Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project

CITY OF RIALTO
SAN BERNARDINO COUNTY, CALIFORNIA

Initial Study with Mitigated Negative Declaration

Prepared by the City of Rialto

March 2017

General Information about this Document

What's in this document:

The City of Rialto (City) has prepared this Initial Study (IS), which examines the potential environmental impacts of the project located in the City of Rialto, San Bernardino County, California. The document describes why the project is being proposed, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed mitigation measures.

CACTUS AVENUE, VALLEY BOULEVARD, AND LINDEN AVENUE WIDENING PROJECT

INITIAL STUDY
with Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

CITY OF RIALTO

_____
Date of Approval

_____
Robb Steel
Assistant City Administrator/
Development Services Director
City of Rialto

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The City of Rialto proposes to widen and improve segments of Cactus Avenue, Valley Boulevard, and Linden Avenue. The total combined length of the project is approximately 1 mile within Township 1 South, Range 5 West, and Township 1 North, Range 5 West (Figure 1 Project Vicinity and Figure 2a and 2b Project Location).

Valley Boulevard/Cactus Avenue

Valley Boulevard, between Spruce Avenue and Cactus Avenue, would be widened on the north half of the road. Project features include new roadway pavement, new sidewalks to tie in with existing sidewalks, landscaping, and modified driveways along portions of the road that are currently narrow and do not meet the City's half width standard for a Major Arterial. Cactus Avenue, between Valley Boulevard and Pomona Avenue, would be widened on the west half of the road. A striped median would be painted to eliminate conflicts with half width improvements of a raised median. The widening would bring these unimproved segments of Valley Boulevard and Cactus Avenue to their ultimate half widths of 60' for Major Arterial roadways (full width of 120') as designated in the City's 2010 General Plan Update.

Right-of-way would be acquired along the project alignment. At the Valley Boulevard and Cactus Avenue location, partial acquisitions are anticipated at two (2) parcels and temporary construction easements are anticipated at those same two (2) parcels. Traffic would be accommodated during construction to allow movement through the area. Construction is anticipated to take 6 months.

Linden Avenue

Linden Avenue, between Carter High School/Birdsall Park and Carpenter Street, would be widened and improved on both sides as needed. Project features include new roadway pavement, new sidewalks, and modified driveways along portions of the road that are currently narrow and do not meet the City's standard for a Secondary Arterial. The roadway segment would also be restriped to include a center turn lane and to demarcate two (2) travel lanes in each direction.

Right-of-way would be acquired along the project alignments. At the Valley Boulevard and Cactus Avenue location, partial acquisitions are anticipated at two (2) parcels and temporary construction easements are anticipated at those same two (2) parcels. Right-of-way would be acquired along the project alignment. At the Linden Avenue location, partial acquisitions are anticipated at 20 parcels and temporary construction easements are anticipated at those same 20 parcels. Traffic would be accommodated during construction to allow movement through the area. Construction is anticipated to take 6 months.

Determination

This Mitigated Negative Declaration (MND) is included to give notice to interested agencies and the public that it is the City's intent to adopt an MND for this project. This does not mean that the City's decision regarding the project is final. This MND is subject to modification based on comments received by interested agencies and the public.

The City has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the project would not have a significant effect on the environment for the following reasons:

1) The project would have no impact on Agriculture and Forest Resources, Land Use and Planning, Mineral Resources, and Population and Housing.

2) The project would have a less than significant impact on Aesthetics, Greenhouse Gas Emissions, Public Services, Recreation, and Utilities and Service Systems.

3) The project would have a less than significant impact with mitigation incorporated on Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation/Traffic, and Mandatory Findings of Significance.

_____ _____

Robb Steel
Assistant City Administrator/
Development Services Director
City of Rialto

Date

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Project Description and Background

Project Title:	Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
Lead agency name and address:	City of Rialto 150 S. Palm Avenue Rialto, CA 92376
Contact person and phone number:	Azzam Jabsheh Phone number: (909) 820-2602
Project Location:	Linden Avenue, Cactus Avenue, and Valley Boulevard, Rialto, CA; see Figures 1 and 2
Project sponsor's name and address:	Azzam Jabsheh City of Rialto 335 W. Rialto Ave. Rialto, CA 92376
General plan description:	Cactus Avenue: Major Arterial Valley Boulevard: Major Arterial Adjacent Land Uses: General Commercial, Business Park Linden Avenue: Secondary Arterial Adjacent Land Uses: Residential 6, School Facility, Open Space
Objectives	Objectives: The objective of the project is to construct roadway infrastructure improvements at Cactus Avenue and Valley Boulevard, and at Linden Avenue (see Figures 2a, 2b, 3a, and 3b).
Zoning:	Cactus Avenue and Valley Boulevard Adjacent Zoning: Gateway Specific Plan Linden Avenue Adjacent Zoning: Single-Family Residential (R1-A and R1-B)
Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation.)	The City of Rialto proposes to widen and improve segments of Cactus Avenue, Valley Boulevard, and Linden Avenue. The total combined length of the project is approximately 1 mile within Township 1 South, Range 5 West, and Township 1 North, Range 5 West (Figure 1 Project Vicinity and Figure 2 Project Location). <u>*Valley Boulevard/Cactus Avenue*</u> Valley Boulevard, between Spruce Avenue and Cactus Avenue, would be widened on the north half of the road. Project features include new roadway pavement, new sidewalks to tie in with existing sidewalks, landscaping, and modified driveways along portions of the road that are currently narrow and do not meet the City's half width standard for a Major Arterial. Cactus Avenue, between Valley Boulevard and Pomona Avenue, would be widened on the west half of the road. A striped median would be painted to eliminate conflicts with half width improvements of a raised median. The widening would bring these unimproved segments of Valley Boulevard and Cactus

	Avenue to their ultimate half widths of 60' for Major Arterial roadways (full width of 120') as designated in the City's 2010 General Plan Update. Right-of-way would be acquired along the project alignment. At the Valley Boulevard and Cactus Avenue location, partial acquisitions are anticipated at two (2) parcels and temporary construction easements are anticipated at those same two (2) parcels. Traffic would be accommodated during construction to allow movement through the area. Construction is anticipated to take 6 months. *Linden Avenue* Linden Avenue, between Carter High School/Birdsall Park and Carpenter Street, would be widened and improved on both sides as needed. Project features include new roadway pavement, new sidewalks, and modified driveways along portions of the road that are currently narrow and do not meet the City's standard for a Secondary Arterial. The roadway segment would also be restriped to include a center turn lane and to demarcate two (2) travel lanes in each direction. Right-of-way would be acquired along the project alignment. At the Linden Avenue location, partial acquisitions are anticipated at 20 parcels and temporary construction easements are anticipated at those same 20 parcels. Traffic would be accommodated during construction to allow movement through the area. Construction is anticipated to take 6 months.
Surrounding land uses and setting; briefly describe the project's surroundings:	The project area is generally surrounded by residential and general commercial/business park land uses. The Linden Avenue location is also adjacent to a public high school and a small public park.
Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements):	State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ).

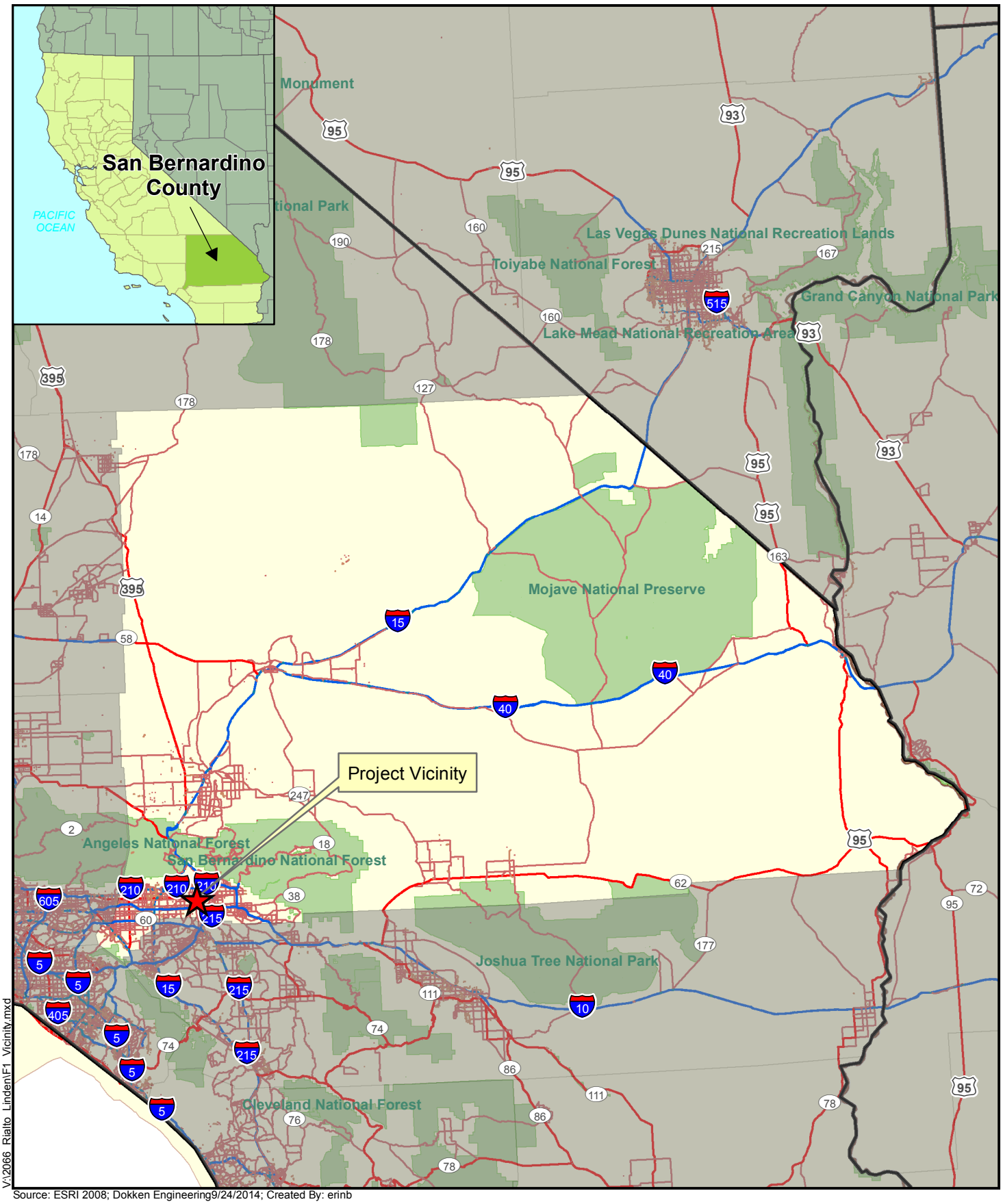
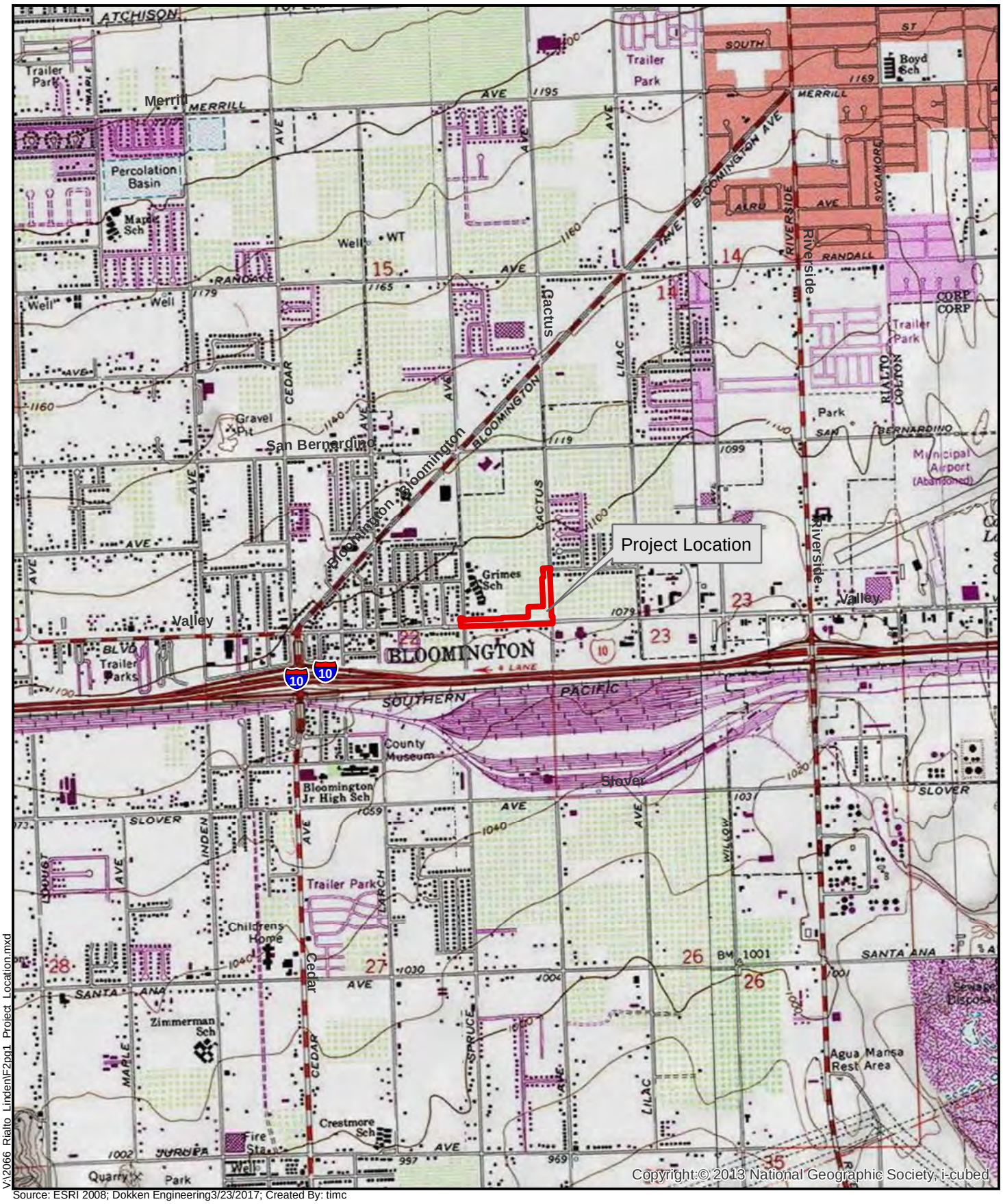


Figure 1
Project Vicinity
Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California



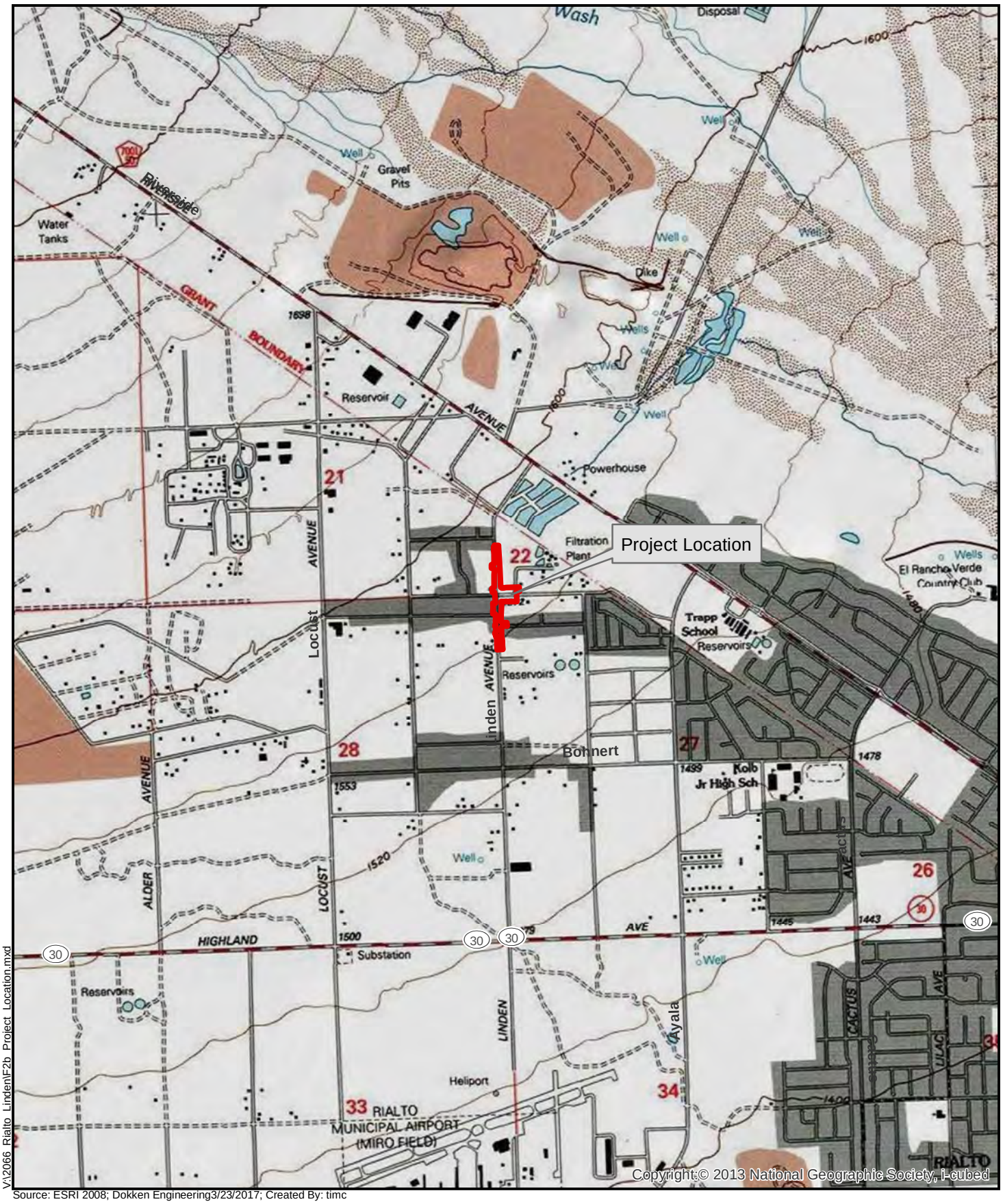
V:\2066 Rialto Linden\F2\pg1 Project Location.mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 0.25 0.5 0.75 1 Miles

Figure 2a
Project Location

Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California



V:\2066 Rialto Linden\F2b Project Location.mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 0.25 0.5 0.75 1 Miles

Figure 2b
Project Location

Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California

V:\2066_Rialto_Linden\F3a_Project_Features.mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 100 200 300 400 Feet

Figure 3a
Project Features
Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California

V:\2066 Rialto Linden\F3b Project Features.mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 100 200 300 400 Feet

Figure 3b
Project Features
Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 10 for additional information.

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

Determination

On the basis of this initial evaluation:

☐	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
☐	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
☐	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required

Signature:	**Date:**
Printed Name:	**For:**

CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

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

a,b) No Impact. The streets are not designated as Scenic Highways in the National Scenic Byways Program or State Scenic Highways Program (Caltrans 2014). The nearest designated or eligible scenic highway is State Route 330, approximately 10 miles to the east. The project site also does not have locally designated scenic vistas.

c) Less than Significant Impact. The project would not degrade the existing visual character or quality of the site and its surroundings because project features would not be atypical for such a developing area. Additional roadway widths, new asphalt on roadways, curb and gutter, and new signals are consistent with the roadway designations and planned future land uses of this area.

Figure 6. Typical view of Linden Avenue

d) Less than Significant Impact. As part of the project, new street lights will be installed along the length of the proposed improvements on Randall Avenue. Traffic signals at the Randall Avenue and Bloomington Avenue would be improved and new signal heads will be installed to improve intersection operations. Day or nighttime views would be minimally affected because the new lighting would be consistent with existing street lighting fixtures and with the City of Rialto Standard Plans for Street Lighting. For street lights that have the potential to cast new light on residences or other sensitive land uses, light fixtures would be shielded per City standards to further minimize impacts caused by new street lighting.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

a) No Impact. The project is not located on Prime Farmland, Unique Farmland or Farmland of Statewide Importance. It is located on “Other Land” and “Urban and Built-up Land” as mapped by the California Department of Conservation (2010) Farmland Mapping and Monitoring Program.

b) No Impact. There is no Williamson Act contract land in the project area. As mapped in the *San Bernardino County Williamson Act FY 2012/2013* map (California Department of Conservation, Division of Land Resource Protection, 2013), land in the project area is “Urban and Built-Up Land” or “Non-Enrolled Land”. There are no Williamson Act lands within 10 miles.

c,d) No Impact. There are no forest lands or timberlands (or lands zoned as such) in the project study area. The nearest forest land or timberland is the San Bernardino National Forest approximately 8 miles to the northwest and northeast (U.S. Department of Interior, 2013). The project would not result in the loss of forest land or conversion of forest land to non-forest use.

e) No Impact. The project would not convert Farmland to non-agricultural use or forest to non-forest use since it widens existing streets within an urbanized area and no farmlands or forest lands are in the vicinity.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

a) Less than Significant Impact. The project would bring local streets into conformance with designations in the City of Rialto's *General Plan* (2010), and the General Plan Environmental Impact Report (EIR) includes a regional analysis for air quality impacts. Since the City's regional build out has already been evaluated, no new impacts or conflicts with the air quality plan or air quality standards would occur.

b,c,d) Less than Significant with Mitigation Incorporated. The project would have less than significant impact on criteria pollutants in which the project region is in non-attainment. As summarized in Table 1, the project is in an area of San Bernardino County that is in non-attainment for Federal ozone (O_3) and particulate matter 2.5 micrometers ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS). It is also in an area of San Bernardino County that is in non-attainment for State ozone, PM_{10}, and $PM_{2.5}$ California Ambient Air Quality Standards (CAAQS).

Table 1. Air Quality Attainment Status of the Project Vicinity

Pollutant	Attainment Status	
	Federal	State
O_3	Non-attainment (8-hour only)	Non-attainment (8-hour)
		Non-attainment (1-hour)
CO	Unclassified/Attainment	Attainment
NO_2	Unclassified/Attainment	Attainment
PM_{10}	Attainment	Non-attainment
$PM_{2.5}$	Non-attainment	Non-attainment
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified

Source: CARB 2013, EPA 2014

The Sacramento Metropolitan Air Quality Management District's (SMAQMD) Roadway Construction Emission Model, Version 7.1.4 (2013) is the accepted model used throughout California to estimate roadway construction emissions. Construction emissions thresholds are set by the South Coast Air Quality Management District (SCAQMD). Based on estimates generated using the SMAQMD Model, construction emissions would not exceed SCAQMD maximum thresholds. Table 2 compares the estimated emissions and the SCAQMD's maximum thresholds. The project would have less than significant impact on air quality plans and standards.

Table 2. Construction Emissions

Pollutant	Road Construction Emissions Model Estimates	SCAQMD Max Threshold for Construction (pounds per day)
VOC	7.1 lbs/day	75 lbs/day
CO	35.6 lbs/day	550 lbs/day
NO_X	70.1 lbs/day	100 lbs/day
PM_{10}	11.1 lbs/day	150 lbs/day
$PM_{2.5}$	4.8 lbs/day	55 lbs/day
GHG (CO_2)	325 MT for 6 months of total project construction	10,000 MT/yr CO_2eq for industrial facilities

Source: SMAQMD 2013, SCAQMD 2011

Asbestos and tremolite, another form of asbestos, commonly occur in ultramafic rock. Based on the map of naturally-occurring asbestos locations contained in *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos* (California Department of Conservation, Division of Mines and Geology 2000), major ultramafic rock formations are not found in San Bernardino County. Therefore, construction and grading would not occur in an area with ultramafic rock that could be a source of emissions of naturally-occurring asbestos.

During construction, short-term degradation of air quality may occur due to particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include CO, NO_x, ROGs, PM_{10} and $PM_{2.5}$, and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NO_x and ROGs in the presence of sunlight and heat.

Fugitive Dust

Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate PM_{10}, $PM_{2.5}$, and small amounts of CO, SO_2, NO_x, and ROGs. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency (EPA) to add 1.2 tons of fugitive dust per acre of soil disturbed per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. Dust minimization through use of water or dust palliative compounds and will reduce potential fugitive dust emissions during construction. The proposed construction schedule for all improvements is anticipated to take 6 months.

Other

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate (PM_{10} and $PM_{2.5}$) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO_2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Off-road diesel fuel meeting Federal Standards can contain up to 5,000 parts per million (ppm) of sulfur, whereas on-road diesel is restricted to less than 15 ppm of sulfur. However, under California law and Air Resources Board regulations, off-road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel, so SO_2-related issues due to diesel exhaust will be minimal.

Emissions from construction equipment, grading, and paving may result. As shown by the estimated construction emissions presented in Table 2, construction emissions from the project would be less than thresholds established by the SCAQMD. Construction would be temporary and is anticipated to last 6 months.

e) Less Than Significant Impact. While asphalt paving may typically result in short-term odors in the immediate area of each paving site, such odors would be quickly dispersed below detectable thresholds as distance from the site increases.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to minimize potential impacts. Most of the construction impacts to air quality are short-term in duration and, therefore, will not result in adverse or long-term conditions. Implementation of the following will reduce any air quality impacts resulting from construction activities:

AQ-1: The contractor will comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. South Coast Air Quality Management District Rule 403, Fugitive Dust, would therefore be followed and would result in minimizing PM_{10} and $PM_{2.5}$ emissions.

IV. Biological Resources: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Methodology

Dokken Engineering biologists conducted literature searches using the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Data Base (CNDDB) and the California Native Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Plants* to identify habitats and special-status species occurrences within the Devore, San Bernardino North, San Bernardino South, and Fontana USGS 7.5 minute topographic quadrangles and a U.S. Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur, or be affected by the project. Based on these literature reviews, a total of 51 sensitive species were evaluated, two of which were determined to have a low to moderate potential of occurrence within the study area of the Linden Avenue Widening Project and one species was determined to have the potential to occur within the study area of the Cactus Avenue and Valley Boulevard widening project. Tables 3 and 4 give a summary of the federal and state special-status species which were evaluated for their potential to occur within the Biological Study Areas (BSA). The BSAs are defined as the project area plus an approximate 100 foot buffer. A determination of the species' potential to occur within a BSA is based on regional information regarding the species' distributions, ecological requirements, and preferences for elevations and habitats.

In addition to the literature research conducted in the above-mentioned USGS topographical 7.5 minute quadrangles, Dokken Engineering biologists conducted focused biological surveys of the two BSAs in April, May and June of 2014. Focused biological surveys were conducted by walking transects through the BSAs, evaluating vegetation communities and assessing the potential for existing habitat to support sensitive plant and wildlife resources.

Setting

Three types of habitats occur within the Linden Avenue BSA and the Cactus Avenue and Valley Boulevard BSA: Ruderal/Disturbed Annual Grassland, Barren/Developed, and Urban.

Ruderal/Disturbed Annual Grassland
Annual grassland is an herbaceous community dominated by non-native naturalized grasses with intermixed perennial and annual forbs. Previous disturbance and associated compaction of soils is greatest along localized anthropogenic activities associated within the immediate vicinity of local homes, roadways and other developments. Within the BSA, ruderal/disturbed annual grassland occurs primarily within fallow lots.

Barren/Developed
Barren/Developed habitat includes buildings, parking lots, pavement and hardscape. The habitat is defined by the absence of vegetation with less than 2% total vegetation cover by herbaceous or non-wildland species and less than 10% cover by tree or shrub species.

Urban
Urban vegetation is variable, but is typified by planted and maintained mixed native and non-native tree groves, street strips, shade tree/lawns, lawns, and shrub cover.

Table 3: Special Status Species With the Potential to Occur in the Linden Avenue Widening Project Vicinity

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Plant Species					
Ambrosia monogyra	singlewhorl burrobrush	Fed: CA: CNPS:	-- -- 2B.2	A perennial shrub inhabiting sandy soils within chaparral and Sonoran desert scrub communities. Blooms August-November (30 - 1,650 ft.).	**Presumed absent**: Required desert scrub community is not present within the BSA. Species was not observed during April 2014 focused biological surveys.
Arenaria paludicola	marsh sandwort	Fed: CA: CNPS:	E E 1B.1	A perennial herb often inhabiting sandy openings of boggy meadows, marshes and swamps (fresh or brackish water). Flowers May-August (10 - 1,000 ft. elevation).	**Presumed absent**: The BSA lacks meadows, marshes and swamp communities and project elevation is approximately 1,500 feet, approximately 500 ft above the species elevation range; habitat unsuitable for marsh sandwort.
Astragalus hornii var. hornii	Horn's milk-vetch	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting salty flats, lake shores, lake margins, meadows, seeps and playas. Blooms May-September (200 - 2,800 ft.).	**Presumed absent:** The BSA lacks salty flats, lakes, meadows, seeps or playas; habitat unsuitable for Horn's milk vetch. No observations of this species have been recorded in the vicinity of the project since 1891 and it is presumed extirpated from the area. During April 2014 focused biological surveys, the species was not observed within the study area.
Berberis nevinii	Nevin's barberry	Fed: CA: CNPS:	E E 1B.1	A perennial evergreen shrub inhabiting sandy or gravelly soils within chaparral, cismontane woodlands, coastal scrub and riparian scrub. Blooms March-June (900-2,700 ft.).	**Presumed absent:** The BSA contains sandy/ gravely soils, however it lacks chaparral, cismontane woodland, costal or riparian scrub communities. There are no recent observations of the species in the project region and during April 2014 focused biological surveys, the species was not observed within the study area.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Brodiaea filifolia	thread-leaved brodiaea	Fed: CA: CNPS:	T E 1B.1	A perennial bulbiferous herb inhabiting grassland, vernal pools, chaparral openings, cismontane woodland, coastal scrub, playas, and valley and foothill grassland communities. Species often occurs within clay soils. Flowers March-June (50 -4,000 ft.).	**Presumed absent:** The BSA lacks clay soils, vernal pools, chaparral, and cismontane woodlands communities. Habitat unsuitable for thread-leaved brodiaea. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Carex comosa	bristly sedge	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting wet places; coastal prairies, marshes and swamps, and valley foothill grasslands. Blooms May-September (0-2,000 ft.).	**Presumed absent:** The BSA does not contain perennially wet places. There are minor roadside drainages fed primarily by yard runoff from nearby residences. There are no recent observations of the species in the vicinity of the project. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	Fed: CA: CNPS:	-- -- 1B.2	A annual herb inhabiting mesic soils within chaparral, meadow and seeps, riparian woodland, upper montane coniferous forest, and pebble (pavement) plains. Blooms May-August (4,200 - 7,900 ft.).	**Presumed absent:** The BSA lacks mesic soils, meadows and seeps, riparian woodlands, upper montane coniferous forest and the project elevation is no greater than 1,600 feet, well outside the lower elevation range of the species; habitat unsuitable for San Bernardino Mountains owl's clover. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Centromadia pungens ssp. laevis	smooth tarplant	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting alkaline soils of open, chenopod scrub, meadows and seeps, playas, riparian woodland,	**Presumed absent:** The BSA lacks alkaline soils, meadows, seeps, playas, riparian woodlands and

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				and valley foothill grassland communities. Flowers April-September (0 - 2,100 ft.).	valley foothill grassland communities. Habitat unsuitable for smooth tarplant. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Fed: CA: CNPS:	E E 1B.2	An annual herb inhabiting coastal dunes, marshes, and swamp communities. Flowers March-May (0 - 100 ft. elevation).	**Presumed absent:** The BSA lacks a riparian woodland community, and the project elevation is approximately 1,500 feet, well outside of the species' elevation range; habitat unsuitable for salt marsh bird's-beak. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Chorizanthe parryi var. parryi	Parry's spineflower	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting sandy or rocky openings of chaparral, coastal scrub, cismontane woodland, and valley and foothill grassland communities. Flowers April-July (900 – 4,000 ft.).	**Presumed absent:** Requisite soil is present in limited sections of the BSA but the site is heavily disturbed in an urban setting. The species was not observed during April 2014 focused biological surveys which were timed to coincide with the bloom period for this species.
Chorizanthe xanti var. leucotheca	white-bracted spineflower	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting sandy or gravelly soils within coastal scrubs, alluvial fans, Mojavean desert scrub, pinyon and juniper woodland communities. Blooms April-June (1,000 - 4,000 ft.).	**Presumed absent:** The BSA lacks scrub or woodland communities and the nearest recorded observation is approximately 5 miles from the project area. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Fed: CA: CNPS:	-- -- 2B.2	A annual parasitic vine inhabiting freshwater marsh communities on herbs such as *Alternanthera* sp.*, Dalea* sp.*, Lythrum* sp.*, Polygonum* sp.*,* and *Xanthium* sp. Blooms July-October (50 -1,000 ft.).	**Presumed absent:** The BSA does not contain freshwater marsh and the project elevation is approximately 1,500 feet, outside of the species' elevation range. Habitat within the BSA is unsuitable for Peruvian dodder. Additionally, during April 2014 focused surveys, the species was not observed in the study area.
Dodecahema leptoceras	slender-horned spineflower	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting alluvial sand in coastal scrub, or chaparral and cismontane woodland communities. Flowers April-June (650 - 2,500 ft.).	**Presumed absent:** The BSA lacks alluvial substrate and does not contain the requisite vegetative communities.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Fed: CA: CNPS:	E E 1B.1	A perennial herb inhabiting chaparral and coastal scrub communities. Flowers May-September (300 - 2,000 ft. elevation).	**Presumed absent:** The BSA does not contain chaparral or coastal scrub communities. No suitable habitat for the species is present within the BSA. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Fimbristylis thermalis	hot springs fimbristylis	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline meadow and seeps near hot springs. Blooms July-September (350 – 4,400 ft).	**Presumed absent:** The BSA lacks meadows, seeps, and hot springs; habitat unsuitable for hot springs fimbristylis.
Galium californicum ssp. primum	Alvin Meadow bedstraw	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting granitic and sandy soils within lower elevations in Jeffery-Coulter-pine forests, chaparral, and lower montane coniferous forest communities. Blooms March-July (4,400 - 5,600 ft.).	**Presumed absent:** The BSA lacks chaparral, cismontane woodland, lower montane coniferous forests, pinyon and juniper woodland communities, and the project elevation is approximately 1500 feet, well outside of the species' elevation range; habitat unsuitable for Alvin meadow bedstraw.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Fed: CA: CNPS:	-- -- 1A	A perennial rhizomatous herb inhabiting damp meadows, marshes, and swamps, of both coastal salt and freshwater. Flowers Aug-Oct (0 - 5,500 ft.). Species is presumed extinct in CA by CNPS.	**Presumed absent:** The BSA lacks meadows, marshes, and swamps in salt and freshwater habitats, and the species is presumed extirpated in CA.
Horkelia cuneata var. puberula	mesa horkelia	Fed: CA: CNPS:	-- -- 1B.1	A perennial herb inhabiting dry sandy or gravelly substrate, coastal chaparral, cismontane woodlands, and coastal scrub. Flowers February-September (200 - 2,600 ft. elevation).	**Presumed absent:** The BSA contains dry sandy substrate but does not contain coastal chaparral, cismontane woodlands or costal scrub; the closest recorded occurrence of the species is approximately 6 miles from the project area. During April 2014 focused biological surveys, the species was not observed within the study area.
Imperata brevifolia	California satintail	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting mesic soils within springs, meadows, streambanks, floodplain, chaparral, coastal scrub, mojavean desert scrub and riparian scrub. Blooms September-May (0 – 4,000 ft.).	**Presumed absent:** The BSA lacks springs, meadows, floodplains, Mojavean desert scrub and riparian communities; habitat unsuitable for California satintail. Nearest recorded observation of the species is approximately 8 miles from the project area.
Lilium parryi	lemon lily	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting mesic soils within lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forests. Blooms July-August (4,000 - 9,000 ft.).	**Presumed absent:** The BSA lacks lower montane coniferous forests, meadows, seeps, riparian forests and upper montane coniferous communities, and the project elevation is approximately 1500 feet, well below the species' elevation range; habitat unsuitable for lemon lily.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Lycium parishii	Parish's desert-thorn	Fed: CA: CNPS:	-- -- 2B.3	A perennial shrub inhabiting coastal scrub and Sonoran desert scrub. Flowers March-April (1,000 - 3,300 ft. elevation).	**Presumed absent:** The BSA lacks coastal scrub and Sonoran desert scrub, habitat unsuitable for Parish's desert-thorn. The species is presumed extirpated from the project vicinity.
Monardella pringlei	Pringle's monardella	Fed: CA: CNPS:	-- -- 1A	An annual herb inhabiting sandy soils of coastal scrub. Flowers the months of May and June. (1,000 - 1,300 ft.).	**Presumed absent:** The BSA contains sandy soils but does not contain coastal scrub communities. The species has not been documented since 1921 and is considered extirpated in California by CNPS.
Nasturtium gambelii	Gambel's water cress	Fed: CA: CNPS:	E T 1B.1	A perennial rhizomatous herb inhabiting fresh or brackish marshes and swamps. Flowers April-October (0 - 1,000 ft.).	**Presumed absent:** The BSA lacks fresh or brackish marshes and swamps. Habitat unsuitable for Gambel's watercress. The species is presumed extirpated from the project vicinity.
Opuntia basilaris var. brachyclada	short-joint beavertail	Fed: CA: CNPS:	-- -- 1B.2	A perennial stem succulent inhabiting chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland communities. Blooms April-June (1,400 - 6,000 ft.).	**Presumed absent:** The BSA lacks requisite vegetative communities. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Ribes divaricatum var. parishii	Parish's gooseberry	Fed: CA: CNPS:	-- -- 1A	A deciduous shrub inhabiting moist riparian woodland communities. Flowers February -April (200 - 1,000 ft.). Known from fewer than five historical occurrences. Last seen in 1980 at Whittier Narrows Nature Center, Los Angeles County. Recent surveys unsuccessful; believed to be	**Presumed absent:** The BSA lacks woodlands. With no habitat present and the likelihood of the species being extirpated in California, the species is presumed absent**.**

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				extirpated in California. Likely extirpated due to a combination of dry years, altered stream flows, human-caused fires, habitat loss, and invasive species.	
Schoenus nigricans	black bog-rush	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline soils within marshes and swamps. Blooms August-September (500 -6,600 ft.).	**Presumed absent:** The BSA lacks alkaline soils, marshes and swamps. Habitat unsuitable for black bog-rush.
Senecio aphanactis	chaparral ragwort	Fed: CA: CNPS:	-- -- 2B.2	A perennial bulbous herb inhabiting shaded foothill canyons of chaparral, coastal scrub, and valley and foothill grassland communities. Flowers March-June (50 -2,600 ft.).	**Presumed absent:** The BSA lacks foothill canyons of chaparral, coastal scrub and valley foothill grassland communities, and habitat unsuitable for chaparral ragwort. Closest CNPS/CNDDB occurrence is greater than 9 miles south dated from 1909**.**
Sidalcea neomexicana	Salt Spring checkerbloom	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline, mesic soils within alkaline springs, marshes; chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub and playas. Blooms March-June (50 - 5,000 ft.).	**Presumed absent:** The BSA lacks mesic soils with springs, marshes, lower montane coniferous forests, Mojavean desert scrub and playas. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Sphenopholis obtusata	prairie wedge grass	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting mesic soils in cismontane woodlands and meadows and seeps. Flowers April - July. (1,000 - 6,600 ft.).	**Presumed absent**: Project site lacks cismontane woodlands and meadows and seeps; habitat unsuitable for prairie wedge grass. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Streptanthus campestris	southern jewelflower	Fed: CA: CNPS:	-- -- 1B.3	A perennial herb inhabiting rocky soils within chaparral, lower montane coniferous forest, pinyon and juniper woodland communities. Blooms April-July (3,000 -7,600 ft.).	**Presumed absent:** The BSA lower montane coniferous forests, pinyon and juniper woodland communities and the project elevation is approximately 1,500 ft., well outside of the species' elevation range; habitat unsuitable for southern jewel-flower.
Symphyotrichum defoliatum	San Bernardino aster	Fed: CA: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting near ditches, streams, and springs of cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seep, marsh and swamp, and vernally mesic valley and foothill grassland communities. Flowers July- November (0-6,700 ft.).	**Presumed absent:** The BSA lacks streams, springs, cismontane woodlands, lower montane coniferous forests, meadows and vernally mesic valley foothill grassland communities. There are no recent recorded observations of the species in the vicinity of the project. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Avian species					
Athene cunicularia	Burrowing owl	Fed: CA: CDFW:	-- -- SSC	Prefers open, sparsely vegetated scrublands and grasslands. Habitat requirements consist of arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Friable soils are important for construction of burrows.	**Presumed absent:** On April 14, 2014 Dokken Engineering Biologist Angela Scudiere conducted a general biological survey of the Linden Avenue Widening Project area as well as a habitat assessment for burrowing owl. The vast majority of the ground that isn't covered by asphalt or development is either highly compacted soils or comprised of gravel which are not suitable for new burrows, are on private property with tall non-native grasses, or

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
					appear to be regularly disturbed by private property or public uses (recreation, pedestrians, illegal dumping etc). In addition, the BSA transects the Wilmer Amina Carter High School, Birdsall Park and several commercial properties; therefore, the area is subject to high levels of human activity and disturbance. During survey efforts, the species was not observed and no suitable burrows for the species were found. In addition, little to no sign of rodent usage of the BSA was observed. Representative photographs of the observed conditions are provided below. In conclusion, the project site is unsuitable for burrowing owls. The nearest extant CNDDB occurrence is located approximately 1.25 miles from the BSA at the local airport.
Buteo swainsoni	Swainson's hawk	Fed: CA: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August.	**Presumed absent:** The BSA does contain some areas that could provide suitable foraging habitat for Swainson's hawk but there are no recorded occurrences of this species near the project area.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Fed: CA: CDFW:	PT E --	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June-August.	**Presumed absent:** The BSA lacks large riparian systems and a large perennial water source. No suitable habitat for the species is present within the BSA. Additionally, during April 2014 focused biological surveys, the species was not observed within the study area.
Polioptila californica californica	coastal California gnatcatcher	Fed: CA: CDFW:	T -- SSC	Inhabits arid washes, mesas, and slopes of coastal hills dominated by dense, low-growing, drought-deciduous shrubs and subshrubs of coastal sage scrub. May also use chaparral, grassland, and riparian communities when adjacent or intermixed with sage scrub vegetation. Breeds February-August (0 - 2,500 ft elevation).	**Presumed absent:** There are multiple recorded observations of the species within 2 miles of the project area but the BSA lacks dense low growing drought-deciduous vegetation. No suitable habitat for the species is present within the BSA.
Vireo bellii pusillus	least Bell's vireo	Fed: CA: CDFW:	E E --	Summer resident of southern California inhabiting low riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite and other low, dense vegetation as nesting sites (below 2,000 ft elevation).	**Presumed absent**: The BSA lacks riparian habitats with water in the vicinity. Multiple recorded observations of the species in the region along riparian corridors.
Fish species					
Catostomus santaanae	Santa Ana sucker	Fed: CA: CDFW:	T -- SSC	Endemic to Los Angeles basin south coastal perennial streams. Prefers steams containing riparian vegetation, coarse substrates for algae foraging (gravel, cobble, and a mixture of gravel or cobble with sand), and shallow riffle areas and deeper runs and pools of cool clear water. Breeds April-July.	**Presumed absent:** Project site does not contain perennial streams. Site unsuitable for Santa Ana sucker.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Gila orcuttii	arroyo chub	Fed: CA: CDFW:	-- -- SSC	Species only native in streams from Malibu Creek to the San Luis Rey River basin. Requires vegetated streams with muddy or sandy bottoms and slow moving water.	**Presumed absent:** The BSA does not contain streams from Malibu creek or San Luis Rey River systems. Habitat unsuitable for arroyo chub.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	Fed: CA: CDFW:	-- -- SSC	Species inhabits the San Gabriel and Santa Ana rivers, preferring shallow gravel and cobble substrate within permanent streams or lakes with riparian cover. Prefers clear, well oxygenated water with movement from currents or waves with a supply of aquatic plants and insects. Breeds in the summer months.	**Presumed absent:** The BSA does not contain perennial surface waters that would provide habitat for this species.
Invertebrates					
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	Fed: CA: CDFW:	E -- --	Species lives in fine sandy soil (Delhi series sand) dune systems of desert valleys, rivers, deltas and beach strands with availability to buckwheat and other plants for nectar.	**Presumed absent:** The BSA does not contain the Delhi sand formation or any fine sand dune systems. Limited availability of flowering plants.
Amphibian Species					
Rana muscosa	Southern mountain yellow-legged frog	Fed: CA: CDFW:	E E SSC	In southern California, habitat is restricted to streams associated with ponderosa pine, montane hardwood-conifer, and montane riparian habitats. Water is required, as the species is always in close proximity to water. Tadpoles may require up to two over-wintering periods (2-4 years) to complete their aquatic development. In southern California breeds Mar-May and at 1,200 - 7,500 ft.	**Presumed absent**: Project site lacks a permanent water source and ponderosa pine, montane hardwood-conifer, or montane riparian habitats. No suitable habitat for Southern mountain yellow-legged frog present within the BSA.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Mammal species					
Chaetodipus fallax fallax	northwest San Diego pocket mouse	Fed: CA: CDFW:	-- -- SSC	Within San Diego county inhabits arid coastal and desert border areas of coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland communities. Species strongly associated with rocky, gravelly or sandy substrates. Breeds March- May (0 - 6,000 ft elevation).	**Low potential:** The BSA contains appropriate soils for the species but vegetation within the BSA is highly disturbed. There are numerous documented occurrences of the species within 5 miles of the project area but the species was not observed during focused biological surveys.
Chaetodipus fallax pallidus	Pallid San Diego pocket mouse	Fed: CA: CDFW:	-- -- SSC	Species inhabits arid habitats including desert wash, pinyon and juniper woodlands and Sonoran desert scrub communities. Predominantly granivorous foragers Species strongly associated with rocky slopes and sandy soils required for burrow construction. Breeds March to May (0-4593 ft).	**Presumed absent:** The BSA contains sandy soils, however it lacks desert washes, pinyon and juniper woodlands, Sonoran desert scrub communities with rocky slopes. The only CNDDB documented occurrence from 1971 is approximately 5 miles north of the northern project area.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Fed: CA: CDFW:	E -- SSC	Inhabits desert scrub and alkali desert scrub, sagebush, Joshua tree, and pinyon-juniper habitats in Southern California. Prefers sparse to moderate canopy in coarse sands. Predominantly granivorous foragers. Species prefers sandy soils or rocky flats under shrubs on desert flats or slopes. Breeds December-July.	**Presumed absent:** The BSA contains sandy soils with sparse vegetation but lacks Joshua tree or pinyon-juniper habitats and is heavily disturbed. Closest CNDDB occurrence is approximately 1 mile to the north. Site is heavily disturbed and in urban area.
Dipodomys stephensi	Stephens' kangaroo rat	Fed: CA: CDFW:	E T --	Inhabits annual and perennial grasslands and coastal scrub or sagebrush with sparse canopy cover. Prefers sparse grassland over dense grassland habitats and species prefers	**Presumed absent:** The BSA is dominated by avena, brome and filaree, potential food sources for stephens' kangaroo rat and has sandy soils. The site also meets

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				buckwheat, chamise, brome grass and filaree as food sources. Species prefers sandy and gravely soils, of level to gently sloping habitat with slopes less than 50%. Requires patches of fine grained soils or dusty pockets for sand bathing. Burrows frequently found in clusters. Likely breeds April - June (180-4,100 ft).	requirements for slope but the area is highly disturbed and no evidence of the species was observed within the BSA during the reconnaissance survey. The nearest CNDDB occurrence is greater than 5 miles from the project area from 1988.
Eumops perotis californicus	western mastiff bat	Fed: CA: CDFW:	-- -- SSC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Prefers open, rugged, rocky areas where suitable crevices are available for day roosts. Roots in cliff face crevices (usually granite or consolidated sandstone), high buildings, trees and tunnels. Roosting sites must have a minimum 10 foot vertical drop. Births early April through August or September (sea level-8,475 ft).	**Presumed absent:** Although the BSA contains grasslands, it does not contain the open rugged rocky areas that would provide roosting habitat. There are residential structures in the BSA that could provide potential day roosting habitat, but the area is highly disturbed and urban.
Glaucomys sabrinus californicus	San Bernardino flying squirrel	Fed: CA: CDFW:	-- -- SSC	The San Bernardino flying squirrel lives in high-elevation, mixed-conifer forests dominated by Jeffrey pine, white fir and black oak between 4,600 and 7,550 feet. Flying squirrels thrive in forests with big trees and closed-canopy cover, large snags that provide nesting cavities, downed logs that foster the growth of the truffles they eat and understory cover that provides protection from predators. (Center for Biological Diversity)	**Presumed absent:** The BSA does not contain mixed conifer forests and is far below the San Bernardino flying squirrel's elevation range.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Lasiurus xanthinus	western yellow bat	Fed: CA: CDFW:	-- -- SSC	Species known in California only in Los Angeles and San Bernardino Counties south to the Mexican border. Inhabits valley foothill riparian, desert riparian, desert wash and palm oasis habitats in proximity to water. Species utilizes trees and palms for roosting and maternity colonies. Births in June and July (below 2,000 feet elevation).	**Presumed absent:** Project site lacks valley foothill riparian habitat, desert wash or palm oasis habitats in proximity to water. Site unsuitable habitat for western yellow bat.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Fed: CA: CDFW:	-- -- SSC	Inhabits coastal sage scrub communities in Southern California. Species requires intermediate canopy stages of shrub and herbaceous habitats for cover and breeding. Breeds year-round, with a peak in April-May.	**Presumed absent:** Project site lacks intermediate canopy with herbaceous habitat for cover. Site unsuitable for San Diego black-tailed jackrabbits.
Neotoma lepida intermedia	San Diego desert woodrat	Fed: CA: CDFW:	-- -- SSC	Common to abundant in Joshua tree, pinyon-juniper, mixed and chamise-redshank chaparral, sagebrush, and most desert habitats. Elevation range from sea level to 8500 ft. Individuals build houses of twigs and other available building material. Houses are typically located in rock crevices or at the base of shrubs or trees.	**Presumed absent:** While the BSA is within the current range of desert woodrats, it does not contain any associated vegetative communities. Additionally, no evidence of woodrats or woodrat houses was observed during field surveys.
Nyctinomops femorosaccus	pocketed free-tailed bat	Fed: CA: CDFW:	-- -- SSC	Inhabits pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis communities. Prefers rocky desert areas with high cliffs or rock outcrops and frequently selects roosts in cliff rock crevices. Species must have an adequate drop from the roost	**Presumed absent:** Project site lacks high cliffs or rock outcrops for roosting, desert wash scrub and palm oasis. Site unsuitable for pocketed free-tailed bat

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				to gain flight. Maternity sites are located in rock crevices, caverns and buildings. Young are born June-July.	
Onychomys torridus ramona	southern grasshopper mouse	Fed: CA: CDFW:	-- -- SSC	Species prefers alkali and desert scrub habitats with low to moderate shrub cover and friable soils. Breeds from May to July, but may begin as early as January under ideal habitat conditions.	**Presumed absent:** The BSA contains very little shrub cover and is heavily disturbed. The nearest CNDDB occurrence from 1923 is about 5 miles from the project area.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Fed: CA: CDFW:	-- -- SSC	The species inhabits grasslands, alluvial sage scrub, and coastal sage scrub between 547-2,650 feet. Fine, sandy soils are required for burrow construction. Breeding occurs between late spring through early fall and hibernation is believed to occur below ground from October to February.	**Low Potential:** The BSA provides potentially suitable grassland habitat, is within the elevation range for this species, requisite soils are present for burrow construction, and the closest known occurrence is approximately 2 miles from the southern project area. Habitat is low quality with high levels of human disturbance.
Taxidea taxus	American badger	Fed: CA: CDFW:	-- -- SSC	Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Species also inhabits forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. Species maintains burrows within home ranges estimated between 338-1,700 acres, dependent on seasonal activity. Burrows are frequently re-used, but new burrows may be created nightly. Young are born in March and April within burrows dug in relatively dry, often sandy, soil, usually in areas with sparse overstory cover. Species is somewhat tolerant of	**Presumed absent:** The BSA contains sandy soil with sparse over story. The open space surrounding the project area lacks the sufficient acreages required to sustain an individual of this species. In addition, the high volume of traffic and human activity would be highly detrimental to any resident badger.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 ft).	
Reptile species					
Anniella pulchra pulchra	silvery legless lizard	Fed: CA: CDFW:	-- -- SSC	Silvery legless lizards occur primarily in areas with sandy or loose loamy soils. The species is often found under or in the close vicinity of logs, rocks, old boards, and the compacted debris of woodrat nests. Rocky soils or areas disturbed by agriculture, sand mining, or other human uses are not suitable for legless lizards. Soil moisture is essential for legless lizards to conserve energy at high temperatures.	**Presumed absent:** The BSA lacks logs, rocks, old boards, or compacted debris of woodrat nests that would be suitable for the lizard. Soil moisture is not present for the lizard at high temperatures.
Aspidoscelis hyperythra	orangethroat whiptail	Fed: CA: CDFW:	-- -- SSC	Inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats, especially in areas with summer morning fog. Prefers washes and other sandy areas with patches of brush and rocks for cover and foraging. Reproduces April-July; young emerge August - September (0-3,410 ft).	**Presumed absent:** The BSA contains sandy areas, however it lacks valley foothill hardwoods, mixed chaparral, and chamise-redshank chaparral with rocks for cover and foraging; habitat unsuitable for orangethroat whiptail.
Charina umbratica	southern rubber boa	Fed: CA: CDFW:	-- T --	Found in a variety of montane forest habitats including red fir, ponderosa pine, hardwood, hardwood-conifer, Douglas fir, redwood, mixed conifer and riparian. Also found in montane chaparral and wet meadow habitats. Usually found in the vicinity of streams or wet meadows.	**Presumed absent:** The BSA does not contain conifer or riparian forests, or wet meadow habitats. Habitat unsuitable for southern rubber boa.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Crotalus ruber	red-diamond rattlesnake	Fed: CA: CDFW:	-- -- SSC	Inhabits chaparral, woodland, and arid desert communities and requires rocky areas or areas of dense vegetation. Utilizes rodent burrows, cracks in rocks and surface cover objects for cover. Species is seasonally active, with the greatest activity occurring from March to June. Young are live-born from mid-August to October in quiet, safe locations (0-3,000 ft).	**Presumed absent:** The BSA lacks chaparral, woodland communities with rocky areas or dense vegetation. Habitat unsuitable for red-diamond rattlesnake.
Phrynosoma blainvillii	coast horned lizard	Fed: CA: CDFW:	-- -- SSC	Found in open coastal sage scrub and chaparral. Requires open areas with ample native ant prey base. Prefers friable, rocky, or shallow sandy soils near dry washes.	**Presumed absent**: The BSA contains sandy soils but is highly disturbed with a high probability of invasive ants. The nearest CNDDB occurrence is approximately 2 miles south of the northern project site in 1988.
Thamnophis hammondii	two-striped garter snake	Fed: CA: CDFW:	-- -- SSC	Generally found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest.	**Presumed absent:** The BSA does not contain woodlands, chaparral or other vegetative community that would provide adequate cover from predators.

Table 4: Special Status Species With the Potential to Occur in the Cactus Avenue/ Valley Boulevard Project Vicinity

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Plant Species					
Ambrosia monogyra	singlewhorl burrobrush	Fed: CA: CNPS:	-- -- 2B.2	A perennial shrub inhabiting sandy soils within chaparral and Sonoran desert scrub communities. Blooms August-November (32-1640 ft).	**Presumed absent**: Associated habitat is not present within the BSA. Species was not observed during field surveys and the closest known occurrence is 4 miles from the project area.
Arenaria paludicola	marsh sandwort	Fed: CA: CNPS:	E E 1B.1	A perennial herb often inhabiting sandy openings of boggy meadows, marshes and swamps (fresh or brackish water). Flowers May-August (10 -984 ft elevation).	**Presumed absent**: The BSA lacks meadows, marshes and swamp communities and project elevation is approximately 1,085 feet, approximately 100 ft above the species highest elevation range; habitat unsuitable for marsh sandwort.
Astragalus hornii var. hornii	Horn's milk-vetch	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting salty flats, lake shores, lake margins, meadows, seeps and playas. Blooms May-September (196-2,788 ft).	**Presumed absent:** The BSA lacks salty flats, lakes, meadows, seeps or playas; habitat unsuitable for Horn's milk vetch. No current documentations have been recorded for this species since 1891.
Berberis nevinii	Nevin's barberry	Fed: CA: CNPS:	E E 1B.1	A perennial evergreen shrub inhabiting sandy or gravelly soils within chaparral, cismontane woodlands, coastal scrub and riparian scrub. Blooms March-June (898-2,706 ft).	**Presumed absent:** The BSA contains sandy/ gravely soils, however it lacks chaparral, cismontane woodland, costal or riparian scrub communities. The closest occurrence documented is more than 7 miles south of the project area.
Brodiaea filifolia	thread-leaved brodiaea	Fed: CA: CNPS:	T E 1B.1	A perennial bulbiferous herb inhabiting grassland, vernal pools, chaparral openings, cismontane woodland,	**Presumed absent:** The BSA lacks clay soils, vernal pools, chaparral, and cismontane woodlands

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				coastal scrub, playas, and valley and foothill grassland communities. Species often occurs within clay soils. Flowers March-June (82-3,999 ft).	communities. Habitat unsuitable for thread-leaved brodiaea.
Carex comosa	bristly sedge	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting wet places; coastal prairies, marshes and swamps, and valley foothill grasslands. Blooms May-September (0-2,050 ft).	**Presumed absent:** The BSA does contain a drainage ditch along Cactus Ave. but the species was not observed during field surveys. The closest occurrence is 5 miles from the project area along the Santa Anna River.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting mesic soils within chaparral, meadow and seeps, riparian woodland, upper montane coniferous forest, and pebble (pavement) plains. Blooms May-August (4,265-7,841 feet).	**Presumed absent:** The BSA lacks mesic soils, meadows and seeps, riparian woodlands, upper montane coniferous forest and the project elevation is no greater than 1,100 feet, well outside the lower elevation range of the species; habitat unsuitable for San Bernardino Mountains owl's clover.
Centromadia pungens ssp. laevis	smooth tarplant	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting alkaline soils of open, chenopod scrub, meadows and seeps, playas, riparian woodland, and valley foothill grassland communities. Flowers April-September (0-2,100 ft).	**Presumed absent:** The BSA lacks alkaline soils, meadows, seeps, playas, riparian woodlands and valley foothill grassland communities. Habitat unsuitable for smooth tarplant.
Chloropyron maritimum ssp. maritimum	salt marsh bird's-beak	Fed: CA: CNPS:	E E 1B.2	An annual herb inhabiting coastal dunes, marshes, and swamp communities. Flowers March-May (0 - 100 ft elevation).	**Presumed absent:** The BSA lacks a riparian woodland community, and the project elevation is no greater than 1,100 feet, well outside of the species' elevation range; habitat unsuitable for salt marsh bird's-beak.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Chorizanthe parryi var. parryi	Parry's spineflower	Fed: CA: CNPS:	-- -- 1B.1	An annual herb inhabiting sandy or rocky openings of chaparral, coastal scrub, cismontane woodland, and valley and foothill grassland communities. Flowers April-July (902 – 4,002 ft elevation).	**Presumed absent:** The closest most recent occurrence of the species is 5 miles north in 2009. Associated vegetative communities are not present within the BSA.
Chorizanthe xanti var. leucotheca	white-bracted spineflower	Fed: CA: CNPS:	-- -- 1B.2	An annual herb inhabiting sandy or gravelly soils within coastal scrubs, alluvial fans, Mojavean desert scrub, pinyon and juniper woodland communities. Blooms April-June (984-3,937 ft).	**Presumed absent:** The BSA lacks gravelly soils, Mojavean desert scrub, pinyon and juniper woodland communities.
Cuscuta obtusiflora var. glandulosa	Peruvian dodder	Fed: CA: CNPS:	-- -- 2B.2	An annual parasitic vine inhabiting freshwater marsh communities on herbs such as *Alternanthera* sp.*, Dalea* sp.*, Lythrum* sp.*, Polygonum* sp.*,* and *Xanthium* sp. Blooms July-October (49-918 ft).	**Presumed absent:** The BSA does not contain freshwater marsh and the project elevation is greater than 1,085 feet, just outside of the species' elevation range; habitat unsuitable for Peruvian dodder.
Dodecahema leptoceras	slender-horned spineflower	Fed: CA: CNPS:	E E 1B.1	An annual herb inhabiting alluvial sand in coastal scrub, or chaparral and cismontane woodland communities. Flowers April-June (656 - 2,493 ft elevation).	**Presumed absent:** The BSA lacks cismontane woodlands and the closest CNDDB occurrence documented in 1923 is approximately 3.7 miles southeast of the project area.
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Fed: CA: CNPS:	E E 1B.1	A perennial herb inhabiting chaparral and coastal scrub communities. Flowers May-September (300 - 2,000 ft elevation).	**Presumed absent:** The BSA does not contain chaparral or coastal scrub communities.
Fimbristylis thermalis	hot springs fimbristylis	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline meadow and seeps near hot springs. Blooms July-September (360-4,396 ft).	**Presumed absent:** The BSA lacks meadows, seeps, and hot springs; habitat unsuitable for hot springs fimbristylis.
Galium californicum ssp.	Alvin Meadow bedstraw	Fed: CA:	-- --	A perennial herb inhabiting granitic and sandy soils within lower elevations in	**Presumed absent:** The BSA lacks chaparral, cismontane woodland,

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
primum		CNPS:	1B.2	Jeffery-Coulter-pine forests, chaparral, and lower montane coniferous forest communities. Blooms March-July (4,429-5,577 ft).	lower montane coniferous forests, pinyon and juniper woodland communities, and the project elevation is no greater than 1,100 feet, well outside of the species' elevation range; habitat unsuitable for Alvin meadow .
Helianthus nuttallii ssp. parishii	Los Angeles sunflower	Fed: CA: CNPS:	-- -- 1A	A perennial rhizomatous herb inhabiting damp meadows, marshes, and swamps, of both coastal salt and freshwater. Flowers Aug-Oct (33-5,495 ft). Species is presumed extinct in CA by CNPS.	**Presumed absent:** The BSA lacks meadows, marshes, and swamps in salt and freshwater habitats, and the species is presumed extirpated in CA.
Horkelia cuneata var. puberula	mesa horkelia	Fed: CA: CNPS:	-- -- 1B.1	A perennial herb inhabiting dry sandy or gravelly substrate, coastal chaparral, cismontane woodlands, and coastal scrub. Flowers February-September (230 - 2,600 ft elevation).	**Presumed absent:** The BSA contains dry sandy substrate but does not contain coastal chaparral, cismontane woodlands or costal scrub; the closest occurrence documented in 1904 was approximately 2 miles west of the project area.
Imperata brevifolia	California satintail	Fed: CA: CNPS:	-- -- 2B.1	A perennial herb inhabiting mesic soils within springs, meadows, streambanks, floodplain, chaparral, coastal scrub, mojavean desert scrub and riparian scrub. Blooms September-May (0-3,986 ft).	**Presumed absent:** The BSA lacks springs, meadows, floodplains, Mojavean desert scrub and riparian communities; habitat unsuitable for California satintail.
Lilium parryi	lemon lily	Fed: CA: CNPS:	-- -- 1B.2	A perennial herb inhabiting mesic soils within lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forests. Blooms July-August (4,002-9,005 ft).	**Presumed absent:** The BSA lacks lower montane coniferous forests, meadows, seeps, riparian forests and upper montane coniferous communities, and the project elevation is no greater than 1,100 feet, well below the species'

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
					elevation range; habitat unsuitable for lemon lily.
Lycium parishii	Parish's desert-thorn	Fed: CA: CNPS:	-- -- 2B.3	A perennial shrub inhabiting coastal scrub and Sonoran desert scrub. Flowers March-April (1,000-3,280 ft elevation).	**Presumed absent:** The BSA lacks coastal scrub and Sonoran desert scrub, habitat unsuitable for Parish's desert-thorn.
Monardella pringlei	Pringle's monardella	Fed: CA: CNPS:	-- -- 1A	An annual herb inhabiting sandy soils of coastal scrub. Flowers the months of May and June. (1,000-1,315 elevation).	**Presumed absent:** The BSA contains sandy soils but does not contain coastal scrub communities. The species has not been documented since 1921 and is considered extirpated in California by CNPS.
Nasturtium gambelii	Gambel's water cress	Fed: CA: CNPS:	E T 1B.1	A perennial rhizomatous herb inhabiting fresh or brackish marshes and swamps. Flowers April-October (16-1,082 feet).	**Presumed absent:** The BSA lacks fresh or brackish marshes and swamps. Habitat unsuitable for Gambel's watercress.
Opuntia basilaris var. brachyclada	short-joint beavertail	Fed: CA: CNPS:	-- -- 1B.2	A perennial stem succulent inhabiting chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland communities. Blooms April-June (1394-5905 feet).	**Presumed absent:** The BSA lacks Joshua tree woodland and Mojavean desert scrub, and the project elevation is no greater than 1,100 feet, just outside of the species' elevation range; habitat unsuitable for short-joint beavertail.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Ribes divaricatum var. parishii	Parish's gooseberry	Fed: CA: CNPS:	-- -- 1A	A deciduous shrub inhabiting moist riparian woodland communities. Flowers February -April (213-984 feet). Known from fewer than five historical occurrences. Last seen in 1980 at Whittier Narrows Nature Center, Los Angeles County. Recent surveys unsuccessful; believed to be extirpated in California. Likely extirpated due to a combination of dry years, altered stream flows, human-caused fires, habitat loss, and invasive species.	**Presumed absent:** The BSA lacks woodlands. With no habitat present and the likelihood of the species being extirpated in California, the species is presumed absent**.**
Schoenus nigricans	black bog-rush	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline soils within marshes and swamps. Blooms August-September (492-6561 feet).	**Presumed absent:** The BSA lacks alkaline soils, marshes and swamps. Habitat unsuitable for black bog-rush.
Senecio aphanactis	chaparral ragwort	Fed: CA: CNPS:	-- -- 2B.2	A perennial bulbous herb inhabiting shaded foothill canyons of chaparral, coastal scrub, and valley and foothill grassland communities. Flowers March-June (49-2,624 ft).	**Presumed absent:** The BSA lacks foothill canyons of chaparral, coastal scrub and valley foothill grassland communities, and habitat unsuitable for chaparral ragwort. Closest CNPS/CNDDB occurrence is greater than 5 miles south dated from 1909**.**
Sidalcea neomexicana	Salt Spring checkerbloom	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting alkaline, mesic soils within alkaline springs, marshes; chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub and playas. Blooms March-June (49-5,019 ft).	**Presumed absent:** The BSA lacks mesic soils with springs, marshes, lower montane coniferous forests, Mojavean desert scrub and playas.
Sphenopholis obtusata	prairie wedge grass	Fed: CA: CNPS:	-- -- 2B.2	A perennial herb inhabiting mesic soils in cismontane woodlands and meadows and seeps. Flowers April -July. (980-6,560 ft elevation).	**Presumed absent**: Project site lacks cismontane woodlands and meadows and seeps; habitat unsuitable for prairie wedge grass.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Streptanthus campestris	southern jewelflower	Fed: CA: CNPS:	-- -- 1B.3	A perennial herb inhabiting rocky soils within chaparral, lower montane coniferous forest, pinyon and juniper woodland communities. Blooms April-July (2,952-7,545 ft).	**Presumed absent:** The BSA lacks rocky soils, lower montane coniferous forests, pinyon and juniper woodland communities and the project elevation is no greater than 1,100 feet, well outside of the species' elevation range; habitat unsuitable for southern jewel-flower.
Symphyotrichum defoliatum	San Bernardino aster	Fed: CA: CNPS:	-- -- 1B.2	A perennial rhizomatous herb inhabiting near ditches, streams, and springs of cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seep, marsh and swamp, and vernally mesic valley and foothill grassland communities. Flowers July-November (7-6,692 ft).	**Presumed absent:** The BSA lacks streams, springs, cismontane woodlands, lower montane coniferous forests, meadows and vernally mesic valley foothill grassland communities. The closest CNDDB San Bernardino aster occurrence documented in 1917 is presumed extirpated.
Avian species					
Athene cunicularia	Burrowing owl	Fed: CA: CDFW:	-- -- SSC	Prefers open, sparsely vegetated scrublands and grasslands. Habitat requirements consist of arid, open areas with sparse vegetation cover such as deserts, abandoned agricultural areas, grasslands, and disturbed open habitats. Friable soils are important for construction of burrows.	**Presumed absent:** On May 2, 2014 Dokken Engineering biologist Sarah Holm conducted a burrowing owl habitat assessment. The vast majority of the ground that isn't covered by asphalt is either highly compacted soils which are not suitable for new burrows, are on private property with tall non-native grasses, or appear to be regularly disturbed by private property uses (disking or tilling). In addition, a portion of the BSA transects a high school and therefore, the area is subject to high levels of human activity and disturbance. In

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
					conclusion, the project site is unsuitable for burrows or foraging and the site lacks the habitat requirements for burrowing owls. The nearest extant CNDDB occurrence is located approximately 1.5 miles from the BSA in a location not subject to development.
Buteo swainsoni	Swainson's hawk	Fed: CA: CDFW:	-- T --	Inhabits grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, alfalfa or grain fields that support a stable rodent prey base. Breeds march to late August.	**Presumed absent:** The BSA does contain some areas that could provide suitable foraging habitat for Swainson's hawk but there are no recorded occurrences of this species near the project area.
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Fed: CA: CDFW:	PT E --	Species inhabits riparian forests, along broad, lower flood bottoms of larger river systems. Nests in large blocks of riparian jungles often mixed with cottonwoods. Nesting appears to be preferred in riparian forest habitats with a dense understory; requires water near nesting site. Breeds June-August.	**Presumed absent:** The BSA lacks large riparian systems and a large perennial water source.
Polioptila californica californica	coastal California gnatcatcher	Fed: CA: CDFW:	T -- SSC	Inhabits arid washes, mesas, and slopes of coastal hills dominated by dense, low-growing, drought-deciduous shrubs and subshrubs of coastal sage scrub. May also use chaparral, grassland, and riparian communities when adjacent or intermixed with sage scrub vegetation. Breeds February-August (0 - 2,500 ft elevation).	**Presumed absent:** The BSA lacks dense shrubs, riparian vegetation, and grassland and chaparral communities. Habitat is unsuitable for coastal California gnatcatcher.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Vireo bellii pusillus	least Bell's vireo	Fed: CA: CDFW:	E E --	Summer resident of southern California inhabiting low riparian habitats in the vicinity of water and dry river bottoms. Prefers willows, baccharis, mesquite and other low, dense vegetation as nesting sites (below 2,000 ft elevation).	**Presumed absent**: The BSA lacks riparian habitats with water in the vicinity. Habitat unsuitable for Least Bell's vireo.
Fish species					
Catostomus santaanae	Santa Ana sucker	Fed: CA: CDFW:	T -- SSC	Endemic to Los Angeles basin south coastal perennial streams. Prefers steams containing riparian vegetation, coarse substrates for algae foraging (gravel, cobble, and a mixture of gravel or cobble with sand), and shallow riffle areas and deeper runs and pools of cool clear water. Breeds April-July.	**Presumed absent:** Project site does not contain perennial streams. Site unsuitable for Santa Ana sucker.
Gila orcuttii	arroyo chub	Fed: CA: CDFW:	-- -- SSC	Species only native in streams from Malibu Creek to the San Luis Rey River basin. Requires vegetated streams with muddy or sandy bottoms and slow moving water.	**Presumed absent:** The BSA does not contain streams from Malibu creek or San Luis Rey River systems. Habitat unsuitable for arroyo chub.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	Fed: CA: CDFW:	-- -- SSC	Species inhabits the San Gabriel and Santa Ana rivers, preferring shallow gravel and cobble substrate within permanent streams or lakes with riparian cover. Prefers clear, well oxygenated water with movement from currents or waves with a supply of aquatic plants and insects. Breeds in the summer months.	**Presumed absent:** The BSA does not contain perennial surface waters that would provide habitat for this species.
Invertebrates					
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	Fed: CA: CDFW:	E -- --	Species lives in fine sandy soil (Delhi series sand) dune systems of desert valleys, rivers, deltas and beach strands with availability to buckwheat and other	**Presumed absent:** The BSA does not contain fine sandy soils in a dune system or buckwheat. The BSA does not provide suitable

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				plants for nectar.	habitat for this species.
Amphibian Species					
Rana muscosa	Southern mountain yellow-legged frog	Fed: CA: CDFW:	E E SSC	In southern California, habitat is restricted to streams associated with ponderosa pine, montane hardwood-conifer, and montane riparian habitats. Water is required, as the species is always in close proximity to water. Tadpoles may require up to two over-wintering periods (2-4 years) to complete their aquatic development. In southern California breeds Mar-May and at 1,200-7,500 ft.	**Presumed absent**: Project site lacks a permanent water source and ponderosa pine, montane hardwood-conifer, or montane riparian habitats.
Mammal species					
Chaetodipus fallax fallax	northwest San Diego pocket mouse	Fed: CA: CDFW:	-- -- SSC	Within San Diego county inhabits arid coastal and desert border areas of coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland communities. Species strongly associated with rocky, gravelly or sandy substrates. Breeds March-May (0 - 6,000 ft elevation).	**Presumed absent:** The BSA is not within San Diego county or near the coast and is not near desert border areas of coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland communities.
Chaetodipus fallax pallidus	Pallid San Diego pocket mouse	Fed: CA: CDFW:	-- -- SSC	Species inhabits arid habitats including desert wash, pinyon and juniper woodlands and Sonoran desert scrub communities. Predominantly granivorous foragers Species strongly associated with rocky slopes and sandy	**Presumed absent:** The BSA contains sandy soils, however it lacks desert washes, pinyon and juniper woodlands, Sonoran desert scrub communities with rocky slopes. The only CNDDB

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				soils required for burrow construction. Breeds March to May (0-4,593 ft).	documented occurrence from 1971 is approximately 10 miles north of the project area.
Dipodomys merriami parvus	San Bernardino kangaroo rat	Fed: CA: CDFW:	E -- SSC	Inhabits desert scrub and alkali desert scrub, sagebush, Joshua tree, and pinyon-juniper habitats in Southern California. Prefers sparse to moderate canopy in coarse sands. Predominantly granivorous foragers. Species prefers sandy soils or rocky flats under shrubs on desert flats or slopes. Breeds December-July.	**Presumed absent:** The BSA contains sandy soils with sparse vegetation but lacks Joshua tree or pinyon-juniper habitats and is heavily disturbed;. Closest CNDDB occurrence is approximately 4 miles northeast of the project area.
Dipodomys stephensi	Stephens' kangaroo rat	Fed: CA: CDFW:	E T --	Inhabits annual and perennial grasslands and coastal scrub or sagebrush with sparse canopy cover. Prefers sparse grassland over dense grassland habitats and species prefers buckwheat, chamise, brome grass and filaree as food sources. Species prefers sandy and gravely soils, of level to gently sloping habitat with slopes less than 50%. Requires patches of fine grained soils or dusty pockets for sand bathing. Burrows frequently found in clusters. Likely breeds April - June (180-4,100 feet).	**Presumed absent:** The BSA is dominated by avena, brome and filaree, potential food sources for stephens' kangaroo rat and has sandy soils. The site also meets requirements for slope but the area is highly disturbed and no evidence of the species was observed within the BSA during the reconnaissance survey. The nearest CNDDB occurrence is greater than 5 miles from the project area from 1988.
Eumops perotis californicus	western mastiff bat	Fed: CA: CDFW:	-- -- SSC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Prefers open, rugged, rocky areas where suitable crevices are available for day roosts. Roots in cliff face crevices (usually granite or consolidated	**Presumed absent:** The BSA does not contain any of the requisite vegetative communities or open rugged rocky areas that would provide roosting habitat. There are residential structures on the northern side of the BSA that could provide potential day roosting

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
				sandstone), high buildings, trees and tunnels. Roosting sites must have a minimum 10 foot vertical drop. Births early April through August or September (sea level-8,475 ft).	habitat
Glaucomys sabrinus californicus	San Bernardino flying squirrel	Fed: CA: CDFW:	-- -- SSC	The San Bernardino flying squirrel lives in high-elevation, mixed-conifer forests dominated by Jeffrey pine, white fir and black oak between 4,600 and 7,550 feet. Flying squirrels thrive in forests with big trees and closed-canopy cover, large snags that provide nesting cavities, downed logs that foster the growth of the truffles they eat and understory cover that provides protection from predators. (Center for Biological Diversity)	**Presumed absent:** The BSA does not contain mixed conifer forests and is far below the San Bernardino flying squirrel's elevation range.
Lasiurus xanthinus	western yellow bat	Fed: CA: CDFW:	-- -- SSC	Species known in California only in Los Angeles and San Bernardino Counties south to the Mexican border. Inhabits valley foothill riparian, desert riparian, desert wash and palm oasis habitats in proximity to water. Species utilizes trees and palms for roosting and maternity colonies. Births in June and July (below 2,000 ft elevation).	**Presumed absent:** Project site lacks valley foothill riparian habitat, desert wash or palm oasis habitats in proximity to water. Site unsuitable habitat for western yellow bat.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Fed: CA: CDFW:	-- -- SSC	Inhabits coastal sage scrub communities in Southern California. Species requires intermediate canopy stages of shrub and herbaceous habitats for cover and breeding. Breeds year-round, with a peak in April-May.	**Presumed absent:** Project site lacks intermediate canopy with herbaceous habitat for cover. Site unsuitable for San Diego black-tailed jackrabbits.
Neotoma lepida intermedia	San Diego desert woodrat	Fed: CA:	-- --	Common to abundant in Joshua tree, pinyon-juniper, mixed and chamise-	**Presumed absent:** While the BSA is within the current range of desert

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
		CDFW:	SSC	redshank chaparral, sagebrush, and most desert habitats. Elevation range from sea level to 8500 ft. Individuals build houses of twigs and other available building material. Houses are typically located in rock crevices or at the base of shrubs or trees.	woodrats, it does not contain any associated vegetative communities. Additionally, no evidence of woodrats or woodrat houses was observed during field surveys.
Nyctinomops femorosaccus	pocketed free-tailed bat	Fed: CA: CDFW:	-- -- SSC	Inhabits pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis communities. Prefers rocky desert areas with high cliffs or rock outcrops and frequently selects roosts in cliff rock crevices. Species must have an adequate drop from the roost to gain flight. Maternity sites are located in rock crevices, caverns and buildings. Young are born June-July.	**Presumed absent:** Project site lacks high cliffs or rock outcrops for roosting, desert wash scrub and palm oasis. Site unsuitable for pocketed free-tailed bat
Onychomys torridus ramona	southern grasshopper mouse	Fed: CA: CDFW:	-- -- SSC	Species prefers alkali and desert scrub habitats with low to moderate shrub cover and friable soils. Breeds from May to July, but may begin as early as January under ideal habitat conditions.	**Presumed absent:** The BSA contains very little shrub cover and is heavily disturbed. The nearest CNDDB occurrence from 1923 is greater than 7 miles south of the project area.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Perognathus longimembris brevinasus	Los Angeles pocket mouse	Fed: CA: CDFW:	-- -- SSC	The species inhabits grasslands, alluvial sage scrub, and coastal sage scrub between 547-2,650 feet. Fine, sandy soils are required for burrow construction. Breeding occurs between late spring through early fall and hibernation is believed to occur below ground from October to February.	**Low Potential:** The BSA provides potentially suitable grassland habitat, is within the elevation range for this species, requisite soils are present for burrow construction, and the closest known occurrence is less than 2 miles from the project area. Habitat is low quality with high levels of human disturbance.
Taxidea taxus	American badger	Fed: CA: CDFW:	-- -- SSC	Prefers treeless, dry, open stages of most shrub and herbaceous habitats with friable soils and a supply of rodent prey. Species also inhabits forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. Species maintains burrows within home ranges estimated between 338-1,700 acres, dependent on seasonal activity. Burrows are frequently re-used, but new burrows may be created nightly. Young are born in March and April within burrows dug in relatively dry, often sandy, soil, usually in areas with sparse overstory cover. Species is somewhat tolerant of human activity, but is sensitive to automobile mortality, trapping, and persistent poisons (up to 12,000 ft).	**Presumed absent:** The BSA contains sandy soil with sparse over story. The open space surrounding the project area lacks the sufficient acreages required to sustain an individual of this species. In addition, the high volume of traffic and human activity along Valley Blvd. and Cactus Ave. would be highly detrimental to any resident badger. During the May 2nd 2014 reconnaissance survey, no evidence of badger activity was found.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Reptile species					
Anniella pulchra pulchra	silvery legless lizard	Fed: CA: CDFW:	-- -- SSC	Silvery legless lizards occur primarily in areas with sandy or loose loamy soils. The species is often found under or in the close vicinity of logs, rocks, old boards, and the compacted debris of woodrat nests. Rocky soils or areas disturbed by agriculture, sand mining, or other human uses are not suitable for legless lizards. Soil moisture is essential for legless lizards to conserve energy at high temperatures.	**Presumed absent:** The BSA does contain sandy soils but the area is highly disturbed tilling and other human activity. Soils in the area are very dry during the summer months and would not provide suitable legless lizard habitat.
Aspidoscelis hyperythra	orangethroat whiptail	Fed: CA: CDFW:	-- -- SSC	Inhabits low-elevation coastal scrub, chamise-redshank chaparral, mixed chaparral, and valley-foothill hardwood habitats, especially in areas with summer morning fog. Prefers washes and other sandy areas with patches of brush and rocks for cover and foraging. Reproduces April-July; young emerge August - September (0-3,410 ft).	**Presumed absent:** The BSA contains sandy areas, however it lacks valley foothill hardwoods, mixed chaparral, and chamise-redshank chaparral with rocks for cover and foraging; habitat unsuitable for orangethroat whiptail.
Charina umbratica	southern rubber boa	Fed: CA: CDFW:	-- T --	Found in a variety of montane forest habitats including red fir, ponderosa pine, hardwood, hardwood-conifer, Douglas fir, redwood, mixed conifer and riparian. Also found in montane chaparral and wet meadow habitats. Usually found in the vicinity of streams or wet meadows.	**Presumed absent:** The BSA does not contain conifer or riparian forests, or wet meadow habitats. Habitat unsuitable for southern rubber boa.

Scientific Name	Common Name	Status		General Habitat Description	Potential for Occurrence and Rationale
Crotalus ruber	red-diamond rattlesnake	Fed: CA: CDFW:	-- -- SSC	Inhabits chaparral, woodland, and arid desert communities and requires rocky areas or areas of dense vegetation. Utilizes rodent burrows, cracks in rocks and surface cover objects for cover. Species is seasonally active, with the greatest activity occurring from March to June. Young are live-born from mid-August to October in quiet, safe locations (0-3,000 ft).	**Presumed absent:** The BSA lacks chaparral, woodland communities with rocky areas or dense vegetation. Habitat unsuitable for red-diamond rattlesnake.
Phrynosoma blainvillii	coast horned lizard	Fed: CA: CDFW:	-- -- SSC	Found in open coastal sage scrub and chaparral. Requires open areas with ample native ant prey base. Prefers friable, rocky, or shallow sandy soils near dry washes.	**Presumed absent**: The BSA contains sandy soils but is highly disturbed with a high probability of invasive ants. The nearest CNDDB occurrence is approximately 3.5 miles north of the project site in 1988.
Thamnophis hammondii	two-striped garter snake	Fed: CA: CDFW:	-- -- SSC	Generally found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest.	**Presumed absent:** The BSA does contain a small roadside drainage but does not contain woodlands, chaparral or other vegetative community that would provide adequate cover from predators. The closest CNDDB occurrence is more than 10 miles from the project area.

Federal Designations (Fed): (FESA, USFWS) **E:** Federally listed, endangered **T:** Federally listed, threatened	**State Designations (CA):** (CESA, CDFW) **E:** State-listed, endangered **T:** State-listed, threatened

Other Designations
DFW_SSC: DFW Species of Special Concern
DFW_FP: DFW Fully Protected

California Native Plant Society (CNPS) Designations*:*
Note: according to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code. This interpretation is inconsistent with other definitions.
1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
3: Plants about which need more information; a review list.
Plants 1B, 2, and 4 extension meanings:
_.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
_.2 Fairly endangered in California (20-80% occurrences threatened)
_.3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Potential for Occurrence Criteria:
Present: Species was observed on site during a site visit or focused survey.
High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within 5 miles of the site.
Low-Moderate: Either low quality habitat (including soils and elevation factors) for the species occurs on site and a known occurrence exists within 5 miles of the site; or suitable habitat strongly associated with the species occurs on site, but no records were found within the database search.
Absent: Focused surveys were conducted and the species was not found, or species was found within the database search but habitat (including soils and elevation factors) do not exist on site, or the known geographic range of the species does not include the survey area.

Discussion

a) Less Than Significant with Mitigation Incorporated. No State- or Federally-listed species or critical habitat occurs within the BSA, though there is potential for two special-status species, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and northwest San Diego pocket mouse (*Chaetodipus fallax fallax*), to occur within the BSA around the Linden Avenue widening project area and potential for Los Angeles pocket mouse to occur within the BSA around the Cactus Avenue/Valley Boulevard project area. The BSAs provide low-quality habitat for both species, since they include disturbed annual grassland and rocky sandy substrate but are both heavily disturbed by pedestrian and vehicular activities. Avoidance and minimization measures will limit the potential for impact to these species.

Migratory Birds: Migratory nesting birds, protected under the Migratory Bird Treaty Act and similar provisions under CDFW code, have the potential to nest within both BSA. During the biological surveys, no nesting birds were observed but both BSAs contain scattered trees and disturbed annual grassland that provide potentially suitable nesting habitat for protected bird species. Mitigation measure BIO-4 has been incorporated to ensure protection of migratory nesting birds.

b) No Impact. No riparian habitat or other sensitive natural communities occur within the BSAs and all habitat directly impacted by the proposed project is in heavily disturbed areas.

c) No Impact. No wetlands occur within the BSA. No permanent or temporary impacts on waters of the U.S. or State are anticipated. Therefore, a CWA Section 404 or Section 401 permit is not required.

d) No Impact. The project areas are isolated within an urban setting with significantly impaired habitat quality and are not located near any migration corridors.

e) No Impact. The project will not conflict with any local policies or ordinances protecting biological resources.

f) No Impact. The project is not located within the limits of a habitat conservation plan or natural community conservation plan.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented:

BIO-1: Erosion Control Measures must be implemented during construction. To minimize the mobilization of sediment to adjacent water bodies, the following erosion-control and sediment-control measures will be included in the Storm Water Pollution Prevention Plan (SWPPP) to be included in the construction specifications, based on standard Caltrans measures and standard dust-reduction measures.

- Soil exposure on slopes must be minimized through the use of temporary BMPs, groundcover, and stabilization measures;
- The contractor must conduct periodic maintenance of erosion-control and sediment-control measures.

BIO-2: The contractor shall not apply rodenticides or herbicides in the project area during construction activities.

BIO-3: If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed. In the unlikely event a worker inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped, the worker shall immediately report the incident to the project biologist.

BIO-4: A pre-construction nesting bird survey must be conducted within the BSA no more than three (3) days prior to vegetation removal or initial ground disturbing activities. Within 2 weeks of the nesting bird survey, all vegetation cleared by the biologist shall be removed by the contractor.

A 100 foot no-disturbance buffer will be established around any active songbird nest to limit the impacts of construction activities. A 250 foot no-disturbance buffer will be established around any active raptor nest. The contractor must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the project biologist and in coordination with wildlife agencies) in the buffer area until a qualified biologist determines the young have fledged.

BIO-5: All trash will be kept in wildlife-proof receptacles and any non-natural food and water sources will not be left unattended for the duration of the project construction.

V. Cultural Resources: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Regulatory Setting

CEQA, through Public Resources Code §21083.2, requires planning agencies to determine if a project may have a significant effect on historical resources or unique archaeological resources. Public Resources Code §21083.2 also provides that if it is demonstrated that a project will have a substantial adverse change to historic resources, the impact must be addressed in an environmental impact report. Public Resources Code §15064.5 defines a substantial adverse change "as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

In addition, Public Resources Code §15064.5 requires consideration of potential impacts to resources that are listed or qualify for listing on the California Register of Historical Resources (CRHR). CEQA (Public Resource Code §5024) created the California Register, which includes historical resources that are listed automatically by virtue of their appearance on, or eligibility for, certain other lists of important resources and incorporates resources that have been nominated by application and listed after public hearing. Also included are historical resources listed as a result of the State Historical Resources Commission's evaluation in accordance with specific criteria and procedures.

Under CEQA, Public Resources Code, §21060.5, historical resources are considered part of the environment. CEQA (Public Resource Code §21084.4) defines an "'historical resource' as including, but not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

Public Resources Code § 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site that can be clearly demonstrated to: "a) contain

information needed to answer important scientific research questions and that there is a demonstrable public interest in that information, b) has a special or particular quality such as being the oldest of its type or best available example of its type, or c) it is directly associated with a scientifically recognized important prehistoric or historic event or person."

Methodology

Dokken Engineering cultural resources staff conducted archaeological investigations for the Project Area Limits (PAL) (Figure 5) for the Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project for the purpose of identifying cultural resources which may be impacted by the proposed project. Cultural resource investigations included a search of site records and survey reports on file at the San Bernardino Archaeological Information Center (SBAIC), consultation letters to Native American groups to gather information on archaeological resources, historical research (historic maps and land survey plats), and a pedestrian field survey by an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology within the PAL to identify any indications of both archaeological and historic-era built environment resources. The SBAIC record search noted which areas of the PAL had been previously surveyed and the locations of previously recorded resources within a half-mile of the PAL. Based on SBAIC archaeological information, there are two previously recorded sites within the PAL along Valley Boulevard. These sites are discussed below.

Existing Setting

The land around Rialto was settled in 1854 by pioneers coming from San Bernardino. They settled in areas near the river to plant grapes. In 1887, two major events took place to shape the city: the Semi-tropic Land and Water Company purchased 25,000 acres of land and began developing town sites, and the Santa Fe line between San Bernardino and Pasadena was built. Town sites were placed along this connector line. A group of Methodists seeking to build a college settled one town site, and this became the city of Rialto. Citrus groves were planted throughout the area and the town continued to grow steadily (City of Rialto 2011). By 1915, San Bernardino County citrus production was valued at roughly 30 million dollars, accounting for approximately 15 percent of the entire states 200 million dollar citrus industry. In Rialto alone, there were approximately 6000 acres devoted to production serviced by seven packing houses along the Santa Fe railway. This industry can be accredited for the survival of Rialto which attracted numerous growers and acted as a center for packing houses for the citrus industry. Beginning in the mid-20th century, the industry tapered, being replaced by more urbanization and a varied economic livelihood.

V:\2066 Rialto_LindenCultural\2066 F5a PAL (IS ED).mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 100 200 300 400 Feet

Figure 5a
Cultural Resources Project Area Limits (PAL)
Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California

V:\2066 Rialto_LindenCultural\2066 F5b PAL (IS ED).mxd

Source: ESRI 2008; Dokken Engineering3/23/2017; Created By: timc

0 100 200 300 400 Feet

Figure 5b
Cultural Resources Project Area Limits (PAL)
Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
City Project No. 140802
City of Rialto, San Bernardino County, California

Affected Environment

The area around Cactus Avenue and Valley Boulevard was dominated by orchards until the late 1960s, and the orchards were completely gone by 1980, replaced by commercial businesses, housing developments, or left vacant. According to historic aerial photographs, the northeastern corner of the intersection of Valley Boulevard and Spruce Avenue contain some residential structures as early as 1938, with additional structures appearing south of Valley Boulevard by the late 1950s. Many of these structures appear to have been demolished by 2005. Aerial photographs also reveal that the vacant lot on the northwestern corner of the intersection of Cactus Avenue and Valley Boulevard was utilized as an orchard, at least until 1968, and by 1980 was a disced field. This intersection does not appear to have ever contained any structures.

The vacant land to either side of Cactus Avenue and much of the area south of Valley Boulevard remains unused. The area around the Linden Avenue segment was agricultural land as early as 1938, though it started to move away from farming by the late 1950s. Orchards were planted to the west of modern day Cedar Drive. While the number of structures increase as time progresses, by 1980 over half of the land adjacent to Linden Lane appears to be vacant lots. By 2002, the construction of Wilmer Amina Carter High School encompassed many of the empty lots on the western side of Linden Avenue.

The archaeological field survey was conducted within the PAL on June 12, 2014. No archaeological resources or historic-era resources were identified during the survey. As mentioned above, the SBAIC record search identified two previously recorded resources within the PAL. Both resources, P-36-6868H/CA-SBR-6868H and P-36-8927H/CA-SBR-8927H, consist of historic-era refuse sites. P-36-6868H/CA-SBR-6868H was previously recorded in 1990, within a vacant lot. The California Department of Parks and Recreation (DPR) site record notes that the refuse deposit retained little integrity due to decades of land management practices associated with agricultural land development. No artifacts were identified during the June 12, 2014 archaeological survey.

The second resource, P-36-8927H/CA-SBR-8927H was first recorded in 1997 during the construction of a sewer trench beneath Valley Boulevard. Artifacts were noted at approximately 30 to 65 inches below the ground surface. The 1997 DPR site record notes that the deposit has been disturbed by nearly a century of below ground utility and road construction and maintenance activities. This extent of disturbance suggests that the deposit retains little integrity and has no potential to yield information important to history. In addition, while this resource is included in the PAL, anticipated ground disturbance required for the proposed project will not impact the resource. No surface components of this trash deposit were observed during the June 12, 2014 archaeological survey.

Discussion

a) No Impact. Neither of the previously recorded resources was recommended to be eligible for the National Register of Historic Places or the CRHR due to poor integrity of and the low likelihood that the deposits could provide information important to history. In addition, no Historical Resources were identified within the PAL as a result of the archaeological survey or background research.

b) Less Than Significant Impact. The archaeological field survey conducted on June 12, 2014 did not identify any archaeological or historic-era built environment resources within the PAL. As stated above, while the SBAIC indicated that two previously recorded, historic sites were located within the PAL, the archaeological survey did not identify any of the artifacts which comprised the historic refuse site (P-36-6868H/CA-SBR-6868H). Based on the level of ground disturbance associated with land management practices in this area, the site was most likely destroyed. While the second previously recorded historic refuse site (P-36-8927H/CA-SBR-8927H) is located beneath Valley Boulevard, anticipated depth of ground disturbance for the proposed project will not impact the resource. In addition, the DPR site records for both deposits note that the sites retain very little integrity due to damage sustained over decades of agricultural land management practices, roadway construction and maintenance, and utility line construction and maintenance. As such, these two sites would not be considered as being historically or culturally significant.

While the archaeological survey did not locate any surface indications of archaeological sites, cultural resource investigations included determining the PAL's potential to contain intact, buried resources. After a review of geologic maps, historical maps, past archaeological survey reports, and evidence for decades of ongoing roadway construction and maintenance, buried utilities construction and installation, building foundations construction, and routine discing of vacant lots, the PAL was determined to retain a low potential to contain intact, archaeological resources.

Measures CUL-1, CUL-2, and CUL-3 will ensure the project shall not impact a previously recorded or unrecorded archaeological resource.

c) No Impact. The soils in the PAL consist of a series of overlapping alluvial and aeolian deposits. The youngest of these are alluvial fans issuing from the mountains to the north, while older alluvial deposits were created by Plio-Pleistocene lake drainage through the Santa Ana Basin. Areas of windblown sand exist to the eastern portion of Rialto (specifically, Delhi Sands). The change in soil structure around the San Jacinto fault is visible to the northeast of Rialto, where soils are made up of young and old wash deposits. Based on previous disturbance from existing roads and utilities and anticipated excavation depths, the project is not anticipated to impact paleontological or geological resources.

d) Less Than Significant Impact. Disturbance to human remains, including those interred outside of formal cemeteries, is not anticipated because the project site is already highly disturbed from existing roadways and development. Minimization Measures CUL-2 and CUL-3 would further avoid effects on human remains.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented to minimize potential impacts.

CUL-1: If previously unidentified cultural materials are unearthed during project activities, work shall be halted in that area until an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology can assess the significance of the discovery and develop a plan for documentation and removal of resources, if necessary.

CUL-2: If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. Further provisions of PRC 5097.98 are to be followed as applicable.

CUL-3: If prehistoric cultural resources and/or human remains are encountered during the project, the Soboba Band of Luiseño Indians should be contacted, as per their request during Native American Consultation.

VI. Geology and Soils: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☒	☐	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

a(i) Less Than Significant Impact. The project is not located within an Alquist-Priolo Earthquake Fault Zone (California Division of Mines and Geology, 1977) or near any other known fault. As such the potential for earthquakes in the project area is considered low.

a(ii-iii) Less Than Significant Impact. Construction and design of the proposed project would be in compliance with current construction and seismic codes and standards as discussed in minimization measure GEO-1, which would reduce potential seismic hazard risks to acceptable levels.

a(iv) No Impact. The project is in a flat area, approximately 9 miles southeast of the nearest mountain range. As a result of existing topography, landslides are unlikely to occur in the project area.

b) Less Than Significant with Mitigation Incorporated. Ground disturbance from the project would be largely at the existing roadway. There would a minor loss of topsoil along the roadway. Soil erosion would be minimized through standard erosion control Best Management Practices with the implementation of GEO-2.

c) Less Than Significant Impact. The construction and design of the project would be consistent with seismic codes and standards. The site has generally flat topography and on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse is not anticipated.

d) No Impact. Expansive soils have not been identified in the project area.

e) No Impact. The proposed project does not include the use of septic tanks.

Avoidance, Minimization, and/or Mitigation Measures

GEO-1: Construction and design of the proposed project shall be in compliance with current construction and seismic codes and standards, which would reduce potential seismic hazard risks to acceptable levels. Specific design and construction measures recommended in subsequent geotechnical studies to reduce geologic or seismic hazards shall be implemented. Subsequent geotechnical studies shall be completed prior to completion of final design for the proposed project.

GEO-2: BMPs include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. A Storm Water Pollution Prevention Plan (SWPPP) and NPDES-compliant measures would ensure no adverse impacts would occur to water quality associated with the project.

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

a) Less than Significant Impact. No new long-term greenhouse gas emissions are anticipated, as the project would bring street segments in accordance with the City's General Plan Circulation Element and accommodate planned future traffic.

b) Less than Significant Impact. Existing CO_2 emissions are estimated to be 4.9 tons/year. While CO_2 emissions are estimated to increase in the future to 7.5 tons/year by 2035, it would be due to increases in traffic from general growth and not from the proposed project itself. The Average Daily Traffic is the same for the No-Build and Build Alternative. The No-Build Alternative and Build Alternative would result in similar CO_2 emissions in the Design Year 2035 as shown in Table 3.

Table 5. CO_2 Emissions Estimate in Tons/Year

Existing	No-Build Year 2035	Build Year 2035
4.9	7.5	7.5
Source: Estimated using CT-EMFAC v5.0 Model; Existing ADT = 7,040 and Year 2035 ADT = 26,138		

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

VIII. Hazards and Hazardous Materials:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

a) Less than Significant Impact. The project would not result in significant new routine transport, use, or disposal of hazardous materials. The street improvements would accommodate future planned traffic in the vicinity resulting from retail/commercial land uses.

b) Less than Significant Impact with Mitigation Incorporated. Upset and accident conditions involving the release of hazardous materials into the environment are not expected based on background research of hazardous materials in the project vicinity and implementation of precautionary measures. Based on a records search (Environmental Data Resources (EDR), (2014) for the project, historically there was one facility adjacent to the site that is a potential source of hazardous substances or petroleum products. However, the regulatory agency database listing the facility did not note any documented historical releases or other violations; therefore, the facility is unlikely to have negatively impacted the site.

There is however, potential for aerially deposited lead (ADL) along Cactus Avenue and Valley Boulevard. HAZ-1 will ensure any potential ADL is handled and disposed of appropriately.

A visual survey of the project area was conducted on April 22, 2014. There were no indications of stained soils or hazardous materials spills in the project area.

Based on the governmental records search, aerial photograph and topographic map review and visual site survey, there is a low likelihood of encountering hazardous substances or petroleum products within the project limits, except for the following Recognized Environmental Conditions (RECs): potential impacts to shallow soils from the former agricultural use and ADL. HAZ-1 would be implemented for the potential agricultural contamination and ADL, and HAZ-2 and HAZ-3 would be implemented for any previously unknown hazardous waste/material encountered during construction

c) Less than Significant Impact. The project would not expose the public to any new or increased risk from hazardous materials. Joe Baca Middle School is located adjacent to Cactus Avenue and Valley Boulevard. Carter High School is located just south of the project area adjacent to Linden Avenue. No direct physical effects to either of these schools would occur as a result of this project.

d) No Impact. Per the EDR (2014) database search, the California Department of Toxic Substances Control (DTSC) Envirostor database (2014), the proposed project is not on a site included in the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, which is also known as the Cortese List.

e) No Impact. The project is not within the vicinity of a public airport. The Rialto Municipal Airport is located approximately three miles north of the project site, and the project is not expected to result in a safety hazard for people residing or working in the project area.

f) No Impact. The project is not within the vicinity of a privately-owned airport or airstrip. The nearest privately-owned airport or airstrip is the Andy Jackson Airpark, over 10 miles northeast.

g) Less Than Significant Impact with Mitigation Incorporated. During construction, temporary impacts to public services such as fire, police, or emergency medical response would be less than significant with mitigation incorporated. HAZ-4 would allow emergency vehicles through the project area through traffic control and a detour plan.

h) No Impact. The project site is adjacent to commercial and residential land uses. No proposed project components are adjacent to or within wildlands.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented:

HAZ-1: Prior to final design, ROW acquisition, and construction, soil sampling for aerially deposited lead (ADL) and agricultural contaminants will be conducted in unpaved locations adjacent Cactus Avenue and Valley Boulevard within the project limits. The analytical results of the soil sampling will determine the appropriate handling of the soil and disposal of surplus materials. Soils containing hazardous levels of lead or other contaminants will need to be disposed of at an approved landfill.

HAZ-2: As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby sources or potential explosive threat if a gas pipeline is ruptured during construction). For any previously unknown hazardous waste/material encountered during construction, standard procedures for unknown hazardous waste/ material shall be followed. Underground Service Alert will have to be notified if there is any digging involved at least 2 working days prior to excavation by calling 811 to ensure that utility owners mark the locations of underground transmission lines and facilities.

HAZ-3: There may be instances in which hazardous waste has gone undetected. A note would be placed in the resident engineer's file to alert construction crews to the possibility of undetected hazardous waste and/or soil contamination. If soil discoloration, odor or fumes are encountered during construction, work should be stopped and the resident engineer informed.

HAZ-4: Emergency vehicle access would be maintained through traffic control, stage construction, and if necessary, a detour plan.

IX. Hydrology and Water Quality: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒

a) Less Than Significant Impact. The proposed project will not violate any water quality standards or waste discharge requirements. Potential increase in storm water runoff would be minimal. The existing watershed area contributing runoff across the project is approximately 1,000 acres consisting of mainly residential and commercial development. The amount of new impervious area as a result of this project is approximately 0.60 acre for the Linden Widening and 0.58 acre for the Valley/Cactus Widening for a total of 1.18 acres of new impervious area. The additional impervious area would not change the land type or impact the runoff coefficient of the overall watershed area. The additional impervious area would have a negligible impact on the overall peak flows from the large contributing watershed.

The proposed project would not degrade water quality. As in the existing condition, storm water run-off in the proposed condition will be conveyed through the project site as surface runoff. Surface flow will be contained within the street section during lower flow events and will overtop the curbs and continue as overland flow during higher flow events.

b) No Impact. The project does not propose activities requiring permanent increases in groundwater use. No buildings are proposed.

c) No Impact. The project will not alter the existing drainage patterns of the project site or overall area in a manner which would result in substantial erosion or siltation on- or off-site. As in the existing condition, storm water run-off in the proposed condition will be conveyed through the project site as surface runoff. Surface flow will be contained within the street section during lower flow events and will overtop the curbs and continue as overland flow during higher flow events.

d) No Impact. The project will not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner which would result in increased flooding on- or off-site. In the existing condition, surface flow will be contained within the street section during lower flow events. During larger storm events, surface flow will overtop the curbs and continue as overland flow. In the proposed condition, the flow patterns are the same.

The project would add approximately 1.18 acres of impervious area, which is only 0.118% of the total contributing watershed. The potential for on- or off-site areas to flood during larger storm events will not change as a result of the minimal increase in impervious area resulting from this project. Furthermore, the project includes stormwater infrastructre improvements which will accommodate the additional flow of stormwater.

e) Less Than Significant with Mitigation Incorporated. The federal Clean Water Act (CWA) establishes requirements for the discharge of urban runoff from Municipal Separate Storm Sewer Systems (MS4) under the National Pollutant Discharge Elimination System (NPDES) program. On January 29, 2010, the Santa Ana Regional Water Quality Control Board (RWQCB) issued Permit Order No. R8-2010-0036 to authorize the discharge of urban runoff from MS4 facilities in San Bernardino County within the Santa Ana River watershed.

As a condition of the permit, a Water Quality Management Plan (WQMP) document must be prepared for new development and significant redevelopment projects. Since the Project is a public transportation project, a functionally equivalent document to the WQMP will be prepared as directed in the San Bernardino County Municipal Stormwater Management Program Transportation Project BMP Guidance. The Guidance applies to public transportation projects in the area covered by the Santa Ana Region MS4 Permit which involve the construction of new

transportation surfaces or the improvement of existing transportation surfaces. See measures WQ-1 and WQ-2.

A BMP feasibility analysis will be completed for the project to determine to what extent BMP techniques such as drainage swales and permeable pavements will be applicable for the project.

To minimize potential erosion impacts during construction, Best Management Practices would be implemented. See measure WQ-3.

f) Less Than Significant Impact. Since water quality impacts from the proposed project are limited to storm water flows and the minimal addition of roadway runoff, no adverse impacts to groundwater or surface water are anticipated. The proposed project would have a less than significant impact on water quality.

g) No Impact. The project does not propose to build housing.

h) No Impact. The project is outside the 100-year flood zone. The project vicinity is designated as "Zone X" by the Federal Emergency Management Agency (2008).

i) No Impact. The project is widening portions of Cactus Avenue, Valley Boulevard, and Linden Avenue; it does not include changes to levees or dams. As discussed in answer "h" of this section, the project does not have floodplain impacts. The project does not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

j) No Impact. The project site is not subject to seiche, tsunami, or mudflow. The nearest lake is Secombe Lake, approximately 5.5 mi to the northeast. The project is not subject to tsunami because it is approximately 46 mi inland. The site is located in a generally flat area approximately 6 mi from hills and mountains and is not subject to mudflow.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be implemented:

WQ-1: The Project will comply with requirements set forth in National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R8-2010-0036, NPDES No. CAS618036, Section XIV "Municipal Construction Projects."

WQ-2: Prior to the commencement of any construction activities, the project will develop and implement a functionally equivalent document to the Water Quality Management Plan (WQMP) as outlined in the San Bernardino County Municipal Stormwater Management Program Transportation Project BMP Guidance, a Storm Water Pollution Prevention Plan (SWPPP), a monitoring program that is specific for the construction project, and any other reports or plans required under the General Construction Activity Storm Water Permit.

WQ-3: BMPs include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. The SWPPP and NPDES-compliant measures would ensure no adverse impacts would occur to water quality associated with the Build Alternative.

X. Land Use and Planning: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b)Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a) No Impact. The project does not physically divide an established community as no new barriers would be introduced with the project. The project widens already existing streets.

b) No Impact. The project does not conflict with the City's General Plan (2010), including the Land Use Element and Circulation Element, which lists the following roadway designations:

- Cactus Avenue: Major Arterial
- Valley Boulevard: Major Arterial
- Linden Avenue: Secondary Arterial

Although the project includes minor acquisitions of for ROW, the project does not propose any change to adjacent property land use designations of the City's General Plan, nor zoning. Proposed minor acquisition of ROW is discussed for each portion of the project below.

Valley Boulevard/Cactus Avenue
At the Valley Boulevard and Cactus Avenue location, partial acquisitions are anticipated at two (2) parcels and temporary construction easements are anticipated at those same two (2) parcels. Right-of-way acquisition is expected to be minor and no properties would be modified such that they would result in the creation of a non-conforming parcel related to their existing Land Use and Zoning designations. This portion of the project is located within the adopted Gageway Specific Plan, but it would also be roadway improvements consistent with the policies and goals of that specific plan.

Linden Avenue
At the Linden Avenue location, partial acquisitions are anticipated at 20 parcels and temporary construction easements are anticipated at those same 20 parcels. Right-of-way acquisition is expected to be minor and no properties would be modified such that they would result in the creation of a non-conforming parcel related to their existing Land Use and Zoning designations. This portion of the project is not located within an adopted Specific Plan.

The project is 46 miles inland, outside the coastal zone. Coastal zoning requirements are not applicable.

c) No Impact. Currently, there are no applicable habitat conservation plans or natural community conservation plans.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

a,b) No Impact. While portions of the project are within areas designated as MRZ-2 ("where geologic data indicate that significant PCC-Grade aggregate resources are present") or MRZ-3 ("containing known or inferred mineral occurrences of undetermined mineral resource significance), the affected roads have been designated for the transportation circulation system and these issues were addressed in the City's General Plan.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

Fundamentals of Sound

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity.

Sound is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately 3 dBA to around 140 dBA. Table 5 includes examples of A-weighted noise levels from common indoor and outdoor activities.

Table 6. Typical A-Weighted Noise Levels

Common Outdoor Noise	Noise Level (dBA)	Common Indoor Noise
	— 110 —	Rock band (noise to some, music to others)
Jet fly-over at 1000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in neighboring room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 1998.

Using the decibel scale, sound levels from two or more sources cannot be directly added together to determine the overall sound level. Rather, the combination of two sounds at the same level yields an increase of 3 dBA. The smallest recognizable change in sound levels is approximately 1 dBA. A 3-dBA increase is generally considered perceptible, whereas a 5-dBA increase is readily perceptible. A 10-dBA increase is judged by most people as an approximate doubling of the sound loudness.

Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound.

Noise exposure over a longer period of time is often evaluated based on the Community Noise Level (CNEL). CNEL is a 24-hour average L_{eq} that accounts for the sensitivity to noise during evening and nighttime hours. CNEL is calculated by adding 5 dBA to sound levels in the evening (7:00 p.m. to 10:00 p.m.) and adding 10 dBA to sound levels at night (10:00 p.m. to 7:00 a.m.)

Regulatory Setting

Traffic Noise

The Noise Element of the City of Rialto General Plan (2010) includes standards and guidelines for identifying and controlling transportation noise sources. In particular, Policy NO-5-11 identifies measures to minimize the impacts of roadway improvement projects that are not directly tied to a particular development project. The City's outdoor activity areas identified below do not apply to front yards where levels of noise can vary throughout the day, and instead apply to backyards where individuals are more likely to gather. For the purposes of CEQA, a significant traffic noise impact would result if the proposed Cactus Avenue, Valley Boulevard, Linden Avenue Widening Project exceeds the following standards:

- Where existing traffic noise levels are less than 60 dBA CNEL at the outdoor activity areas of noise-sensitive uses, a +5 dB CNEL increase in noise levels due to a roadway improvement project would be considered significant.

- Where existing traffic noise levels range between 60 and 65 dBA CNEL at the outdoor activity areas of noise-sensitive uses, a +3 dB CNEL increase in noise levels due to a roadway improvement project would be considered significant.

- Where existing traffic noise levels are greater than 65 dBA CNEL at the outdoor activity areas of noise-sensitive uses, a +1.5 dB CNEL increase in noise levels due to a roadway improvement project would be considered significant.

Construction Noise Regulations

Noise from construction activities is addressed in the City of Rialto's Municipal Code. Specifically, Chapter 9.50.070, Disturbances from Construction Activity, states that construction shall be limited to the hours of 7 a.m. to 5:30 p.m. Monday through Friday and Saturdays from 8 a.m. to 5 p.m. between October 1st through April 30th and 6 a.m. to 7 p.m. Monday through Friday and Saturday 8 a.m. to 5 p.m. between May 1st through September 30th, whenever such activity is adjacent to residential uses. Construction is not permitted on Sunday or State holidays during any time of the year.

Existing Noise Environment

Noise Sensitive Land Uses

Noise-sensitive land uses are generally defined to include: places where people sleep, such as residences, hospitals, and hotels; institutional land uses where it is important to avoid interference with speech or reading, including schools, libraries, and churches; and outdoor areas where quiet is fundamental to its specific use (i.e. amphitheaters and National Parks). The noise-sensitive receivers in the project areas include single-family residences along either side of Cactus Avenue and Linden Avenue, schools, and a park. Other, non-noise-sensitive land uses include several parcels of undeveloped land a water treatment facility.

Noise Measurements

Measurements of existing noise levels were taken at four sites in the project area between October 20 and October 21, 2014. The primary purpose of the measurements was to characterize existing noise levels at noise-sensitive receivers along Cactus Avenue and Linden Avenue. The measurement sites, identified as LT-1, ST-1, ST-2, and ST-3 are discussed below. Figure 6 is an aerial photograph of the Cactus Avenue noise measurement sites (points labeled as R1 through R11 and I-1 and I-2 refer to representative receivers that are evaluated later in this report). Figure 7 is an aerial photograph of the Linden Avenue noise measurement site (points labeled as R12-25 and I-3 and I-4 refer to representative receivers that are evaluated later in this report).

- LT-1 was located on an undeveloped section of land along Cactus Avenue south of a residential area along Cactus Avenue and Pomona Avenue. The microphone was placed approximately 40 feet from the southbound traffic lane of Cactus Avenue. Sound levels were measured over a 24-hour period on October 20 and October 21, 2014.

- ST-1 was located at an undeveloped section of land on the north side of Valley Boulevard commercial property near 822 West Valley Boulevard. The microphone was placed 60 feet from the westbound traffic lane of Valley Boulevard. A 20-minute measurement was taken at this location during the afternoon of October 20, 2014, along with associated traffic counts on Valley Boulevard.

- ST-2 was located on an undeveloped section of land along Cactus Avenue south of a residential area along Cactus Avenue and Pomona Avenue, approximately 200 feet north of LT-1. A 20-minute measurement was taken at this location during the afternoon of October 20, 2014 along with associated traffic counts on Cactus Avenue.

- ST-3 was located at the intersection of Linden Avenue and Persimmon Avenue, near 1490 Persimmon Avenue. A 20-minute measurement was taken at this location during the afternoon of October 20, 2014 along with associated traffic counts on Linden Avenue.

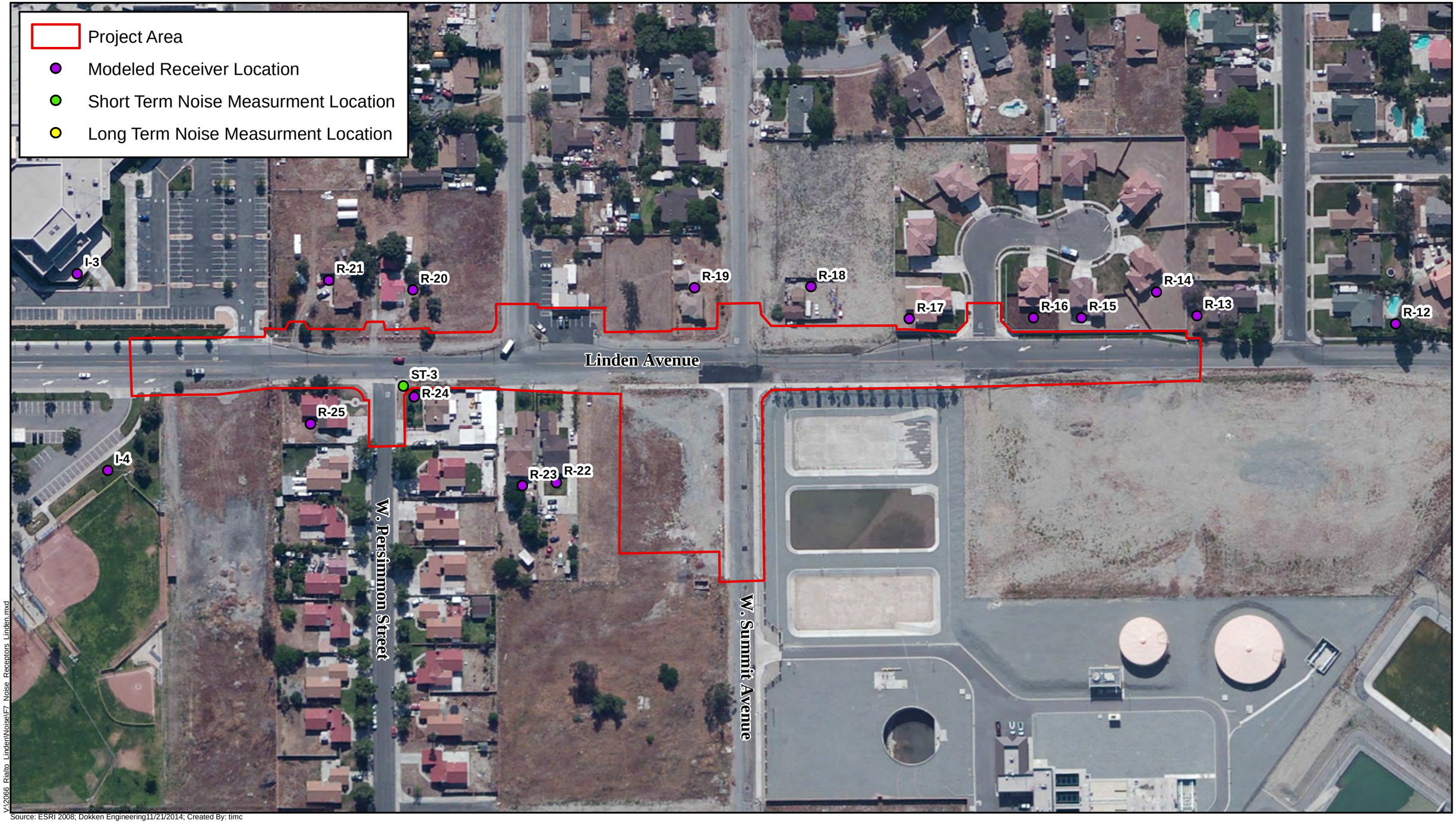
Traffic on the major streets (Cactus Avenue, Valley Boulevard, and Linden Avenue) was the dominant noise source at all measurement locations. Figure 8. shows the hourly sound levels at LT-1. The sound levels over the 24-hour period range from 57.8 to 65.0 dBA. The highest sound levels, which occurred during the mid-afternoon, were probably due to higher traffic volumes on Cactus Avenue and Valley Boulevard as the school day ended and buses and cars departed.

V:\2066 Rialto Linden\Noise\F6 Noise Receptors Valley.mxd

Source: ESRI 2008; Dokken Engineering11/21/2014; Created By: timc

0 100 200 300 400 Feet

Figure 6
Noise Measurement Sites and Receiver Locations
S. Cactus Avenue/Valley Boulevard
City Project No. 140802
City of Rialto, San Bernardino County, California



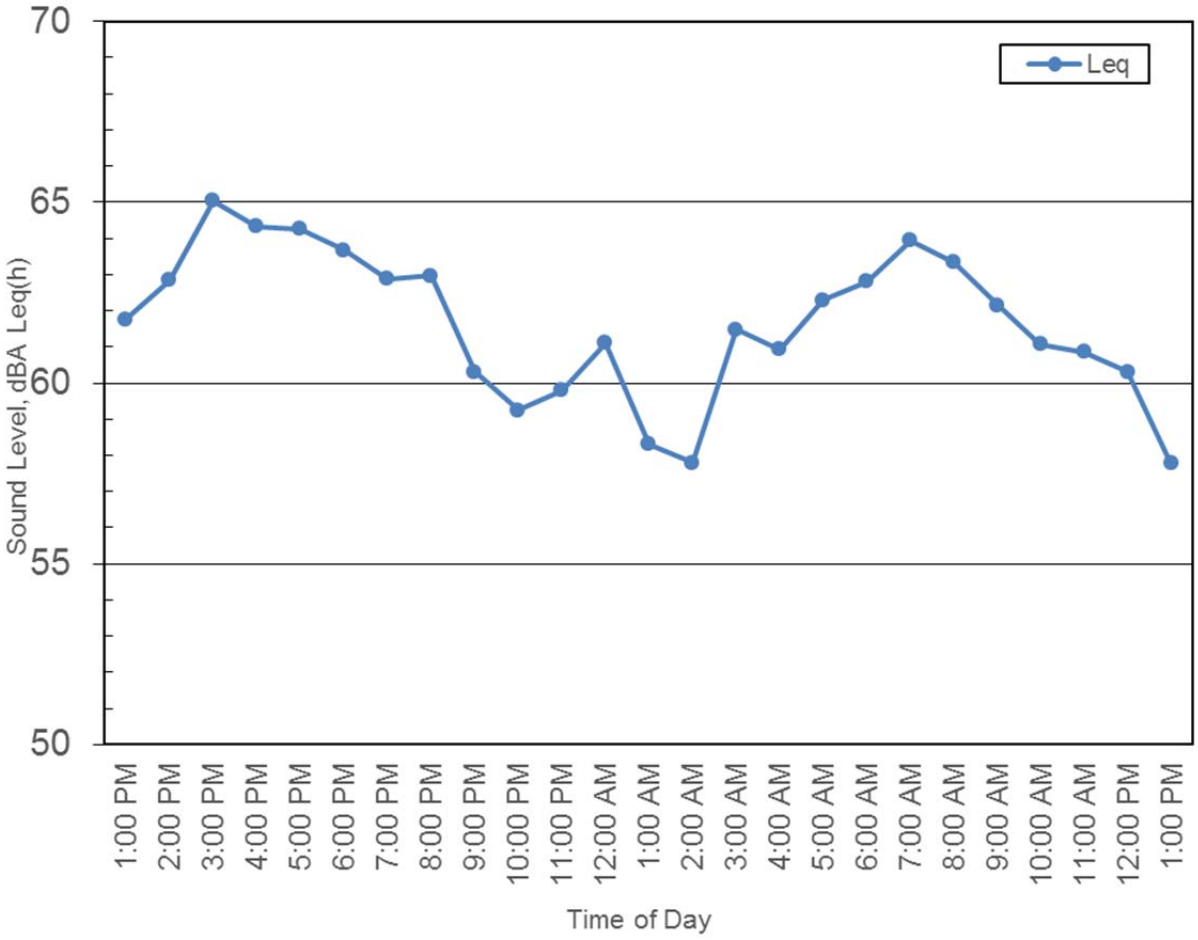
V:\2066 Rialto Linden\Noise\F7 Noise Receptors Linden.mxd

Source: ESRI 2008; Dokken Engineering11/21/2014; Created By: timc

0 100 200 300 400 Feet

Figure 7
Noise Measurement Sites and Receiver Locations
Linden Avenue
City Project No. 140802
City of Rialto, San Bernardino County, California

Figure 11. Hourly Noise Levels for LT-1



A secondary purpose of the noise measurements is to calibrate the noise prediction model to account for site-specific factors that might affect the overall noise levels. Traffic counts were taken simultaneously with the noise measurement at sites ST-1, ST-2, and ST-3. Using the observed volumes, speeds, and vehicle mix (% autos, medium trucks, and heavy trucks), traffic noise levels were modeled at both measurement sites. By comparing the measured data to the modeled data, it is possible to estimate how accurately the model will predict noise levels at a given location. Table 7 presents the difference between measured and modeled results. A calibration factor is not typically applied to the traffic noise predictions when the difference between the measured and modeled values is less than 3 dB (Caltrans, 2013). However, fine-tuning of the prediction model to actual site conditions is recommended if the site conditions in the design year relative to existing conditions are not expected to change significantly. Therefore, a calibration constant, or K factor of 1.4 dB was applied to the model results for the Cactus/Valley area. No adjustment was added for the Linden Avenue area.

Table 7. Summary of Noise Measurements

Parameter	LT-1	ST-1	ST-2	ST-3
Date	10/20/14	10/20/14	10/20/14	10/21/14
Start Time	10:00am			
Duration	24 hour	20 min	20 min	20 min
Sound Levels				
Measured	--	66.0	60.9	62.6
Predicted	--	64.2	60.0	62.9
Calibration (K) Factor	--	1.8	0.9	-0.3

Existing Noise Levels
Existing noise levels were estimated using TNM and traffic volumes for Cactus Avenue, Valley Boulevard, and Linden Avenue. This data includes peak hour traffic counts for existing and future volumes. For the analysis, the vehicle mix was calculated using the same vehicle percentages that were observed during the short-term measurements, which included automobiles, medium trucks (2-axle and 6-wheel), and heavy trucks (3+ axles), and buses.

A total of 25 single-family residences, three schools, and one park were selected for the noise analysis. Figure 6 and Figure 7 show the locations of these noise-sensitive receivers.

Table 8 lists the predicted CNEL from traffic noise at receiver sites R1 through R11 and I1 and I2 along S. Cactus Avenue. As shown, the existing CNEL ranges from a low of 47 dBA at receiver R1 to a high of 59 dBA at receiver R10.

Table 8. Predicted CNEL Noise Levels – S. Cactus Avenue

Receiver ID	Location	Existing Noise Levels, dBA CNEL	No-Build Noise Level, dBA CNEL	Project Noise Level, dBA CNEL	Project minus Existing, dB	Project minus No-Build, dB
R1	779 W. Pomona Ave.	47	49.4	51.1	4.1	1.7
R2	767 W. Pomona Ave.	47.6	49.7	51.3	3.7	1.6
R3	755 W. Pomona Ave.	48.2	50.2	51.6	3.4	1.4
R4	743 W. Pomona Ave.	49.2	50.8	52	2.8	1.2
R5	729 W. Pomona Ave.	50.4	51.6	52.7	2.3	1.1
R6	715 W. Pomona Ave.	52.1	52.9	53.7	1.6	0.8
R7	703 W. Pomona Ave.	56	56.4	56.8	0.8	0.4
R8	1575 Fillmore Ave.	56.1	56.4	56.7	0.6	0.3
R9	1561 Fillmore Ave.	54.6	54.9	55.2	0.6	0.3
R10	692 W. Pomona Ave.	58.8	58.9	59.1	0.3	0.2
R11	691 W. Pomona Ave.	57.5	57.8	58.1	0.6	0.3
I1	Ruth Grimes Elementary School	57.1	59.9	62.1	5	2.2
I2	Bloomington Middle School	57.4	59.9	61.5	4.1	1.6

Note: R= residential receiver, I=School Receiver

Table 9 lists the predicted CNEL from traffic noise at receiver sites R12 through R25 and I3 and I4 along Linden Avenue. As shown, the existing CNEL ranges from a low of 52 dBA at receiver I4 to a high of 59 dBA at receiver R24. None of the increases exceed the threshold for noise impacts based on the General Plan.

Table 9. Predicted CNEL Noise Levels – Linden Avenue

Receiver ID	Location	Existing Noise Levels, dBA CNEL	No-Build Noise Level, dBA CNEL	Project Noise Level, dBA CNEL	Project minus Existing, dB	Project minus No-Build, dB
R12	1504 Candlewood Ave.	56.4	57.3	59.4	3	2.1
R13	1503 Candlewood Ave.	57.3	58.3	60.6	3.3	2.3
R14	Ironwood Ave.	53.9	54.9	56.8	2.9	1.9
R15	Ironwood Ave.	55.7	56.7	59.1	3.4	2.4
R16	Ironwood Ave.	54.7	55.7	58	3.3	2.3
R17	Carpenter St.	58.6	59.5	62.2	3.6	2.7
R18	2754 Linden Ave.	58.2	59.3	59.7	1.5	0.4
R19	2732 Linden Ave.	58.4	59.5	59.9	1.5	0.4
R20	2638 Linden Ave.	56.8	57.9	59	2.2	1.1
R21	2612 Linden Ave.	56.1	57.2	58.5	2.4	1.3
R22	2725 Linden Ave.	54.2	55	55.3	1.1	0.3
R23	2711 Linden Ave.	53.1	53.9	54.4	1.3	0.5
R24	1490 Persimmon Ave.	58.7	59.8	61.1	2.4	1.3
R25	1488 Persimmon Ave.	56.4	57.4	58.8	2.4	1.4
I3	Wilmer Amina Carter High School	53.5	54.4	56	2.5	1.6
I4	Birdsall Park	51.9	53	54.4	2.5	1.4

Note: R= residential receiver, I=School Receiver

Discussion

a) Less Than Significant with Mitigation Incorporated. The project would not result in significant exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. In order to further reduce potential increases in noise from traffic-related noise, the City of Rialto plans to implement rubberized asphalt or open grade asphalt instead of standard pavement. Studies have shown that rubberized pavement has resulted in a decrease in traffic noise levels of approximately 4 dB over conventional asphalt (Sacramento County, 1999). This requirement will further minimize traffic noise and is listed below under NOI-3.

Construction noise from this project would be take place intermittently, and noise levels would vary depending on the type of construction activity. The loudest construction activities may include engine noise from construction vehicles and jack hammering. Construction is anticipated to take 6 months. Considering the inclusion of measure NOI-1, the impacts are considered less than significant.

Also, as discussed in answer "c," estimated future year long-term noise levels would be normally acceptable or conditionally acceptable.

b) Less Than Significant Impact: Potential ground borne vibration or ground borne noise levels would most likely occur as part of construction activities associated with the project. These construction activities would be temporary in nature and no persons would be exposed to these for extended periods of time; therefore, impacts associated with exposure to, or generation of, ground borne vibration or noises are considered to be less than significant.

c) Less Than Significant Impact: Between now and the design year (2035), traffic volumes are forecasted to increase along all segments of Valley Boulevard, and Linden Avenue with or without the project. Table 10 shows the predicted traffic volumes along the various roadway segments affected by the proposed project. In addition to the background growth, widening along the roadways would also increase local traffic volumes by adding capacity to the roadway. As shown in the final column in Table 10, the increase attributed to the project is between 126% and 200%. The project would also bring traffic lanes closer to all of the residences in the project area.

Table 10. Summary of Future Traffic Volumes and Increases

Segments	Existing	Future		Increase	
		2025	2035	Total	Project
EB Valley Blvd – between Lilac and Spruce	396	840	1325	335%	158%
WB Valley Blvd – between Spruce and Lilac	405	609	765	189%	126%
NB Linden Ave – between Boehnert and Candlewood	270	434	578	214%	133%
SB Linden Ave – between Candlewood and Boehnert	312	320	639	205%	200%

Traffic noise levels are predicted to increase as a result of these changes. **Table 11** shows the predicted noise levels under the existing, Future No Project, and Future Project conditions. The increase attributable to the project and the allowable increase are also shown in the Table 11. In general, noise levels would increase between 0 and 3 dBA as a result of the proposed project. The majority of this increase is due to the increase in traffic volumes with the proposed project.

Table 11. Predicted CNEL Noise Levels

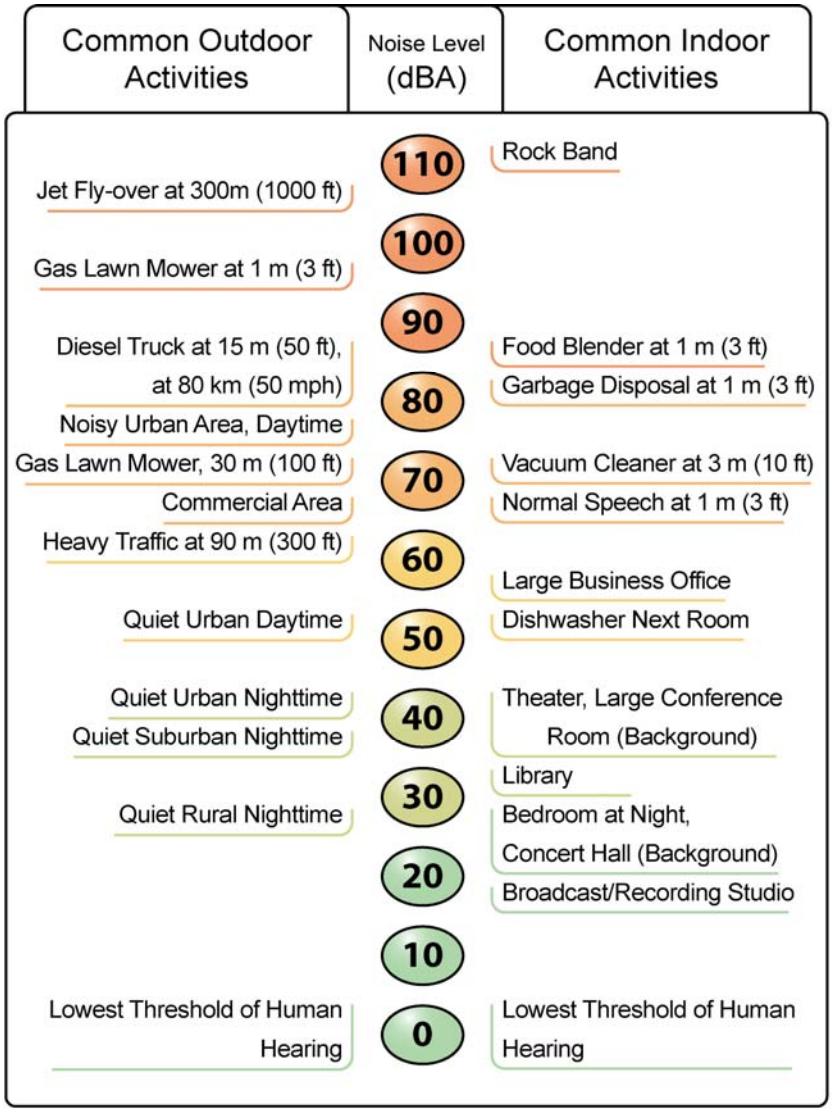
Receiver ID	Location	Existing Noise Levels, dBA CNEL	2035 Without Project Noise Level, dBA CNEL	2035 With Project Noise Level, dBA CNEL	Total	Project	Allowable	Impact
S. Cactus Avenue								
R1	779 W. Pomona Ave.	47	49	51	4	2	5	N
R2	767 W. Pomona Ave.	48	50	51	3	1	5	N
R3	755 W. Pomona Ave.	48	50	52	4	2	5	N
R4	743 W. Pomona Ave.	49	51	52	3	1	5	N
R5	729 W. Pomona Ave.	50	52	53	3	1	5	N
R6	715 W. Pomona Ave.	52	53	54	2	1	5	N
R7	703 W. Pomona Ave.	56	56	57	1	1	5	N
R8	1575 Fillmore Ave.	56	56	57	1	1	5	N
R9	1561 Fillmore Ave.	55	55	55	0	0	5	N
R10	692 W. Pomona Ave.	59	59	59	0	0	5	N
R11	691 W. Pomona Ave.	58	58	58	0	0	5	N
Linden Avenue								
R12	1504 Candlewood Ave.	56	57	59	3	2	5	N
R13	1503 Candlewood Ave.	57	58	61	4	3	5	N
R14	Ironwood Ave.	54	55	57	3	2	5	N
R15	Ironwood Ave.	56	57	59	3	2	5	N
R16	Ironwood Ave.	55	56	58	3	2	5	N
R17	Carpenter St.	59	60	62	3	2	5	N
R18	2754 Linden Ave.	58	59	60	2	1	5	N
R19	2732 Linden Ave.	58	60	60	2	0	5	N
R20	2638 Linden Ave.	57	58	59	2	1	5	N
R21	2612 Linden Ave.	56	57	59	3	2	5	N
R22	2725 Linden Ave.	54	55	55	1	0	5	N
R23	2711 Linden Ave.	53	54	54	1	0	5	N
R24	1490 Persimmon Ave.	59	60	61	2	1	5	N
R25	1488 Persimmon Ave.	56	57	59	3	2	5	N
I1	Ruth Grimes Elementary School	57	60	62	5	2	5	N
I2	Bloomington Middle School	57	60	62	5	2	5	N
I3	Wilmer Amina Carter High School Sports Field	54	54	56	2	2	5	N
I4	Birdsall Park	52	53	54	2	1	5	N

Note: R= residential receiver, I=School Receiver

As shown in Table 7, the predicted increase in noise levels at all of the receivers, is less than the impact threshold, therefore, traffic noise impacts are not predicted at these locations.

d) Less Than Significant with Mitigation Incorporated: During construction, use of various equipment may result in elevated noise levels at the project site. Noise is anticipated from equipment such as excavators, dozers, and concrete mixer trucks. For this project, lowest construction equipment-related noise levels would be 55 Decibel A filter (dBA) at a distance of 50 feet for sound from a pick-up truck. Highest noise levels would be up to 90 dBA (at a distance of 50 feet) for a concrete saw for pavement removal. For reference, Noise Levels of Common Activities are shown on Figure 9. Construction is anticipated to take 6 months. Construction activities will be short-term and intermittent. This is considered a less than significant impact with the inclusion of mitigation measure NOI-1 because construction would be temporary and scheduled in accordance with the City's Noise Ordinance, Ordinance 1417.

Figure 12. Noise Levels of Common Activities



e) No Impact: There are no public airstrips within the vicinity of the project area; therefore, there would be no impact associated with excessive noise levels in conjunction with public airports.

f) No Impact: The project is not within the vicinity of a privately-owned airport or airstrip. The nearest privately-owned airport or airstrip is the Rialto Municipal Airport approximately 3 mi northwest. No impacts to operation of the Airport are anticipated.

Avoidance, Minimization, and/or Abatement Measures

The following measures will minimize potential construction noise impacts.

NOI-1: Construction shall be scheduled in accordance with the City of Rialto Municipal Code, Chapter 9.50.070 Disturbances from Construction Activity. Accordingly, the following permitted construction hours outlined under the ordinance shall be followed:

October 1st through April 30th:

Monday—Friday:	7:00 a.m. to 5:30 p.m.
Saturday:	8:00 a.m. to 5:00 p.m.
Sunday:	No permissible hours
State holidays:	No permissible hours

May 1st through September 30th:

Monday—Friday:	6:00 a.m. to 7:00 p.m.
Saturday:	8:00 a.m. to 5:00 p.m.
Sunday:	No permissible hours
State holidays:	No permissible hours.

NOI-2: The contractor will be responsible for installing and maintaining effective mufflers on all construction equipment, locating equipment and staging areas as far from residences as possible, and limiting unnecessary idling of equipment.

NOI-3: The roadway shall be constructed with rubberized asphalt to reduce increases in noise generated by vehicles.

XIII. Population and Housing: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) No Impact. The project would make existing streets consistent with their respective designations in the City's General Plan. The project would not induce unanticipated population growth; rather, the street improvements would accommodate planned future growth and prevent congestion that may occur without such improvements.

b,c) No Impact. The proposed project would not displace substantial numbers of existing housing, nor would it displace substantial numbers of people. No housing is within the project footprint. While partial acquisition at 22 parcels would be needed, these are minor "sliver" portions along the roadway. Standard coordination with property owners would take place during final design.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

Adverse physical impacts associated with governmental facilities or public services would be less than significant. Fire, police protection, schools, and other public facilities would not be impacted; potential increase in park use would be less than significant. Further details follow:

a(i,ii) Less Than Significant Impact.

- Cactus Avenue and Valley Boulevard: The nearest fire station is at 10174 Magnolia St., Bloomington, CA (0.7 mi away) and the nearest police station is at 128 N. Willow Ave. (2.2 mi away).
- Linden Avenue: The nearest fire station is at 1550 N. Ayala Drive (1.8 mi away) and the nearest law enforcement is located at 1771 Miro Way (3.2 mi away).

No direct physical effect to these facilities would result. No substantial delay to fire and police services is anticipated because construction would be staged to allow for traffic to continue using the project streets. At these distances, police and fire services may also access alternate streets to reach the majority of their destinations.

a(iii) Less Than Significant Impact.

- Cactus Avenue and Valley Boulevard: The nearest schools are Ruth Grimes Elementary School, 1609 Spruce Ave., Bloomington, CA (0.1 mi away) and Bloomington Middle School, 1640 S. Lilac Ave., Bloomington, CA (adjacent to project). Access to the schools via Spruce Ave. and Lilac Ave., respectively, will remain open throughout the project, and no direct physical effect to the schools will result. No substantial delay in access is anticipated, since construction would be staged to allow traffic to continue using the project streets.
- Linden Avenue: The nearest school is Wilmer Amina Carter High School, which is at 2630 N. Linden Ave., adjacent to the project. Driveway access will not be blocked and no direct

physical effect to the school would result. No substantial delay in access to the school is anticipated, since construction would be staged to allow traffic to continue using the project streets.

a(iv) Less Than Significant Impact.

- Cactus Avenue and Valley Boulevard: The nearest park is Ayala Park, 18313 Valley Blvd., Bloomington, CA, which is 1.1 mi west of the project. No direct effects to the park would result.
- Linden Avenue: Birdsall Park is adjacent to the project area, though driveway access will not be blocked. No direct effects to the park would result.

a(v) Less Than Significant Impact. The nearest "other" public facility, the Senior Center, 1411 S. Riverside Ave, is located 1.1 mi from the Cactus Avenue and Valley Boulevard Site. At this distance, the project will not have a direct physical effect on the Senior Center.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

a) Less Than Significant Impact. Use of the existing parks and recreational facilities is not expected to increase such that substantial physical deterioration of the facilities would occur or be accelerated. The project will not create new access routes to the facilities and the project is not a housing development which would bring more people to the vicinity.

b) No Impact. The project does not include recreational facilities, nor does it require the construction or expansion of such facilities.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

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

a,b) Less than Significant Impact. The street improvements would make the subject roadways consistent with the City's standards and General Plan Circulation Element. The project would improve traffic operations and reduce congestion. Construction will be staged to allow traffic to continue using the streets while the work is being performed.

c) No Impact. The street improvements would not result in new air traffic facilities. A change in air traffic patterns would not result.

d) No Impact. The street improvements stay along the existing alignments and intersections and do not include sharp curves or dangerous intersections or incompatible uses.

e) Less Than Significant with Mitigation Incorporated. During construction, temporary impacts to public services such as fire, police, or emergency medical response would be less

than significant with mitigation incorporated. TRA-1 would allow emergency vehicles through the project area through traffic control, staged construction, and a detour plan.

f) Less Than Significant Impact. The street improvements are consistent with the City's General Plan Circulation Element regarding bicycle facilities and pedestrian facilities. There are no public transit routes operating on these segments of Valley Boulevard, Cactus Avenue, and Linden Avenue. The closest City public transit route operates north-south along Riverside Avenue; however none of the project improvements intersect with Riverside Avenue and this service would not be affected by the project. No substantial delay to public transit is anticipated since construction will be staged to allow traffic to continue using the streets while work is being done.

Avoidance, Minimization, and/or Mitigation Measures

TRA-1: Emergency vehicle access would be maintained by implementing traffic control, staged construction, and if necessary, a detour plan. A traffic management plan will be prepared prior to the start of construction to document the necessary traffic control and detours.

XVII. Utilities and Service Systems: Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a,b,d,e) No Impact. Since the project is not a housing or commercial/retail development, exceedance of wastewater treatment requirements would not result and construction of new water or wastewater treatment facilities would not be needed. Water supplies for construction of the project are also adequate and new or expanded entitlements are not needed. No substantial long-term additional water supplies are needed for the widened streets.

c) Less Than Significant Impact. New or expansion of storm water drainage facilities are not proposed. Potential increase in storm water runoff would be minimal. The existing watershed area contributing runoff across the project is approximately 1,000 acres consisting of mainly residential and commercial development. The amount of new impervious area as a result of this project is approximately 1.18 acres. The additional impervious area would not change the land type or impact the runoff coefficient of the overall watershed area. The additional

impervious area would have a negligible impact on the overall peak flows from the large contributing watershed.

f) Less Than Significant Impact. During construction, solid waste may be generated from removal of existing pavement; the contractor will be required to take the material to a recycler for reprocessing.

g) No Impact. The proposed project would comply with federal, state, and local statutes and regulations related to solid waste.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is required.

XVIII. Mandatory Findings of Significance	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) Less Than Significant Impact with Mitigation Incorporated. As discussed in Section IV Biological Resources, no significant impacts are anticipated with the inclusion of appropriate avoidance, minimization and/or mitigation measures. Inclusion of these measures will ensure that the project will not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of rare or endangered plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal.

b) Less Than Significant Impact. No environmental effects were identified in the initial study which indicates the project will have impacts that achieve short term goals to the disadvantage of long term environmental goals.

c) Less Than Significant Impact. No substantial adverse effects on human beings, either directly or indirectly, are anticipated. Construction noise would be minimized through timing restrictions.

Avoidance, Minimization, and/or Mitigation Measures

No additional mitigation measures are needed beyond those identified throughout this IS/MND.

List of Preparers

The following is a list of persons who prepared or participated in the Initial Study:

City of Rialto

Azzam Jabsheh, P.E., Project Manager

Gina Gibson, Planning Manager

Dokken Engineering

Project Design:

Mike Roberts, P.E., Project Manager; 17 years of project management and civil engineering experience.

Joe Madrid, P.E., Project Engineer; 10 years of civil engineering experience.

Environmental Document:

Erin Brown, Environmental Planner. B.S. in Chemistry and M.S. in Atmospheric Science; 9 years of environmental science experience. Contribution: Co-Author of Initial Study

Tim Chamberlain, Senior Environmental Planner. B.A. in Political Science; 10 years of environmental planning experience. Contribution: Environmental Manager and Co-Author of Initial Study

Angela Scudiere, Environmental Planner/Biologist. B.S. in Biological Sciences; 5 years of environmental planning experience. Contribution: Biological Resources

Amy Dunay, Environmental Planner/Archaeologist. M.A. in Archaeology; 9 years of cultural resources/environmental planning experience. Contribution: Cultural Resources

Brian Marks, Environmental Planner/Archaeologist. Ph.D. in Anthropology; 17 years of archaeology experience. Contribution: Cultural Resources

Cherry Zamora, Associate Environmental Planner. B.A. and M.A. in Geography; 10 years of environmental planning experience. Contribution: Early coordination.

References

California Air Resources Board. 2013. Area Designations Maps/State and National, http://www.arb.ca.gov/desig/adm/adm.htm

California Department of Conservation, Division of Land Resource Protection. 2013. San Bernardino County Williamson Act FY 2012/2013 (map),

California Department of Conservation, Division of Mines and Geology. 2000. A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos.

California Department of Conservation, Farmland Mapping and Monitoring Program. 2010. Farmland Mapping and Monitoring Program, http://www.conservation.ca.gov/dlrp/FMMP/Pages/Index.aspx

California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation.

California Department of Fish and Wildlife. 2014. California Natural Diversity Database.

California Department of Transportation. 2014 (accessed). California Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm

California Department of Toxic Substances Control. 2014 (accessed). EnviroStor, http://www.envirostor.dtsc.ca.gov/public/.

California Division of Mines and Geology. 1977. Special Studies Zones, San Bernardino South Quadrangle.

California Native Plant Society. 2014. Inventory of Rare and Endangered Plants.

City of Rialto. 2010. General Plan, http://www.ci.rialto.ca.us/development_4598.php

City of Rialto. 2010. Renaissance Specific Plan, http://www.rialtoca.gov/development_4604.php

City of Rialto. 2011. The Story of Rialto, http://www.ci.rialto.ca.us/cityclerk_1165.php

City of Rialto. 2014 (accessed). Municipal Code, http://www.ci.rialto.ca.us/rialto_995.php

Environmental Data Resources. 2014. San Bernardino Ave., Riverside, Ave., and Willow Ave, Inquiry Number: 3678235.2s.

Environmental Protection Agency. 2014. The Greenbook Nonattainment Areas for Criteria Pollutants, http://www.epa.gov/airquality/greenbook/index.html

Federal Emergency Management Agency. 2008. Flood Insurance Rate Map, Map Numbers 06071C7920H and 06071C8656H.

Sacramento Metropolitan Air Quality Management District. 2013. Roadway Construction Emissions Model, Version 7.1.5.1.

South Coast Air Quality Management District. 2011. SCAQMD Air Quality Analysis Handbook. http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook

South Coast Air Quality Management District. 2014. SCAQMD Rule Book. http://www.aqmd.gov/home/regulations/rules

U.S. Department of Interior. 2014 (accessed). National Atlas, http://www.nationalatlas.gov/.

Distribution List

Public Notices to parcel owners within 500 feet of study area.

California State Clearinghouse
1400 10th Street #12
Sacramento, CA 95814

Rialto Branch Library
251 W 1st Street
Rialto, CA 92376

Carter Branch Library
2630 N. Linden Ave
Rialto, CA 92377

San Bernardino County Flood Control District
Attn: Environmental and Construction
825 East 3rd Street, Room 123
San Bernardino, CA 92415

Kai Palenscar
Palm Springs U.S. Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, CA 92262

Appendix A Avoidance, Minimization, and/or Mitigation Summary

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
AQ-1	The contractor will comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances. South Coast Air Quality Management District Rule 403, Fugitive Dust, would therefore be followed and would result in minimizing PM_{10} and $PM_{2.5}$ emissions.	Contractor/City	Construction	
BIO-1	The project biologist shall conduct preconstruction surveys consistent with the 2012 CDFW *Staff Report on Burrowing Owl Mitigation* for burrowing owls no less than 2 weeks before construction activities begin. If no burrowing owls are detected, no further action for burrowing owl will be required. If active burrowing owl burrows are found in or near the permanent or temporary construction impact area, the County will implement the following: Occupied burrows must not be disturbed during the breeding season (February 1 to August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. If avoidance of active nests is preferred, the biologist must consult with the CDFW to determine appropriate buffer widths and acreage of foraging habitat to be permanently preserved contiguous with the occupied burrow site. The Contractor must not disturb identified burrowing owl burrows until the	City	Pre-Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
	qualified biologist verifies it has been cleared. Should destruction of occupied burrows be unavoidable during the non-breeding season (September 1 – January 31) either, unsuitable burrows must be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by the CDFW. Newly created burrows will follow guidelines established by the CDFW.			
BIO-2	The contractor shall not apply rodenticides or herbicides in the project area during construction activities.	Contractor/City	Construction	
BIO-3	If any wildlife is encountered during the course of construction, said wildlife shall be allowed to leave the construction area unharmed. In the unlikely event a worker inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped, the worker shall immediately report the incident to the project biologist.	Contractor/City	Construction	
BIO-4	A pre-construction nesting bird survey must be conducted within the BSA no more than three (3) days prior to vegetation removal or initial ground disturbing activities. Within 2 weeks of the nesting bird survey, all vegetation cleared by the biologist shall be removed by the contractor. A 100 foot no-disturbance buffer will be established around any active songbird nest to limit the impacts of construction activities. A 250 foot no-disturbance buffer will be established around any active raptor nest. The contractor	Contractor/City	Pre-Construction, Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
	must immediately stop work in the nesting area until the appropriate buffer is established and is prohibited from conducting work that could disturb the birds (as determined by the project biologist and in coordination with wildlife agencies) in the buffer area until a qualified biologist determines the young have fledged.			
BIO-5	All trash will be kept in wildlife-proof receptacles and any non-natural food and water sources will not be left unattended for the duration of the project construction	Contractor/City	Construction	
CUL-1	If previously unidentified cultural materials are unearthed during project activities, work shall be halted in that area until an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards in Archaeology can assess the significance of the discovery and develop a plan for documentation and removal of resources, if necessary.	Contractor/City	Construction	
CUL-2	If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission who will then notify the Most Likely Descendent. Further provisions of PRC 5097.98 are to be followed as applicable.	Contractor/City	Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
CUL-3	If prehistoric cultural resources and/or human remains are encountered during the project, the Soboba Band of Luiseño Indians should be contacted, as per their request during Native American Consultation.	Contractor/City	Construction	
GEO-1	Construction and design of the proposed project shall be in compliance with current construction and seismic codes and standards, which would reduce potential seismic hazard risks to acceptable levels. Specific design and construction measures recommended in subsequent geotechnical studies to reduce geologic or seismic hazards shall be implemented. Subsequent geotechnical studies shall be completed prior to completion of final design for the proposed project.	City	Final Design	
GEO-2	BMPs include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. A Storm Water Pollution Prevention Plan (SWPPP) and NPDES-compliant measures would ensure no adverse impacts would occur to water quality associated with the project.	Contractor/City	Pre-Construction, Construction	
HAZ-1	Prior to final design, ROW acquisition, and construction, soil sampling for aerially deposited lead (ADL) and agricultural contaminants will be conducted in unpaved locations adjacent Cactus Avenue and Valley Boulevard within the project limits. The analytical results of the soil sampling will determine the appropriate handling of the soil	Contractor/City	Pre-Construction, Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
	and disposal of surplus materials. Soils containing hazardous levels of lead or other contaminants will need to be disposed of at an approved landfill.			
HAZ-2	As is the case for any project that proposes excavation, the potential exists for unknown hazardous contamination to be revealed during project construction (such as previously undetected petroleum hydrocarbon contamination from nearby sources or potential explosive threat if a gas pipeline is ruptured during construction). For any previously unknown hazardous waste/material encountered during construction, standard procedures for unknown hazardous waste/ material shall be followed. Underground Service Alert will have to be notified if there is any digging involved at least 2 working days prior to excavation by calling 811 to ensure that utility owners mark the locations of underground transmission lines and facilities.	Contractor/City	Pre-Construction, Construction	
HAZ-3	There may be instances in which hazardous waste has gone undetected. A note would be placed in the resident engineer's file to alert construction crews to the possibility of undetected hazardous waste and/or soil contamination. If soil discoloration, odor or fumes are encountered during construction, work should be stopped and the resident engineer informed.	Engineer/City	Pre-Construction	
HAZ-4	Emergency vehicle access would be maintained through traffic control, stage construction, and if necessary, a detour plan.	Contractor/City	Final Design, Pre-Construction, Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
HYD-1	The project will comply with requirements set forth in National Pollutant Discharge Elimination System (NPDES) Permit, Order No. R8-2010-0036, NPDES No. CAS618036, Section XIV "Municipal Construction Projects."	Contractor/City	Pre-Construction	
HYD-2	Prior to the commencement of any construction activities, the project will develop and implement a functionally equivalent document to the Water Quality Management Plan (WQMP) as outlined in the San Bernardino County Municipal Stormwater Management Program Transportation Project BMP Guidance, a Storm Water Pollution Prevention Plan (SWPPP), a monitoring program that is specific for the construction project, and any other reports or plans required under the General Construction Activity Storm Water Permit.	Contractor/City	Pre-Construction	
HYD-3	BMPs include any facilities and methods used to remove, reduce, or prevent storm water runoff pollutants from entering receiving waters. Erosion control methods, temporary and permanent BMPs, and improvement of drainage facilities along the roadway would minimize impacts from storm water runoff. The SWPPP and NPDES-compliant measures would ensure no adverse impacts would occur to water quality associated with the Build Alternative.	Contractor/City	Pre-Construction	
NOI-1	Construction shall be scheduled in accordance with the City's Noise Ordinance, Ordinance Number 1417 of the Rialto Municipal Code. Subsequently, the following permitted hours outlined under the ordinance shall be followed as feasible: October 1st through April 30th:	Contractor/City	Construction	

No.	Description of Commitment	Responsible Party/Monitor	Timing/Phase	Commitment Source
	Monday—Friday: 7:00 a.m. to 5:30 p.m. Saturday: 8:00 a.m. to 5:00 p.m. Sunday: No permissible hours State holidays: No permissible hours May 1st through September 30th: Monday—Friday: 6:00 a.m. to 7:00 p.m. Saturday: 8:00 a.m. to 5:00 p.m. Sunday: No permissible hours State holidays: No permissible hours.			
NOI-2	The contractor will be responsible for installing and maintaining effective mufflers on all construction equipment, locating equipment and staging areas as far from residences as possible, and limiting unnecessary idling of equipment.	Contractor/City	Construction	
NOI-3	The roadway shall be constructed with rubberized asphalt to reduce increases in noise generated by vehicles.	Contractor/City	Construction	
TRA-1	Emergency vehicle access would be maintained through traffic control, stage construction, and if necessary, a detour plan.	Contractor/City	Pre-Construction, Construction	

Appendix B Acronyms and Abbreviations

ADL	aerially deposited lead
BMP	Best Management Practices
BSA	Biological Study Area
CA	California
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CWA	Clean Water Act
dBA	decibels (A-weighted)
EDR	Environmental Data Resources
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
GHG	greenhouse gas
IS	Initial Study
lb	pounds
mi	miles
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MT	metric ton
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
PAL	Project Area Limits
Pb	Lead
PCC	Portland Cement Concrete
$PM_{2.5}$	Particulate Matter, 2.5 microns or less
PM_{10}	Particulate Matter, 10 microns or less
ppm	parts per million
ROG	reactive organic gases
SBAIC	San Bernardino Archaeological Information Center
SCAQMD	South Coast Air Quality Management District
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compounds
WQMP	Water Quality Management Plan

Appendix C Public Comments and Responses

Comment 1.
California Department of Fish and Wildlife (received via State Clearinghouse, 03/16/15)

State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
(909) 484-0459
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director

CLEAR
3-19-15
E

March 16, 2015

RECEIVED
MAR 16 2015
STATE CLEARING HOUSE

Mr. Eddie Chan, P.E.
Project Manager
City of Rialto
335 W. Rialto Avenue
Rialto, CA 92376

Subject: Initial Study and Mitigated Negative Declaration
Cactus Avenue, Valley Boulevard, and Linden Avenue
Widening Project
State Clearinghouse No. 2015021052

Dear Mr. Chan:

The Department of Fish and Wildlife (Department) appreciates the opportunity to comment on the Initial Study (IS) and Mitigated Negative Declaration (MND) for the Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project (Project) [State Clearinghouse No. 2015021052]. The Department is responding to the IS and MND as a Trustee Agency for fish and wildlife resources (California Fish and Game Code Sections 711.7 and 1802, and the California Environmental Quality Act [CEQA] Guidelines Section 15386), and as a Responsible Agency regarding any discretionary actions (CEQA Guidelines Section 15381), such as the issuance of a Lake or Streambed Alteration Agreement (California Fish and Game Code Sections 1600 *et seq.)* and/or a California Endangered Species Act (CESA) Permit for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1).

Project Description

The City of Rialto proposes to widen and improve segments of Cactus Avenue, Valley Boulevard, and Linden Avenue in the City of Rialto, San Bernardino County, California. The total length of the Project is approximately one mile.

Valley Boulevard, between Spruce Avenue and Cactus Avenue, would be widened on the north half of the road. Project features include new roadway pavement, new sidewalks to tie in with existing sidewalks, landscaping, and modified driveways along portions of the road that are currently narrow and do not meet the City's half width standard for a Major Arterial.

Cactus Avenue, between Valley Boulevard and Pomona Avenue, would be widened on the west half of the road. A striped median would be painted to eliminate conflicts with half width improvements of a raised median.

Linden Avenue, between Carter High School/Birdsall Park and Carpenter Street, would be widened and improved on both sides as needed. Project features include new roadway pavement, new sidewalks, and modified driveways along portions of the road that are currently narrow and do not meet the City's standard for a Secondary Arterial. The roadway segment would also be restriped to include a center turn lane and to demarcate two (2) travel lanes in each direction.

Biological Resources and Impacts

Following review of the Biological Resources section of the IS, the Department identified a number of questions, comments and concerns, and requests that each of these be addressed prior to adoption of the proposed MND. The Department's questions, comments, and concerns include:

1. The CEQA document identifies suitable habitat for burrowing owl within the project area, and the California Natural Diversity Database includes records of burrowing owls located within one mile of the project site. Based on this information, in the Department's opinion, the potential for owls to occur within the project site and particularly to forage within the project site is high. Therefore the project has the potential to cause the loss of nesting and/or foraging habitat for burrowing owl.

   Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) stipulate the following: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is 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.

   Take of individual burrowing owls and their nests, including nests in which adults have not yet begun to lay eggs, is defined by FGC section 86, and prohibited by

A

B

sections 3503, 3503.5 and 3513. Take is defined in FGC Section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill."

The Department recommends that the City follow the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation* (Department of Fish and Game, March 2012); available for download from the Department's website:

https://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html.

The Department expects that the City will follow the Staff Report on Burrowing Owl Mitigation, which specifies that the steps for project impact evaluations include:

a. A habitat assessment;
b. Surveys; and
c. An impact assessment

As stated in the *Staff Report on Burrowing Owl Mitigation*, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with FGC sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed CEQA project activity or non-CEQA project. B

The Department does not concur that the proposed mitigation for the unavoidable loss of occupied burrows is sufficient to reduce potential impacts to a less than significant level, because it does not specify the size, quality, and proximity to the site of habitat to be preserved. To reduce potential impacts to burrowing owl to a level less than significant the Department recommends that the City revise the CEQA document, prior to adoption of the MND, to incorporate information gained from the implementation of the three progressive steps outlined above. Please note that mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). Current scientific literature supports the conclusion that mitigation for permanent burrowing owl habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, dispersal, presence of burrows, burrow surrogates, presence of fossorial mammal dens, well drained

soils, and abundant and available prey within close proximity (within 75 meters) of the burrow.

The Department requests to be notified should any burrowing owls be found onsite. The Department also requests to be consulted prior to any exclusion of owls from their burrows and/or destruction of occupied burrows.

2. Regarding Mitigation Measure BIO-2, the IS states that for the purposes of the MND, the breeding bird season includes "...February 15th through September 15th". Because not all species adhere to these nesting dates, the Department encourages the Lead Agency to complete nesting bird surveys regardless of time of year to ensure compliance with all applicable laws related to nesting birds and birds of prey. Please note that nesting bird surveys should be carried out over the entire project site, not just areas with trees and shrubs, as some species nest directly on the ground. Furthermore, the Department recommends that nesting bird surveys be completed within three (3) days of ground disturbing activities, as instances of nesting could be missed otherwise. The Department recommends that the City revise Mitigation Measure BIO-2, and require an avian breeding survey, regardless of time of year, to ensure that the project complies with all federal, state, and local laws.

The Department appreciates the opportunity to comment on the Initial Study and proposed Mitigated Negative Declaration for the Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project (SCH No. 2015021052), and requests that the City address the Department's comments and concerns prior to adoption of the MND. If you should have any questions pertaining to these comments, please contact Gabriele Quillman at (909) 980-3818 or at gabriele.quillman@wildlife.ca.gov.

Sincerely,

Leslie MacNair
(Fax) Acting Regional Manager

cc: State Clearinghouse, Sacramento

Response 1.

Thank you for your comments; they have been included in the final environmental document.

Response A: The draft Initial Study did not contain a complete discussion of the survey and identification efforts that were performed for burrowing owl at the Linden Avenue Widening Project and Cactus Avenue/ Valley Boulevard Project locations.

On April 14, 2014 Dokken Engineering Biologist Angela Scudiere did a general biological survey of the Linden Avenue Widening Project area as well as a habitat assessment for burrowing owl. The vast majority of the ground that isn't covered by asphalt or development is either highly compacted soils or comprised of gravel which are not suitable for new burrows, are on private property with tall non-native grasses, or appear to be regularly disturbed by private property or public uses (recreation, pedestrians, illegal dumping etc). In addition, the BSA transects the Wilmer Amina Carter High School, Birdsall Park and several commercial properties; therefore, the area is subject to high levels of human activity and disturbance. During survey efforts, the species was not observed and no suitable burrows for the species were found. In addition, little to no sign of rodent usage of the BSA was observed. Representative photographs of the observed conditions are provided below. In conclusion, the project site is unsuitable for burrowing owls. The nearest extant CNDDB occurrence is located approximately 1.25 miles from the BSA at the local airport. This additional discussion has been added to the Initial Study and provides support for the claim that the potential for encountering a burrowing owl in the project area is not anticipated.

On May 2, 2014 Dokken Engineering Biologist Sarah Holm did a general biological survey of the Cactus Avenue/ Valley Boulevard Project area as well as a habitat assessment for burrowing owl. The vast majority of the ground that isn't covered by asphalt or development is either highly compacted soils which are not suitable for new burrows, are on private property with tall non-native grasses, or appear to be regularly disturbed by private property uses (disking or tilling). In addition, a portion of the BSA transects a high school and therefore, the area is subject to high levels of human activity and disturbance. During survey efforts, the species was not observed and no suitable burrows for the species were found. Representative photographs of the observed conditions are provided below. In conclusion, the project site is unsuitable for burrows or foraging and the site lacks the habitat requirements for burrowing owls. The nearest extant CNDDB occurrence is located approximately 1.5 miles from the BSA in a location not subject to development. This additional discussion has been added to the Initial Study and provides support for the claim that the potential for encountering a burrowing owl in the project area is not anticipated.

Photograph 1. Representative compacted soils with tall non-native grasses and forbs located south of Valley Boulevard, facing west.

Photograph 2. Representative hardscape and Bloomington Middle School east of Cactus Avenue, facing southeast.

Photograph 3. Representative recently tilled soils and ground disturbance west of Cactus Avenue, facing south.

Photograph 4. Representative recently tilled soils, hardscape and adjacent housing development west of Cactus Avenue, facing north.

Photograph 1. Representative hardscape and landscaping at Birdsall Park located east of Linden Avenue and Wilmer Amina Carter High School located west of Linden Avenue, facing south.

Photograph 2. Representative ruderal vegetation, human disturbance and compacted soils located north of Birdsall Park and east of Linden Avenue, facing south.

Photograph 3. Representative hardscape, ruderal vegetation and adjacent commercial & housing development west of Linden Avenue, facing north.

Photograph 4. Representative compacted gravelly soils, adjacent development and illegal dumping located east of Linden Avenue, facing south.

Response B: On April 16, 2014, Dokken Engineering Senior Environmental Planner Tim Chamberlain contacted Gabriele Quillman of the California Department of Fish and Wildlife (CDFW) to discuss the project and CDFW's comments on the draft Initial Study for the Alder Avenue Widening Project, a similar project to the Cactus Avenue/Valley Boulevard Project and Linden Avenue Widening Project. Mr. Chamberlain explained in much greater detail the survey work and burrowing owl habitat assessments that were performed in spring of 2014 and explained the site conditions observed. Based on the thorough identification efforts and the results of the burrowing owl nesting habitat survey of the Alder Avenue Widening Project area, Ms. Quillman agreed that protocol surveys would not be required. Considering burrowing owl is presumed absent at the Cactus Avenue/Valley Boulevard Project and Linden Avenue Widening Project, the project will apply Ms. Quillman's determination that protocol surveys not be required. As a result of this coordination, no changes have been made to the document.

Response C: Measure BIO-4 has been modified as suggested by CDFW to require a pre-construction nesting bird survey regardless of the season to ensure that nesting birds are adequately identified and protected during construction. This will ensure compliance with all applicable laws related to nesting birds and birds of prey. The measure has been further modified to require the survey take place within three (3) days of the start of ground disturbing or vegetation clearing activities.

Comment 2.
San Bernardino County Department of Public Works (received via mail, 03/19/15)

825 East Third Street, San Bernardino, CA 92415-0835 | Phone: 909.387.8109 Fax: 909.387.8109
www.SBCounty.gov

SAN BERNARDINO COUNTY

Department of Public Works
- Environmental & Construction • Flood Control
- Operations • Solid Waste Management
- Surveyor • Transportation

Gerry Newcombe
Director

March 19, 2015

File: 10(ENV)-4.01

Eddie Chan
City of Rialto
335 W. Rialto Avenue
Rialto, CA. 92376
echan@rialtoca.gov

RE: CEQA – NOTICE OF AVAILABILITY OF A MITIGATED NEGATIVE DECLARATION FOR THE CACTUS AVENUE, VALLEY BLVD, AND LINDEN AVENUE WIDENING PROJECT FOR THE CITY OF RIALTO

Dear Mr. Chan:

Thank you for giving the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on February 19, 2015,** and pursuant to our review, we have no comments.

If you have any questions, please contact the individuals who provided the specific comment, as listed above.

Sincerely,

NIDHAM ARAM ALRAYES, MSCE, P.E., QSD/P
Public Works Engineer III
Environmental Management Division

NAA:PE:nh/CEQAComment_Rialto_MND_Cactus-Valley-LindenWidening_2015-03-19-02.docx

Response 2.

Thank you for your comments; they have been included in the final environmental document.

Comment 3.
State Clearinghouse (received via mail, 03/20/15)

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

March 20, 2015

Eddie Chan
City of Rialto
335 W. Rialto Ave
Rialto, CA 92376

Subject: Cactus Avenue, Valley Boulevard, and Linden Avenue Widening Project
SCH#: 2015021052

Dear Eddie Chan:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on March 19, 2015, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Response 3.

Thank you for your comments; they have been included in the final environmental document.