): Legume Family				
<i>Acmispon americanus</i> var. <i>americanus</i> (= <i>Lotus purshianus</i> , = <i>Lotus unifoliatu</i> s)	Spanish lotus (=Spanish clover)			
<i>Acmispon glaber</i> (= <i>Lotus scoparius</i>)	deerweed (=California broom)			
Lamiaceae (=Labiatae): Mint Family				
<i>Marrubium vulgare</i>	horehound	X	Limited	
<i>Salvia apiana</i>	white sage			
<i>Salvia columbariae</i>	chia			
Onagraceae: Evening-Primrose Family				
<i>Eulobus californicus</i> (= <i>Camissonia californica</i>)	mustard evening primrose (=California primrose)			
Plantaginaceae: Plantain Family				
<i>Penstemon spectabilis</i>	showy penstemon			
Polemoniaceae: Phlox Family				
<i>Eriastrum sapphirinum</i>	sapphire woollystar (=sapphire eriastrum)			
Polygonaceae: Buckwheat Family				
<i>Eriogonum fasciculatum</i>	California buckwheat			
<i>Eriogonum gracile</i>	slender buckwheat			
Salicaceae: Willow Family				
<i>Populus nigra</i>	Lombardy poplar	X		
<i>Salix lasiolepis</i>	arroyo willow			
Solanaceae: Nightshade Family				
<i>Nicotiana glauca</i>	tree tobacco	X	Moderate	
<i>Nicotiana quadrivalvis</i>	Indian tobacco (=coyote tobacco, =wild tobacco)			
Vitaceae: Grape Family				
<i>Vitis vinifera</i>	cultivated grape (=wine grape)	X		
Monocots				
Agavaceae: Century Plant Family				
<i>Hesperoyucca whipplei</i> (= <i>Yucca whipplei</i>)	our lord's candle (=chaparral yucca)			

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Cal-IPC Rating	Status in California
Poaceae: Grass Family				
<i>Avena fatua</i>	wild oat	X	Moderate	
<i>Schismus barbatus</i>	common Mediterranean grass (=father of the earth)	X	Limited	
Legend and Notes				
<ul style="list-style-type: none"> • sp. = plant only identified to genus. • Non-native = taxa not native to California. <p>California Invasive Plant Council (Cal-IPC) Ratings: Cal-IPC is a nonprofit organization that is dedicated to protecting California's lands and waters from ecologically-damaging invasive plants. Cal-IPC maintains the California Invasive Plant Inventory, a comprehensive list of invasive plants based on ecological impacts.</p> <ul style="list-style-type: none"> • Moderate = these species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread. • Limited = these species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic. 				

Table 2, *Wildlife Species Observed during the Field Surveys*, contains the list of wildlife species observed and/or detected during the 2007, 2008, and 2019 biological surveys conducted within the Phase II project site.

Table 2: Wildlife Species Observed during the Field Surveys

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Status in California
Reptiles			
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard (=coast horned lizard)		♦ SSC
<i>Uta stansburiana</i>	common side-blotched lizard		
<i>Arizona elegans occidentalis</i>	California glossy snake		♦ SSC
Birds			
<i>Zenaida macroura</i>	mourning dove		
<i>Chordeiles acutipennis</i>	lesser nighthawk		
<i>Archilochus alexandri</i>	black-chinned hummingbird		
<i>Calypte anna</i>	Anna's hummingbird		
<i>Selasphorus rufus</i>	rufous hummingbird		♦ BCC
<i>Charadrius vociferus</i>	killdeer		
<i>Larus californicus</i>	California gull		♦ WL
<i>Accipiter cooperii</i>	Cooper's hawk		♦ WL
<i>Buteo jamaicensis</i>	red-tailed hawk		
<i>Colaptes auratus</i>	northern flicker		
<i>Falco sparverius</i>	American kestrel		
<i>Sayornis nigricans</i>	black phoebe		
<i>Sayornis saya</i>	Say's phoebe		
<i>Tyrannus vociferans</i>	Cassin's kingbird		
<i>Tyrannus verticalis</i>	western kingbird		
<i>Aphelocoma californica</i>	California scrub-jay (=western scrub-jay)		
<i>Corvus brachyrhynchos</i>	American crow		
<i>Corvus corax</i>	common raven		
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow		
<i>Hirundo rustica</i>	barn swallow		
<i>Psaltiriparus minimus</i>	bushtit		
<i>Thryomanes bewickii</i>	Bewick's wren		
<i>Poliptila caerulea</i>	blue-gray gnatcatcher		
<i>Regulus calendula</i>	ruby-crowned kinglet		

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Status in California
<i>Toxostoma redivivum</i>	California thrasher		
<i>Mimus polyglottos</i>	northern mockingbird		
<i>Sturnus vulgaris</i>	European starling	X	
<i>Passer domesticus</i>	house sparrow	X	
<i>Haemorhous mexicanus</i>	house finch		
<i>Spinus psaltria</i>	lesser goldfinch		
<i>Setophaga coronata</i>	yellow-rumped warbler		
<i>Melospiza crissalis</i>	California towhee		
<i>Melospiza melodia</i>	song sparrow		
<i>Zonotrichia leucophrys</i>	white-crowned sparrow		
<i>Sturnella neglecta</i>	western meadowlark		
Mammals			
<i>Otospermophilus beecheyi</i> (= <i>Spermophilus beecheyi</i>)	California ground squirrel		
<i>Dipodomys agilis</i>	Pacific kangaroo rat (=agile kangaroo rat)		
<i>Dipodomys simulans</i>	San Diego kangaroo rat (=Dulzura kangaroo rat)		
<i>Peromyscus maniculatus</i>	deer mouse (=North American deer mouse)		
<i>Sylvilagus audubonii</i>	Audubon's cottontail (=desert cottontail)		
<i>Canis latrans</i>	coyote		
Legend			
<u>California Department of Fish and Wildlife (CDFW) Designations:</u>			
<ul style="list-style-type: none"> • SSC = species of special concern: a species of special concern is a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally-, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. • WL = watch list: this list includes birds identified in the <i>California Bird Species of Special Concern</i> (Shuford and Gardali, 2008) report and are not on the current CDFW species of special concern list, but were on previous lists and they have not been state-listed under CESA; were previously state or federally listed and now are on neither list; or are on the list of fully protected species. 			
<u>United States Fish and Wildlife Service (USFWS) Designations:</u>			
<ul style="list-style-type: none"> • BCC = bird of conservation concern: a bird of conservation concern is listed in the USFWS' 2008 <i>Birds of Conservation Concern</i> report. The report identifies species, subspecies, and populations of all migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) 			

Scientific Name (=Synonym)	Common Name (=Synonym)	Non-Native	Status in California
<p>that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report is priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.</p>			



APPENDIX C
CULTURAL RESOURCES



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To: Jeff Benson, Management Analyst II, City of Rancho Cucamonga

From: Jenna Farrell, Principal Archaeologist

Date: August 14, 2019

Subject: Rancho Cucamonga Central Park 11 Acre Amphitheater Project, San Bernardino County, California

The city of Rancho Cucamonga (City) is proposing to develop an approximately 40,000 square foot amphitheater on approximately 11 acres located in the southcentral portion of Central Park, Rancho Cucamonga, San Bernardino County, California (Project). This memo provides the results of the Phase I archaeological inventory for the Project. The purpose of this cultural resource investigation was to determine the presence or absence of historic resources within the Project's area of potential significant effects (APSE). The City is the lead agency under the California Environmental Quality Act (CEQA).

A cultural resource literature review through the California Historical Resources Information Center's South Central Coastal Information Center (SCCIC), Native American Heritage Commission (NAHC) sacred land files (SLF) search, and pedestrian archaeological survey was conducted for the entire undeveloped portion of the Central Park property (approximately 73 acres), which includes the proposed 11-acre Project area. A technical report is currently being prepared for the larger area; this brief memo reflects the results for the City's currently proposed 11-acre Project.

PROJECT LOCATION

The proposed Project site is located in the city of Rancho Cucamonga, in the southwestern most portion of San Bernardino County, within Section 36 of Township 1 South, Range 7 West, on the Cucamonga Peak, California, U.S. Geological Survey (USGS) 7.5-minute Quadrangle Map (see Enclosure 1). Central Park (Project site) is located at 11200 Base Line Road (northeast corner), and is bounded by Milliken Avenue to the east, Base Line Road to the south, Deer Creek Channel to the west, and the Pacific Electric Trail (paved pedestrian/bike trail) to the north.

PROJECT BACKGROUND AND DESCRIPTION

In 1984, the City Council acquired approximately 103.4 gross acres of land located at the northwest corner of Milliken Avenue and Base Line Road for a park that would serve the whole city and public. Central Park was placed into the City's General Plan and the property was reserved for future park purposes. The Master Plan contained three major use areas or elements: the OmniCenter, Sports Complex (non-sports fields), and Park and Open Space. In 2002, funding was received for the development of approximately 30 acres for the Goldy S. Lewis Community Center and James L. Brulte Senior Center, and the Central Park Playground with two children's play equipment areas.

In 2017, the Rancho Cucamonga City Council approved efforts for a Central Park Master Plan Update. This update defines the development of the remaining park space and identifies smaller (3-11 acres),

buildable sections comprised of financially responsible amenities, as when funding becomes available, park development could continue within the framework of a comprehensive community inspired vision.

One of the proposed phases of the Central Park Master Plan Update involves the development of an amphitheater. The City has applied for grant funding to assist with the development of an amphitheater in Central Park through the California Department of Parks and Recreation Office of Grants and Local Services Statewide Park Development and Community Revitalization Program. The Statewide Park Development and Community Revitalization Program provides grants to assist with creating new parks and new recreation opportunities across California. Projects eligible for this grant funding include expansion or renovating an existing park. The Project entails the development of an amphitheater, ancillary facilities, and other infrastructure covering approximately 40,000 square feet on 11 acres located in the southcentral portion of Central Park. The Central Park Amphitheater will be an open-air, outdoor performing arts venue and multi-use space. The proposed Project includes provision of sewer, water, storm drain, electric, gas, telephone, data and cable television to the Project site.

For the purposes of this Phase I archaeological inventory, the Project is the proposed development of the 11-acre amphitheater.

AREA OF POTENTIAL SIGNIFICANT EFFECTS ON THE ENVIRONMENT

For the purposes of this study, the Project's archaeological horizontal APSE is considered the Project area (11 acres). The vertical APSE is estimated to range from 0 to 6 feet below the ground surface.

REGULATORY COMPLIANCE

State

California Environmental Quality Act

CEQA (Section 21084.1) requires a lead agency determine whether a project could have a significant effect on historical resources and tribal cultural resources (Public Resource Code [PRC] Section 21074 [a][1][A]-[B]). Under the CEQA (Section 15064.5), a historic resource (e.g. building, structure, or archaeological resource) is listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) or a local register or landmark, identified as significant in a historical resource survey (meeting the requirements of Section 5024.1(g) of the PRC), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Section 15064.5[a][3]). Under the California Code of Regulations (CCR), Title 14, Chapter 11.5, properties listed on or formally determined to be eligible for listing in the National Register of Historic Places (NRHP) are automatically eligible for listing in the CRHR. A resource is generally considered to be historically significant under CEQA if it meets the criteria for listing in the CRHR (see PRC Section 5024.1, Title 14 CCR, Section 5024.1).

California Health and Safety Code, Section 7052 and 7050.5

Section 7052 of the California Health and Safety Code states that it is a felony to disturb Native American burials. Section 7050.5 requires that construction or excavation be stopped in the vicinity of

discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California NAHC.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act (the Act) applies to both state and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and that the county coroner be notified. If the remains are Native American, the coroner must notify the NAHC. The NAHC will then identify and notify a most likely descendant (MLD). The Act stipulates the procedures the MLD may follow for treating or disposing of the remains and associated grave goods.

California Public Resource Code, Section 5097

California PRC Section 5097 specifies the procedures to be followed in the event of an unexpected discovery of human remains on non-federal land. The disposition of Native American remains falls within the jurisdiction of the NAHC. Section 5097.5 of the Code states:

“No 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. Violation of this section is a misdemeanor.”

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

Assembly Bill 52

Under CEQA, Assembly Bill 52 requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. Consultations must include discussing the type of environmental review necessary, the significance of tribal cultural resources, and the significance of the project’s impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

RECORDS SEARCH RESULTS

A California Historical Resources Information Center records search of the Project area and a one-half mile buffer was conducted via the SCCIC, Division of Anthropology, California State University, Fullerton, in July 2019 (Records Search File No.: 20318.6401). As part of this records search, the SCCIC database of survey reports and overviews was consulted, as well as documented cultural resources, cultural landscapes, and ethnic resources. Additionally, the search included a review of the following publications and lists: California Office of Historic Preservation (OHP) Historic Properties Directory, NRHP, OHP Archaeological Determinations of Eligibility, California Inventory of Historical Resources/CRHR, California

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Points of Historical Interest, California Historical Landmarks, ethnographic information, historical literature, historical maps and plats, and local historic resource inventories. The records search focused specifically on the proposed APSE and a half mile buffer centered on the Project area. The records search results are included as Enclosure 2 (non-confidential).

One previously conducted survey (SB-00479: 1977) is within the APSE. A total of 16 previous surveys have been conducted within one-half mile of the APSE between 1975 and 2010. These cultural resource investigations are comprised of both archaeological and architectural surveys, and desktop studies. The previous surveys within the APSE and within one-half mile of the APSE are listed in Table 1.

No previously recorded sites were identified within the APSE and one previously recorded site was identified within one-half mile of the APSE. Site P-36-020137 (CA-SBR-15904) is a segment of the former Pacific Electric Railway’s San Bernardino Line that was removed in the 1990s and replaced with a paved bike and pedestrian trail. P-36-020137 has been determined not eligible for the CRHR or NRHP (Table 2). No CRHR or NRHP eligible archaeological sites were identified within the APSE or within a half mile of the APSE.

Table 1: Cultural Resources Surveys Conducted within the APSE and within a half mile of the APSE

Report No.	Year	Author(s)/ Affiliation	Title	Survey Type	Resources Identified
Previous Cultural Resource Surveys Conducted within the APSE.					
SB-00479	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Lewis Homes Project in the Etiwanda Area.</i>	Archaeological/ Architectural Survey	--
Previous Cultural Resource Surveys Conducted within a half mile of the APSE					
SB-00286	1975	James Crowell, SBCMA	<i>Archaeological – Historical Resources Assessment of 82 Acres between Haven Ave. and Deer Creek Wash and the Pacific Electronic Railroad Tracks and a Projection East of 19th Street in the Alta Loma Area.</i>	Archaeological/ Architectural Survey	--
SB-00317	1976	Patricia Martz, ARC	<i>Description and Evaluation of the Cultural Resources: Cucamonga, Demens, Deer, and Hillside Creek Channels, San Bernardino and Riverside Counties.</i>	Archaeological/ Architectural Survey	Over 9, see attached data sheet
SB-00342	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Project No. 76-66.</i>	Archaeological/ Architectural Survey	--
SB-00352	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Project No. 76-64, Alta Loma.</i>	Archaeological/ Architectural Survey	--
SB-00353	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of 76-74, and 76-76.</i>	Archaeological/ Architectural Survey	--

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Table 1: Cultural Resources Surveys Conducted within the APSE and within a half mile of the APSE

Report No.	Year	Author(s)/ Affiliation	Title	Survey Type	Resources Identified
SB-00368	1976	Ruth Harris, SBCMA	<i>Archaeological – Historical Resources Assessment of Two Parcels.</i>	Archaeological/ Architectural Survey	--
SB-00479	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Lewis Homes Project in the Etiwanda Area.</i>	Archaeological/ Architectural Survey	--
SB-00495	1977	Joseph Hearn, SBCMA	<i>Archaeological – Historical Resources Assessment of Road Improvement HO 6451.</i>	Archaeological/ Architectural Survey	--
SB-03222	1979	Scientific Resource Survey	<i>Archaeological/Paleontological Report on the William Lyon Co. Rancho Cucamonga Property, Rancho Cucamonga, CA.</i>	Archaeological/ Paleontological Survey	--
SB-03581	2000	Phillipe Lapin, LSA	<i>Cultural Resource Assessment for PBW Facility CM 226-01, County of San Bernardino, CA.</i>	Archaeological Survey	--
SB-04156	2002	Curt Duke, LSA	<i>Cultural Resource Assessment: Cingular Wireless Facility No. CM226-03, San Bernardino County, CA.</i>	Archaeological Survey	--
SB-04679	2006	Riordan Goodwin, et al., LSA	<i>Historical Resources Evaluation Report and Archaeological Survey Report for the Pacific Electric Inland Empire Trail, Phase I, City of Rancho Cucamonga, San Bernardino County, CA.</i>	Archaeological/ Architectural Survey	36-016448, 36-020136, 36-020137, 36-020138
SB-05358	1976	W.A. Sider	<i>Cucamonga Creek 1776-1976 After 200 Years.</i>	Archaeological Survey	--
SB-06419	2009	Phil Fulton, LSA	<i>Cultural Resource Assessment Verizon Wireless Services Stoneridge Facility, City of Rancho Cucamonga, San Bernardino County, CA.</i>	Archaeological Survey	--
SB-06815	2010	Wayne Bonner and Sarah Williams, MBA	<i>Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate IE24081-D (Terra Vista Cohab at Central Park Plaza), Milliken and Baseline, Rancho Cucamonga, San Bernardino, CA.</i>	Record Search and Site Visit.	--
SB-06816	2010	Robert Wlodarski, CARE	<i>Records Search and Field Reconnaissance Phase for the proposed AT&T Wireless Telecommunications Site ES0142 (Milliken Tower) Milliken and Baseline, Rancho Cucamonga, CA 91730.</i>	Archaeological Survey	--

SBCMA=San Bernardino County Museum Association; ARC=Archaeological Research Unit; MBA=Michael Brandon Associates; LSA= LSA Associates, Inc.

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Table 2: Cultural Resources Identified within a half mile of the APSE

Site No./ Isolate No.	Time Period	Site Type	Date/Recorder	CRHR/NRHP Eligibility	Approximate Distance to Project Area
P-36-020137 (CA-SBR-15904)	Historic	Railroad alignment, associated track, ties, etc. removed in 1990s. Currently a paved bike or pedestrian trail.	2004; White, and several others.	Not eligible.	Adjacent, north.

Historic USGS Map and General Land Office Plat Map and Historic Aerial Review

Review of historic maps provides information regarding potential unrecorded historic features or sites within the APSE. Based on the historic map and aerial review, the Project site and surrounding area appears as undeveloped agricultural land from 1938 to 1980s, with the Deer Creek channel to the west, and Base Line Road established by the 1960s to the south. The results of the review of available historic aerials and USGS quadrangle maps are presented in Table 3 below.

Table 3: Review of Historic USGS Maps and Aerial Photographs for Township 1 South, Range 7 West, Section 36 (southwest portion)

Map Name	Date(s)	Author	Legal Description	Description of Potential Resource within Project Area of Impact
GLO Plat Map	1865	Surveyor General's Office	T1S, R7W, S36	The Project site and surrounding area appears undeveloped.
USGS 1:62,500, Cucamonga CA	1897, 1900, 1903, 1906, 1908, 1911, 1912, 1917, 1927, 1929	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped with a road to the south. A creek is to the west.
USGS 1:24,000, Guasti, California	1953	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped with an east to west trending road to the south (current Base Line Road), and a two-track road within the Project site. A creek is to the west.
USGS 1:24,000, Guasti, California	1961, 1966, 1975	USGS staff	T1S, R7W, S36	The Project site and surrounding area appears undeveloped agricultural land with an east to west trending road to the south labeled "Base Line Road", and a two-track road within the Project site. Deer Creek is to the west.
Historic Aerial	1938, 1948, 1959, and 1966	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with Deer Creek adjacent west, and the surrounding area is undeveloped agricultural land.
Historic Aerial	1980	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with the channelized Deer Creek adjacent west, and the surrounding area as undeveloped agricultural land with a residential development to the northwest.

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Table 3: Review of Historic USGS Maps and Aerial Photographs for Township 1 South, Range 7 West, Section 36 (southwest portion)

Map Name	Date(s)	Author	Legal Description	Description of Potential Resource within Project Area of Impact
Historic Aerial	1994	Netonline	T1S, R7W, S36	The project area appears as undeveloped agricultural land (row crops), with the channelized Deer Creek adjacent west, and the surrounding area is developed with residential and commercial structures.

T=Township, R=Range, USGS=United States Geological Survey; Netonline=Historic Aerials by Netonline 2018. Electronic database located at <https://www.historicaerials.com/viewer> accessed 4/23/2019.

A search of federal land patents through the Bureau of Land Management’s General Land Office Records website identified one early patent holder for Township 1 South, Range 7 West, Section 36, by the State of California in 1857 under the title authority of the California Enabling Act (see Table 4). Federal land patents provide information on the initial transfer of land titles from the federal government to private (individuals or companies) or local governments by the title transfer authority.

Table 4: Historic Land Patent for Township 7 South, Range 7 West, Section 36 (southwest portion), San Bernardino Baseline Meridian

Patent # or BLM Accession #	Date	Patentee	Legal Description	Transfer Authority
CACAAA 000001 5P	6/19/1874	State of California	T1S, R7W, S36	California Enabling Act, March 3, 1853 (10 Stat. 244).

BLM=Bureau of Land Management, T=Township, R=Range

Native American Heritage Commission Sacred Lands Files Search

Tetra Tech, Inc. contacted the NAHC on June 6, 2019 and requested that the NAHC review its SLF. The NAHC replied on June 21, 2019 that results were negative for Native American tribal resources within the APSE and provided a list of local Native American contacts with knowledge of the Project area (see Enclosure 3). The NAHC recommends conducting outreach to the listed tribes or individuals as they may have knowledge of cultural resources within or near the Project area. Native American consultation is part of the lead CEQA agency’s responsibilities under Assembly Bill 52.

ARCHAEOLOGICAL BACKGROUND AND SENSITIVITY

The prehistory of the southern California region has been summarized within four major horizons or cultural periods: Horizon I – Early Period (12,000 to 7,500 years before present [BP]) characterized by small mobile groups that utilized lithic tools such as fluted projectile, scrapers, and choppers; Horizon II – Millingstone Horizon (7,500 to 3,000 BP) characterized by the extensive use of milling stones (manos and metates) to process small, hard seeds from plants associated with shrub-scrub communities; Horizon III – Intermediate Culture (3,000 to 1,000 BP) is characterized by mixed subsistence strategy of plant exploitation (increased use of pestles for larger, hard seeds) and the hunting of terrestrial and marine (shellfish) resources, and the Horizon IV – Late Prehistoric (1,000 BP to European historic contact) is characterized by an increasing human population and associated expansion of cultural practices, and the use of the bow and arrow, pottery, shell fishhooks, use of asphaltum, and decorative shell and bone ornaments were all typical during this time.

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The Project area is within the ethnographic territory traditionally inhabited by the Gabrieliño (Tongva) people. The City is named after the Gabrieliño village of Kukamo or Cucamonga (Kroeber 1925) that was located within the extreme eastern area of the tribe's territory. The Gabrieliño occupied areas in San Bernardino, Los Angeles and Orange counties, as well as the southern Channel Islands—San Clemente, Santa Catalina, San Nicolas, and Santa Barbara Islands. The Gabrieliño were fisher-hunter-gatherers and exploited a variety of coastal bay, littoral, riverine, and inland floral and faunal resources available within the diverse ecological zones of their territory (i.e., coastal plain, rivers, foothills, mountains, and ocean). Subsistence resources included items such as several species of oak trees, grasses, sage bushes, rabbits, deer, fish, shellfish, and other terrestrial and marine mammals.

European settlement began in 1771, when Spanish missionaries began to settle along the California coast and adjacent inland areas. Following the Mexican-American War and secularization of the nearby missions in 1834 (specifically San Gabriel Mission), the region was transferred to private landowners (ranchos) who established a primary economy of cattle ranching. Specifically, in the Project area Rancho Cucamonga was awarded to Tiburcio Tapia in 1839. After the fall of the rancho system, European settlers purchased substantial land holdings in the area. The effects of the mission system and introduced European disease decimated the Gabrieliño people. Agriculture developed as the main industry in the area in the mid to late nineteenth century with crops of citrus fruits and grapes. The region remained a rural agricultural area up throughout the 1960s. Urban development (e.g. residential subdivisions and commercial) began to take root in the 1920s through the 1970s. Today, the City is densely developed with urban uses and limited vacant land. Urban development (e.g. residential subdivisions and commercial) began to take root in the 1970s. The City of Rancho Cucamonga was incorporated in 1977, consolidating the three towns of Cucamonga, Alta Loma and Etiwanda into one municipality. Today, the City is densely developed with urban uses and limited vacant land.

If construction ground disturbance depths extend to native soils (approximately 1 foot in depth and below), there would be a potential to impact previously unrecorded subsurface cultural resources.

ARCHAEOLOGICAL SURVEY METHODS AND RESULTS

Tetra Tech's qualified archaeologist Jenna Farrell and Sydni Kitchel conducted an archaeological survey of the APSE on July 17, 2019 (see Attachment 1). The Project is located on desert land within a suburban area surrounded by major roads, single and multifamily residential properties, and commercial buildings. The proposed 11-acre Project area is within a previously disturbed graded area currently used as a City laydown and storage area with patches of dense brush, annual grasses, and shrubs. Ground surface visibility was generally good to fair due to cleared or graded surface areas and patches of dense vegetation throughout the project area. See Enclosure 4 for photographs of the APSE. No cultural resources were observed within the Project area. A potential sensitive resource area (a historic grapevine orchard remnant) was identified outside of the APSE (approximately 50 feet) and will be avoided by the Project (Enclosure 5). This resource is currently under review and will be part of the larger study technical report.

SUMMARY AND RECOMMENDATIONS

The summary and recommended management measures resulting from this study of the APSE are below. The current Project background research, archaeological field survey, recommendations, and impact analysis discussed in this report were conducted to partially fulfill the requirements of CEQA.

The combined cultural resource record search and NAHC SLF search did not identify any existing historic resources within the APSE. Based on the natural setting, NAHC SLF results, SCCIC records search results and literature review, distribution patterns of previously recorded sites within and near the APSE, archaeological survey, and previous disturbance to native soils (i.e., grading of areas) the APSE is assessed as having a low sensitivity for cultural resources within undisturbed subsurface deposits.

Assuming compliance with the standard cultural resource management measures outlined below, implementation of the Project should exert no significant impact to historic resources listed on or eligible for nomination to the CRHR.

If construction ground disturbance depths extend to native soils, there would be a potential to impact previously unrecorded subsurface archaeological resources. Therefore, the following management measures are recommended below:

1. **Worker Education/Training** – prior to construction of the Project, the City will retain a qualified archaeologist that will provide a cultural resource briefing that includes all applicable laws and penalties pertaining to disturbing cultural resources, a brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area, types of cultural resources found in the area, instruction that Project workers will halt construction if a cultural resource is inadvertently discovered during construction, and procedures to follow in the event an inadvertent discovery (Inadvertent Discovery Plan discussed below) is encountered, including appropriate treatment and respectful behavior of a discovery (e.g., no posting to social media or photographs). If requested, a local tribal representative(s) shall be invited to participate in the environmental training to discuss or provide text from a tribal cultural perspective regarding the cultural resources within the region.
2. **Inadvertent Discovery of Archaeological Resources During Construction** – A qualified archaeologist shall prepare an Inadvertent Discovery Plan for the Project and Avoidance Procedures. During Project-level construction, should subsurface archaeological resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5 and/or NRHP criteria (as applicable). If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agencies and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Under CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to archaeological resources qualifying as historical resources. Methods of avoidance may include, but shall not be limited to, Project re-route or re-design, Project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop

additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in prehistoric or tribal resources. If an archaeological site does not qualify as an historical resource but meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site shall be treated in accordance with the provisions of Section 21083.2.

3. **Avoidance Area** – A potential sensitive resource area has been identified outside the Project APSE and will be avoided by the Project (see Enclosure 5). As a precaution to protect the area until further analysis is completed and presented in the technical report for the larger area outside the current APSE, the sensitive area will be avoided. To avoid physical damage to the sensitive area during construction, a qualified archaeologist will mark the area for avoidance by placing flagging, fencing, or staking prior to construction near the area. The archaeologist will ensure the avoidance measure(s) is in place during construction and the remove the fencing, flags, or stakes once construction is completed near the avoidance area.
4. **Tribal Consultation** – Prior to filing, per Assembly Bill 52, the lead agency will consult with individuals identified by the NAHC and request consultation with the lead agency. In addition, a NAHC SLF search and outreach to NAHC listed tribes is recommended in an effort to identify potential tribal cultural resources within the study area in order to avoid impacts on such resources. Per Section 106 of the NHPA, the lead federal agency will conduct formal Native American tribal consultation.

Existing regulations require that if human remains and/or cultural items defined by Health and Safety Code, Section 7050.5, are inadvertently discovered, all work in the vicinity of the find would cease and the San Bernardino County Coroner would be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, the coroner will contact the NAHC by telephone within 24 hours.

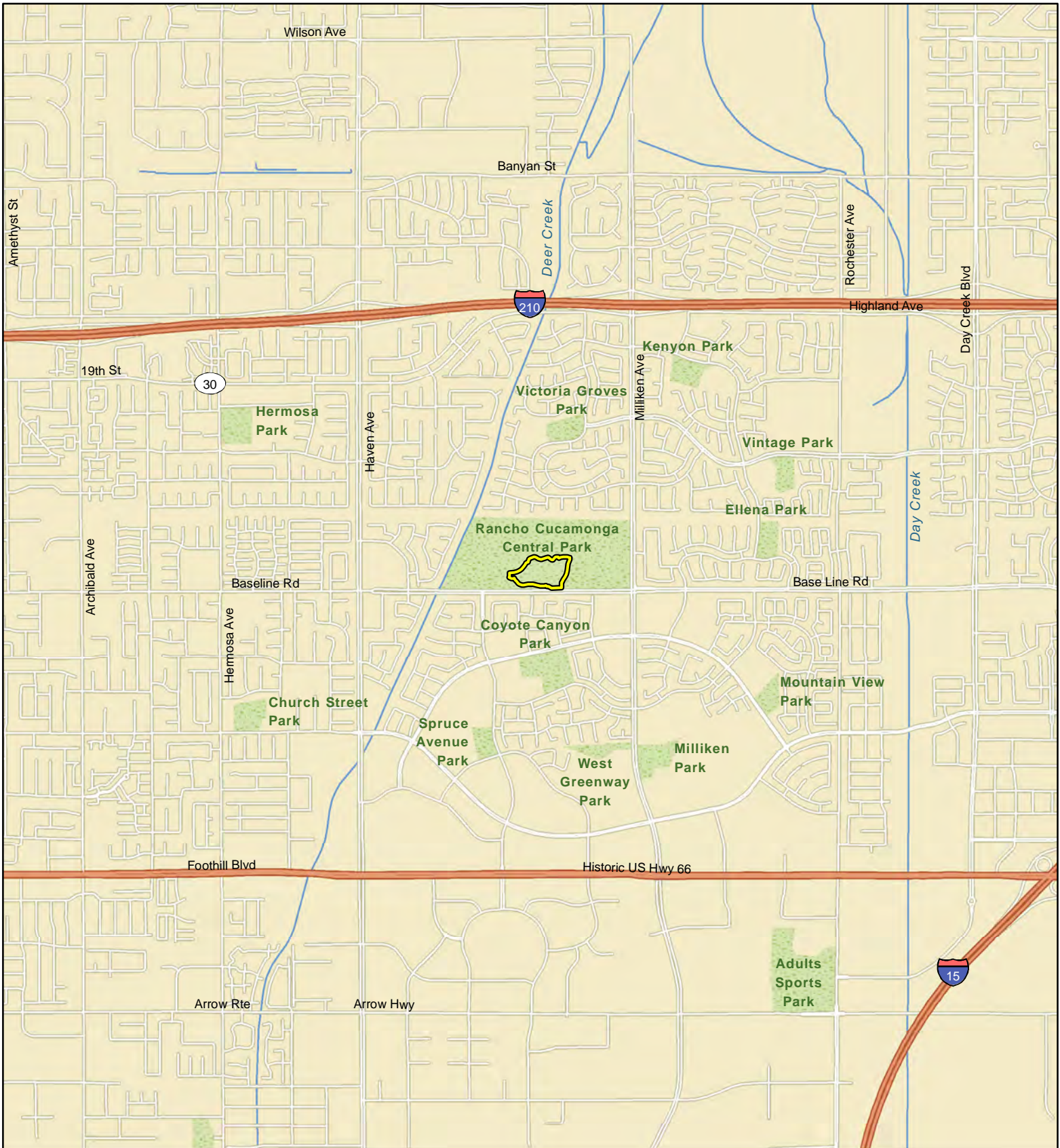
Enclosures:

- Enclosure 1. Project Area (APSE)
- Enclosure 2. CHRIS Results (Maps Non-Confidential)
- Enclosure 3. NAHC SLF Results
- Enclosure 4. Project Area Photographs
- Enclosure 5. Avoidance Area (outside the APSE)

Enclosure 1

Project Area (APSE)

Confidential: Disclosure of site locations prohibited. Information contained in this report is confidential, in compliance with 36 CFR 800.11(c), and access to this information is restricted by the National Historic Preservation Act of 1966 (as amended) Section 1 (16 USC 470), and the Archaeological Resources Protection Act of 1979 (as amended).

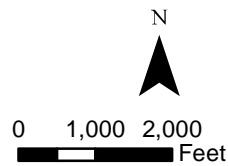


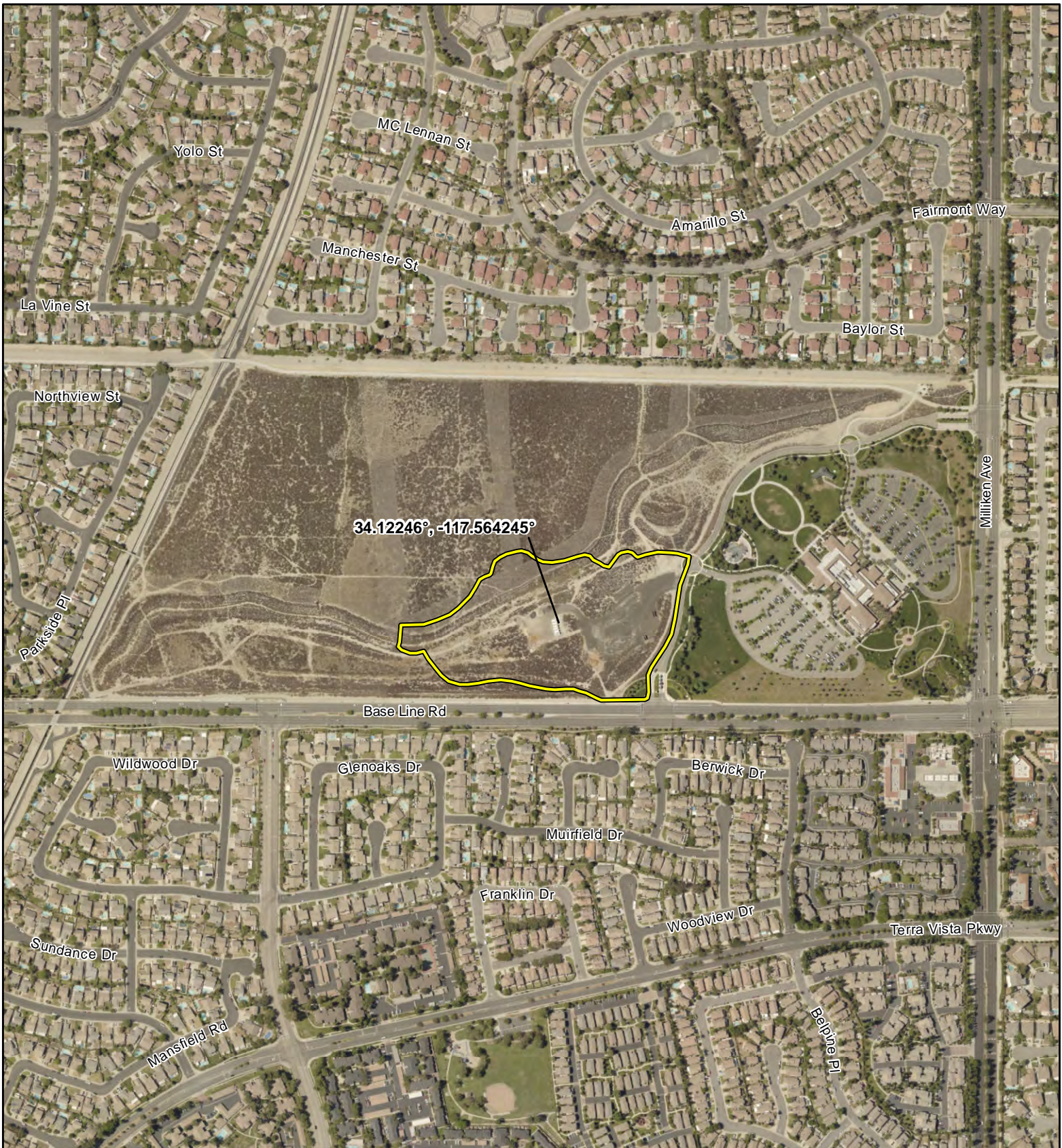
Legend

-  Project Area
-  Highway
-  Local Road
-  River
-  Park

Project Location

Central Park Project
 City of Rancho Cucamonga
 San Bernardino County, CA

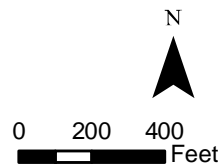




Legend

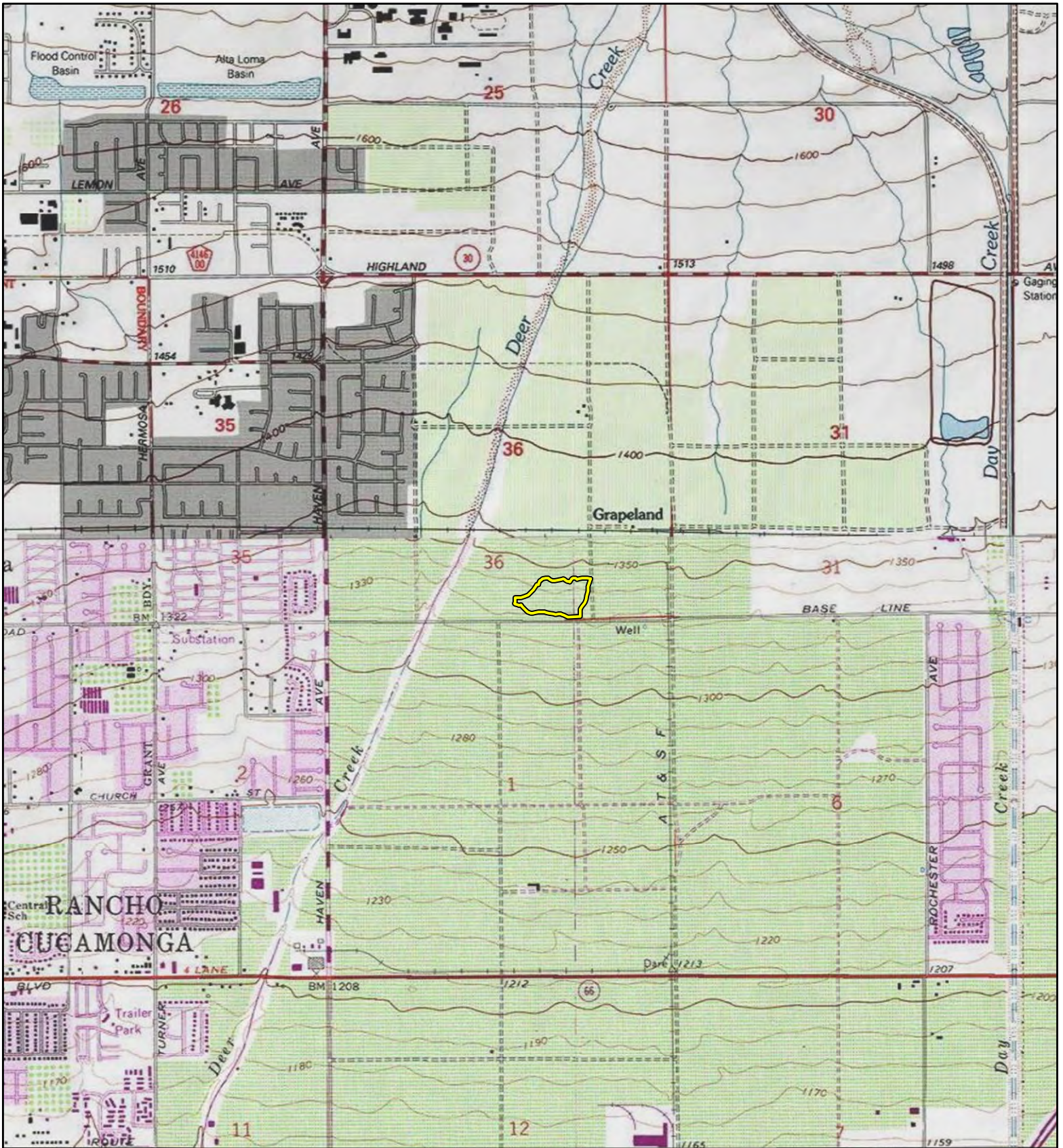
 Project Area

Imagery Source: City of Rancho Cucamonga, 7/11/15



**Project Area
Aerial Photograph**

Central Park Project
City of Rancho Cucamonga
San Bernardino County, CA



Legend

 Project Area

USGS 7.5 Minute Quad: Guasti, California (1982)
 PLSS: T1S R7W S36



0 1,000 2,000 Feet

**Project Area
 Topographic Map**

Central Park Project
 City of Rancho Cucamonga
 San Bernardino County, CA

Enclosure 2

CHRIS Results (Maps Non-Confidential)

Confidential: Disclosure of site locations prohibited. Information contained in this report is confidential, in compliance with 36 CFR 800.11(c), and access to this information is restricted by the National Historic Preservation Act of 1966 (as amended) Section 1 (16 USC 470), and the Archaeological Resources Protection Act of 1979 (as amended).

TETRA TECH

South Central Coastal Information Center

California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu

*California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties*

6/17/2019

Records Search File No.: 20318.6401

Jenna Farrel
Tetra Tech, Inc.
2969 Prospect Dr. Ste. 100
Rancho Cordova, CA 95670

Re: Record Search Results for the Central Park Project: 194-6799

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Cucamonga Peak and Guasti, CA USGS 7.5' quadrangles. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: custom GIS maps shape files hand-drawn maps

Resources within project area: 0	None
Archaeological resources within ½-mile radius: 1	P-36-020137
Resources listed in the OHP Historic Properties Directory within project area: 0	None
Resources listed in the OHP Historic Properties Directory within ½-mile radius: 1	SEE ATTACHED LIST FOR INDIVIDUAL PROPERTY STATUS CODES – resource locations from the OHP HPD may or may not be plotted on the custom GIS map or provided as a shape file
Reports within project area: 1	SB-00479
Reports within ½-mile radius: 15	SEE ATTACHED MAP or LIST

- Resource Database Printout (list):** enclosed not requested nothing listed
- Resource Database Printout (details):** enclosed not requested nothing listed
- Resource Digital Database (spreadsheet):** enclosed not requested nothing listed
- Report Database Printout (list):** enclosed not requested nothing listed
- Report Database Printout (details):** enclosed not requested nothing listed
- Report Digital Database (spreadsheet):** enclosed not requested nothing listed
- Resource Record Copies:** enclosed not requested nothing listed
- Report Copies:** enclosed not requested nothing listed

OHP Historic Properties Directory: enclosed not requested nothing listed
Archaeological Determinations of Eligibility: enclosed not requested nothing listed
Los Angeles Historic-Cultural Monuments enclosed not requested nothing listed
Historical Maps: enclosed not requested nothing listed
Ethnographic Information: not available at SCCIC
Historical Literature: not available at SCCIC
GLO and/or Rancho Plat Maps: not available at SCCIC
Caltrans Bridge Survey: not available at SCCIC; please go to
<http://www.dot.ca.gov/hq/structur/strmaint/historic.htm>
Shipwreck Inventory: not available at SCCIC; please go to
http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) not available at SCCIC; please go to
<http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Isabela Kott Digitally signed by Isabela Kott
 Date: 2019.07.15 10:38:55
 -07'00'

Isabela Kott
 GIS Technician/Staff Researcher

Enclosures:

(X) Custom Maps – 2 pages

(X) Resource Database Printout (list) – 1 page

(X) Resource Database Printout (details) – 2 pages

(X) Report Database Printout (list) – 2 pages

(X) Report Database Printout (details) – 16 pages

(X) Resource Record Copies – (project area only) 20 pages

(X) Report Copies – (project area and SB-05358, SB-04679, SB-03222, and SB-00317) 212 pages

(X) OHP Historic Properties Directory – 1 page

(X) National Register Status Codes – 1 page

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SB-00286	NADB-R - 1060286; Voided - 75-12.13	1975	CROWELL, JAMES P.	ARCHAEOLOGICAL - HISTORICAL RESOURCES, APPROXIMATELY 82 ACRES BETWEEN HAVEN AVENUE AND DEER CREEK WASH AND THE PACIFIC ELECTRIC RAILROAD TRACKS AND A PROJECTION EAST OF 19TH STREET IN THE ALTA LOMA AREA	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00317	NADB-R - 1060317; Voided - 76-4.2	1976	MARTZ, PATRICIA	DESCRIPTION AND EVALUATION OF THE CULTURAL RESOURCES: CUCAMONGA, DEMENS, DEER AND HILLSIDE CREEK CHANNELS, SAN BERNARDINO AND RIVERSIDE COUNTIES, CALIFORNIA	ARCHAEOLOGICAL RESEARCH UNIT, UCR	36-000270, 36-000895, 36-000897, 36-000898, 36-000899, 36-000900, 36-000901, 36-000902, 36-015231
SB-00342	NADB-R - 1060342; Voided - 76-5.9	1976	HARRIS, RUTH D.	ARCHAEOLOGICAL AND HISTORICAL RESOURCES ASSESSMENT OF PROJECT NO. 76-66	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00352	NADB-R - 1060352; Voided - 76-5.19	1976	HARRIS, RUTH D.	ARCHAEOLOGICAL AND HISTORICAL RESOURCES ASSESSMENT OF PROJECT 76-64, ALTA LOMA AREA	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00353	NADB-R - 1060353; Voided - 76-5.20	1976	HARRIS, RUTH D.	ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF PROJ. NO. 76-64 (REV.) AND 76-76, ALTA LOMA AREA	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00368	NADB-R - 1060368; Voided - 76-7.7	1976	HARRIS, RUTH D.	ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF TWO PARCELS	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00479	NADB-R - 1060479; Voided - 77-3.1	1977	HEARN, JOSEPH E.	ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF LEWIS HOMES PROJECT IN THE ETIWANDA AREA	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-00495	NADB-R - 1060495; Voided - 77-5.5	1977	HEARN, JOSEPH E.	ARCHAEOLOGICAL - HISTORICAL RESOURCES ASSESSMENT OF ROAD IMPROVEMENT HO 6451	SAN BERNARDINO COUNTY MUSEUM ASSOCIATION	
SB-03222	NADB-R - 1063222	1979	SCIENTIFIC RESOURCE SURVEY, INC.	ARCHAEOLOGICAL/PALEONTOLOGICAL/HISTORICAL REPORT ON THE WILLIAM LYON CO. RANCHO CUCAMONGA PROPERTY, LOCATED IN THE CITY OF RANCHO CUCAMONGA, CA. 16PP	SRS	
SB-03581	NADB-R - 1063581	2000	LAPIN, PHILLIPE	CULTURAL RESOURCE ASSESSMENT FOR PBW FACILITY CM 226-01, COUNTY OF SAN BERNARDINO, CA. 5PP	LSA	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SB-04156	NADB-R - 1064156	2002	DUKE, CURT	CULTURAL RESOURCE ASSESSMENT: CINGULAR WIRELESS FACILITY NO. CM226-03, SAN BERNARDINO COUNTY, CA. 5PP	LSA	
SB-04679	NADB-R - 1064679	2006	Goodwin, Riordan, Hansen, Janet, Judith Marvin, and Laura S. White	Historical Resources Evaluation Report and Archaeological Survey Report for the Pacific Electric Inland Empire Trail, Phase I, City of Rancho Cucamonga, San Bernardino County, CA	LSA	36-016448, 36-020136, 36-020137, 36-020138
SB-05358	NADB-R - 1065358	1976	Sider, W.A.	Cucamonga Creek 1776-1976 After 200 Years.		
SB-06419		2009	Fulton, Phil	Cultural Resource Assessment Verizon Wireless Services Stoneridge Facility, City of Rancho Cucamonga, San Bernardino County, CA	LSA Associates, Inc.	
SB-06815		2010	Bonner, Wayne and Sarah Williams	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Cadidate IE24081-D (Terra Vista Cohab at Central Park Plaza), Milliken and Baseline, Rancho Cucamonga, San Bernardino, CA	Michael Brandman Associates	
SB-06816		2010	Wlodarski, Robert	Records Search and Field Reconnaissance Phase for the proposed AT&T Wireless Telecommunications Site ES0142 (Milliken Tower) Milliken and Baseline, Rancho Cucamonga, CA 91730	CARE	

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-36-020137	CA-SBR-015904H	Resource Name - Pacific Electric San Bernardino Line; Resource Name - Pacific Electric Southern Pacific Alignment	Structure	Historic	AH07 (Roads/trails/railroad grades); HP11 (Engineering structure); HP19 (Bridge); HP39 (Other)	2004 (laura S White, Archaeological Associates); 2005 (Janet Hansen, LSA); 2006 (Phil Fulton, LSA); 2008 (Daniel Ballester, CRM TECH); 2011 (Patrick Stanton, SRI); 2014 (Smallwood, J.)	SB-04679, SB-06812, SB-06969, SB-07990

Enclosure 3

NAHC SLF Results

Confidential: Disclosure of site locations prohibited. Information contained in this report is confidential, in compliance with 36 CFR 800.11(c), and access to this information is restricted by the National Historic Preservation Act of 1966 (as amended) Section 1 (16 USC 470), and the Archaeological Resources Protection Act of 1979 (as amended).

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



June 21, 2019

Jenna Farrell
Tetra Tech

VIA Email to: Jenna.farrell@tetratech.com

RE: Central Park Project, San Bernardino County

Dear Ms. Farrell:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
San Bernardino County
6/21/2019**

**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., Gabrielino
#231
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

**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

**Morongo Band of Mission
Indians**

Robert Martin, Chairperson
12700 Pumarra Rroad Cahuilla
Banning, CA, 92220 Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

**Morongo Band of Mission
Indians**

Denisa Torres, Cultural Resources
Manager
12700 Pumarra Rroad Cahuilla
Banning, CA, 92220 Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

**San Fernando Band of Mission
Indians**

Donna Yocum, Chairperson
P.O. Box 221838 Kitanemuk
Newhall, CA, 91322 Vanyume
Phone: (503) 539 - 0933 Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

**San Manuel Band of Mission
Indians**

Lee Clauss, Director of Cultural
Resources
26569 Community Center Drive Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

**Serrano Nation of Mission
Indians**

Wayne Walker, Co-Chairperson
P. O. Box 343 Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

**Serrano Nation of Mission
Indians**

Mark Cochrane, Co-Chairperson
P. O. Box 343 Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

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 Central Park Project, San Bernardino County.

Enclosure 4

Project Area Photographs

Confidential: Disclosure of site locations prohibited. Information contained in this report is confidential, in compliance with 36 CFR 800.11(c), and access to this information is restricted by the National Historic Preservation Act of 1966 (as amended) Section 1 (16 USC 470), and the Archaeological Resources Protection Act of 1979 (as amended).

PHOTOGRAPHS OF THE PROJECT AREA AND SURVYED AREA



Photograph 1. Overview of 11-acre Project area, graded with patches of vegetation and currently used as the City's Laydown/Storage Area (view north), date August 3, 2019.



Photograph 2. Overview of 11-acre Project area. Graded area is used as the City's Laydown/Storage Area (view west, southwest; date July 17, 2019).



Photograph 2. Overview of southern portion of Project area adjacent to Base Line Road (right) (view east; date August 3, 2019).



Enclosure 5

Avoidance Area (outside the APSE)

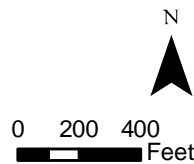
Confidential: Disclosure of site locations prohibited. Information contained in this report is confidential, in compliance with 36 CFR 800.11(c), and access to this information is restricted by the National Historic Preservation Act of 1966 (as amended) Section 1 (16 USC 470), and the Archaeological Resources Protection Act of 1979 (as amended).



Legend

-  Amphitheater Project Area
-  Avoidance Area

Imagery Source: City of Rancho Cucamonga, 7/11/15



**Project Area
Aerial Photograph**

Central Park Project
City of Rancho Cucamonga
San Bernardino County, CA



APPENDIX D
TRAFFIC STUDY



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TECHNICAL MEMORANDUM

Date: August 2, 2019

To: Paula Fell, Tetra Tech

From: Paul Herrmann, P.E.

Subject: DRAFT Vehicle Miles Traveled (VMT) Assessment for Rancho Cucamonga Central Park Amphitheater Project

Fehr & Peers completed quantifying vehicle miles of travel (VMT) for the Central Park Amphitheater (Project) in the City of Rancho Cucamonga, California. This VMT analysis is consistent with requirements of Senate Bill 743 (SB-743) and the Office of Planning and Research's (OPR's) technical advisory. Our work to quantify VMT for the Project included use of Big Data (data from cell phone providers) to accurately estimate project trip lengths.

The remainder of this memorandum is divided into four sections. Project Description, Project VMT, Region VMT, and Cumulative Effect on VMT.

Project Description

The proposed amphitheater is part of the Central Park Master Plan but is unique from the full buildout of the master plan in that the events that are planned to occur at the new amphitheater will be relocated from the existing City amphitheater at Red Hill Park in Rancho Cucamonga (located approximately two and half miles west of Central Park). The events that occur at the existing amphitheater are City sponsored and are intended for local residents in the community. The types of events that are planned to occur at the proposed amphitheater are:

- Six large concerts on Thursday evenings in June, July and August as part of Rancho Cucamonga's Summer Concerts in The Park. Average attendance in 2018 at these concerts was 3,425 people. These events require up to ten staff and assistance from the police department.
- Four family shows on Friday evenings in June, July and August. Average attendance in 2018 at these shows was 375 people. These events require up to three staff.

- One corporate/community event the last Saturday of June for the Fire Department Car Show. Approximate attendance at this event is 700 people.
- Other events on weekends to be determined with maximum rental capacity of 1,200 attendees.

Project VMT

VMT is a function of the number of trips and the length of those trips. Since the events are being relocated from an existing facility, the number of trips generated to the project is not anticipated to change relative to the existing site. Big Data¹, which is travel data recorded from mobile devices, was utilized to develop average trip lengths from visitors to the Concerts in the Park events between 2016 and 2018. Over 500 records were tracked from the 18 concert events that occurred between 2016 and 2018 and the average trip length per record was estimated to be 6.6 miles. Due to the local serving nature of the amphitheater, the average trip length is not anticipated to vary from the existing site to the new project location. Since VMT is the total length of travel from origin to destination and back to origin, the round-trip average trip length is estimated to be 13.2 miles.

Region VMT

The San Bernardino Transportation Analysis Model (SBTAM) is a travel demand forecasting (TDF) model detailed for use in San Bernardino County. The TDF model estimates traffic on the SBTAM roadway network by matching origin and destination pairs from zones throughout the Southern California Association of Governments (SCAG) region through trip generation, trip distribution, mode choice and trip assignment. SBTAM land use and roadway networks are consistent with the 2016 SCAG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). This model is the best tool available in the region to estimate vehicle trips, trip distance and VMT. Different types of trips are tracked, including home-based-work trips (commute trips to and from home), home-based-other trips (other trips such as shopping and school trips originating or ending from home) and non-home-based trips (all other trips that don't start or end at home such as from work to shopping).

¹ Big Data was provided by the vendor Streetlight. StreetLight uses location-based services data from hundreds of smartphone apps (passively and anonymously) and has partnerships with geospatial data providers to leverage GPS data in their data collection and processing.

Average trip lengths for trips originating or ending in Rancho Cucamonga were extracted from the base year (2012) version of SBTAM to compare against the project. Rancho Cucamonga home-based-work trips, home-based-other trips and non-home-based trips from the production and attraction trip matrices (number of trips) were multiplied by the highway skim matrices (travel distance) to estimate VMT. VMT was divided by the total number of trips generated in Rancho Cucamonga to derive the average trip length.

The average trip length was estimated to be 9.7 miles and the average round-trip to be 19.5 miles. These trip lengths are approximately 30% higher than the average trips estimated for the project. As such, the project is not anticipated to generate longer trip distances than currently exist throughout Rancho Cucamonga and therefore is not anticipated to result in a significant transportation impact related to VMT.

Cumulative Effect on VMT

Given that the proposed project is not anticipated to change the number of trips or the average trip distance, the project is anticipated to have a negligible effect on cumulative (year 2040) VMT.

We hope this information is helpful. If you have any questions or concerns, please do not hesitate to contact us at (949)-308-6318.

