

**INITIAL STUDY**

**FOR THE**

**RIALTO BASELINE STORM DRAIN  
PROJECT**

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Prepared for:

**City of Rialto**  
150 S Palm Avenue  
Rialto, CA 92376

Prepared by:

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## **LIST OF ABBREVIATIONS AND ACROYNMS**

AAQS	Ambient Air Quality Standards
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BMPs	Best Management Practices
BUOW	burrowing owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CPHI	California Points of Historical Interest
dBA	A-weighted decibel
EPA	Environmental Protection Agency
FTA	Federal Transit Association
GCC	Global Climate Change
GHG	Greenhouse Gas
ITP	Incidental Take Permit
JD	Jurisdictional Delineation
LAPM	Los Angeles pocket mouse
LF	lineal feet
LST	Localized Significance Thresholds
LUST	Leaking Underground Storage Tanks
MAST	Mountain Area Safety Taskforce
NAAQS	National Ambient Air Quality Standards
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
P-PF	Public Facilities
RCB	reinforced concrete box
RCP	reinforced concrete plan
R-SF	Single-Family Residential
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SBKR	San Bernardino kangaroo rat
SBVMWD	San Bernardino Valley Municipal Water District
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCAT	Street Crime Attack Team

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SIP	State Implementation Plan
SRO	School Resource Officer
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQMP	Water Quality Management Plant
WQTP	Wastewater Treatment Plan

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## ENVIRONMENTAL CHECKLIST FORM

1. Project Title: Rialto Baseline Storm Drain Project
2. Lead Agency Name: City of Rialto, Public Works/Engineering Division  
Address: 335 W. Rialto Avenue, Rialto, CA 92376
3. Contact Person: Savat Khamphou, Interim City Engineer  
Phone Number: (909) 421-7210
4. Project Location: The proposed project is located at Cactus Basin (just west of Cactus Avenue and Baseline Road) connecting to Baseline Road south of Cactus Basin and traveling west within Baseline Road to just west of Tamarind Avenue within the City of Rialto, CA. The project is located in Section 34 Township 1 North, Range 5 West within the Fontana USGS Topo 7.5-minute series maps with an approximate Lat/Long of 34.124043, -117.388063 at the eastern portion of the project and 34.121298, -117.422797 at the western portion of the project. Figures 1 and 2 outline the Project alignment location at a regional and site level.
5. Project Sponsor's Name and Address: City of Rialto  
150 S Palm Avenue, Rialto, CA 92376
6. General Plan Designation: The Project is mostly located within existing roadways, though Cactus Basin (which the proposed project will connect the new storm drain to) is located on land designated for Open Space Resource Use. Additionally, the segment of the storm drain alignment may run through an undeveloped property, also known as Olive Grove property, that is designated for Airport-Related Development by the Rialto Airport Specific Plan.
7. Zoning Classification: The Project is mostly located within existing roadways, though Cactus Basin (which the proposed project will connect the new storm drain to) is located on zoned as Rialto Airport Specific Plan, Cactus Basin (OS-CB).
8. Project Description:

### Introduction

The City of Rialto desires to upgrade existing drainage infrastructure conditions within Baseline Avenue from Cactus Basin west to Tamarind Avenue. The 60% progress plans for the Rialto Basin Storm Drain Project are provided as Appendix 1 to this Initial Study. As the City of the Rialto continues to grow, improvements to the City of Rialto's drainage system are needed to capture and fully protect against 100-year flood levels. The proposed Rialto Baseline Storm Drain Project would construct a new storm drain to capture flows from Area D of the City of Rialto's Renaissance Master Plan.

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## Project Description

The project consists of installing an approximately 2-mile or 11,000 lineal feet (LF) storm drain system within Baseline Road that would capture flows north of Baseline Road. The storm drain line starts at the Tamarind Avenue/Baseline Road intersection and runs along Baseline Road to the outlet at Cactus Basin No. 3. The *Drainage Study to the Renaissance Specific Plan (Encompass, 2015)* served as the basis for sizing the storm drain system to improve drainage systems in the City of Rialto. The new storm drain will be developed with a reinforced concrete box (RCB) that will vary in size between 6' x 12', 7' x 7', and 3' x 10' depending on the location within the new storm drain alignment. The majority of the storm drain footprint (located within Baseline Road) will be constructed as a 84" reinforced concrete pipe (RCP), though a portion of the easternmost section of the alignment, which encompasses the section from Baseline Road to Cactus Basin, will vary in size as either a 72", 84", 48", 36", or 30" RCP. The specifications of the storm drain sizes are shown in Appendix 1.

The project site corresponds to the proposed storm drain "Line D" as described in both the *Comprehensive Storm Drain Plan, Project 3-3, Rialto Channel Drainage Area (Montgomery, 1988)* and the *Drainage Study to the Renaissance Specific Plan (Encompass, 2015)*. The project area is located within the Renaissance Development, which consists of the redevelopment of the Rialto Airport and the surrounding areas. The Renaissance Specific Plan was used to get additional information for Line D and meet drainage facility requirements. Subarea D is bounded by Miro Way on the north, Baseline Road on the south, Ayala Drive on the east, and Palmetto Avenue on the west. In addition, Line D may capture runoff from Subarea E of the Renaissance Specific Plan during higher frequency events only. Overland flow travels in southeastern direction in the southern portion of the Renaissance site before it is captured by Line D and outlets to Cactus Basin No. 3.

Flows leaving Basin No. 3 continue on to Basin 1 and 2 and Rialto Channel, which ultimately discharges to the Santa Ana River. Outflow from the Cactus Basin System are limited due to the poor downstream channel capacities.

The proposed project will install the preferred Alignment as shown in Appendix 1. A new outlet structure will be constructed in Cactus Basin No. 3. Energy dissipation measures (such as rip rap pad, baffle) may be installed at the outlet, to control erosive damage from the higher volume discharged from the new pipeline.

## Construction Scenario

The Project will be constructed once funding becomes available, which is anticipated to be secured in 2021 or 2022. Construction is anticipated to require between 6 months and one year to complete. At any given time during construction a maximum of 30 employees would be required at the site each day, though the number of construction workers required will range from 10 to 30 persons per day.

Installation of the Storm Drain within the Baseline Road right-of-way (ROW) is anticipated to require one or more of the following equipment types: bull dozer, hydro-hammer, front-end loader, dump truck, chipper, water truck, and service truck. Major pieces of equipment to be engaged during construction of the Project will include one or more of the following: pavement grinder and saw cut machines, earth excavators, backhoe, boom truck, grader, water truck, front-end loader, compaction equipment, and service truck and delivery vehicles for deposit of aggregate base and asphalt concrete and Portland cement concrete. The invert of the storm drain will vary between

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8 feet and 20 feet below the surface, along the alignment, except under the jurisdictional dam where the depth will exceed 40 feet. Alignment is not under jurisdictional facilities. But will be deep before entering the basin.

The contractor(s) will maintain one lane open in each direction throughout the construction process, as well as access at all times for emergency vehicles and access to all driveways, mailboxes, and bus stop(s).

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

North of Baseline Road within the project area, the land uses are as follows: Business Park and Specific Plan. North of Baseline the Specific Plan is the Renaissance Specific Plan and the zoning at this located within the Specific Plan are Employment, Employment Commercial Overlay, General Commercial, and Private Rec. Center Existing Use to Remain.

South of Baseline Road within the project area is located within the City of Fontana (only west of Maple. South side of Baseline is Rialto from Maple east and is developed as residential). The land uses within the project area south of Baseline Road are designated by the City of Fontana General Plan Land Use Map: Single Family Residential (R-SF), and Public Facilities (P-PF).

West of the intersection at Tamarind Avenue and Baseline Road, the land uses adjacent to the project are Specific Plan (Renaissance Specific Plan: Employment) within the City of Rialto, and within the City of Fontana, the land use is Single Family Residential (R-SF).

East of the location at which the Storm Drain Alternatives enter Baseline Road, the land use adjacent to the project is Open Space – Resources within the City of Rialto, and the land use adjacent to the project is Single Family Residential (R-SF).

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

- State Water Resources Control Board and Santa Ana Regional Water Quality Control Board (Storm Water Pollution Prevention Plan/Water Quality Management Plan);
- South Coast Air Quality Management District;
- United States Army Corps of Engineers;
- California Department of Fish and Wildlife;
- San Bernardino County Flood Control District; and,
- Any other responsible agency that may have discretionary authority over all or a portion of the project.

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? Yes. AB-52 was initiated on June 4, 2019 by sending letters to the Gabrieleño Band of Mission Indians – Kizh Nation, Gabrieleño-Tongva San Gabriel Band of Mission Indians, Morongo Band of Mission Indians, San Manuel Band of Mission Indians, Gabrieleño-Tongva Nation (sent to Sam Dunlap, Cultural Resources Director and Sandonne Goad, Chairperson). The only Tribe to send a response was the Gabrieleño Band of Mission Indians – Kizh Nation. A letter was received from the Tribe on June 10, 2019 requesting that the City contact the Tribe to discuss consultation. As such, the City reached out to the Tribe a phone conference was set up for August 21, 2019, but the Tribe did not request any

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actionable items during this phone call; they expressed interest in the Project, but did not respond in writing with any specific requests related to consultation. The City was been unable to reach the Tribe for further instruction, and as such consultation has concluded as of October 7, 2019, with mitigation that the City has drafted to reach out to the Tribe once construction commences.

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

**DETERMINATION** (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

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

Tom Dodson  
Prepared by

  
Lead Agency (signature)

September 2020  
Date

9-15-2020  
Date

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## EVALUATION OF ENVIRONMENTAL IMPACTS:

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



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>I. AESTHETICS:</b> Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

- a. *Less Than Significant Impact* – Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by proposed project. A review of the project area determined that there are no scenic vistas located internally within the project footprint of the proposed storm drain alignment. Therefore, implementation of the proposed Rialto Baseline Storm Drain Project is not expected to impact any important scenic vistas within the project area. A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed project may interfere with the view to a scenic vista. The City of Rialto General Plan indicates that views of the San Gabriel and San Bernardino Mountains to the north and views of the La Loma Hills, Jurupa Hills, Box Spring Mountains are important to protect as important scenic resources within the City. The proposed project will be located within Baseline Road between Cactus Basin and Tamarind Avenue. Baseline Road is an east/west corridor connecting many of the Cities and communities within the Inland Empire together. The hills and mountains that surround the City are far removed from the proposed storm drain alignment such that the views are mostly obscured from the location at which the storm drain alignment will be installed. The project will also be constructed entirely below ground, and will not permanently alter the above ground setting within the storm drain alignment. Given that the project would not degrade views to nearby scenic vistas and that the visual effects of storm drain improvements would not substantially alter the views in the Project footprint in the long-term, implementation of the proposed modification is not expected to cause any substantial adverse effects on any important scenic vistas. This potential impact is considered a less than significant adverse aesthetic impact. No mitigation is required.
- b. *No Impact* – The project footprint does not include a section of road that is located within a scenic highway. According to Caltrans, there are no scenic highways within the project alignment. The Project will not demolish or substantially damage any of the buildings within the project alignment, as most of the proposed improvements will occur within existing road rights-of-way. Additionally, there are no existing rock outcroppings or other natural landscape features within the project alignment that could be considered a scenic resource. There are no trees that would be removed or interfered with as part of the proposed project; consequently, no significant adverse impact to a scenic resource will occur. No mitigation is required.

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- c. *Less Than Significant Impact* – The proposed storm drain alignment within Baseline Road ultimately terminates at Cactus Basin. The proposed project is located in an urbanized area, and would mostly be located within an existing roadway, which is considered land use independent. The proposed project would install a portion of the storm drain alignment within an area designated for Open Space Resource Use by the Rialto General Plan and by Cactus Basin (OS-CB) by the City of Rialto Zoning Code. The proposed development of a storm drain within an alignment designated and classified as such would be consistent with the existing use of the site. Furthermore, storm water infrastructure projects such as that which is proposed project are considered land use independent. Therefore, given that the proposed project is in an urbanized area and would not conflict with applicable zoning or other regulations governing scenic quality, impacts under this issue are considered less than significant.
- d. *No Impact* – There will not be any new permanent sources of lighting as part of the proposed project. The proposed project will install a new storm drain within Baseline Road, which will be located below ground. Construction of the project will require minimal lighting because it will occur during daytime hours. No reflective materials or coatings are associated with this Project. Due to the Project's location within an existing urban setting, and the lack of any new lighting, it is not anticipated that this project will create any substantial new sources of light or glare. No impact associated with lighting or glare can be identified and no mitigation is required.
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>II. AGRICULTURE AND FORESTRY RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUBSTANTIATION

- a. *No Impact* – The majority of the Project will occur within and adjacent to existing road rights-of-way within the Baseline Road corridor and adjacent to Cactus Basin. Neither the Project footprint nor the surrounding area is designated for agricultural use; no agricultural activities exist in the project area; and there is no potential for impact to any agricultural uses or values as a result of project implementation. According to the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, no prime farmland, unique farmland, or farmland of state importance exists within the vicinity of the proposed project (Figure II-1). No adverse impact to any agricultural resources would occur from implementing the proposed project. No mitigation is required.
- b. *No Impact* – There are no agricultural uses currently within the Project footprint or on adjacent properties. A majority of the Project will occur within existing road right-of-way within Baseline Road

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between Tamarind Avenue and Cactus Basin, and also within and adjacent to Cactus Basin, which is designated as Open Space Resource Use by the Rialto General Plan and by Cactus Basin (OS-CB) by the City of Rialto Zoning Code. No agricultural uses exist adjacent to the storm drain alignment. Therefore, no potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area. No mitigation is required.

- c. *No Impact* – Please refer to issues II(a) and II(b) above. The project site is in an urbanized area and neither the land use designation, nor zoning classification supports forest land or timberland uses or designations. No potential exists for a conflict between the proposed project and forest/timberland zoning. No mitigation is required.
- d. *No Impact* – There are no forest lands within the project area, which is because the project area is completely urbanized. No potential for loss of forest land would occur if the project is implemented. No mitigation is required.
- e. *No Impact* – Because the project footprint and surrounding area do not support either agricultural or forestry uses and, furthermore, because the project site and environs are not designated for such uses, implementation of the proposed project would not cause or result in the conversion of farmland or forest land to alternative use. There is no farmland or forest land located in the vicinity of the project roadway alignment. No adverse impact would occur. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>III. AIR QUALITY:</b> 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the *Air Quality and GHG Impact Analysis, HZ-116 Rialto Baseline Storm Drain Project, City of Rialto, California* prepared by Giroux and Associates dated April 15, 2019. This document is provided as Appendix 2 to this document.

## Background

### *Climate*

The climate of western San Bernardino County, as with all of Southern California, is governed largely by the strength and location of the semi-permanent high-pressure center over the Pacific Ocean and the moderating effects of the nearby vast oceanic heat reservoir. Local climatic conditions are characterized by very warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and comfortable humidities. Unfortunately, the same climatic conditions that create such a desirable living climate combine to severely restrict the ability of the local atmosphere to disperse the large volumes of air pollution generated by the population and industry attracted in part by the climate.

Rialto is situated in an area where the pollutants generated in coastal portions of the Los Angeles basin undergo photochemical reactions and then move inland across the project site during the daily sea breeze cycle. The resulting smog at times gives western San Bernardino County some of the worst air quality in all of California. Fortunately, significant air quality improvement in the last decade suggests that healthful air quality may someday be attained despite the limited regional meteorological dispersion potential. The combination of winds and inversions are critical determinants in leading to the degraded air quality in summer, and the generally good air quality in winter in the project area.

### *Air Quality Standards*

Existing air quality is measured at established South Coast Air Quality Management District (SCAQMD) air quality monitoring stations. Monitored air quality is evaluated and in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table III-1. Because the State of California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently

in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

**Table III-1  
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O3) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM10) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		–		
Fine Particulate Matter (PM2.5) <sup>9</sup>	24 Hour	–	–	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	–	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		–	–	
Nitrogen Dioxide (NO2) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	–	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO2) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	–	Ultraviolet Flourescence; Spectrophotometry (Paraosaniline Method)
	3 Hour	–		–	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas) <sup>11</sup>	–	
Lead 8 <sup>12,13</sup>	30-Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No  Federal  Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

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## Footnotes

- 1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter – PM10, PM2.5, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
  - 2 National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year, with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$ , is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
  - 3 Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
  - 4 Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
  - 5 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
  - 6 National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
  - 7 Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
  - 8 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
  - 9 On December 14, 2012, the national PM2.5 primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primarily and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
  - 10 To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
  - 11 On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
  - 12 The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
  - 13 The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
  - 14 In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.
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**Table III-2  
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>• Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced tolerance for exercise.</li> <li>• Impairment of mental function.</li> <li>• Impairment of fetal development.</li> <li>• Death at high levels of exposure.</li> <li>• Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Motor vehicle exhaust.</li> <li>• High temperature stationary combustion.</li> <li>• Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness.</li> <li>• Reduced visibility.</li> <li>• Reduced plant growth.</li> <li>• Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases.</li> <li>• Irritation of eyes.</li> <li>• Impairment of cardiopulmonary function.</li> <li>• Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of blood function and nerve construction.</li> <li>• Behavioral and hearing problems in children.</li> </ul>
Fine Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>• Stationary combustion of solid fuels.</li> <li>• Construction activities.</li> <li>• Industrial processes.</li> <li>• Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced lung function.</li> <li>• Aggravation of the effects of gaseous pollutants.</li> <li>• Aggravation of respiratory and cardio respiratory diseases.</li> <li>• Increased cough and chest discomfort.</li> <li>• Soiling.</li> <li>• Reduced visibility.</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>• Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>• Residential and agricultural burning.</li> <li>• Industrial processes.</li> <li>• Also, formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases respiratory disease.</li> <li>• Lung damage.</li> <li>• Cancer and premature death.</li> <li>• Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Combustion of sulfur-containing fossil fuels.</li> <li>• Smelting of sulfur-bearing metal ores.</li> <li>• Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema).</li> <li>• Reduced lung function.</li> <li>• Irritation of eyes.</li> <li>• Reduced visibility.</li> <li>• Plant injury.</li> <li>• Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.

### Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the project area are best documented from measurements made near the project site. The SCAQMD operates a monitoring station in Fontana that monitors the complete spectrum of gaseous and particulate pollutants for which there are clean air standards. From these data resources, one can well infer that baseline air quality levels near the



project site are improving, but occasionally unhealthful. Full attainment may still be many years away. Table III-3 summarizes the last four years of published monitoring data from the Fontana station.

1. Photochemical smog (ozone) levels frequently exceed standards. The 1-hour state standard was violated 9.2 percent of all days in the last four years in Fontana. The 8-hour state ozone standard has been exceeded 14 percent of all days in the past four years. The Federal eight-hour ozone standard has averaged around 10 percent of the time during this period. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.
2. Carbon monoxide (CO) levels at the Fontana station have remained level throughout the last four years. The 8-hour standard has not been exceeded and the maximum 8-hour standard has been steadily declining, with 2016 having the lowest concentration in the time period analyzed. These data suggest that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse air quality effects would be expected.
3. PM-10 levels periodically exceed the state 24-hour standard, but no measurements in excess of the national 24-hour particulate standard has been recorded in the last four years. State PM-10 standards are exceeded an average of 22 percent of all days per year.
4. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Year 2016 showed the fewest violations in recent years. Less than one percent of all days exceeded the current national 24-hour standard of 35  $\mu\text{g}/\text{m}^3$ .
5. More localized pollutants such as nitrogen oxides, lead, etc. are very low near the project site because background levels never exceed allowable levels, and there are only limited sources of such emissions near the project site.

**Table III-3**  
**AIR QUALITY MONITORING SUMMARY – 2014-2017**  
**(NUMBER OF DAYS STANDARDS WERE EXCEEDED, AND MAXIMUM LEVELS DURING SUCH VIOLATIONS)**

Pollutant/Standard	2014	2015	2016	2017
<b>Ozone</b>				
1-Hour > 0.09 ppm (S)	31	36	34	33
8-Hour > 0.07 ppm (S)	52	57	49	49
8- Hour > 0.075 ppm (F)	37	39	34	38
Max. 1-Hour Conc. (ppm)	0.127	0.133	0.139	0.137
Max. 8-Hour Conc. (ppm)	0.105	0.111	0.105	0.118
<b>Carbon Monoxide</b>				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.2	1.2	1.0	1.3
<b>Nitrogen Dioxide</b>				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.074	0.089	0.071	0.069
<b>Inhalable Particulates (PM-10)</b>				
24-hour > 50 $\mu\text{g}/\text{m}^3$ (S)	13/58	13/55	15/61	7/43
24-hour > 150 $\mu\text{g}/\text{m}^3$ (F)	0/58	0/55	0/61	0/43
Max. 24-Hr. Conc. ( $\mu\text{g}/\text{m}^3$ )	68.	96.	94.	75.
<b>Ultra-Fine Particulates (PM-2.5)</b>				
24-Hour > 35 $\mu\text{g}/\text{m}^3$ (F)	1/58	2/113	0/111	1/120
Max. 24-Hr. Conc. ( $\mu\text{g}/\text{m}^3$ )	78.9	47.3	30.4	39.2

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(Entries shown as ratios = samples exceeding standard/samples taken)  
S=State Standard; F=Federal Standard  
Source: South Coast AQMD  
Fontana Air Quality Monitoring Station

### Air Quality Planning

The U.S. EPA is responsible for setting and enforcing the NAAQS for O<sub>3</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and lead (7). The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955, and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (14). The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. Substantial reductions in emissions of ROG, NO<sub>x</sub> and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The SCAQMD adopted an updated clean air “blueprint” in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. The attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard. Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

**Table III-4**  
**SOUTH COAST AIR BASIN EMISSIONS FORECASTS (EMISSIONS IN TONS/DAY)**

<b>Pollutant</b>	<b>2015<sup>a</sup></b>	<b>2020<sup>b</sup></b>	<b>2025<sup>b</sup></b>	<b>2030<sup>b</sup></b>
<b>NO<sub>x</sub></b>	357	289	266	257
<b>VOC</b>	400	393	393	391
<b>PM-10</b>	161	165	170	172
<b>PM-2.5</b>	67	68	70	71

<sup>a</sup>2015 Base Year.

<sup>b</sup>With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, 2013 Almanac of Air Quality

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AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March, 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NO<sub>x</sub>, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m <sup>3</sup> )	2025
8-hour ozone (75 ppb)	2024 (former standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)
24-hour PM-2.5 (35 µg/m <sup>3</sup> )	2019

The key challenge is that NO<sub>x</sub> emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO<sub>x</sub> control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing storm drain improvement projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

#### Significance Thresholds Used in This Document

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following four tests of air quality impact significance. A project would have a potentially significant impact if it:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

#### *Primary Pollutants*

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

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### *Secondary Pollutants*

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emission levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

**Table III-5  
DAILY EMISSIONS THRESHOLDS**

<b>Pollutant</b>	<b>Construction</b>	<b>Operations</b>
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

### *Additional Indicators*

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

### Impact Analysis

- a. *Less Than Significant Impact* – Projects such as the proposed Rialto Baseline Storm Drain Project do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. The City requires compliance with the Municipal Code for project such as this, and the Project will meet these standards. The Rialto Baseline Storm Drain Project will be fully consistent with both the General Plan designation and Zone classification for the project site, mainly because the project involves storm drain infrastructure, and such projects are considered land use independent. Thus,
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the proposed project is consistent with regional planning forecasts maintained by the Southern California Association of Governments (SCAG) regional plans. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant only because of consistency with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause exposure to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

- b. *Less Than Significant With Mitigation Incorporated* – For a typical project, air pollution emissions occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading, and exhaust emission) at the proposed Project site. No long-term emissions would be generated by future operation of the proposed project because the objective of the project is to upgrade existing drainage infrastructure conditions within Baseline Avenue from Cactus Basin west to Tamarind Avenue; as such, the new storm drain system would not require power to operate because it will gravity flow.

*Construction Emissions*

The City of Rialto proposes to upgrade the existing drainage infrastructure conditions within Baseline Road from Cactus Basin (Cactus Avenue) to Tamarind Avenue. The project consists of installing approximately 11,000 lineal feet (LF) of various diameter storm drains that would capture flows north of Baseline Road. The Project will be constructed once funding becomes available, which is anticipated to be secured in 2021 or 2022. Construction is anticipated to require between 6 months and one year to complete. At any given time during construction a maximum of 30 employees would be required each day, though the number of construction workers required will range from 10 to 30 persons per day. Although exhaust emissions will result from on and off-site equipment, the exact types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. The CalEEMod.2016.3.2 computer model was used to calculate emissions from the prototype construction equipment fleet and schedule as indicated in Table III-6.

**Table III-6**  
**CalEEMod CONSTRUCTION ACTIVITY EQUIPMENT FLEET AND WORKDAYS: (30 WORKERS DAILY)**

<b>Prep and Concrete Removal</b> (3 months)	1 Concrete Saw
	1 Dozer
	1 Loader/Backhoe
	2 Skid Steer Loaders
<b>Trench and Install Pipeline</b> (4 months)	1 Loader/Backhoe
	2 Trenchers
	1 Forklifts
	1 Crane
	1 Excavator
<b>Backfill and Paving</b> (3 months)	1 Paver
	1 Roller
	1 Loader/Backhoe
	4 Mixers
	2 Compactors

Utilizing the indicated equipment fleet shown in Tables III-6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table III-7.

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Table III-7  
CONSTRUCTION ACTIVITY EMISSIONS  
MAXIMUM DAILY EMISSIONS (POUNDS/DAY)

Maximal Construction Emissions per Calendar Year	ROG	NOx	CO	SO <sub>2</sub>	PM-10	PM-2.5
Year 2021	2.4	21.9	19.5	0.0	1.8	1.2
SCAQMD Thresholds	75	100	550	150	150	55

Source: CalEEMod.2016.3.2 output in appendix

Peak daily construction activity emissions are below their respective SCAQMD CEQA significance thresholds without the need for any additional mitigation. However, though construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds, emissions minimization through enhanced dust control measures is recommended for use because of the PM non-attainment status of the air basin. As such, the following mitigation measure shall be implemented:

**AIR-1** **Fugitive Dust Control.** *The following measures shall be incorporated into Project plans and specifications for implementation:*

- **Apply soil stabilizers or moisten inactive areas.**
- **Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).**
- **Cover all stock piles with tarps at the end of each day or as needed.**
- **Provide water spray during loading and unloading of earthen materials.**
- **Minimize in-out traffic from construction zone.**
- **Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard.**
- **Sweep streets daily if visible soil material is carried out from the construction site.**

Similarly, ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. As such, the following mitigation measure shall be implemented:

**AIR-2** **Exhaust Emissions Control.** *The following measures shall be incorporated into Project plans and specifications for implementation:*

- **Utilize well-tuned off-road construction equipment.**
- **Establish a preference for contractors using Tier 3 or better heavy equipment.**
- **Enforce 5-minute idling limits for both on-road trucks and off-road equipment.**

With the above mitigation measures, any impacts related to construction emissions are considered less than significant. No further mitigation is required.

#### *Operational Impacts*

There are no operational air pollution emissions associated with a gravity fed storm drain.

#### *Conclusion*

With the incorporation of mitigation measures **AIR-1** and **AIR-2**, the development of the Rialto Basin Storm Drain Project would have a less than significant potential to result in a cumulatively

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considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.

- c. *Less Than Significant Impact* – The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

For the proposed project, the primary source of possible LST impact would be during construction. LST screening tables are available for various source-receptor distances. For this project the most stringent thresholds for a 1-acre site and a 25-meter source-receptor distance was used to compare to construction emissions as shown in Table III-8.

**Table III-8  
LST AND PROJECT EMISSIONS (POUNDS/DAY)**

<b>LST 1 acre/25 meters Central San Bernardino Valley</b>	<b>CO</b>	<b>NOx</b>	<b>PM-10</b>	<b>PM-2.5</b>
<b>LST Thresholds</b>	667	118	4	3
<b>Max On-Site Project Emissions</b>	20	22	2	1

LSTs were compared to the maximum daily construction activities. As seen in Table III-8, even without use of mitigation, emissions easily meet the LST for construction thresholds. LST impacts are less than significant. As such, the proposed project would have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

- d. *Less Than Significant With Mitigation Incorporated* – The only new source of odors that would be generated by this project would be those short-term odors from construction equipment and vehicles. Those odors would be associated with exhaust emissions from consumption of petroleum products (gasoline, diesel, etc.). Such odors are common in urbanized areas near the project footprint, particularly due to the industrial nature of this corridor. Due to the few pieces of equipment required and the short duration of construction, as well as the ambient odor levels in the project area, the project will not result in the creation of a significant amount of objectionable odors. In the long term, no new sources of odors will result. The storm drain will operate in a similar manner to the existing storm drain system below ground. Mitigation measure **AIR-2** will reduce the potential for objectionable odors posing a health risk to humans on- or off-site as a result of exhaust emissions to a level of less than significant. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SUBSTANTIATION: The *Biological Resources Assessment and Jurisdictional Delineation: Rialto Storm Drain, Rialto, CA* prepared by Jericho Systems, Inc. dated May 20, 2019 was utilized for the following analysis. A copy of this document is provided as Appendix 3 to this Initial Study.

A summary of the determination outlined in the Biological Resources Assessment (BRA) and Jurisdictional Delineation (JD) is as follows:

Prior to conducting the field study, species and habitat information was gathered from the reports related to the specific project and relevant databases for the *Fontana* USGS quadrangle to determine which species and/or habitats would be expected to occur on site. A field survey was conducted and the outcome of the survey concluded the following:

The project site is primarily a multi-use urban setting, with the Cactus Basin component holding the only vegetation not actively managed as landscaping. The habitat adjacent to the north-bound fencing in Cactus Basin is high disturbance new growth, whereas the habitat in the northeast corner of the project site is high disturbance alluvial fan sage scrub.

Several occurrences of San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) [SBKR] and Los Angeles Pocket mouse (*Perognathus longimembris brevinasus*) [LAPM] are documented in the immediate vicinity of the east end of the Project area. Although the habitat conditions are marginal for these species,



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absence of either species cannot be determined without focused survey, and as such, preconstruction surveys for these species are recommended.

Habitat suitability of Burrowing owl (*Athene cunicularia*) [BUOW] is marginal along the alignment where there is vacant land. This species was not observed during survey and no sign of the presence was found. Prior to construction a survey within 30 days of construction is warranted and recommended.

The vegetation on site does have a potential to support nesting birds and foraging raptors such as red-tailed hawks. Therefore, to reduce the potential impacts to nesting birds, mitigation to address nesting birds is recommended.

- a. *Less Than Significant With Mitigation Incorporated* – As stated in the summary above, implementation of the proposed Project may have a potential for an adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). Due to the habitat conditions at the east end, northbound portion of the alignment that approaches Cactus Basin, and due to previous records of SBKR in Cactus Basins, there remains a moderate potential for occurrence of SBKR and LAPM. Further, the Project site at Cactus Basin is potentially suitable for BUOW. These species must be assumed present (not recommended) within the Project area of potential effect (APE), or focused protocol-level surveys (recommended) need to be conducted to determine presence or absence. It is assumed that with mitigation, these species can be protected, particularly given that the majority of the project would occur within existing roadways; the areas that would contain these species would generally be located within the area leading to and within Cactus Basin outside of the roadways. However, for the purposes of this analysis, it is assumed that temporary ground disturbance within the mostly vacant land leading to and at Cactus Basin may have a potential to adversely impact SBKR, LAPM, and/or BUOW. As such, the following mitigation measures shall be implemented.

**BIO-1** ***Burrowing Owl. Preconstruction presence/absence surveys for burrowing owl shall be conducted within 30 days prior to any onsite ground disturbing activity. The burrowing owl survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. In the event this species is not identified within the project limits, no further mitigation is required. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.***

**BIO-2** ***If burrowing owls are identified during the survey period, the City shall take the following actions to offset impacts prior to ground disturbance:***

***Active nests within the areas scheduled for disturbance or degradation shall be avoided from February 1 through August 31, and a minimum of 250-foot buffer shall be provided until fledging has occurred. Following fledging, owls may be passively relocated by a qualified biologist.***

***If impacts on occupied burrows in the non-nesting period are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows outside of the impact area.***

***If relocation of the owls is approved for the site by the CDFW shall require the City to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following:***

- ***The location of the nest and owls proposed for relocation.***
  - ***The location of the proposed relocation site.***
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- *The number of owls involved and the time of year when the relocation is proposed to take place.*
  - *The name and credentials of the biologist who will be retained to supervise the relocation.*
  - *The proposed method of capture and transport for the owls to the new site.*
  - *A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).*

**BIO-3** *Preconstruction presence/absence surveys for SBKR shall be conducted within 45 days prior to any onsite ground disturbing activity. SBKR survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. If no presence of SBKR is found during the survey, mitigation measure BIO-3 need not be enforced.*

**BIO-4** *In the event that the preconstruction survey determines the presence of SBKR, the following actions shall be implemented: the City shall provide compensation for temporary loss of habitat and individual SBKR in the following manner: 1) the City shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; the City shall offset the loss of the temporarily disturbed habitat by purchase of acceptable SBKR habitat at a 1:1 ratio; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance within potential SBKR habitat shall occur until an ITP is obtained by the City. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.*

**BIO-5** *Preconstruction presence/absence surveys for LAPM shall be conducted within 30 days prior to any onsite ground disturbing activity. LAPM survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. If no presence of LAPM is found during the survey, mitigation measure BIO-5 need not be enforced.*

**BIO-6** *In the event that the preconstruction survey determines the presence of LAPM, the following actions shall be implemented: the City shall provide compensation for temporary loss of habitat and individual LAPM in the following manner: 1) the City shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; the City shall offset the loss of the temporarily disturbed habitat by purchase of acceptable LAPM habitat at a 1:1 ratio; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur within potential LAPM habitat until an ITP is obtained by the City. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.*

With the implementation of mitigation measures BIO-1 through BIO-6 above, impacts under this issue are considered less than significant.

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- b. *Less Than Significant Impact* – Implementation of the proposed Project will not have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. The Project area of potential effect (APE) is not located within or immediately adjacent any USFWS designated Critical Habitat. Though the project footprint contains suitable habitat for several sensitive species, it does not contain any known riparian habitat or any other sensitive natural community identified by any agency. The project alignment is primarily a multi-use urban setting, with the Cactus Basin component holding the only vegetation not actively managed by landscaping. Habitat within or adjacent to the north-bound portion on the easternmost part of the Project alignment at Cactus Basin consists primarily of foxtail (*Hordeum murinum*), wild oat (*Avena fatua*), stinging nettle (*Urtica urens*), coastal heron's bill (*Erodium cicutarium*) and common fiddleneck (*Amsinckia intermedia*). Shrubs become increasingly numerous the further north into the basin. Those shrubs are primarily California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*). Adjacent to the northernmost portion of the basin is degraded alluvial fan sage scrub that consists of interspersed California sagebrush, California buckwheat, foxtail, ripgut (*Bromus diandrus*), a single holly-leaf cherry (*Prunus ilicifolia*) shrub, and a single beavertail cactus (*Opuntia basilaris* var. *basilaris*). Vegetation on or adjacent to all other aspects of the project are ornamental landscaped shrubs or ruderal vegetation composed of ripgut and foxtail. The project site has been subject to historic human disturbance and ongoing human use. Based on the field survey conducted by Jericho Systems, Inc. and the information contained in Appendix 3, no significant impacts to riparian habitat or other sensitive communities are anticipated to occur as a result of implementation of the proposed project.
- c. *Less Than Significant With Mitigation Incorporated* – According to the data gathered by Jericho Systems in Appendix 3, areas meeting all three parameters (i.e. hydrophytic vegetation, hydric soils, and wetland hydrology) would be designated as USACE wetlands. There are no areas meeting all three wetland characteristics within the Project APE. However, the data contained in Appendix 3 indicates that Cactus Basin is a jurisdictional water subject to Sections 404 and 401 of the CWA and Section 1600 of the FGC. Modifications within the basin will likely require permits from the USACE, RWQCB and CDFW. As such, the following mitigation measure shall be implemented:

**BIO-7    *The City shall prepare and submit a 1602 Streambed Alteration Agreement (SAA) to the California Department of Fish and Wildlife (CDFW), a Section 401 Certification Permit to the Santa Ana Regional Water Quality Control Board; and, a Section 404 (Nationwide Permit No. 43) Permit to the USACE. No ground disturbance within jurisdictional waters shall occur until the City obtains the above permits. Note that the final compensation package contained in the permit shall be implemented by the City. If the permit conditions are different than the mitigation listed in this Document to protect biological resources, the City shall implement the mitigation identified in the permits.***

With implementation of mitigation measure BIO-7, the proposed project would have a less than significant potential to have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- d. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the Project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. Once constructed, the entirety of the project will be located below ground as a new storm drain. However, the State does protect all migratory and nesting native birds. Several bird species were identified as potentially occurring in the project area. Thus, the project area may include locations that function as nesting locations for native birds. To prevent interfering with native bird nesting, the following mitigation measure shall be implemented.
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**BIO-8**    ***The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, the site shall be evaluated by a qualified biologist prior to the initiation of ground disturbance to determine the presence or absence of nesting birds. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.***

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

- e.    *Less Than Significant Impact* – Development of the proposed project would have a less than significant potential to conflict with any local policies or ordinances protecting biological resources. Impacts to biological resources have been addressed above under issues IV(a-d). Therefore, the potential for the project to conflict with local policies or ordinances pertaining to biological resources would be considered less than significant.
- f.    *No Impact* – Please refer to the discussion under response IV(a) above. The Biological Resources Analysis provided as Appendix 3 concluded that the Project, is not located in an area within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and implementation of the project will therefore not result in a significant impact to any such plans. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>V. CULTURAL RESOURCES:</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect entitled “Historical/Archaeological Resources Survey Report: Rialto Baseline Storm Drain Project, City of Rialto, San Bernardino County, California,” prepared by CRM TECH dated May 16, 2019 (Appendix 4). The following summary information has been abstracted from this report. It provides an overview and findings regarding the cultural resources found within the project area.

### Background

The study is part of the environmental review process for the project. The City of Rialto, as the project sponsor and the lead agency, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any “historical resources,” as defined by CEQA, that may exist in or near the project area. In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, consulted with the Native American representatives, and carried out a systematic field survey.

The results of the records search indicate that five historical/archaeological sites were previously recorded within or adjacent to the project area:

36-010659 (CA-SBR-10659H)	sparse refuse scatter
36-010908 (CA-SBR-10908H)	structural foundation, standpipe, and refuse scatter
36-015497 (CPHI SBr-012)	San Bernardino Baseline (Baseline Road)
36-021612	three early 20th century bungalows
36-029057 (CA-SBR-29057H)	multi-origin refuse dumping site

The field survey and the historical background research reveal that four of these five sites are no longer extant today, having evidently been removed during subsequent residential and commercial developments at their former locations. The remaining site, 36-015497, represents the San Bernardino Baseline, embodied by Baseline Road in the project vicinity. As a part of the basis for all land surveys and titles in southern California since 1853, the San Bernardino Baseline was officially designated a California Point of Historical Interest (CPHI-SBr-12) in 1973. As such, Site 36-015497 meets the definition of a “historical resource” under CEQA provisions.

The historic value of Site 36-015497, however, is symbolic in nature and is derived from the conceptual line across the landscape instead of the existing roadway, a heavily traveled major thoroughfare of entirely modern character and appearance. Therefore, the current configuration and physical features of Baseline Road do not contribute to the historic significance of the site. Since Site 36-015497 exists in the project

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area largely on paper only, this study concludes that the proposed project has no potential to affect the significance or integrity of this "historical resource."

During the course of the Native American contacts, the State of California Native American Heritage Commission reported the presence of unspecified Native American cultural resource(s) in the project vicinity but referred further inquiries to the Gabrieleño Band of Mission Indians–Kizh Nation. In subsequent correspondence, however, the Gabrieleño Band of Mission Indians–Kizh Nation did not provide any further information on such resources. According to CEQA guidelines, the identification of potential "tribal cultural resources" is beyond the scope of this study and needs to be addressed through government-to-government consultations between the City of Rialto and the pertinent Native American groups pursuant to Assembly Bill 52.

Based on these findings, it is recommended that the City of Rialto adopt a preliminary conclusion of *No Impact* on cultural resources, pending the completion of the City's government-to-government consultation process with local Native American tribes, which is discussed further under the Tribal Cultural Resources section below. No additional cultural resources investigation is recommended for the project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

#### Impact Analysis

- a&b. *Less Than Significant With Mitigation Incorporated* – CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Per the above discussion and definition, no archaeological sites or isolates were recorded within the Project boundaries; thus, none of them requires further consideration during this study. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the Project:

- No historical resources within or adjacent to the Project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the Project as it is currently proposed will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

However, if buried cultural materials are discovered during any earth-moving operations associated with the Project, the following mitigation measure shall be implemented:

**CUL-1    *Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the City's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.***

With the above mitigation incorporation, as well as the mitigation identified under Tribal Cultural Resources below, the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

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- c. *Less Than Significant With Mitigation Incorporated* – As noted in the discussion above, no available information suggests that human remains may occur within the APE and the potential for such an occurrence is considered very low. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human remains are encountered. However, the following mitigation measure shall be implemented to ensure that construction related activities protect such findings:

***CUL-2 Should human remains or funerary objects be encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.***

With the implementation of the above mitigation measure, any impacts under this issue are considered less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>VI. ENERGY:</b> Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### SUBSTANTIATION

- a&b. *Less Than Significant Impact* – As stated in Section III, Air Quality, the construction of the proposed Rialto Baseline Storm Drain Project would require mitigation measures to minimize emissions impacts from construction equipment use. These mitigation measures also apply to energy resources as they require equipment not in use for 5 minutes to be turned off, and for electrical construction equipment to be used where available. These measures would prevent a significant impact during construction due to wasteful, inefficient, or unnecessary consumption of energy resources, and would also conform to the CARB regulations regarding energy efficiency. The proposed project would install a new storm drain that would not require energy to function once installed. As such, the practices during construction—such as turning off equipment during construction when not in use—would prevent a significant impact to energy resources from occurring as a result of project implementation. Given that the proposed project would not require energy to operate, the proposed project would have a less than significant potential to conflict with or obstruct a state or local plan for renewable energy or energy efficiency.
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>VII. GEOLOGY AND SOILS:</b> Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUBSTANTIATION

### a. Ground Rupture

*Less Than Significant Impact* – The Project is located in the City of Rialto, which is located near several active fault zones, including the San Jacinto, Glen Helen, Cucamonga, and San Andreas Faults. The San Jacinto Fault System is located just east of the project footprint and is classified as an Alquist-Priolo Earthquake Fault Zone and traverses the area north of the project footprint near Lytle Creek. According to the California Geologic Survey Regulatory Maps, the proposed project is not located within an Alquist Priolo Earthquake Fault Zone (Figure VII-1). Furthermore, the City of Rialto General Plan's Seismic and Geologic Hazard Map (Figure VII-2) depicts the Alquist-Priolo Fault Zones in relation to the City, and none of these zones overlaps with the Project footprint. Based on this information, the risk for ground rupture at the Project location is low; furthermore, the Project will not include any human occupancy structures, but will install a new storm drain system within



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Baseline Road ultimately leading to an outlet at Cactus Basin. The design and construction/improvement of storm drain systems is controlled by both state and local design construction standards. Compliance with these standards and requirements of the City is mandatory and considered adequate mitigation for potential impacts associated with this Project. Therefore, the potential for this Project to expose people or property to the hazard of earthquake fault rupture considered less than significant. No mitigation is required.

Strong Seismic Ground Shaking

*Less Than Significant Impact* – As stated in the discussion above, the San Jacinto, Glen Helen, Cucamonga, and San Andreas Faults are located in the area north of the project footprint. The City of Rialto, as with much of southern California, is subject to seismic ground shaking impacts from earthquakes; as such, the proposed storm drain project is anticipated to be subject to seismic ground shaking impacts should any major earthquakes occur in the future. However, as stated in the preceding section, no human occupancy structures are proposed as part of the Project, and the design of the storm drain improvements must comply with both state and local (City) standards and requirements. This is considered adequate mitigation for potential impacts associated with the Project's potential to expose people or property to a high potential or risk of loss, injury, or death from strong ground shaking or ground failure. Therefore, impacts associated with strong ground shaking will be less than significant without mitigation.

Seismic-Related Ground Failure Including Liquefaction

*No Impact* – According to the map prepared for the County of San Bernardino General Plan showing Geologic Hazards (Figure VII-3), the project footprint is not located within an area that is susceptible to liquefaction. Based on the data contained in Figure VII-3, the proposed project is not located within an identified Liquefaction Zone. Therefore, the Project will not expose people or structures to potential substantial adverse liquefaction hazards, including the risk of loss, injury, or death involving landslides. No impacts under this issue are anticipated and no mitigation is required. No mitigation is required.

Landslides

*No Impact* – The project area is generally flat because the majority of the project will be installed within an existing roadway; the pipeline leading from Baseline Road to Cactus Basin is also generally flat. No hills or other significant topographic features exist on the project sites. According to the San Bernardino County General Plan, General Land Use Plan with Geologic Overlays (Figure VII-3), the project is not located in an area that is susceptible to landslides. No potential events can be identified that would result in adverse effects from landslides or that would cause landslides that could expose people or structures to such an event as a result of project implementation. No impacts are anticipated and no mitigation is required.

- b. *Less Than Significant With Mitigation Incorporated* – Much of the project area has been graded, compacted, and paved with asphalt and is relatively flat because the majority of the APE consists of an existing road and adjacent sidewalk/structures. The storm drain installation will result in land disturbance in the areas that will require removal of roadway and in some cases adjacent sidewalk to accommodate the new storm drain alignment. Additionally, the storm drain alignment will also be installed in areas consisting of compacted dirt, gravel, and asphalt leading to Cactus Basin. Adequate drainage facilities exist or will be developed or relocated by this Project to accommodate future drainage flows. This Project will result in the disturbance of more than one acre of land and will require filing a Notice of Intent (NOI), securing a National Pollutant Discharge Elimination System (NPDES), general construction stormwater discharge permit, and preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that is reviewed and approved by the City. The SWPPP will include but not be limited to the following measures to mitigate potential impacts associated with erosion and surface water quality degradation during construction:
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- GEO-1** *Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup.*
- GEO-2** *Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved in such a manner that roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.*
- GEO-3** *All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the water facilities are being installed.*
- GEO-4** *The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.*

With implementation of the above mitigation measures, any erosion impacts are considered less than significant. No further mitigation is necessary.

- c. *Less Than Significant Impact* – The Project footprint is generally flat as it is currently developed with existing roadways and a disturbed area leading to Cactus Basin. The proposed project will improve drainage within the Baseline Road corridor between Cactus Basin and Tamarind Avenue. The proposed project will involve the installation of a new storm drain. As discussed under issue VI(a) above, landslides are not of concern at this location, nor is liquefaction a concern at this location. No habitable structures are proposed as part of the project, and the proposed project will be installed entirely below ground. According to the County of San Bernardino General Plan Geologic Hazards Map (Figure VII-3), the proposed project is not located on a geologic unit that would become unstable as a result of project implementation. Furthermore, should a seismic event occur, the roadway should not collapse, nor cause a hazard along the roadway itself; such events within roadways are considered reparable in the event damage occurs, and therefore can be put back into use quickly. Compliance with all state and local (City) standards and requirements for roadway construction would ensure the project would have a less than significant potential to result in on- or off- site landslide, lateral spreading, subsidence, liquefaction or collapse that would cause permanent damage to the new storm drain alignment or the roadway within which the alignment will be installed.
- d. *Less Than Significant Impact* – The Project footprint is predominantly flat and its surface is primarily asphalt or concrete covered, though a portion of the development between Baseline Road and Cactus Basin is undeveloped. According to the United States Department of Agriculture Web Soil Survey, the majority of the project Area of Potential Effect (APE) is underlain by Tujunga loamy sand, 0 to 5 percent slopes, Tujunga gravelly loamy sand, 0 to 9 percent slopes, and Hanford coarse sandy loam, 2 to 9 percent. Neither of these soil types are classified as being expansive under Table 18-1-B of the Uniform Building Code (1994), particularly as expansive soils are typically in the clay soil family. These classes of soil are well drained and are not considered expansive. Therefore, the proposed roadway improvements will not create a substantial risk to life or property by being placed on expansive soils because none exist on the site. Any impacts are considered less than significant. No mitigation is required.
- e. *No Impact* – The Project does not propose any septic tanks or alternative wastewater disposal systems. Therefore, determining if the Project site soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater does not apply. No impacts are anticipated. No mitigation is required.
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- f. *Less Than Significant With Mitigation Incorporated* – The potential for discovering paleontological resources during development of the Project is considered highly unlikely based on the fact that the site has been previously disturbed and a majority of the project alignment will be developed within a roadway. No unique geologic features are known or suspected to occur on or beneath the project alignment. However, because the Project has not been surveyed in recent history, and the fact that these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities; therefore, the following measure shall be implemented:

***GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.***

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduced to a less than significant level. No additional mitigation is required.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>VIII. GREENHOUSE GAS EMISSIONS:</b> Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:** The following information utilized in this section of the Initial Study was obtained from the *Air Quality and GHG Impact Analysis, HZ-116 Rialto Baseline Storm Drain Project, City of Rialto, California* prepared by Giroux and Associates dated April 15, 2019. This document is provided as Appendix 2 to this document.

a&b. *Less Than Significant Impact* – Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the Project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC.

#### Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, deciding significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

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The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO<sub>2</sub> equivalent/year. In September 2010, the Working Group released revisions which recommended a threshold of 3,000 MT CO<sub>2</sub>e for all land use types. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

#### Project Related GHG Emissions Generated

##### *Construction Activity GHG Emissions*

The project is assumed to require 10 months for construction estimated to start in November of 2021 and continuing to September 2022. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO<sub>2</sub>e emissions identified in Table VIII-1.

**Table VIII-1  
CONSTRUCTION EMISSIONS (METRIC TONS CO<sub>2</sub>(e))**

Year 2021	
<b>Total</b>	<b>252.4</b>
Amortized	8.4
Significance Threshold	3,000

\*CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant.

##### *Operational GHG Emissions*

There will not be any operational air pollution emissions because the project consists of a with a gravity fed storm drain.

##### *Consistency with GHG Plans, Programs and Policies*

The City of Rialto has participated in the San Bernardino County Regional Greenhouse Gas Reduction Plan with the San Bernardino Associated Governments (SANBAG). This study includes an inventory compilation of GHG emissions and an evaluation of reduction measures that could be adopted by the 21 partnership cities of San Bernardino County.

The proposed project has no associated operational emissions and generates minimal construction GHG emissions. Project GHG emissions will cease after the 10-month construction period. Therefore, there are no applicable mitigation measures for the proposed project.

Storm water conveyance is a very small component of the total City of Rialto GHG emissions inventory. Since project construction is below the recommended SCAQMD 3,000 MT CO<sub>2</sub>e threshold it would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions. As such, impacts under this issue are considered less than significant.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>IX. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – During construction of proposed Project, hazardous or potentially hazardous materials will be routinely handled in small quantities on the project site. These hazardous materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction equipment and vehicles; therefore, there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people or the environment. A permitted and licensed service provider will conduct the removal of such hazardous materials; any handling, transporting, use or disposal of hazardous materials would comply with all applicable federal, State, and local agencies and regulations. In order to ensure that no accidental releases of hazardous or potentially hazardous materials occur during construction, the following mitigation measure will be incorporated into the SWPPP prepared for the Project and it can reduce such a hazard to a less than significant level.

**HAZ-1** *All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed*

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***disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the Project development.***

Once the storm drain is installed and the roadway is returned to its original condition, there is a potential for a new source of routine transport or use of substantial volumes of hazardous materials or routine generation of hazardous waste. The road itself acts as a means of transport for vehicles carrying various materials at present and will continue to do so once the improvements have been implemented. There will be no greater risk than that which presently exists within this corridor as a result of implementation of the proposed storm drain improvement project. Therefore, the Project's potential to either create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or 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 is considered less than significant. No further mitigation is required.

- c. *Less Than Significant With Mitigation Incorporated* – The project alignment is located within 2,000 feet of the nearest school. Alder Middle School is located just south of Baseline Road at 7555 Alder Avenue, Fontana, CA 92336. As previously stated, all hazardous or potentially hazardous materials use and handling would comply with all applicable federal, state, and local agencies and regulations pertaining to the handling and use of hazardous materials. Adherence to these policies and regulations, as well as the implementation of the above mitigation measure will ensure that the Project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school during either construction or operations of the Project. Additionally, once in operation, the repaved roadway and new drainage alignment will function much as it does at present; thus, with implementation of mitigation measure HAZ-1, adherence to federal, state, and local laws regarding hazardous materials and roadway construction, impacts under this issue are considered less than significant.
  - d. *Less Than Significant Impact* – The proposed Project is located within existing roadways and within the area leading to Cactus Basin from Baseline Road within the City of Rialto. The project will not be located on a site that is included on a list of hazardous materials sites that are currently under remediation. According to the California State Water Board's GeoTracker website (consistent with Government Code Section 65962.5), which provides information regarding Leaking Underground Storage Tanks (LUST), there are several closed cases as well as one open case within 2,500 feet of the project alignment. However, none of these sites are within the alignment. The GeoTracker data is shown in Figures IX-1 through IX-10. The proximity of these sites to the proposed project will not cause a significant hazard to the public because the majority of these sites located near the proposed project have been remediated. The site that has not been remediated is under remediation for perchlorate contamination of the groundwater. Since the project is not anticipated to encounter groundwater, and because the site is about 2,000 feet north of Baseline Road, it is not anticipated that the project would encounter any hazardous materials as a result of this site. Therefore, due to the nature of the Project as a developed area that will not require earthwork at great depth, the proposed project has no potential to encounter the contaminated material, or upset conditions of contaminated areas that exist as a result of LUST sites. Any impacts under this issue are considered less than significant and no mitigation is required.
  - e. *Less Than Significant Impact* – The proposed project is located within the City of Rialto, which no longer contains any airports. The nearest public airport is the San Bernardino International Airport, located about 7.6 miles west/southwest of the storm drain alignment. The Rialto Airport, located just north of the project, was closed in 2014, and as such is no longer an active airport. According to the map prepared for the City of San Bernardino General Plan, the proposed project is not located within the planning boundaries for the Airport (Figure IX-11). The proposed storm drain improvements do not propose any human occupancy structures, new aboveground structures that exceed the height of the existing structures, nor will it place people onsite for any significant periods of time. As such, with no private airstrips and no public airports within a close vicinity to the proposed project, the
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proposed project would have a less than significant potential to result in a safety hazard or excessive noise for people residing or working in the project area.

- f. *Less Than Significant With Mitigation Incorporated* – The proposed storm drain alignment within the City of Rialto at Baseline Road and Cactus Basin is not located within any identified evacuation route as indicated by the San Bernardino County Mountain Area Safety Taskforce (MAST)<sup>1</sup>. There are several east/west roadways and freeways that provide access to the City and surrounding area. Additionally, the proposed project will not result in road closure, instead it will result in land closure, which will maintain access within this roadway during construction. Refer to the Transportation/Traffic Section of this document, Section XVII. Mitigation to address any potential traffic disruption and emergency access during construction issues is included in this section. Therefore, the potential for the development of the Project to physically interfere with any adopted emergency response plans, or evacuation plans is considered a less than significant impact with mitigation incorporated. No further mitigation is required.
- g. *No Impact* – According to the City of Rialto General Plan Fire Hazard Map (Figure IX-12), the proposed project footprint is not located in an area considered susceptible to wildland fire hazards. Therefore, Project implementation would not result in a potential to expose people or structures to fire hazards. No impacts are anticipated; no mitigation measures are required.

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<sup>1</sup> [http://www.sbcounty.gov/calmast/sbc/html/emergency\\_plan\\_routes.asp](http://www.sbcounty.gov/calmast/sbc/html/emergency_plan_routes.asp)

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>X. HYDROLOGY AND WATER QUALITY:</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) result in substantial erosion or siltation onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?; or,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### SUBSTANTIATION

- a. *Less Than Significant With Mitigation Incorporated* – The proposed storm drain improvements within Baseline Road leading to Cactus Basin will occur mostly within developed roadways and surrounding properties. The surface of the roadway within which the new storm drain will be installed is mostly flat, containing asphalt or concrete, as well as some compacted dirt and gravel areas. For a developed area, the only three sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater; from stormwater runoff; and potential discharges of pollutants, such as accidental spills. Within the City of Rialto, the City maintains a portion of the water distribution system, local sewage collection/treatment, and storm drain systems. Municipal wastewater is currently delivered to the Rialto Waste Water Treatment Plant (WWTP), and meets the waste discharge requirements imposed by the Santa Ana Regional Water Quality Control Board (RWQCB). To address stormwater and accidental spills within this environment, any new project must ensure that site development implements a Storm Water Pollution Prevention Plan (SWPPP) to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to ensure that project-related surface runoff meets regional discharge requirements over

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the short- and long-term. The project area as it presently exists is mostly impervious because it has been previously paved and compacted, with all water discharging into existing storm drains within the existing and adjacent roadways. The proposed project will install a new storm drain within Baseline Road leading to Cactus Basin. It is not anticipated that this effort will create greater pervious area than that which exists at present. The SWPPP would specify the Best Management Practices (BMPs) that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject area. Compliance with the terms and conditions of the NPDES and the SWPPP is mandatory and is judged adequate mitigation by the regulatory agencies for potential impacts to stormwater during construction activities. Implementation of the following mitigation measure is also considered adequate to reduce potential impacts to stormwater runoff to a less than significant level.

**HYD-1    *The City shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:***

- ***The use of silt fences;***
- ***The use of temporary stormwater desilting or retention basins;***
- ***The use of water bars to reduce the velocity of stormwater runoff;***
- ***The use of wheel washers on construction equipment leaving the site;***
- ***The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;***
- ***The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and***
- ***Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.***

With implementation of the above mitigation measure, these mandatory Plans and their BMPs, as well as mitigation measure HAZ-1 above which addresses remediation and contamination concerns from any potential leakage or spills of petroleum products onsite, the Project would have a less than significant impact under this issue. No further mitigation is required.

- b. ***Less Than Significant Impact*** – The Project does not propose the installation of any water wells that would directly extract groundwater and the project would maintain a balance of pervious surface area comparable to that which exists at present. The Project is located within the Rialto-Colton Groundwater Basin. The groundwater depth is substantially below the ground surface and will not be encountered during construction of the Project because it is about 100 feet below ground surface in the parts of the subbasin.<sup>2</sup> Because the proposed project would mostly be located within existing roadways that do not provide pervious areas for groundwater recharge, the storm drain improvements within the project alignment does not serve as a location for significant groundwater recharge. This is because once the storm drain has been installed, the project will not require any water to function. Therefore, the Project will not 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

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<sup>2</sup> [https://water.ca.gov/LegacyFiles/pubs/groundwater/bulletin\\_118/basindescriptions/8-2.04.pdf](https://water.ca.gov/LegacyFiles/pubs/groundwater/bulletin_118/basindescriptions/8-2.04.pdf)

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the local groundwater table level. Impacts under this issue are considered less than significant and no mitigation is required.

c. i-iv.

*Less Than Significant Impact* – No substantial impact to drainage patterns or structures will result from implementing this project. The storm drain will be installed belowground mostly within an existing roadway, and, once installed, will generate essentially the same amount of stormwater. The proposed storm drain alignment will ultimately provide more efficient drainage, runoff capture, and storm drain capacities than that which exists at present. The roadways will be repaved to accommodate existing and anticipated stormwater discharge utilizing the same drainage patterns. No substantial change to the existing drainage pattern will result from project implementation. Project implementation will direct flow to the new storm drain located on Baseline Road. The new storm drain will collect runoff in a more efficient and environmentally responsible manner than that which exists at present.

Adequate drainage facilities exist or will be developed/relocated by this Project to accommodate future drainage flows, and will therefore result in a less than significant impact. Based on the data outlined above, this Project will not substantially alter the existing drainage pattern of the site or area; result in substantial erosion or siltation onsite or offsite; substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or, impede or redirect flood flows. Therefore, impacts under these issues are considered less than significant. No additional mitigation is required.

d. *No Impact* – According to the Flooding Hazards map prepared by the City of Rialto General Plan (Figure IX-1), the Baseline Road corridor is not located within a special flood hazard area inundated by a 100-year flood; it is in an area that is outside of the 500-year floodplain. Improvements to the storm drain system will occur within existing road rights-of-way or on vacant property containing no structures obtained for drainage use by the City as part of the project. Though the portions of the City of Rialto are vulnerable to inundation from Lytle Creek, though the proposed storm drain alignment is not located in such an area. Therefore, the project is not located within a flood hazard, and as such, would not risk release of pollutants due to project inundation. No impacts are anticipated, and no mitigation is required.

e. *Less Than Significant Impact* – The purpose of the proposed project is to ensure that the drainage from Baseline Road is more adequately managed and ultimately is directed for recharge at Cactus Basin. The storm drain will be designed with BMP's to prevent litter and some pollutants from discharging into Cactus Basin and ultimately into the Rialto-Colton Groundwater Basin. As such, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan because the project would facilitate better management of storm water runoff recharging into the groundwater basin, and would not require water in order to operate.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XI. LAND USE AND PLANNING:</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUBSTANTIATION

- a. *Less Than Significant Impact* – The Project footprint will occur within developed roadways and surrounding property. The majority of the project footprint has no General Plan Land Use Designation because roadways are considered essential City infrastructure. However, the proposed storm drain alignment traverses a section of land between Baseline Road and Cactus Basin, which is located on land designated for Open Space Resource Use and land designated for Airport-Related Development by the Rialto Airport Specific Plan. Once constructed the storm drain alignment—with the exception of the outlet at the basin basin—will be installed below ground, and as such, will not result in physically dividing an established community, particularly because the majority of the storm drain improvements will occur within existing road rights-of-way. It is anticipated that the new storm drain within this portion of Baseline Road will benefit this corridor, and will have no potential to physically divide a community. No impacts are anticipated and no mitigation is required.
- b. *No Impact* – Please refer to the discussion under issue XI(a) above. The Project will occur mostly within existing roadways within an area designated with several different land uses within the Cities of Rialto and Fontana. The project will develop a new storm drain alignment within the Baseline Road corridor in Rialto, which is an existing, developed roadway corridor. Thus, the development of the proposed project within the proposed alignment will be compatible with existing land uses and land use plan, and no conflict or impact to land use can be identified. No mitigation is required.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XII. MINERAL RESOURCES:</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**SUBSTANTIATION:**

a&b. *Less Than Significant Impact* – The storm drain improvement Project is located in an entirely urbanized area surrounded by development within the City of Rialto. The entirety of Project footprint does not contain known mineral deposits, particularly given that the majority of the project will be installed within existing roadways. According to the City of Rialto General Plan Mineral Resource Zones Map (Figure XII-1), the project area is located within the MRZ-2 mineral land classification, which is defined as areas where geologic data indicate that significant PCC-Grade aggregate resources are present. The type of project proposed is within an entirely developed area and will improve existing road rights-of-way and within property between Baseline Road and Cactus Basin. Therefore, the development of the Project will not cause any loss of mineral resource values to the region or residents of the state, nor would it result in the loss of any locally important mineral resources identified in the City of Rialto General Plan. No impacts would occur under this issue. No mitigation is required.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XIII. NOISE:</b> Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## SUBSTANTIATION

### Background

Noise is generally described as unwanted sound. The proposed storm drain alignment will be developed within Baseline Road from Tamarind Avenue to Cactus Basin. The alignment traverses a section of land between Baseline Road and Cactus Basin, designated for Open Space Resource Use and land designated for Airport-Related Development by the Rialto Airport Specific Plan. The surrounding uses include Business Park and Specific Plan (Specific Plan are Employment, Employment Commercial Overlay, General Commercial, and Private Rec. Center Existing Use to Remain), Single Family Residential (R-SF)(Fontana), Open Space – Resources, and Public Facilities (P-PF)(Fontana).

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called "A-weighting," written as "dBA."

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable"

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up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

The City of Rialto Municipal Code states the following in regards to Construction Noise:

*The permitted hours for such construction work are as follows:*

**October 1st through April 30th**

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

**May 1st through September 30th**

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

- a. *Less Than Significant With Mitigation Incorporated* – The proposed project footprint is located in areas with moderate-to-high background noise given the proximity to the local roadway system at any point within the project area. The City of Rialto's General Plan Noise Contour Map (Figure XIII-1) shows that the roadway noise along Baseline Road is about 80 CNEL at the centerline of the roadway and at about 65 CNEL just outside of the roadway at the adjacent properties. The Noise Contour Map indicates that the noise levels in the area in which the storm drain will be installed from Baseline Road to Cactus Basin is between 55 and 60 CNEL. According to the City of Rialto General Plan, these volumes are projected to increase in the future as development accelerates within the City. The proposed project would develop a storm drain below ground within Baseline Road, and as such, the project is not anticipated to install any permanent sources of noise. The segment of Baseline Road in which the storm drain will be installed does contain adjacent residential uses, and, as such, the exteriors of the nearest residences, which contain sensitive receptors, are located between 25 and 50 feet from the pipeline alignments at several points within the project footprint. Depending on the land use adjacent to Baseline Road within the project area, the normally acceptable CNEL, dB would range between 60 and 75 dBA.

Short Term Noise

As shown in the tables above, the City of Rialto Noise Ordinance prohibits construction activities between 5:30 PM and 7 AM Monday – Friday, and between 5 PM and 8 AM on Saturdays, with no construction activities permitted on Sundays or State holidays from October to April, and between 7 PM and 6 AM Monday – Friday and 5 PM to 8 AM on Saturdays, with no construction activities permitted on Sundays or State holidays from May to September. Construction equipment generates noise that ranges between approximately 75 and 90 dBA at a distance of 50 feet. Refer to Table XIII-1, which shows construction equipment noise levels at 25, 50 and 100 feet from the noise source.

Receptors located adjacent to the roadways in which the proposed pipeline alignment will be installed may experience increased noise levels during construction, but the proposed project will comply with the City's restrictions on night-time construction activity. Therefore, through compliance with the City's noise standards, construction of the proposed project would not result in the generation of a substantial temporary or permanent noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, contingency mitigation is provided below to reduce noise levels at residences and/or minimize or address complaints from local sensitive noise receptors.

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**Table XII-1**  
**NOISE LEVELS OF CONSTRUCTION EQUIPMENT AT**  
**25, 50 AND 100 FEET (in dBA Leq) FROM THE SOURCE**

Equipment	Noise Levels at 25 feet	Noise Levels at 50 feet	Noise Levels at 100 feet
<b>Earthmoving</b>			
Front Loader	85	79	73
Backhoes	86	80	74
Dozers	86	80	74
Tractors	86	80	74
Scrapers	91	85	79
Trucks	91	85	79
<b>Material Handling</b>			
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Crane	89	83	77
Derrick	94	88	82
<b>Stationary Sources</b>			
Pumps	82	79	70
Generator	84	78	72
Compressors	87	81	75
Other			
Saws	84	78	72
Vibrators	82	76	70

Source: U.S. Environmental Protection Agency "Noise"

The short-term noise impacts associated with Project construction activities are forecast to be less than significant through implementing the following measures. As construction activities may be a nuisance to nearby residents, the following mitigation is recommended:

- NOI-1** *No construction activities shall occur during the hours of 5:30 PM and 7 AM Monday – Friday, and between 5 PM and 8 AM on Saturdays from October to April, and between 7 PM and 6 AM Monday – Friday and 5 PM to 8 AM on Saturdays from May to September; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.*
- NOI-2** *The City shall establish a noise complaint response program and shall respond to any noise complaints received for this Project by measuring noise levels at the affected receptor site. If the noise level exceeds an Ldn of 60 dBA exterior or an Ldn of 45 dBA interior at the receptor, the City will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.*
- NOI-3** *The City will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by City personnel during construction activities.*



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- NOI-4     *Equipment not in use for five minutes shall be shut off.***
- NOI-5     *Equipment shall be maintained and operated such that loads are secured from rattling or banging.***
- NOI-6     *Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.***
- NOI-7     *No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.***

Long Term

The long term or permanent change in noise from the proposed Rialto Baseline Storm Drain Project would be minimal because the majority of the project will be located below ground, and once constructed, would not generate noise beyond that which exists within the footprint of the project at present. Based on the existing noise levels in the area surrounding the project from nearby traffic, and due to the fact that the no new noise generating activities will occur, operation of the proposed project would not result in the generation of a substantial temporary or permanent noise levels in the vicinity of a project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

- b. *Less Than Significant With Mitigation Incorporated* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (VdB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The FTA assessment states that in contrast to airborne noise, ground-borne vibration is not a common environmental problem. Although the motion of the ground may be noticeable to people outside structures, without the effects associated with the shaking of a structure, the motion does not provoke the same adverse human reaction to people outside. Within structures, the effects of ground-borne vibration include noticeable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. FTA assessment further states that it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. However, some common sources of vibration are trains, trucks on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment. The Federal Transit Association (FTA) guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential Project related vibration impacts.

In the short term, the excavation and removal/demolition activities required to implement the drainage improvements have limited potential to create some vibration at the nearest sensitive receptors adjacent to the project footprint. The proposed storm drain construction do not include activities that would generate substantial ground vibration. Specifically, no pile driving or major earth moving activities are anticipated to occur as a result of implementation of the proposed project. Removal of pavement may require some jackhammer and loader activities, but these activities do not typically generate enough vibration energy to adversely impact adjacent structures, which are already exposed to large trucks traveling on the existing road. Based on the type of equipment and construction activities required to install the storm drain outlined in the Project Description, the vibration impacts are forecast to be less than significant. However, the following contingency mitigation measure shall be implemented:

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**NOI-8    *The construction contractor shall provide signs (2) along the roadway identifying a phone number for adjacent property owners to contact regarding excessive vibration. The contractor shall respond within 24 hours to any complaint at this phone number; assess the complaint; and, if reasonable, adjust construction activities (use different construction methods, slow down construction activity, or other measures) to reduce vibration at the property from where the complaint was received.***

Implementation of the above measure will ensure that any short-term impacts to the nearest sensitive receptor would be considered less than significant.

- c. *No Impact* – The proposed project is located within the City of Rialto, which does not contain any airports. The nearest public airport is the San Bernardino International Airport, located about 7.6 miles west/southwest of the storm drain alignment. The Rialto Airport, located just north of the project, was closed in 2014, and as such is no longer an active airport. The San Bernardino Airport Noise Contours do not overlap with the project area. As such the proposed storm drain alignment is not located within the vicinity of a private airstrip or an airport land use plan, and as such, would not expose people residing or working in the project area to excessive noise levels.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XIV. POPULATION AND HOUSING:</b> Would the project:				
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

- a. *Less Than Significant Impact* – Implementation of the Project will not induce substantial population growth in the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). The Project is considered a vital infrastructure project because it proposes to improve storm drain system within the City of Rialto. It is anticipated that construction will require a temporary work force; however, this is short-term and with a maximum of about 30 employees will not induce substantial population growth. It is not anticipated that this project would require any additional City employees once installed. The City of Rialto had a population of 107,330 persons in 2016.<sup>3</sup> The anticipated build-out population within the City, according to the City of Rialto General Plan, is about 125,256 persons. It is unknown what percentage of the temporary workforce required to construct the proposed project would be drawn from the general area or will bring new residents to the project area; however, given that the construction work force would be temporary and that the project is not anticipated require any new employees, the proposed project is not anticipated to induce population growth in the area. Thus, based on the type of project proposed, the proposed project will not induce substantial population growth either directly or indirectly.
- b. *No Impact* – The proposed project will occur within an existing roadway and a segment of land between Cactus Basin and Baseline Road, neither of which contain housing or persons. No occupied residential homes are located within the project footprint; therefore, implementation of the proposed project will not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No impacts will occur; therefore, no mitigation is required.

<sup>3</sup> <https://www.scag.ca.gov/Documents/Rialto.pdf>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XV. PUBLIC SERVICES:</b> 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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

- a. *Less Than Significant Impact* – The City of Rialto receives fire protection and emergency medical services from the Rialto Fire Department. The Rialto Fire Department deploys from four fire stations staffed by 24 hours per day by career firefighters and one administrative office. The Rialto Fire Department staffs one battalion chief, three engine companies, one truck company and four paramedic ambulances each day. The nearest fire station to the proposed project is Rialto Fire Station 203 1550 N. Ayala Dr., which is located just north of Baseline Road. The proposed project would develop a new storm drain alignment within Baseline Road from Tamarind Avenue to Cactus Basin. The demand for fire protection within the project alignment primarily consists of incidental traffic accidents and emergencies within the corridor or at adjacent businesses and residences. Additionally, the provision of adequate drainage systems within the City is viewed as a benefit to fire protection services and to the public in general. No substantial changes in existing fire protection facilities are anticipated and potential impacts would be less than significant as a result of the proposed project. No mitigation is required.
- b. *Less Than Significant Impact* – The area surrounding the Project is completely urbanized with varying land uses ranging from open space to commercial to residential in nature. The City of Rialto is served by the City of Rialto Police Department, located at 128 N Willow Ave, Rialto, CA 92376, which is about one mile southeast of the project footprint. The Department employs 142.5 total employees, 103 sworn and 39.5 non-sworn and services 28.5 square mile area. The Rialto Police Department offers a variety of services and assignments to include Patrol, K-9, School Resource Officer (SRO), Street Crime Attack Team (SCAT), Investigations, Traffic, Narcotics, Training/Backgrounds, Community Services, the Re-Entry Support Team, and is part of a Four-City Regional SWAT team (Inland Valley SWAT) and Air-Support Unit.<sup>4</sup> The Project is not expected to result in any unique or more extensive crime problems that cannot be handled with the existing level of police resources. No new or expanded police facilities would need to be constructed as a result of the project. Additionally, the provision of expanded infrastructure is viewed as a benefit to police protection services and to the public in general. Therefore, impacts to police protection resources from implementation of the proposed project are considered less than significant; no mitigation measures are required.

<sup>4</sup> <http://rialtopd.com/index.php/more/departments-history>

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- c. *Less Than Significant Impact* – The proposed project is located within the area served by the Rialto Unified School District and Fontana Unified School District. The Baseline Road corridor is located within approximately 2,000 feet of several schools, including the following: Locust Elementary School, Alder Middle School, Virginia Primrose Elementary School, Eric Birch High School, North Tamarind Elementary School, and Helen L. Dollahan Elementary School. The Project would not induce population growth within the City, as it will not employ any persons once the storm drain alignment has been installed. Thus, the proposed project will not generate an increase in elementary, middle, or high school population. Therefore, any impacts under this issue are considered less than significant. No mitigation is required.
  - d. *No Impact* – As stated in the preceding sections, the proposed Project is not anticipated to create an increase in population because no persons will be employed as a result of the Project once the proposed storm drain alignment has been installed. There are no parks in the vicinity of the Project that would be impacted by the proposed roadway improvement project, and with no forecast increase in population, implementation of the proposed project would not cause a substantial adverse physical impact to any parks within the City. No impacts are anticipated and no mitigation is required.
  - e. *No Impact* – Other public facilities include library and general municipal services. Since the Project will not directly induce population growth, it is not forecast that the use of such facilities will increase as a result of the proposed project. The improvements to this corridor will be consistent with the standards and requirements of the City and are therefore considered adequate to ensure adequate drainage is provided to prevent flooding during storm events, which are considered beneficial to most public services, including traffic. No impacts under this issue are anticipated, and no mitigation is required.
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XVI. RECREATION:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

- a. *No Impact* – As addressed in the discussion under Population and Housing, Section XIV and Public Services, Section XV(d) above, the proposed Project does not include a use that would substantially induce population growth, and will not require a substantial short-term labor force for construction of the Project and no long-term labor force is required for operations of the proposed project. Thus, the proposed Project will not generate a substantial increase in residents of the City who would increase the use of existing recreational facilities. Therefore, no impacts under this issue are anticipated. No mitigation is required.
- b. *No Impact* – The proposed Project consists of installation of a new storm drain within Baseline Road from Tamarind Avenue to Cactus Basin within the City of Rialto. The project will not include any recreational facilities, nor will it require the construction of new recreational facilities or expansion of new recreational facilities because the proposed project is not anticipated to substantially induce any population growth. The Project will require a small short-term labor force during construction and no long-term labor force during operation, as the road will function as it does at present, altered by updated drainage facilities to accommodate runoff within the proposed alignment. As a result, no recreational facilities—existing or new—are required to serve the Project, thus no impacts are anticipated under this issue. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XVII. TRANSPORTATION:</b> Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### SUBSTANTIATION

- a. *Less Than Significant With Mitigation Incorporated* – The proposed project is located within the City of Rialto. The majority of the proposed project will be installed within Baseline Road between Tamarind Avenue and Cactus Basin, though a portion traverses the area between Baseline Road and the storm drain outlet location at Cactus Basin. The City of Rialto traffic study guidelines indicate that if a project contributes less than 50 peak hour trips to a CMP intersection, a formal traffic study is typically not required as off-site improvements are assumed to be nominal for low traffic generating uses. As such, the proposed project is not anticipated to violate the City's Traffic Study Guidelines due to the limited number of trips required to implement the proposed project (below the City's Traffic Study Guidelines).

In the short-term, the proposed project will require the installation of a storm drain mostly within existing road rights-of-way. The roadway within which the storm drain will be installed (Baseline Road) is a major roadway that is important to circulation in the area. The installation of the storm drain will require one lane to be closed during the construction within Baseline Road. However, the project will require implementation of a traffic management plan in order to comply with the City of Rialto and the County of San Bernardino Master Plan of Roads and Circulation Plans, which will ensure adequate circulation within the area. During construction, an estimated 30 roundtrips from construction workers would occur per day. A maximum of 30 roundtrips per day will occur to support construction efforts (i.e. delivery or removal of construction materials, etc.). Implementation of the Project has the potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. However, with implementation of the following mitigation measure requiring a construction traffic management plan, the impacts of implementing the Project would be considered less than significant.

***TRAF-1 The construction contractor will provide adequate traffic management resources, as determined by the County of San Bernardino, and the City of Rialto. The City shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. The traffic management plan shall be prepared and approved by the City(s) and County prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of***

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***adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.***

***TRAF-2 The City shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of San Bernardino, and the City of Rialto standard design requirements.***

The operation phase of the proposed project will not require trips because the project will function as a storm drain; no new employees of the City will be required. As such, operation of the proposed project would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Therefore, with implementation of the above mitigation measures, implementation of the project has a less than significant potential to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

- b. *Less Than Significant Impact* – The proposed project would install a storm drain alignment within and adjacent to Baseline Road from Tamarind Avenue to Cactus Basin. The City of Rialto has not developed a threshold for vehicle miles travelled; however, the proposed project will not require any operational traffic beyond any maintenance trips to the storm drain alignment or the outlet at Cactus Basin. Construction of the proposed project will require a maximum of about 25 trips to and from the site each day as a result of employee and construction related trips. Given that these trips are temporary, and are not anticipated 100 miles round trip per day during the 6 months to 1 year period required to complete construction, construction related vehicle miles traveled impacts are considered less than significant. Furthermore, the proposed project would not generate a significant number of trips once in operation, and the City of Rialto Office location is less than 3 miles from the storm drain alignment. As such, development of the Rialto Basin Storm Drain Project is not anticipated to result in significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.
  - c. *Less Than Significant With Mitigation Incorporated* – The project will temporarily alter existing roadways during construction of the proposed storm drain alignment. However, this alteration will not create any hazards due to design features of incompatible uses. The project will install a new storm drain system within existing rights-of-way within Baseline Road. As stated under issue XVII(a) above, the with the implementation of mitigation measures **TRAF-1** and **TRAF-2** above, which require implementation of a construction traffic management plan, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any hazards or incompatible uses in existing roadways are anticipated because once the storm drain alignment is installed, the roadway will be returned to its original condition, or better, as will the segment of land between Cactus Basin and Baseline Road. Thus, any impacts are considered less than significant with implementation of mitigation. No additional mitigation is required.
  - d. *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under issue XVII(a) above. The proposed project will require closure of one lane within the roadway in which the storm drain alignment is installed. This effort will occur within existing rights-of-way within Baseline Road. During construction, a potential exists for short-term hazards and constraints on both normal and emergency access within the affected area, especially due to the construction of the proposed pipeline alignment, as it will require partial lane closure within existing rights-of-way. There are no emergency access roadways located within the project footprint. However, adequate emergency
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access will be provided along these routes throughout construction. Though closure of one lane will impact traffic, the implementation of mitigation measures **TRAF-1** and **TRAF-2** will ensure that impacts are reduced to a level of less than significant. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XVIII. TRIBAL CULTURAL RESOURCES:</b> Would the project cause a substantial change in the significance of tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to the California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SUBSTANTIATION

A Tribal Resources is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape;
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

a&b. *Less Than Significant With Mitigation Incorporated* – The City of initiated AB 52 consultation with five tribes/tribal entities who previously notified the City: Gabrieleño Band of Mission Indians – Kizh Nation, Gabrieleño-Tongva San Gabriel Band of Mission Indians, Morongo Band of Mission Indians,

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San Manuel Band of Mission Indians, Gabrieleño-Tongva Nation (sent to Sam Dunlap, Cultural Resources Director and Sandonne Goad, Chairperson). Notification was provided to the tribes via an AB 52 consultation letter which was initiated on June 4, 2019. The only Tribe to respond was the Gabrieleño Band of Mission Indians – Kizh Nation. A letter was received from the Tribe on June 10, 2019 requesting that the City contact the Tribe to discuss consultation. As such, the City reached out to the Tribe a phone conference was set up for August 21, 2019, but the Tribe did not request any actionable items during this phone call; they expressed interest in the Project, but did not respond in writing with any specific requests related to consultation. The City was been unable to reach the Tribe for further instruction, and as such consultation has concluded as of October 7, 2019. It should be noted that the Cultural Resources Report (Appendix 4) concluded that no additional cultural resources investigation is recommended for the project unless construction plans undergo such changes as to include areas not covered by this study; however, if buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds. As such, given that the Tribe did not provide any further input on the treatment of cultural resources, the City has decided to implement the following mitigation measure to ensure that the Tribe is given the opportunity to consult with the City before commencement of any construction activities requiring excavation:

***TRC-1 The Contractor shall be required to notify the Gabrieleño Band of Mission Indians-Kizh Nation (Tribe) at least 2 weeks prior to the commencement of any construction activities requiring excavation related to the proposed Project at (844) 390-0787. The Contractor shall document the date that the Tribe was notified, and give the Tribe two weeks to respond prior to commencement of any excavation required to develop the proposed Project.***

***If the Tribe responds, the City shall negotiate with the Tribe to arrange any requests of the Tribe related to the handling of and potential for Tribal Cultural Resources with the understanding that the City has no responsibility to fund any requests of the City from the Tribe.***

***If the Tribe does not respond with any formal requests of the City within the 2-week period, the Contractor shall proceed with construction with the understanding that the Tribe does not wish to provide further input on the proposed Project. This shall conclude the City's effort to enable to the Tribe to provide input on this Project.***

With the incorporation of these mitigation measures, as well as the mitigation identified under Cultural Resources, any impacts under these issues are considered less than significant.

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XIX. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SUBSTANTIATION

### a. Water

*Less Than Significant Impact* – The proposed project is located within an area served by the City of Rialto Department of Public Works Water Division (Water Division). The Water Division services approximately 8.5 square miles in the central portion of the City, from Baseline Avenue to Rialto Avenue, with a narrow extension in the south to I-10. The City's primary source of water is City-owned water wells. These wells draw water from four water basins: Lytle Creek Surface Water Basin, Rialto Ground Water Basin, Bunkerhill Ground Water Basin, and Chino Hill Ground Water Basin. Though, according to the General Plan, in 2006, SBVMWD provided 26 percent of City's total water, and seven percent came from the WVWD. The proposed project would not require expansion or construction of new water facilities. However, the project will contribute to groundwater recharge through the creation of an outlet for the stormwater carried by the new storm drain at Cactus Basin. As such, this project is not anticipated to result in any significant environmental effects. Impacts are less than significant.

### Wastewater

*Less Than Significant Impact* – The proposed project would install a new storm drain within an existing roadway. This infrastructure is not anticipated to require expansion or development of new wastewater treatment facilities. This project would not require connection to wastewater treatment collection services once in operation. As such, this project is not anticipated to require or result in the relocation or construction of new or expanded wastewater treatment facilities, the construction or relocation of which could cause significant environmental effects. Impacts are less than significant.

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### Stormwater

*Less Than Significant Impact* – The proposed project would install a new stormwater collection system within Baseline Road with an outlet at Cactus Basin. The project in and of itself will result in construction of new stormwater facilities, but as discussed throughout this document, the project is not anticipated to result in any significant impacts. The roadway within which the storm drain will be installed will be returned to its original condition upon completion of the placement the storm drain alignment. The project will ensure that surface water will be adequately managed within the project footprint. The roadway will generate essentially the same amount of stormwater as they do at present because no expansion of roadway is anticipated. Conveyance of stormwater to drainage alignments and storm drains within these roadways will be improved through the development of the new storm drain alignment, which is considered a benefit to the community. Therefore, development of the Rialto Basin Storm Drain Project would not result in a significant environmental effect related to the relocation or construction of new or expanded stormwater facilities. Impacts are less than significant.

### Electric Power

*No Impact* – The proposed project would install a new storm drain alignment. The new storm drain alignment will not require any electricity to operate, though during construction some of the equipment used may be electric. Given that the project will not require connection to electricity during operation, the project would have no potential to require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects. No impacts are anticipated under this issue.

### Natural Gas

*No Impact* – Development of the Rialto Basin Storm Drain Project would not demand natural gas. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. No impacts are anticipated.

### Telecommunications

*No Impact* – Development of the Rialto Basin Storm Drain Project would not require installation of wireless internet service or phone service. Therefore, the project would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunication facilities. No impacts are anticipated.

- b. *Less Than Significant Impact* – Please refer to issue X(b), Hydrology and Water Quality, above. The proposed project will not require any water to operate as it will function as a storm drain alignment carrying stormwater to Cactus Basin. The proposed project will require a maximum of 10,000 gallons of water per day during construction. This temporary increase in water demand for construction purposes is considered less than significant because the project will be conducted within existing entitlements from the Department of Public Works Water Division. Based on the limited and short-term demand for potable water during construction of the proposed pipeline replacement project, sufficient water supplies are available to serve the project; according to the Rialto Water Services website,<sup>5</sup> the maximum daily production is 13.812 million gallons, while the average daily production is 9.11 million gallons, which leaves ample supply available for the Project during construction. As such, impacts under this issue are considered less than significant and no mitigation is required.
- c. *No Impact* – Please refer to the discussion under XIX(a) above. The storm drain alignment carrying stormwater to Cactus Basin will not require installation of restroom facilities; construction will require portable toilets that will be handled by the provider of such facilities. As such, given that the storm drain alignment will not require any new connection to wastewater treatment services, it is not anticipated that the project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. No impacts under this issue are anticipated.

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<sup>5</sup> <https://rialtowater.com/about-us/water/>

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d&e. *Less Than Significant With Mitigation Incorporated* – This project will result in construction waste from the removal of asphalt, concrete, and similar materials. The inert wastes can be disposed of at existing municipal solid waste facilities, which have adequate capacity to accept inert wastes generated by this project, or can be recycled onsite. The nearest landfill to the Project area is the Mid-Valley Sanitary Landfill, which has a maximum permitted capacity of 7,500 tons per day, and a remaining capacity of 61,219,377 cubic yards (CY), with a maximum permitted capacity of 101,300,000 CY according to CalRecycle.<sup>6</sup> The proposed project will not result in any operational solid waste because it will function as an improved storm drain alignment, which will not require any employees to function excepting any drainage maintenance performed by the City. Additionally, any hazardous materials collected on the project site during either construction of the Project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the Project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. To further reduce potential impacts to solid waste facilities due to the large scale of the materials that may require disposal or recycling, the following mitigation measure will be implemented:

***UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the City for review and approval prior to the start of demolition/construction activities to accomplish this objective.***

Therefore, with the above mitigation measure, the Project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

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<sup>6</sup> <https://www2.calrecycle.ca.gov/swfacilities/Directory/36-AA-0055/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XX. WILDFIRE:</b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### SUBSTANTIATION

- a-d. *No Impact* – The proposed project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zone, therefore the proposed project can have no impacts to any wildfire issues. As stated in previous sections, according to the City of Rialto Fire Hazard Map for the project area, the proposed project is not located within the fire safety severity zone (Figure IX-12). The proposed project area is located in an urban area removed from the high fire hazard areas that are located adjacent to the San Gabriel Mountains and Lytle Creek Wash to the north. As such, no impacts under these issues are anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
<b>XXI. MANDATORY FINDINGS OF SIGNIFICANCE:</b>				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

- a. *Less Than Significant With Mitigation Incorporated* – The Project has no potential to cause a significant impact to any biological or cultural resources. The project has been identified as having no potential to degrade the quality of the natural environment, substantially reduce habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Based on the historic disturbance of the project footprint, especially given that the Project will not substantially impact habitat in and around Cactus Basin and that the remainder of the project will occur within existing road rights-of-way, the potential for impacting biological resources is low; however, mitigation has been identified to protect nesting birds. The cultural resources evaluation concluded that the Project site contains no historic resources, but given that it will not be altered by the proposed project, no impacts are anticipated. To ensure that any accidentally exposed subsurface cultural resources are properly handled, contingency mitigation measures will be implemented. With incorporation of Project mitigation measures all biology and cultural resource impacts will be reduced to a less than significant level.
- b. *Less Than Significant With Mitigation Incorporated* – The Project has ten (10) potential impacts that are individually limited, but may be cumulatively considerable. These are: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Resources, and Utilities and Service Systems. The Project is not considered growth-inducing, as defined by *State CEQA Guidelines*. These issues require the implementation of mitigation measures to reduce impacts to a less than significant level

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and ensure that cumulative effects are not cumulatively considerable. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, would have a less than significant cumulative impact.

- c. *Less Than Significant With Mitigation Incorporated* – The Project will achieve long-term community goals by providing a new storm drain alignment that would more efficiently manage runoff in the area surrounding the project footprint. The short-term impacts associated with the Project, which are mainly construction-related impacts, are less than significant with mitigation, and the proposed Project is compatible with long-term environmental protection. The issues of Air Quality, Geology and Soils, Hazards and Hazardous Materials, and Noise require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

### Conclusion

This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Aesthetics, Agricultural and Forestry Resources, Energy, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, Recreation, and Wildfire. The issues of Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems require the implementation of mitigation measures to reduce impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact.

Based on the findings in this Initial Study, the City of Rialto proposes to adopt a Mitigated Negative Declaration (MND) for the Rialto Basin Storm Drain Project. A Notice of Intent to Adopt a Mitigated Negative Declaration (NOI) will be issued for this project by the City. The Initial Study and NOI will be circulated for 30 days of public comment because this project does involve state agencies as either a responsible or trustee agency. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by the City. The City of Rialto will hold a future hearing for project adoption at City Hall, the date for which has not yet been determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA (statute).

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Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*, (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

*Revised 2019*

*Authority: Public Resources Code sections 21083 and 21083.09*

*Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3*

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## SUMMARY OF MITIGATION MEASURES

### Air Quality

AIR-1 Fugitive Dust Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone.
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard.
- Sweep streets daily if visible soil material is carried out from the construction site.

AIR-2 Exhaust Emissions Control. The following measures shall be incorporated into Project plans and specifications for implementation:

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

### Biological Resources

BIO-1 Burrowing Owl. Preconstruction presence/absence surveys for burrowing owl shall be conducted within 30 days prior to any onsite ground disturbing activity. The burrowing owl survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. In the event this species is not identified within the project limits, no further mitigation is required. If during the preconstruction survey, the burrowing owl is found to occupy the site, Mitigation Measure BIO-2 shall be required.

BIO-2 If burrowing owls are identified during the survey period, the City shall take the following actions to offset impacts prior to ground disturbance:

Active nests within the areas scheduled for disturbance or degradation shall be avoided from February 1 through August 31, and a minimum of 250-foot buffer shall be provided until fledging has occurred. Following fledging, owls may be passively relocated by a qualified biologist.

If impacts on occupied burrows in the non-nesting period are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows outside of the impact area.

If relocation of the owls is approved for the site by the CDFW shall require the City to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site. The relocation plan must include all of the following:

- The location of the nest and owls proposed for relocation.
  - The location of the proposed relocation site.
  - The number of owls involved and the time of year when the relocation is proposed to take place.
  - The name and credentials of the biologist who will be retained to supervise the relocation.
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- The proposed method of capture and transport for the owls to the new site.
  - A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).

- BIO-3 Preconstruction presence/absence surveys for SBKR shall be conducted within 45 days prior to any onsite ground disturbing activity. SBKR survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. If no presence of SBKR is found during the survey, mitigation measure BIO-3 need not be enforced.
- BIO-4 In the event that the preconstruction survey determines the presence of SBKR, the following actions shall be implemented: the City shall provide compensation for temporary loss of habitat and individual SBKR in the following manner: 1) the City shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; the City shall offset the loss of the temporarily disturbed habitat by purchase of acceptable SBKR habitat at a 1:1 ratio; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance within potential SBKR habitat shall occur until an ITP is obtained by the City. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.
- BIO-5 Preconstruction presence/absence surveys for LAPM shall be conducted within 30 days prior to any onsite ground disturbing activity. LAPM survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. If no presence of LAPM is found during the survey, mitigation measure BIO-5 need not be enforced.
- BIO-6 In the event that the preconstruction survey determines the presence of LAPM, the following actions shall be implemented: the City shall provide compensation for temporary loss of habitat and individual LAPM in the following manner: 1) the City shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; the City shall offset the loss of the temporarily disturbed habitat by purchase of acceptable LAPM habitat at a 1:1 ratio; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur within potential LAPM habitat until an ITP is obtained by the City. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.
- BIO-7 The City shall prepare and submit a 1602 Streambed Alteration Agreement (SAA) to the California Department of Fish and Wildlife (CDFW), a Section 401 Certification Permit to the Santa Ana Regional Water Quality Control Board; and, a Section 404 (Nationwide Permit No. 43) Permit to the USACE. No ground disturbance within jurisdictional waters shall occur until the City obtains the above permits. Note that the final compensation package contained in the permit shall be implemented by the City. If the permit conditions are different than the mitigation listed in this Document to protect biological resources, the City shall implement the mitigation identified in the permits.
- BIO-8 The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, the site shall be evaluated by a qualified biologist prior to the initiation of ground disturbance to determine the presence or absence of nesting birds. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.
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### **Cultural Resources**

- CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the City's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.
- CUL-2 Should human remains or funerary objects be encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

### **Geology and Soils**

- GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup.
- GEO-2 Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved in such a manner that roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.
- GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the water facilities are being installed.
- GEO-4 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.
- GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

### **Hazards and Hazardous Waste**

- HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the Project development.

### **Hydrology and Water Quality**

- HYD-1 The City shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that
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are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to:

- The use of silt fences;
- The use of temporary stormwater desilting or retention basins;
- The use of water bars to reduce the velocity of stormwater runoff;
- The use of wheel washers on construction equipment leaving the site;
- The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;
- The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and
- Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.

### **Noise**

- NOI-1 No construction activities shall occur during the hours of 5:30 PM and 7 AM Monday – Friday, and between 5 PM and 8 AM on Saturdays from October to April, and between 7 PM and 6 AM Monday – Friday and 5 PM to 8 AM on Saturdays from May to September; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.
- NOI-2 The City shall establish a noise complaint response program and shall respond to any noise complaints received for this Project by measuring noise levels at the affected receptor site. If the noise level exceeds an Ldn of 60 dBA exterior or an Ldn of 45 dBA interior at the receptor, the City will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.
- NOI-3 The City will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by City personnel during construction activities.
- NOI-4 Equipment not in use for five minutes shall be shut off.
- NOI-5 Equipment shall be maintained and operated such that loads are secured from rattling or banging.
- NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.
- NOI-7 No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.
- NOI-8 The construction contractor shall provide signs (2) along the roadway identifying a phone number for adjacent property owners to contact regarding excessive vibration. The contractor shall respond within 24 hours to any complaint at this phone number; assess the complaint; and, if reasonable, adjust construction activities (use different construction methods, slow down construction activity, or other measures) to reduce vibration at the property from where the complaint was received.

### **Transportation**

- TRAF-1 The construction contractor will provide adequate traffic management resources, as determined by the County of San Bernardino, and the City of Rialto. The City shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during
-

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excavation activities. The traffic management plan shall be prepared and approved by the City(s) and County prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.

- TRAF-2 The City shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of San Bernardino, and the City of Rialto standard design requirements.

### **Tribal Cultural Resources**

- TRC-1 The Contractor shall be required to notify the Gabrieleño Band of Mission Indians-Kizh Nation (Tribe) at least 2 weeks prior to the commencement of any construction activities requiring excavation related to the proposed Project at (844) 390-0787. The Contractor shall document the date that the Tribe was notified, and give the Tribe two weeks to respond prior to commencement of any excavation required to develop the proposed Project.

If the Tribe responds, the City shall negotiate with the Tribe to arrange any requests of the Tribe related to the handling of and potential for Tribal Cultural Resources with the understanding that the City has no responsibility to fund any requests of the City from the Tribe.

If the Tribe does not respond with any formal requests of the City within the 2-week period, the Contractor shall proceed with construction with the understanding that the Tribe does not wish to provide further input on the proposed Project. This shall conclude the City's effort to enable to the Tribe to provide input on this Project.

### **Utilities and Service Systems**

- UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the City for review and approval prior to the start of demolition/construction activities to accomplish this objective.
-

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## REFERENCES

CRM TECH, "Historical/Archaeological Resources Survey Report: Rialto Baseline Storm Drain Project, City of Rialto, San Bernardino County, California" dated May 16, 2019

Giroux and Associates, "*Air Quality and GHG Impact Analysis, HZ-116 Rialto Baseline Storm Drain Project, City of Rialto*" dated April 15, 2019

Jericho Systems, "*The Biological Resources Assessment and Jurisdictional Delineation: Rialto Storm Drain, Rialto, CA*" dated May 20, 2019

California State Water Board's GeoTracker website

*Drainage Study to the Renaissance Specific Plan (Encompass, 2015)*

Rialto Airport Specific Plan

City of Rialto General Plan

City of Rialto Renaissance Master Plan

County of San Bernardino General Plan

[http://www.sbcounty.gov/calmast/sbc/html/emergency\\_plan\\_routes.asp](http://www.sbcounty.gov/calmast/sbc/html/emergency_plan_routes.asp)

[https://water.ca.gov/LegacyFiles/pubs/groundwater/bulletin\\_118/basindescriptions/8-2.04.pdf](https://water.ca.gov/LegacyFiles/pubs/groundwater/bulletin_118/basindescriptions/8-2.04.pdf)

<https://www.scag.ca.gov/Documents/Rialto.pdf>

<http://rialtopd.com/index.php/more/departments-history>

<https://rialtowater.com/about-us/water/>

<https://www2.calrecycle.ca.gov/swfacilities/Directory/36-AA-0055>

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## FIGURES



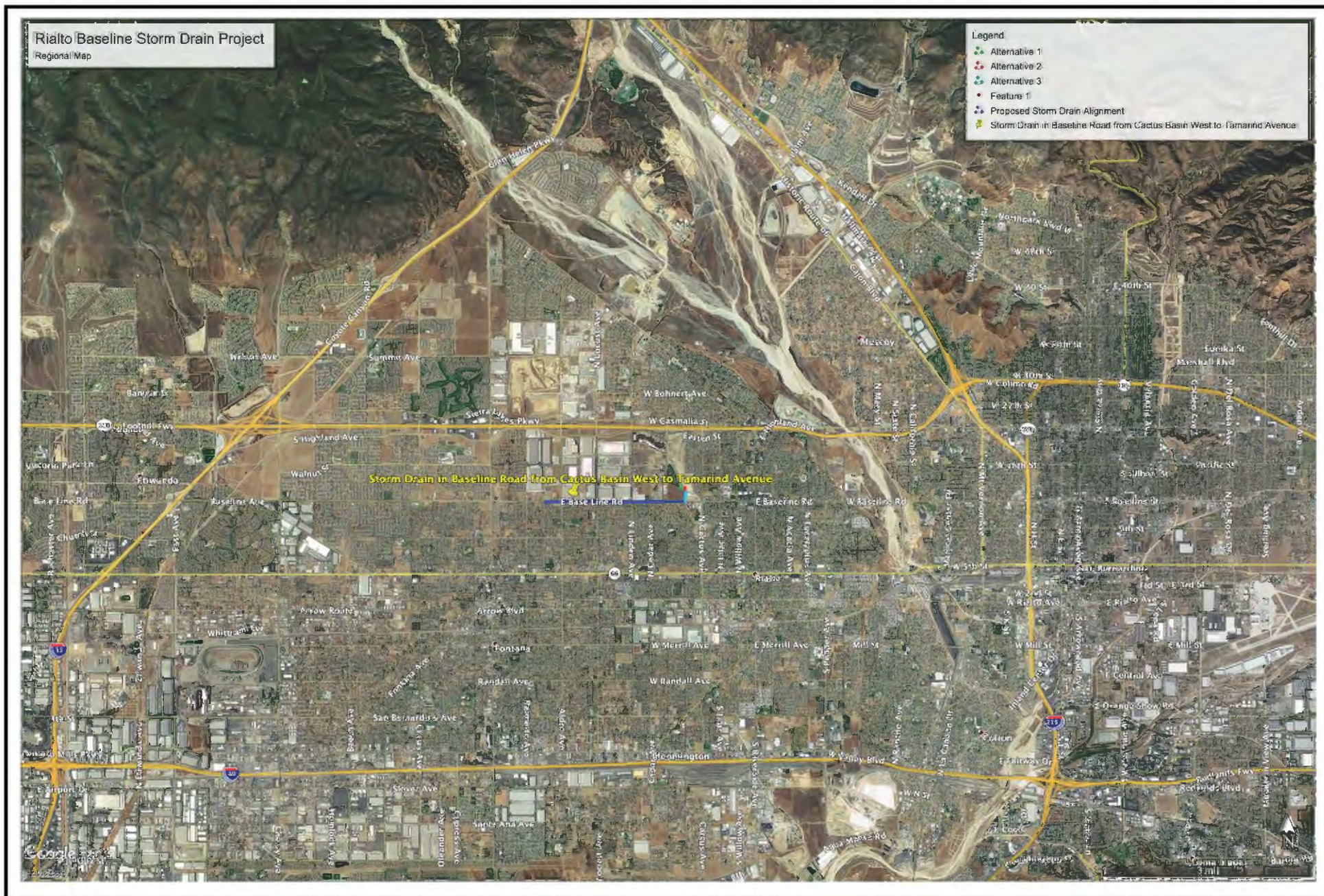


FIGURE 1



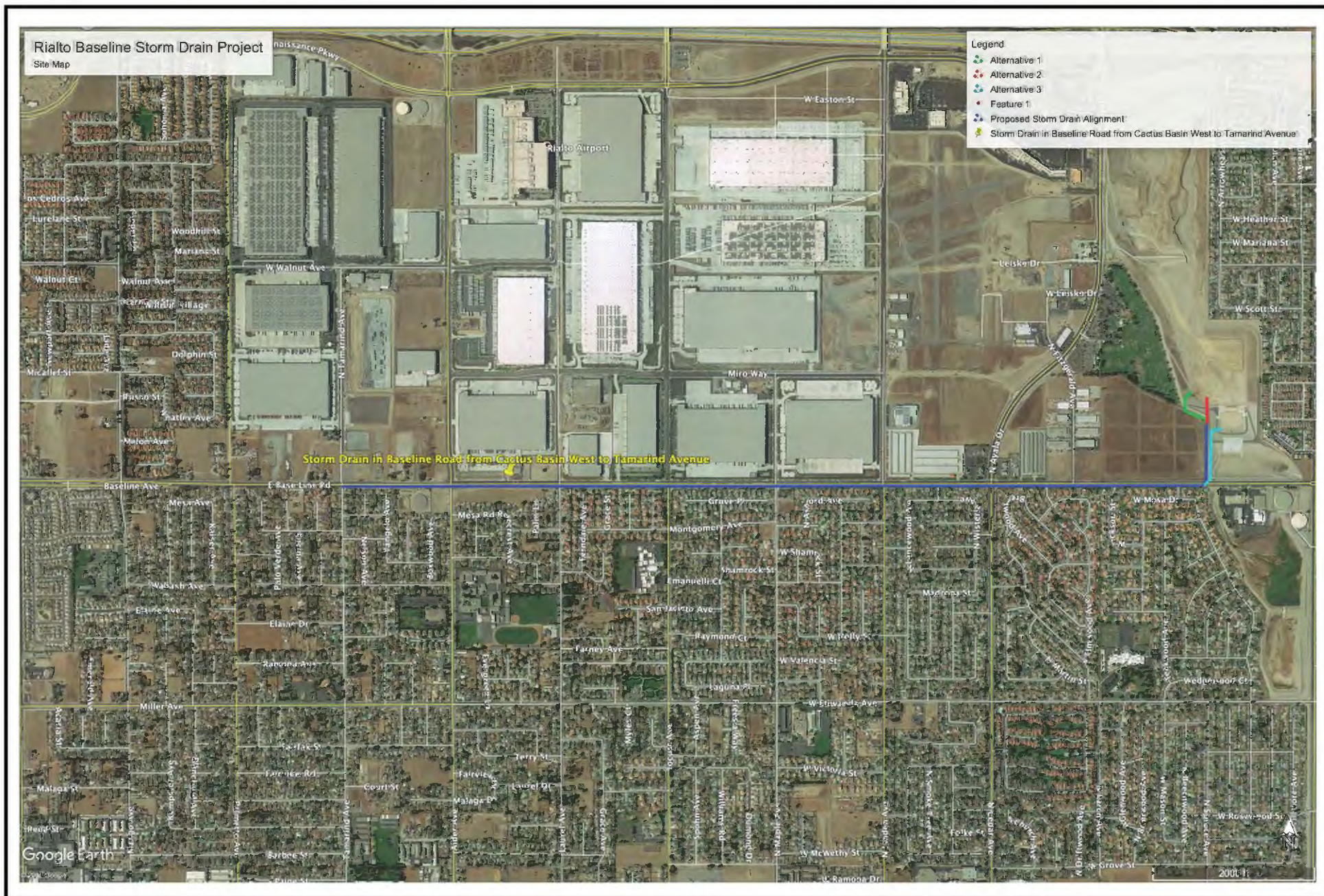


FIGURE 2





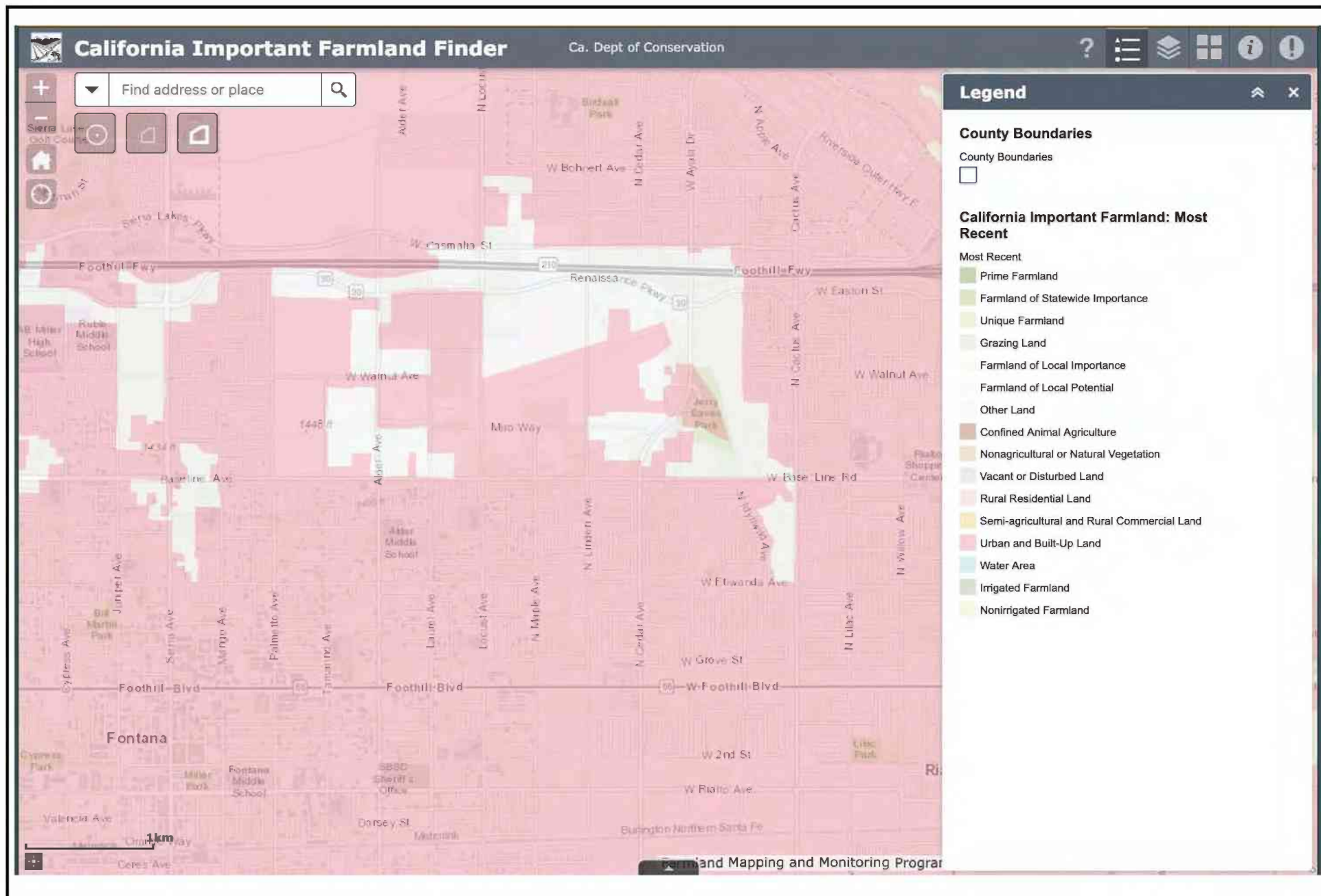


FIGURE II-1

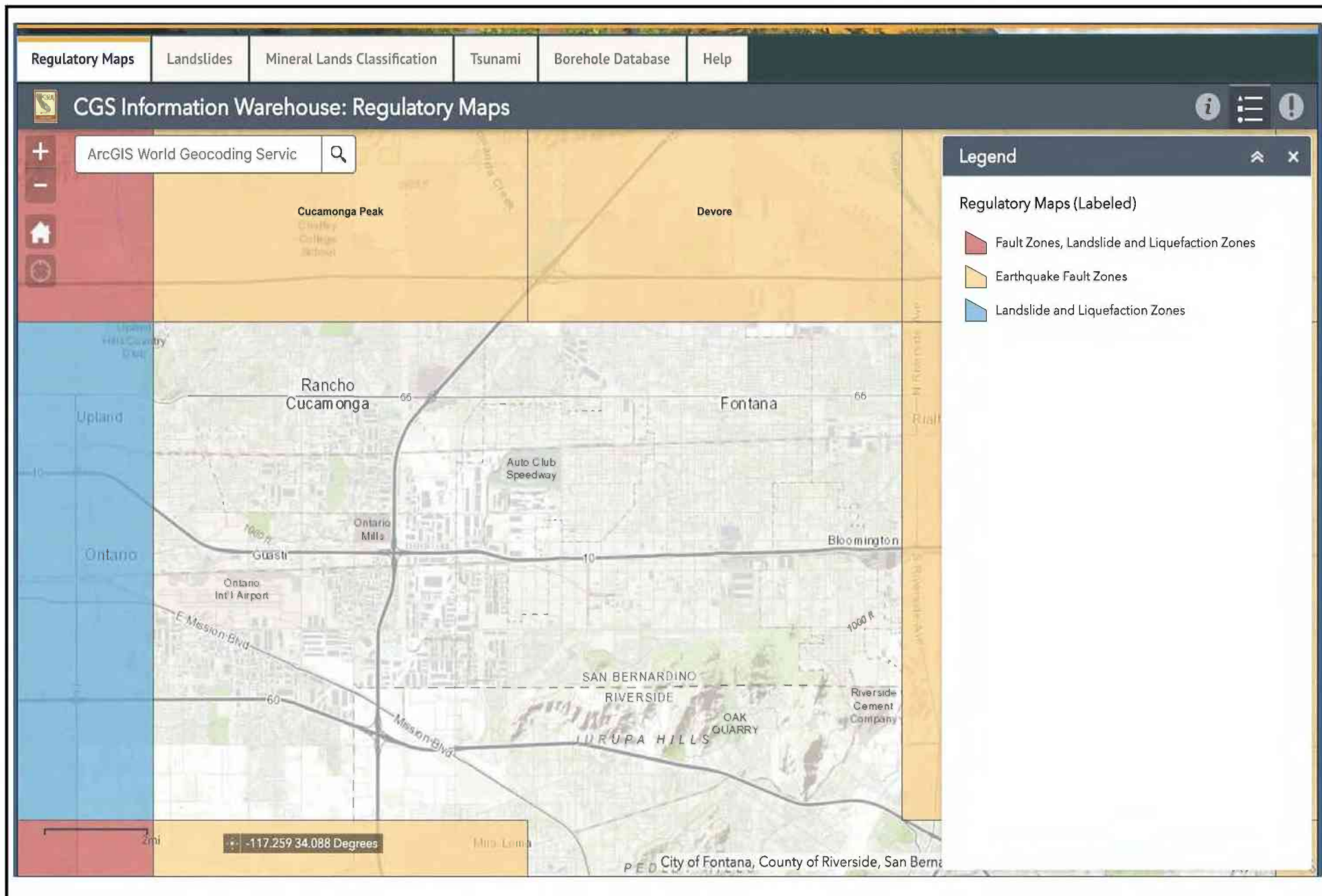
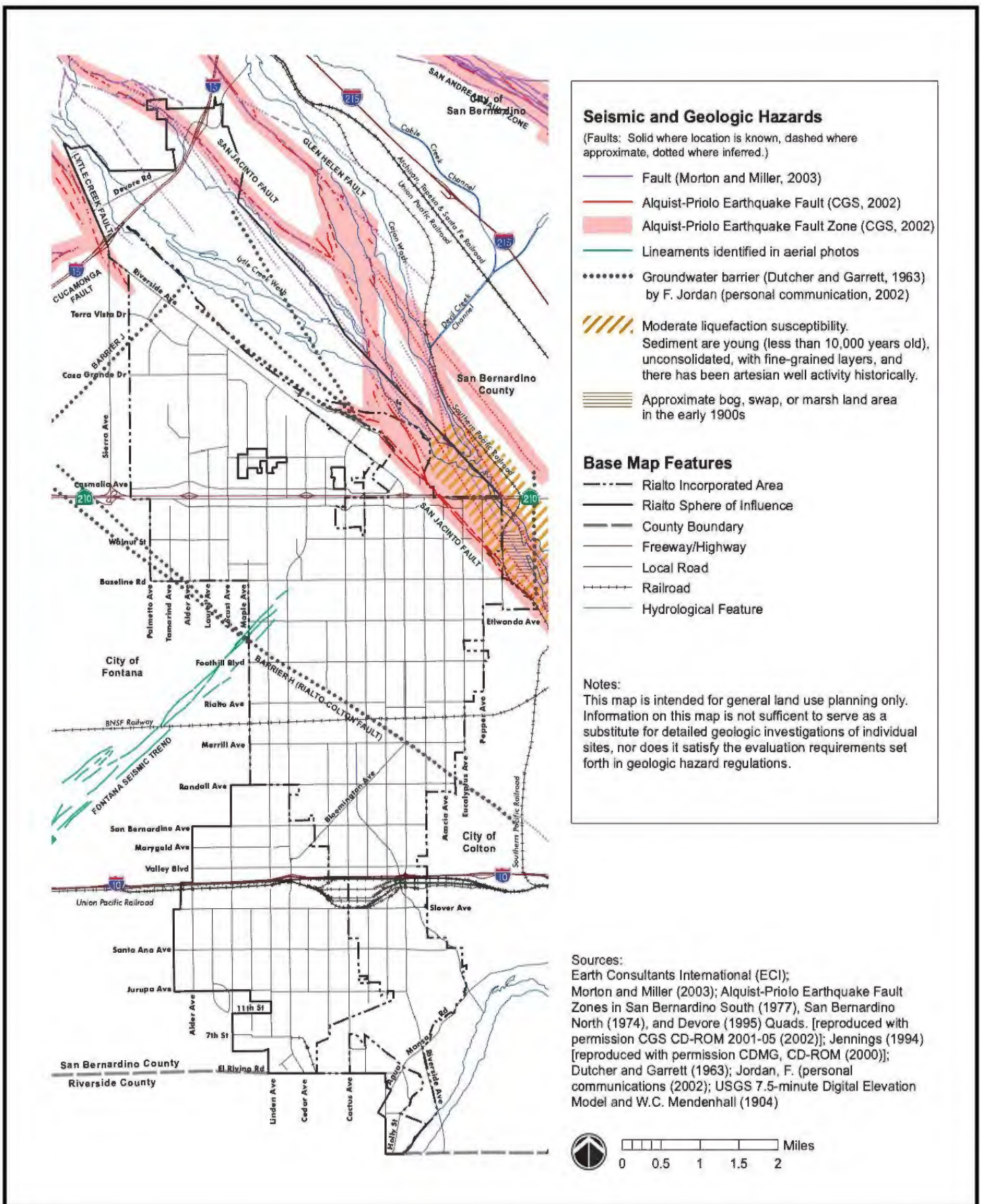


FIGURE VII-1

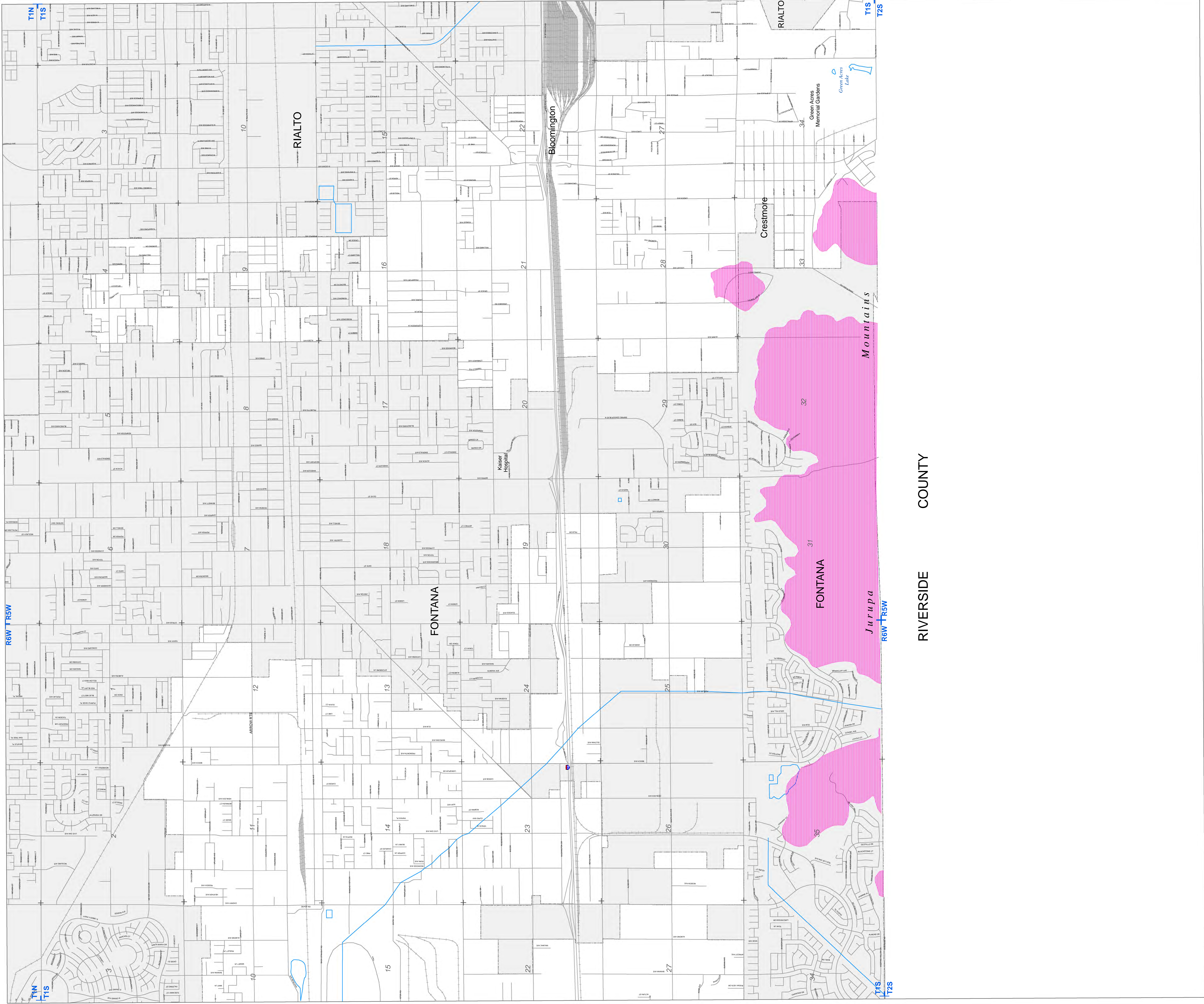




SOURCE: Rialto General Plan

FIGURE VII-2





San Bernardino County Land Use Plan  
GENERAL PLAN  
Geologic Hazard Overlays

**Generalized Landslide Susceptibility**

- Low to moderate
- Moderate to high
- Mapped, Existing Landslide
- Rockfall/Drainage-Flow Hazard Area (Forest Falls Only)

Map data originally compiled by a 1:50,000 scale topographic map by the Bureau of California Geology and Geology, 1987. Photo-reduced from 7.5 minute USGS quadrants by J.E. Hall and S.E. Carlson, 1988.

NOTICE: The 1:50,000 scale "Special Studies Series" has been changed to "Earthquake Fault Zones" and "Other 7.5, 15, 30, and 60 Minute Series" and has been removed from the "Appropriate Earthquake Fault Zones Act."

Positional accuracy of map data is at best plus or minus 150 feet.

**Generalized Liquefaction Susceptibility**

- Low
- Medium
- High

Map data originally compiled by a 1:50,000 scale topographic map by the Bureau of California Geology and Geology, 1987. Photo-reduced from 7.5 minute USGS quadrants by J.E. Hall and S.E. Carlson, 1988.

NOTICE: The 1:50,000 scale "Special Studies Series" has been changed to "Earthquake Fault Zones" and "Other 7.5, 15, 30, and 60 Minute Series" and has been removed from the "Appropriate Earthquake Fault Zones Act."

Positional accuracy of map data is at best plus or minus 150 feet.

**Earthquake Fault Zones**

- Earthquake Fault Zone Boundary
- County Designated Fault Zones

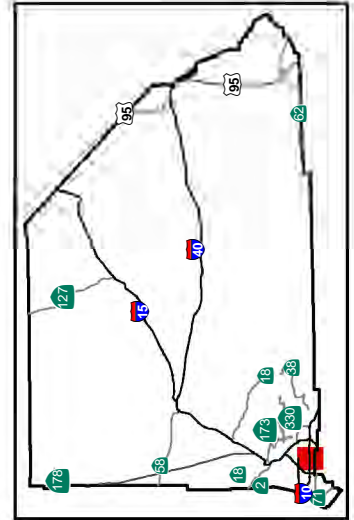
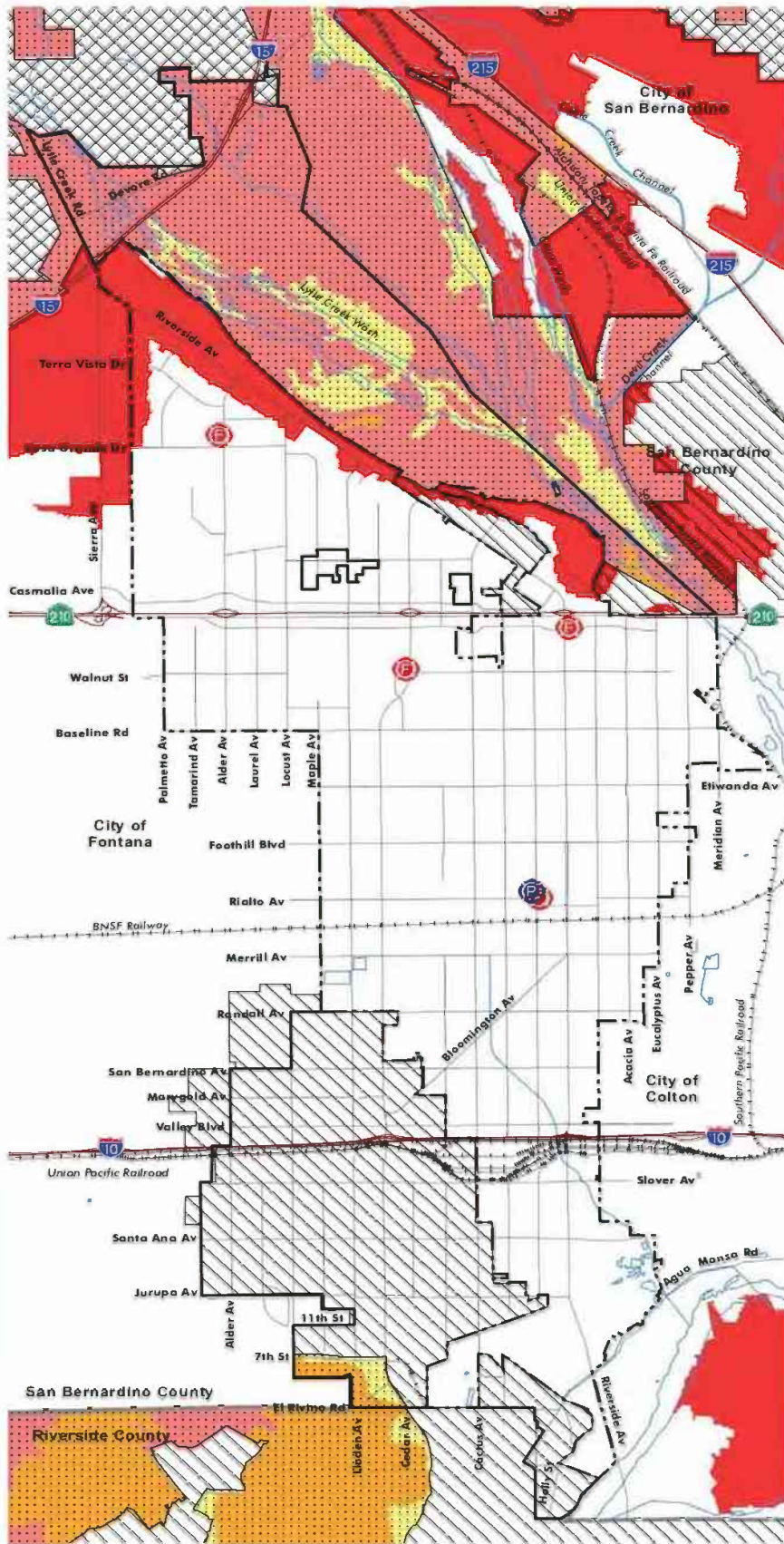


FIGURE VII-3





## Legend

- Rialto Incorporated Area
- Rialto Sphere of Influence
- County Boundary
- Freeway/Highway
- Local Road
- Railroad
- Hydrological Feature

## Fire Hazards Severity Zones

### State Responsibility Areas (SRA)

- Moderate
- High
- Very High

### Local Responsibility Areas (LRA)

- Very High

## Fire Protection Responsibility

- Federal Responsibility Area
- State Responsibility Area
- Local Responsibility Area - Incorporated
- Local Responsibility Area - Unincorporated

## Emergency Response Facilities

- Police Station
- Fire Station

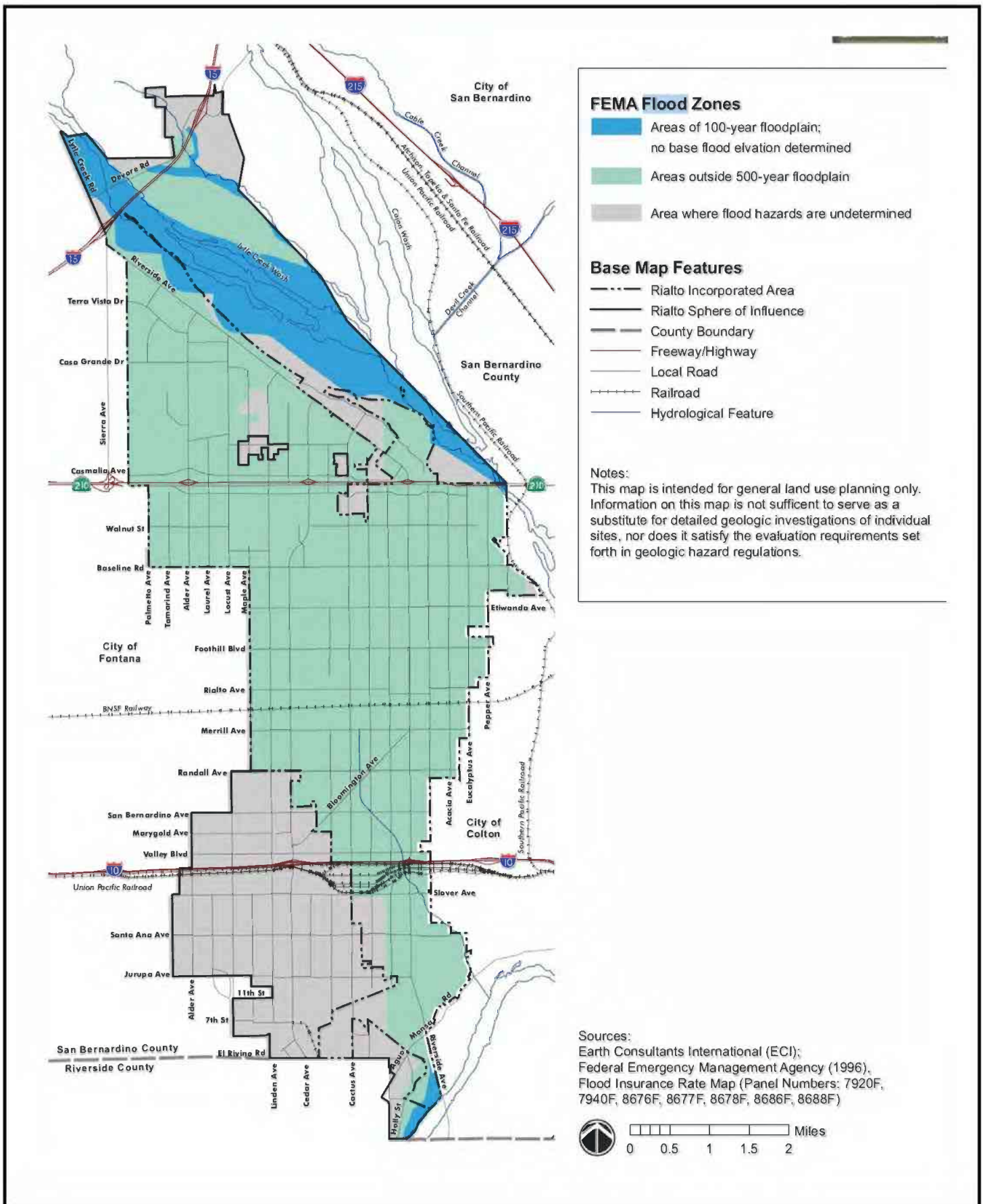
Sources:  
Fire and Resources Assessment Program,  
California Department of Forestry and Fire  
Protection (2007 and 2008).



0 0.5 1 1.5 2 Miles

SOURCE: Rialto General Plan

FIGURE IX-12



SOURCE: Rialto General Plan

FIGURE X-1





### Mineral Land Classification

#### MRZ-1

Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources

#### MRZ-2

Areas where geologic data indicate that significant PCC-Grade aggregate resources are present

#### MRZ-2 (PCC-1)

New MRZ-2 areas. MRZ-2 (PCC-1) notation in parenthesis identifies specific areas - see source text for description.

#### MRZ-3

Areas containing known or inferred mineral occurrences of undetermined mineral resource significance

### Base Map Features

- Rialto Incorporated Area
- Rialto Sphere of Influence
- County Boundary
- Freeway/Highway
- Local Road
- Railroad
- Hydrological Feature

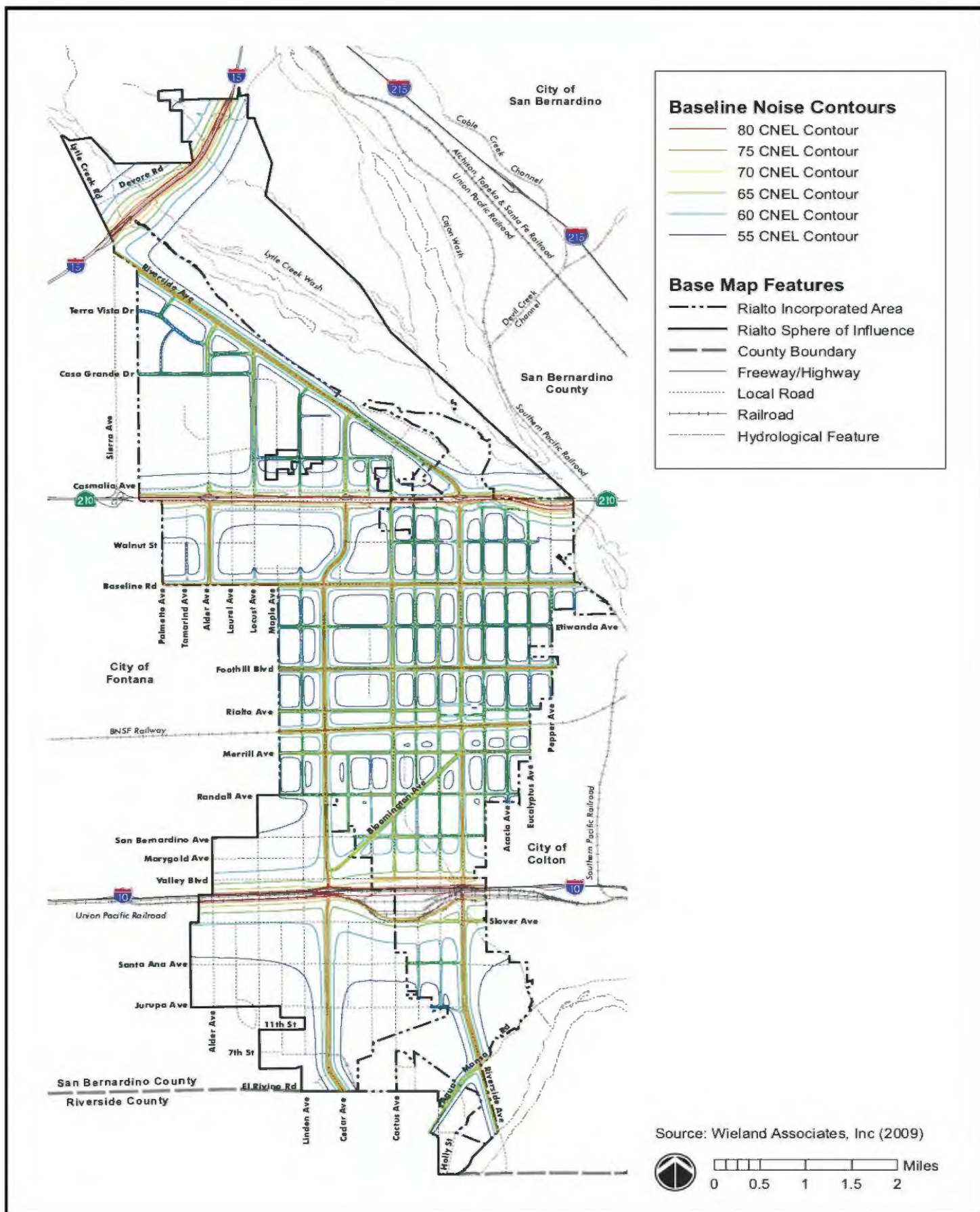
Source: Busch, L.L., & Miller, R.V.  
Updated Mineral Land Classification Map for Portland Cement Concrete-grade Aggregate in the San Bernardino Production-consumption (P-C) Region, San Bernardino and Riverside Counties, California - Special Report 206, Plate 1. California Department of Conservation, California Geological Survey, 2008.



0 0.5 1 1.5 2 Miles

SOURCE: Rialto General Plan

FIGURE XII-1



SOURCE: Rialto General Plan

FIGURE XIII-1



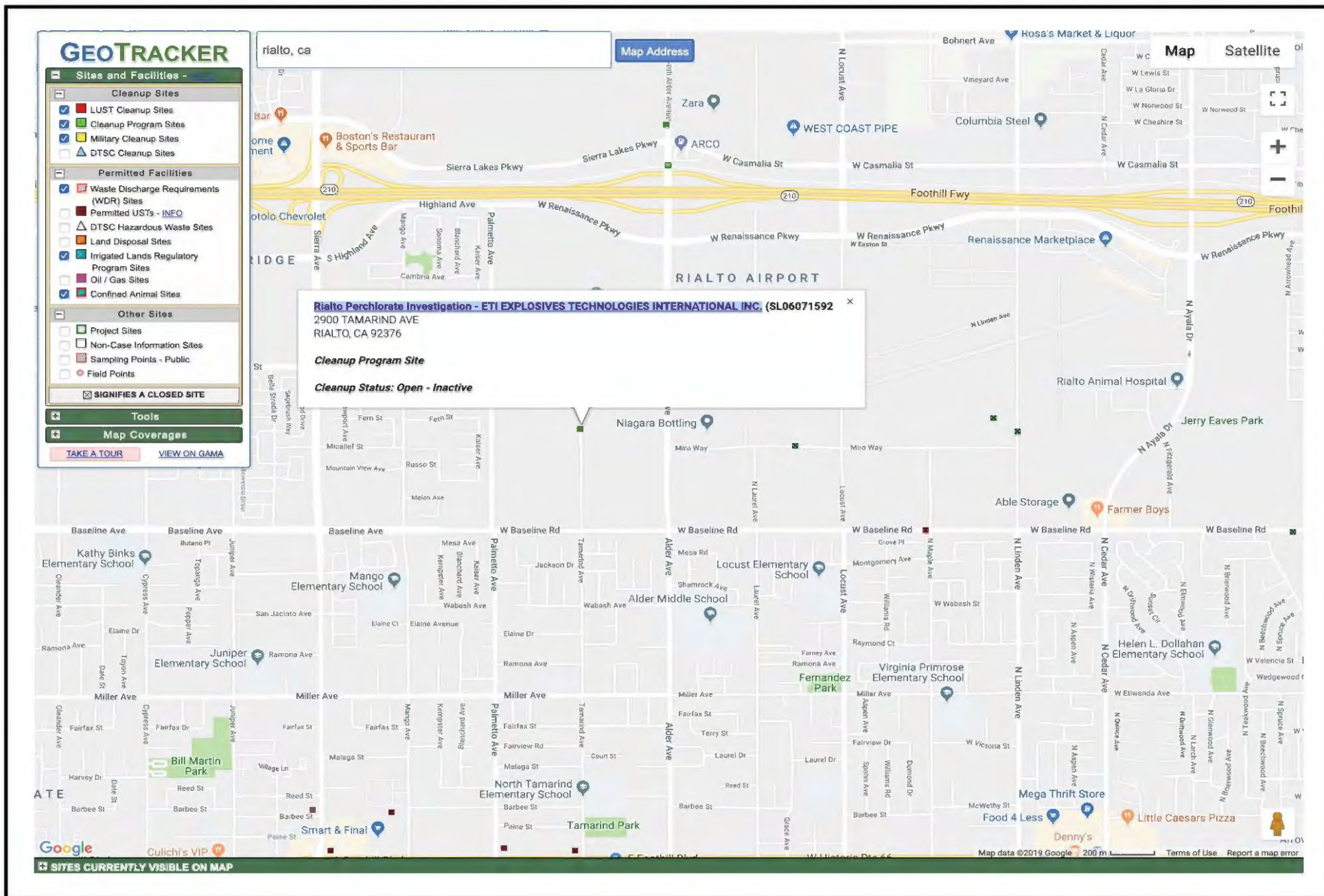


FIGURE IX-1



# GEOTRACKER

WEST VALLEY WATER DISTRICT - CACTUS DUMP (T10000002851) - [MAP](#)

[SIGN UP FOR EMAIL](#)

855 WEST BASE LINE ROAD  
RIALTO, CA 92377  
SAN BERNARDINO COUNTY  
[CLEANUP PROGRAM SITE \(INFO\)](#)  
[PRINTABLE CASE SUMMARY / CSM REPORT](#)

CLEANUP OVERSIGHT AGENCY  
SANTA ANA RWQCB (REGION)

[Summary](#) [Cleanup Action Report](#) [Regulatory Activities](#) [Environmental Data \(ED\)](#) [Site Maps / Documents](#) [Community Involvement](#) [Related Cases](#)

## Regulatory Profile

[PRINTABLE CASE SUMMARY](#)

### CLEANUP STATUS - DEFINITIONS

COMPLETED - CASE CLOSED AS OF 7/23/2012 - [CLEANUP STATUS HISTORY](#)

### POTENTIAL CONTAMINANTS OF CONCERN

LEAD

### FILE LOCATION

REGIONAL BOARD

### DWR GROUNDWATER SUB-BASIN NAME

Upper Santa Ana Valley - Rialto-Colton (8-002.04)

### POTENTIAL MEDIA OF CONCERN

SOIL

### DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS

MUN, AGR, IND, PROC

### CALWATER WATERSHED NAME

Santa Ana River - Middle Santa Ana River - Chino (Split) (801.21)

## Site History

The site is located in a residential area of Rialto, immediately to the east and north of Cactus Drainage Basin. Existing onsite structures include the District Headquarters, a warehouse/Maintenance building, Well No. 33 and associated pumping equipment, a concrete reservoir, two above ground fuel storage tanks, and a waste oil storage area. The site was previously owned by the County of San Bernardino. It was once a rock quarry and was operated as a refuse disposal and burn dump that ceased operation in 1956. Vertically, fill waste appears to extend from 8 to 13 feet below ground surface. The first encountered groundwater is more than 100 feet deep in the vicinity of the site. The district and the City of Rialto extract about two thirds of the demand from groundwater. In recent years, perchlorate has been detected in several of the wells. As a result, the district has plans to construct a wellhead treatment system that will remove perchlorate and nitrate from the groundwater. The Regional Board has reviewed the plans and has given concurrence with the plans. The district will excavate & remove the fill material below the planned site to remediate the lead contaminated soils at the site prior to constructing the well head treatment system.

FIGURE IX-2



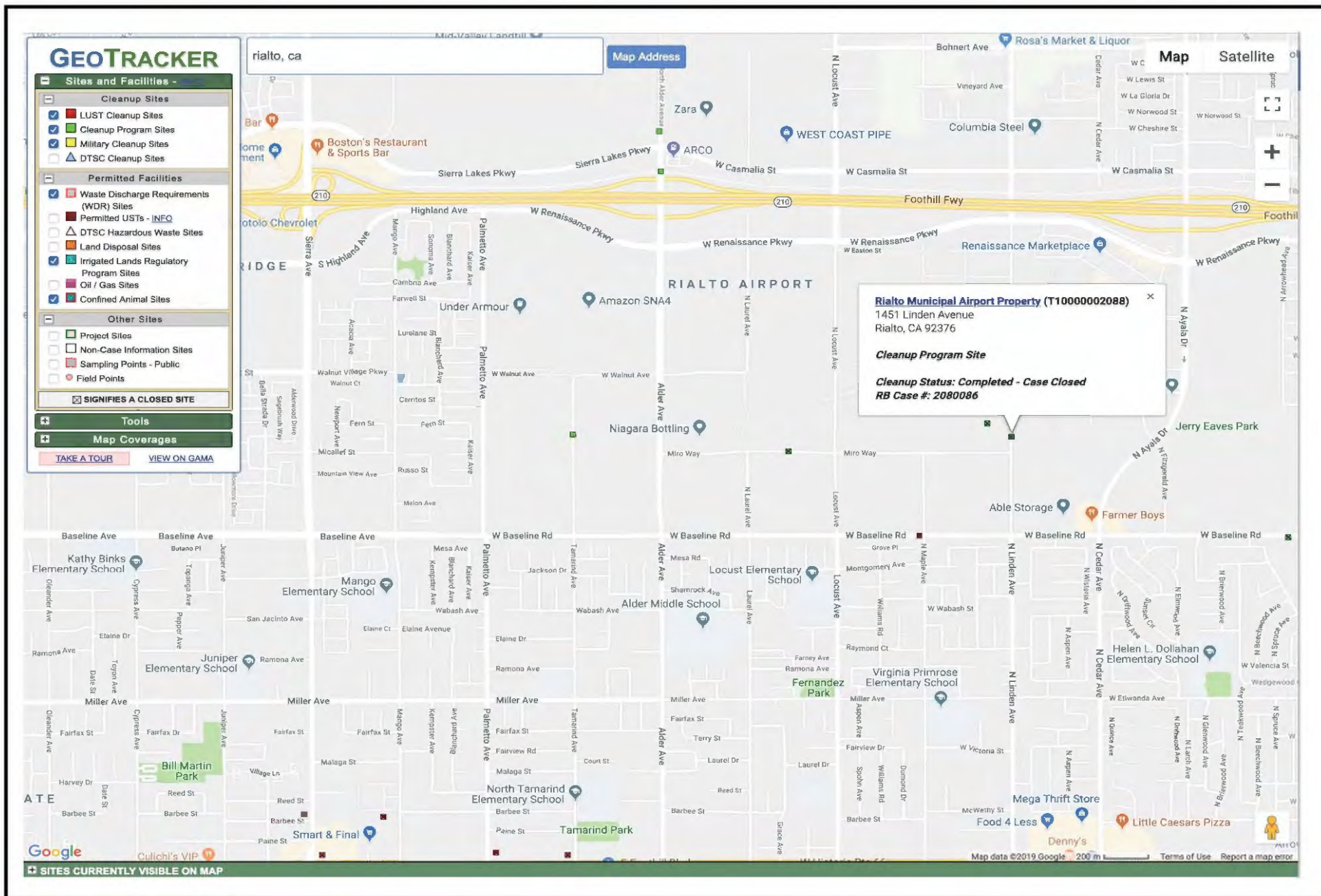


FIGURE IX-3

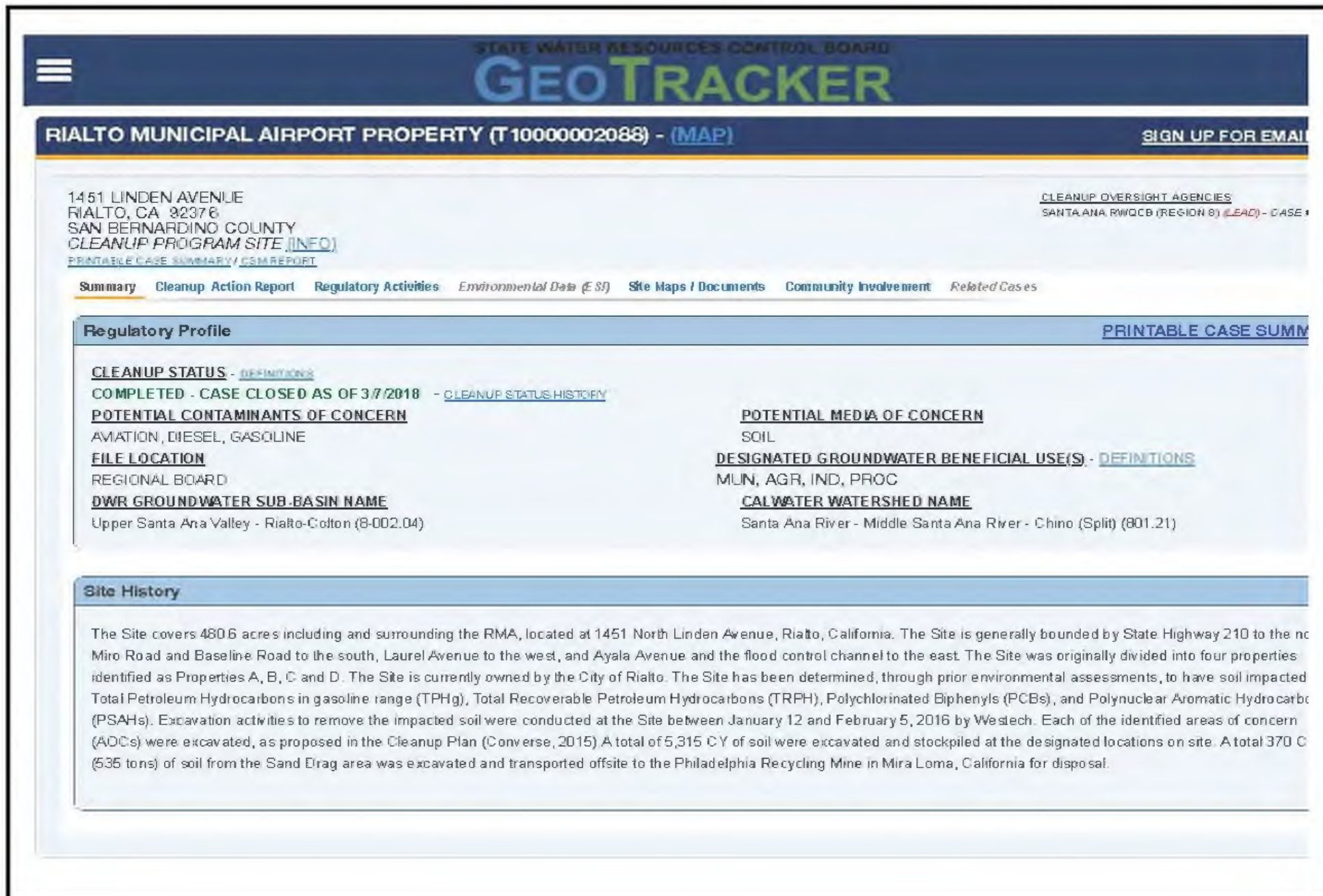


FIGURE IX-4



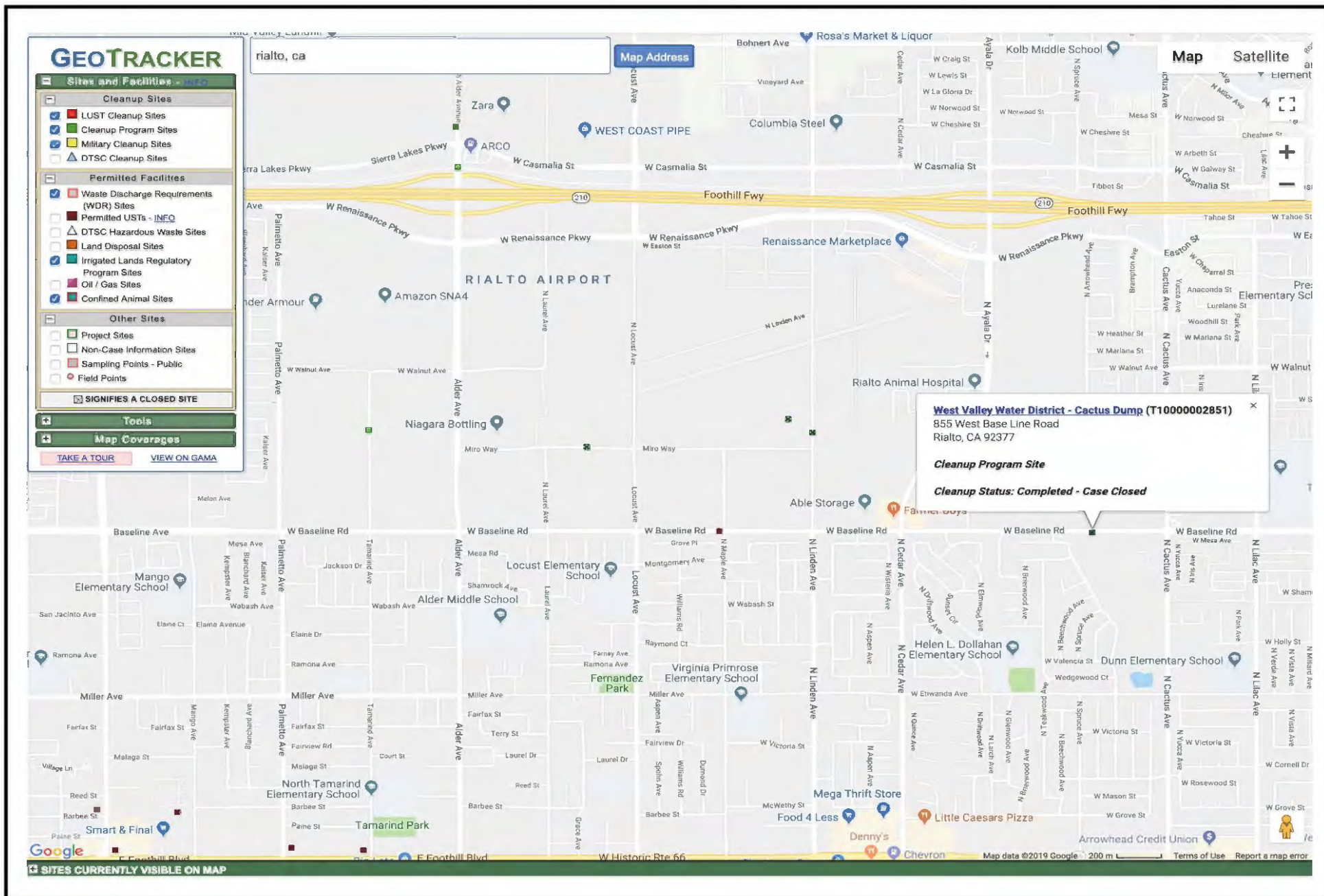


FIGURE IX-5

# GEOTracker

WEST SAN BERNARDINO COUNTY WATER DISTRICT (T0607185912) - [\(MAP\)](#)

[SIGN UP FOR EMAIL](#)

855 BASELINE WEST  
RIALTO, CA 92377  
SAN BERNARDINO COUNTY  
LUST CLEANUP SITE [\(INFO\)](#)  
[PRINTABLE CASE SUMMARY / CBM REPORT](#)

CLEANUP OVERSIGHT AGENCIES  
SAN BERNARDINO COUNTY [\(LEAD\)](#) - CASE #  
SANTA ANA RWDCB (REGION 8) - CASE # 05  
CASEWORKER: [Ken Williams](#)

[Summary](#) [Cleanup Action Report](#) [Regulatory Activities](#) [Environmental Data & EQ](#) [Site Maps / Documents](#) [Community Involvement](#) [Related Cases](#)

## Regulatory Profile

[PRINTABLE CASE SUMMARY](#)

### CLEANUP STATUS - DEFINITIONS

COMPLETED - CASE CLOSED AS OF 8/20/2003 - [CLEANUP STATUS HISTORY](#)

### POTENTIAL CONTAMINANTS OF CONCERN

GASOLINE, MTBE / TBA / OTHER FUEL OXYGENATES

### FILE LOCATION

LOCAL AGENCY

### DWR GROUNDWATER SUB-BASIN NAME

Upper Santa Ana Valley - Rialto-Colton (8-002.04)

### POTENTIAL MEDIA OF CONCERN

SOIL

### DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS

MUN, AGR, IND, PROC

### CALWATER WATERSHED NAME

Santa Ana River - Middle Santa Ana River - China (Split) (801.21)

## Site History

No site history available

FIGURE IX-6



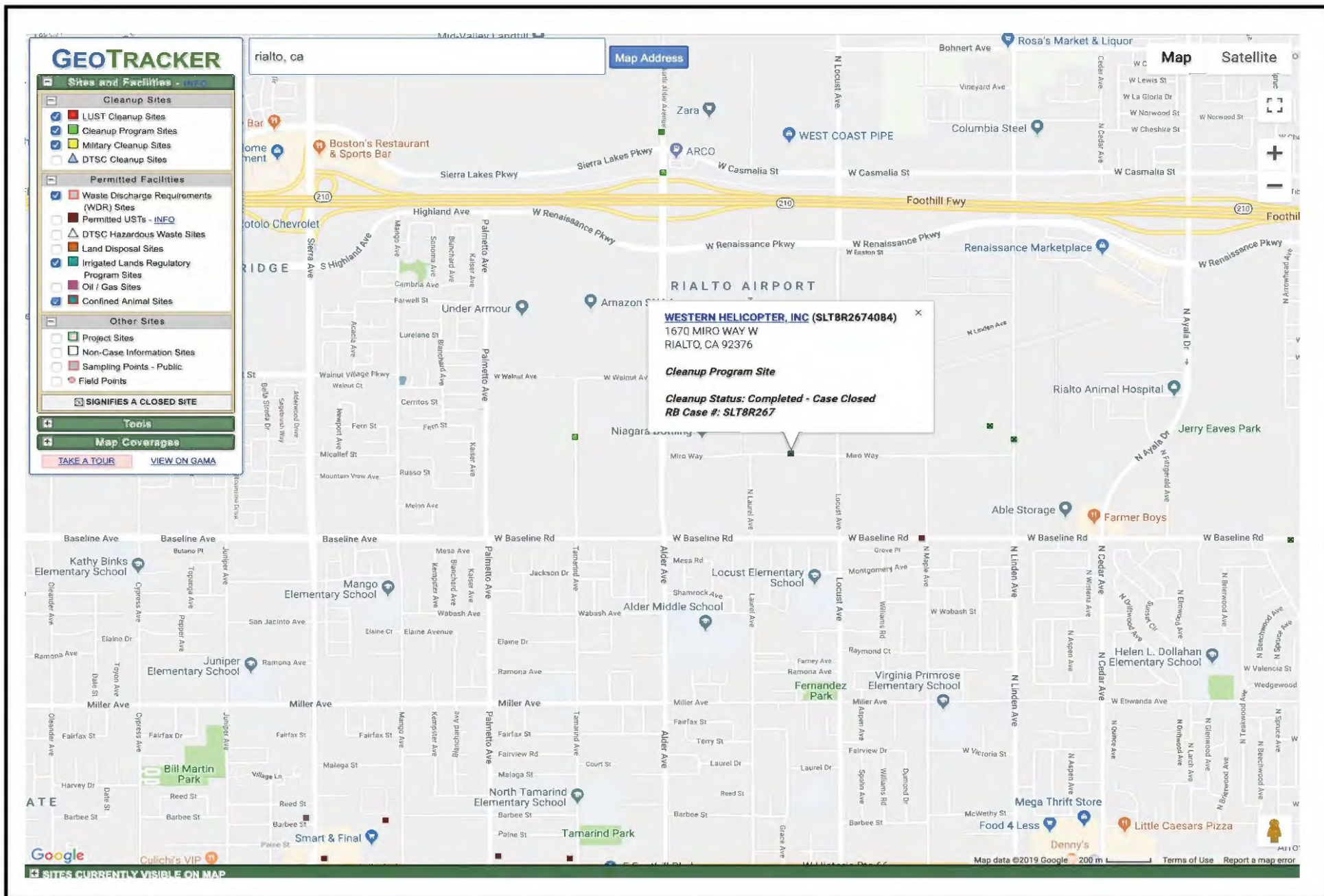


FIGURE IX-7



# GEOTRACKER

WESTERN HELICOPTER, INC (SLT8R2674084) - [IMAP](#)

[SIGN UP FOR EMAIL](#)

1670 MIRO WAY W  
RIALTO, CA 92376  
SAN BERNARDINO COUNTY  
CLEANUP PROGRAM SITE [\[INFO\]](#)

[PRINTABLE CASE SUMMARY / CEM REPORT](#)

[CLEANUP OVERSIGHT AGENCIES](#)

SANTA ANA RWQCB (REGION 8) [\(LEAD\)](#) - CASE #:

[Summary](#) [Cleanup Action Report](#) [Regulatory Activities](#) [Environmental Data \(ESD\)](#) [Site Maps / Documents](#) [Community Involvement](#) [Related Cases](#)

## Regulatory Profile

[PRINTABLE CASE SUMMARY](#)

### CLEANUP STATUS - [DEFINITIONS](#)

COMPLETED - CASE CLOSED AS OF 4/7/1992 - [CLEANUP STATUS HISTORY](#)

### POTENTIAL CONTAMINANTS OF CONCERN

NONE SPECIFIED

### FILE LOCATION

### DWR GROUNDWATER SUB-BASIN NAME

Upper Santa Ana Valley - Rialto-Colton (8-002.04)

### POTENTIAL MEDIA OF CONCERN

NONE SPECIFIED

### DESIGNATED GROUNDWATER BENEFICIAL USE(S) - [DEFINITIONS](#)

MUN, AGR, IND, PROC

### CALWATER WATERSHED NAME

Santa Ana River - Middle Santa Ana River - Chino (Split) (801.21)

## Site History

No site history available

FIGURE IX-8



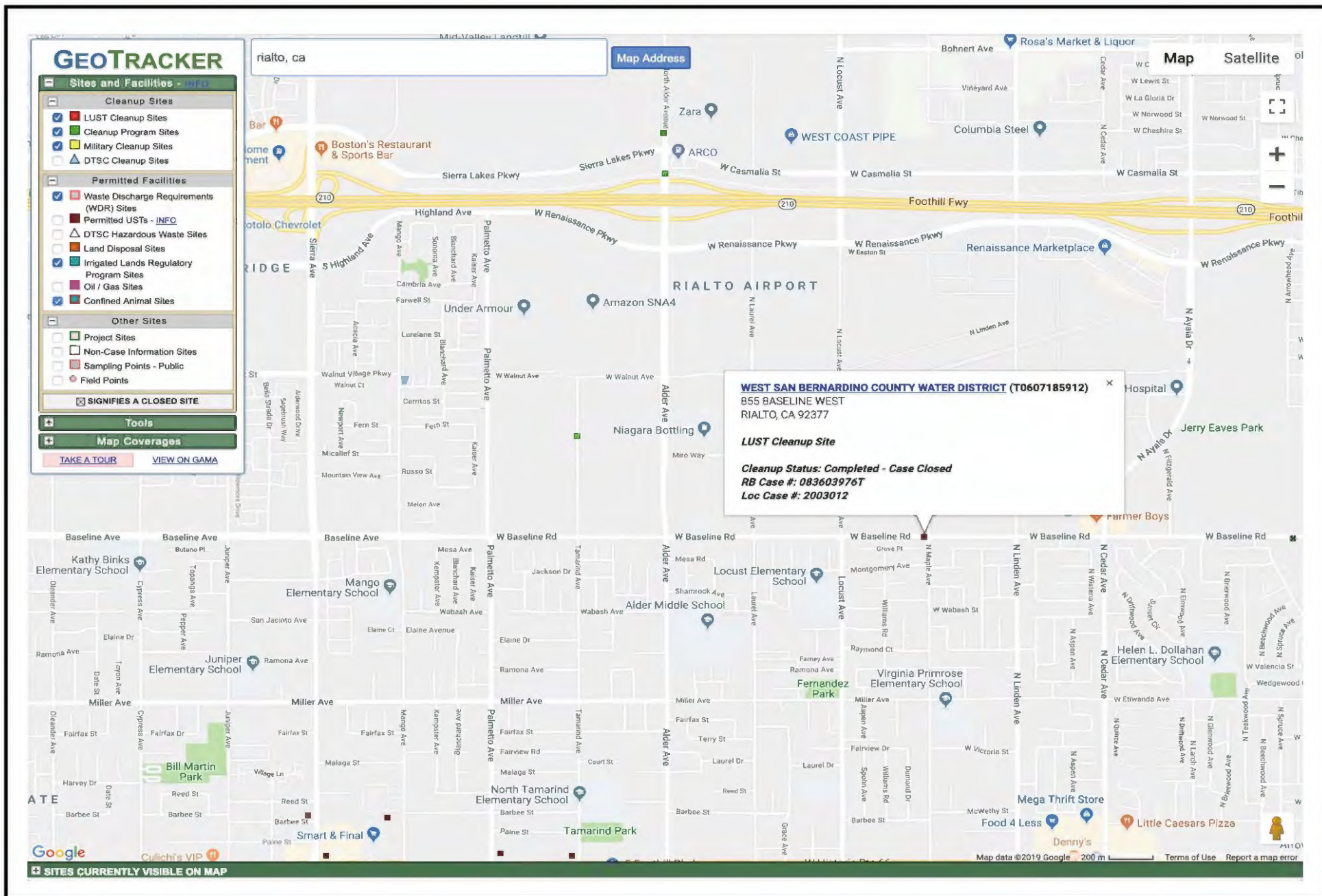


FIGURE IX-9



# GEOTRACKER

ETI EXPLOSIVES TECHNOLOGIES INTERNATIONAL INC. (SL0607159245) - [\[MAP\]](#)

[SIGN UP FOR EMAIL](#)

2900 TAMARIND AVE  
RIALTO, CA 92376  
SAN BERNARDINO COUNTY  
[CLEANUP PROGRAM SITE \[INFO\]](#)  
[PRINTABLE CASE SUMMARY / CSN REPORT](#)

[CLEANUP OVERSIGHT AGENCY](#)  
SANTA ANA RWQCB (REGION)  
CASEWORKER: [KIA MURPHY](#)

[Summary](#) [Cleanup Action Report](#) [Regulatory Activities](#) [Environmental Data \(ED\)](#) [Site Maps / Documents](#) [Community Involvement](#) [Related Cases](#)

## Regulatory Profile

[PRINTABLE CASE SUMMARY](#)

### COMPLEX SITE CLEANUP PROGRAM FACILITY

[RIALTO PERCHLORATE INVESTIGATION](#)

### CLEANUP STATUS - DEFINITIONS

OPEN - INACTIVE AS OF 5/18/2015 - [\[CLEANUP STATUS HISTORY\]](#)

### POTENTIAL CONTAMINANTS OF CONCERN

PERCHLORATE

### FILE LOCATION

REGIONAL BOARD

### DWR GROUNDWATER SUB-BASIN NAME

Upper Santa Ana Valley - Rialto-Colton (8-002,04)

### POTENTIAL MEDIA OF CONCERN

AQUIFER USED FOR DRINKING WATER SUPPLY

### DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS

MUN, AGR, IND, PROC

### CALWATER WATERSHED NAME

Santa Ana River - Middle Santa Ana River - Chino (Split) (801 21)

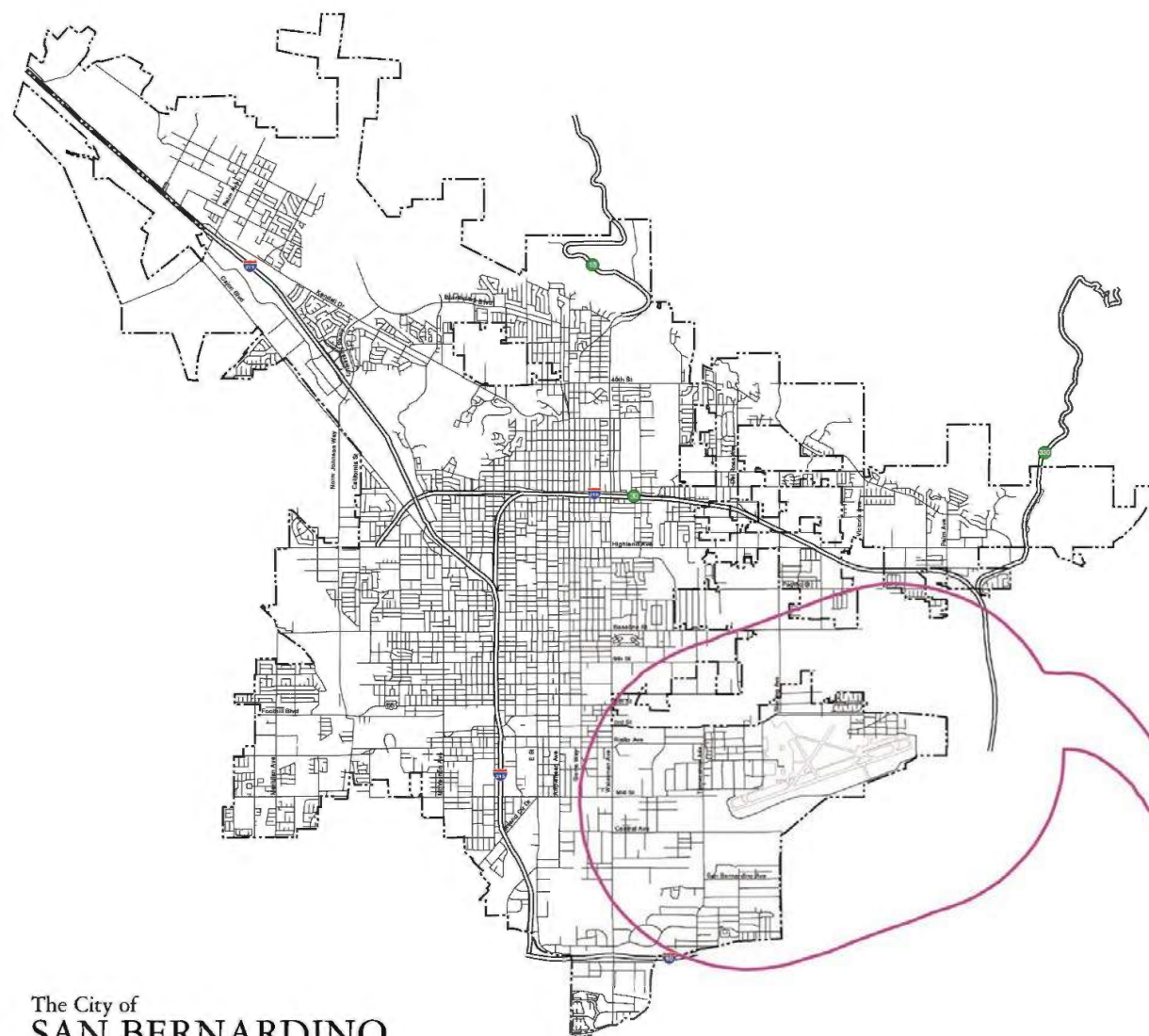
## Site History

Perchlorate contamination was first detected in groundwater in the Rialto, Colton and Chino Subbasins in 1997. At that time, the California Department of Health Services (DHS) Action Level (AL) for perchlorate in drinking water was 18 parts per billion (ppb). Two wells had perchlorate levels exceeding 18 ppb and were shut down. In January 2002, the DHS lowered the AL to 4 ppb. In response to the reduced AL for perchlorate, the local water purveyors in the Rialto, Colton and Chino Groundwater Subbasins restricted or eliminated the use of additional production wells with perchlorate concentrations that exceeded 4 ppb. Between 1997 and the present, various suspected perchlorate dischargers have been identified. For more up to date information on enforcement actions, see our website at [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

FIGURE IX-10



## San Bernardino International Airport Planning Boundaries



- Airport Influence Area
- City Boundary

To be included upon adoption of the Comprehensive Land Use Plan for the SBIA, as may be appropriate:

- Runway Protection Zone
- Inner Turning Zone
- Inner Safety Zone
- Outer Safety Zone
- Traffic Pattern Zone
- CNEI Noise Contours

Note: As of the adoption of this General Plan, the Airport Master Plan and the Comprehensive Land Use Plan (CLUP) for the San Bernardino International Airport (SBIA) were in the process of being prepared. As a consequence, the precise noise contours and safety zones were not available to include in this Plan. Upon adoption of the Airport Master Plan and CLUP for the SBIA, the new noise and safety zones will be incorporated into this Figure and, if necessary, the Airport Influence Area adjusted.



The City of  
**SAN BERNARDINO**  
General Plan

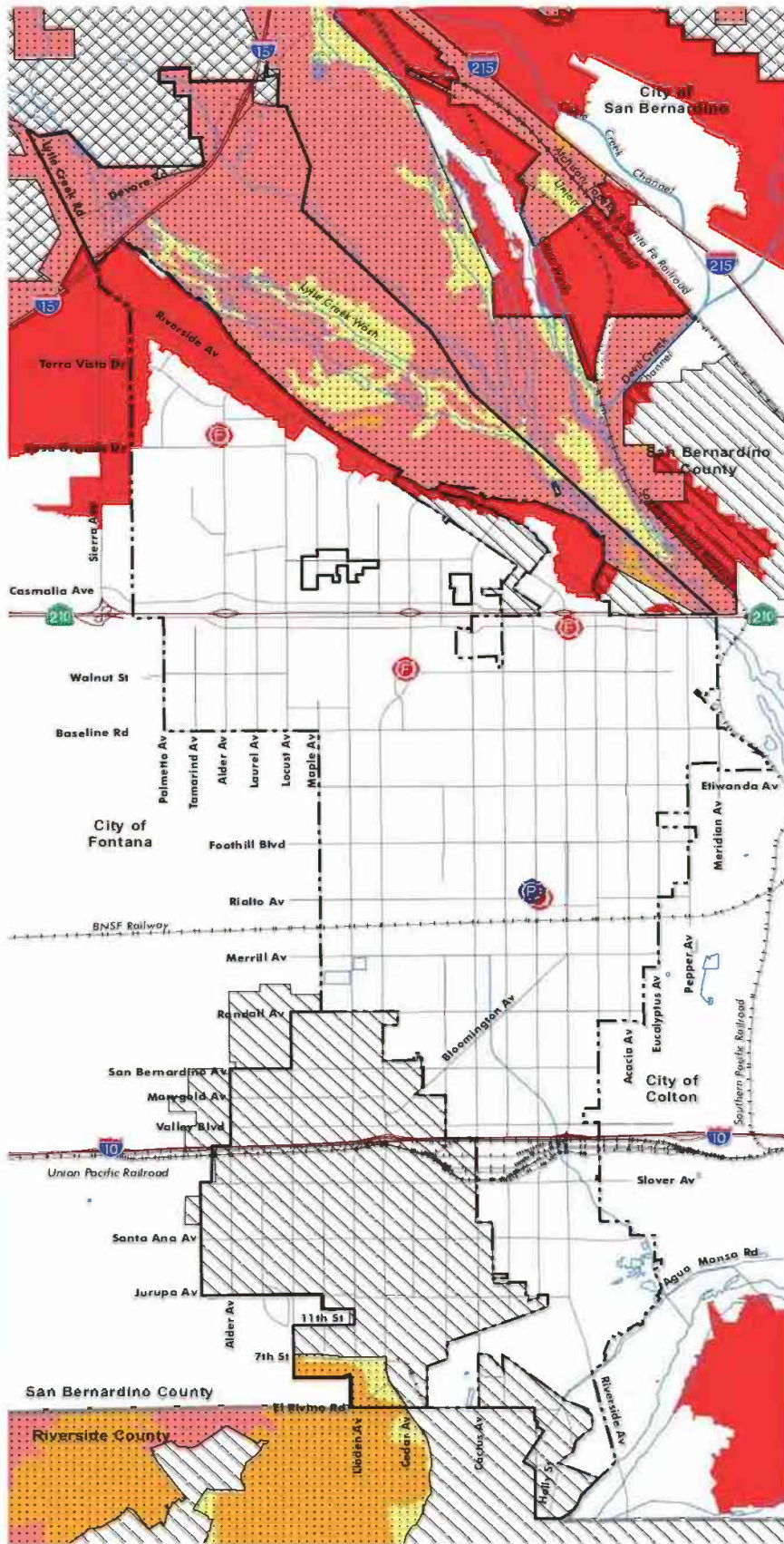
Figure LU-4

SOURCE: City of San Bernardino General Plan

FIGURE IX-11

**Tom Dodson & Associates**  
Environmental Consultants

**San Bernardino International Airport  
Planning Boundaries**



## Legend

- Rialto Incorporated Area
- Rialto Sphere of Influence
- County Boundary
- Freeway/Highway
- Local Road
- Railroad
- Hydrological Feature

## Fire Hazards Severity Zones

### State Responsibility Areas (SRA)

- Moderate
- High
- Very High

### Local Responsibility Areas (LRA)

- Very High

## Fire Protection Responsibility

- Federal Responsibility Area
- State Responsibility Area
- Local Responsibility Area - Incorporated
- Local Responsibility Area - Unincorporated

## Emergency Response Facilities

- Police Station
- Fire Station

Sources:  
Fire and Resources Assessment Program,  
California Department of Forestry and Fire  
Protection (2007 and 2008).

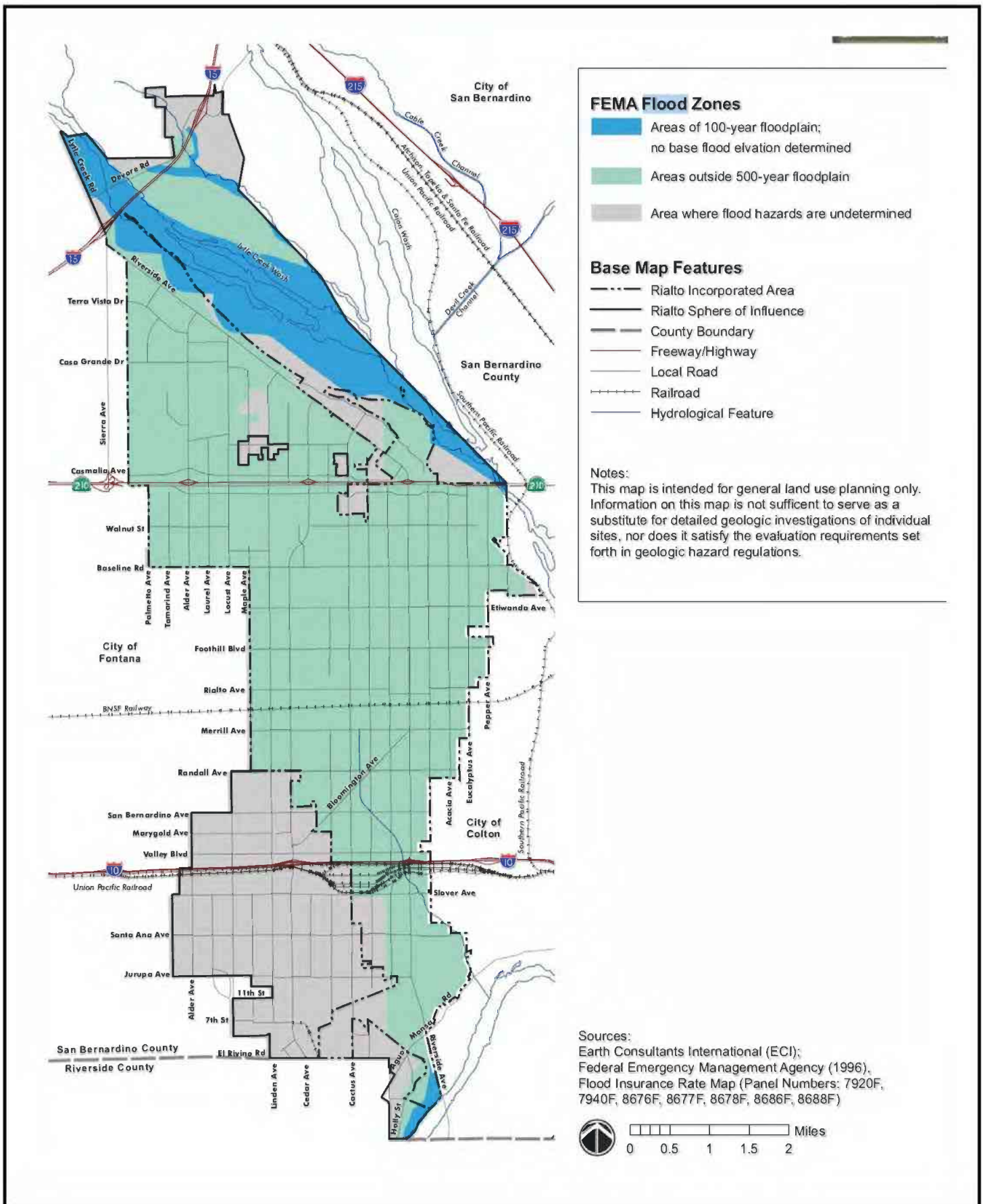


0 0.5 1 1.5 2 Miles

SOURCE: Rialto General Plan

FIGURE IX-12





SOURCE: Rialto General Plan

FIGURE X-1



### Mineral Land Classification

#### MRZ-1

Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources

#### MRZ-2

Areas where geologic data indicate that significant PCC-Grade aggregate resources are present

#### MRZ-2 (PCC-1)

New MRZ-2 areas. MRZ-2 (PCC-1) notation in parenthesis identifies specific areas - see source text for description.

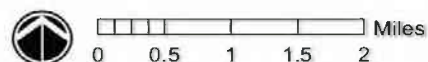
#### MRZ-3

Areas containing known or inferred mineral occurrences of undetermined mineral resource significance

### Base Map Features

- Rialto Incorporated Area
- Rialto Sphere of Influence
- County Boundary
- Freeway/Highway
- Local Road
- Railroad
- Hydrological Feature

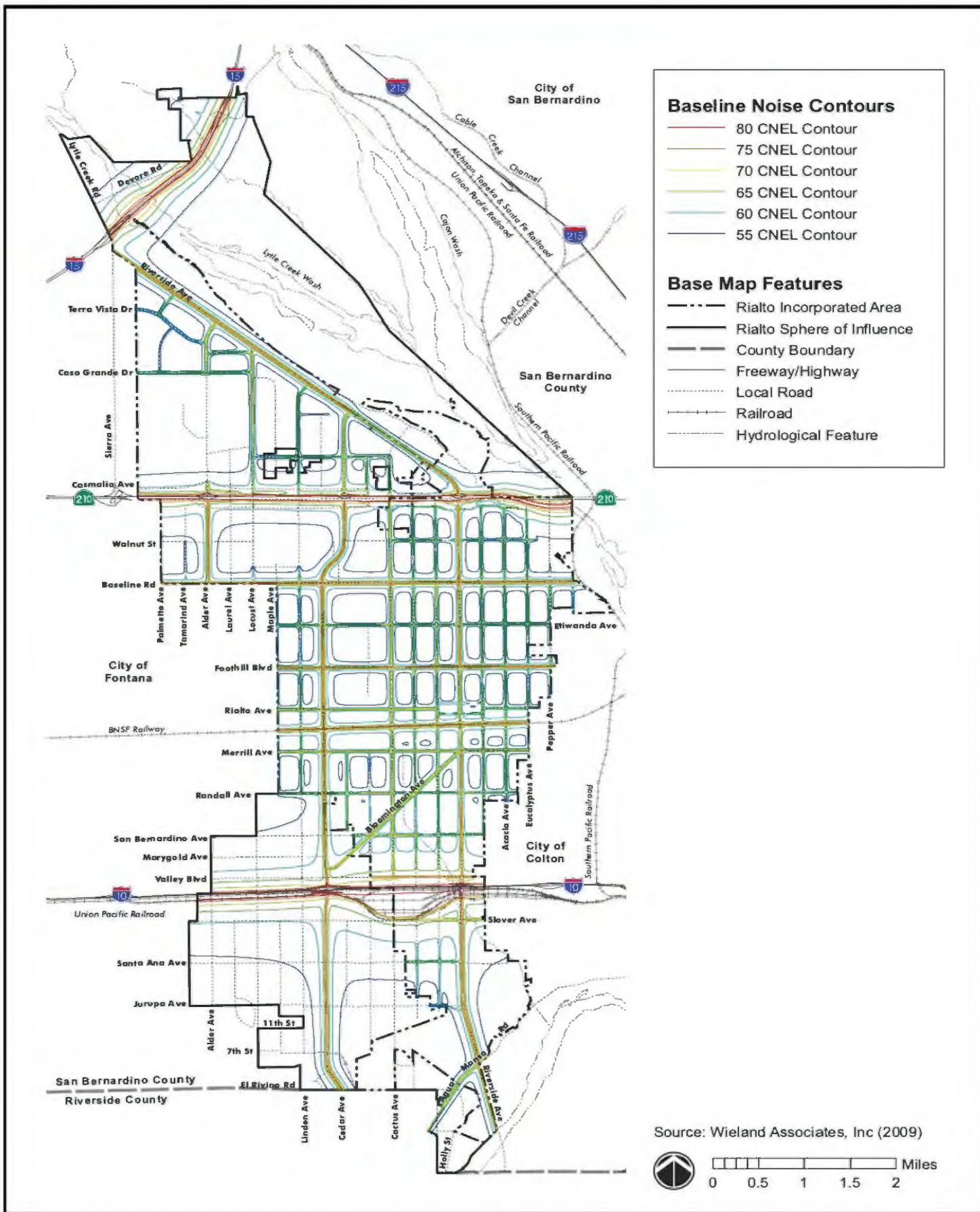
Source: Busch, L.L., & Miller, R.V. Updated Mineral Land Classification Map for Portland Cement Concrete-grade Aggregate in the San Bernardino Production-consumption (P-C) Region, San Bernardino and Riverside Counties, California - Special Report 206, Plate 1. California Department of Conservation, California Geological Survey, 2008.



SOURCE: Rialto General Plan

FIGURE XII-1





SOURCE: Rialto General Plan

FIGURE XIII-1

## **APPENDIX 1**



**LEGEND**

PROJECT LIMITS

210

AVENUE AVENUE AVENUE AVENUE AVENUE AVENUE AVENUE AVENUE AVENUE

BASELINE ROAD

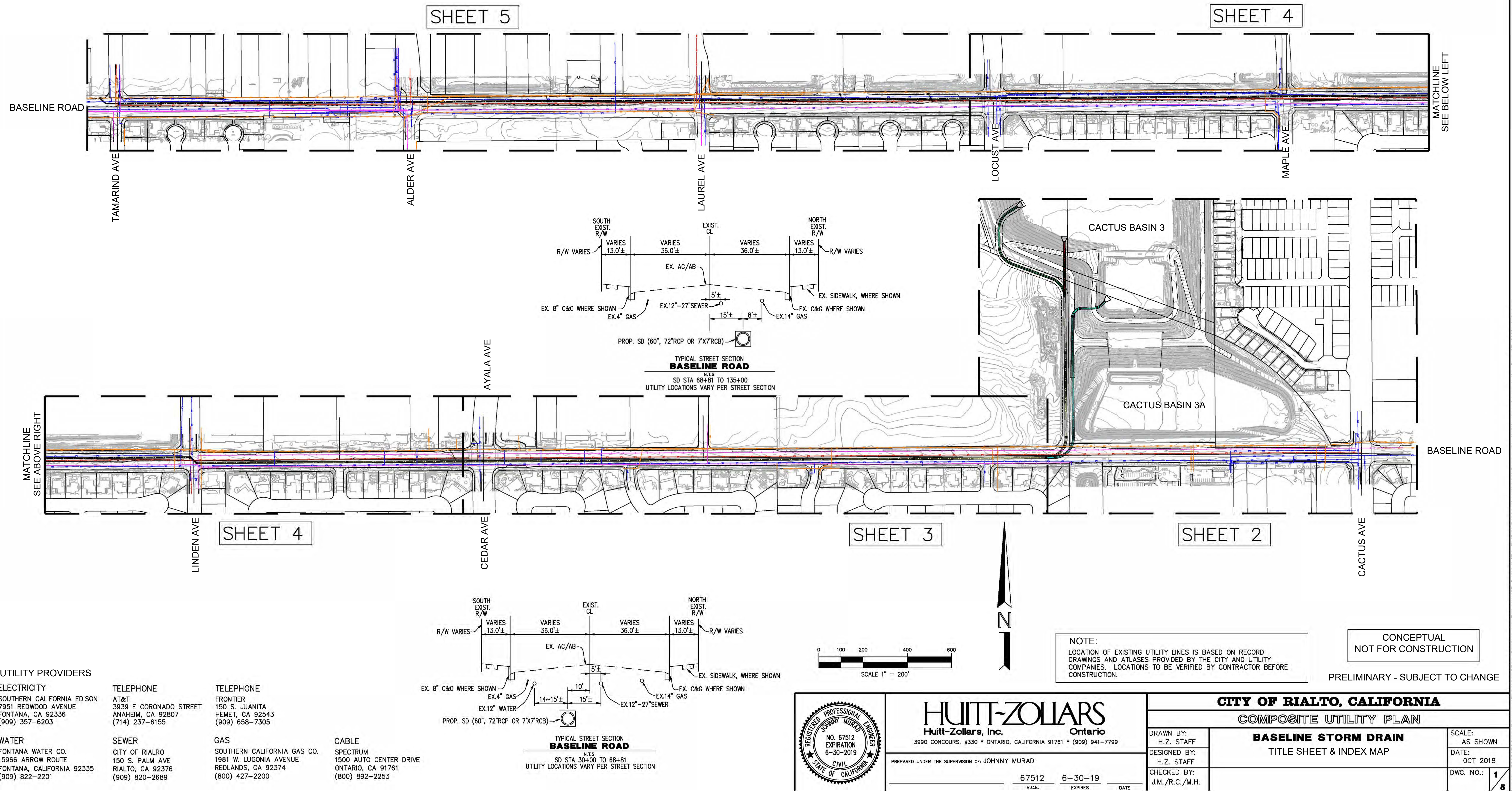
4144 A

SERRA PALMETTO TAMARIND ALDER AVENUE LOCUST AVENUE LINEN AVENUE CEDAR

FOORTHILL BLVD CACTUS

**VICINITY MAP**

NOT TO SCALE





UNDERGROUND UTILITY LEGEND

EXISTING WATER LINES

EXISTING SEWER LINES

EXISTING STORM DRAIN LINES

EXISTING ELEC. COM, TEL, & OH LINES

EXISTING GAS LINES

PROPOSED STORM DRAIN ALIGNMENT

ALTERNATIVE 1 (EASEMENT REQUIRED)

ALTERNATIVE 2 (EASEMENT REQUIRED)

ALTERNATIVE 3

LEGEND

POWER POLE

GUY WIRE (ANCHOR)

TRAFFIC SIGNAL

SITE LIGHT

STREET LIGHT ON POWER POLE

STREET LIGHT

FIRE HYDRANT

TRAFFIC SIGN

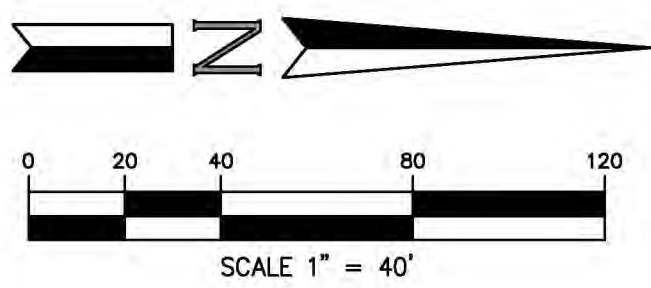
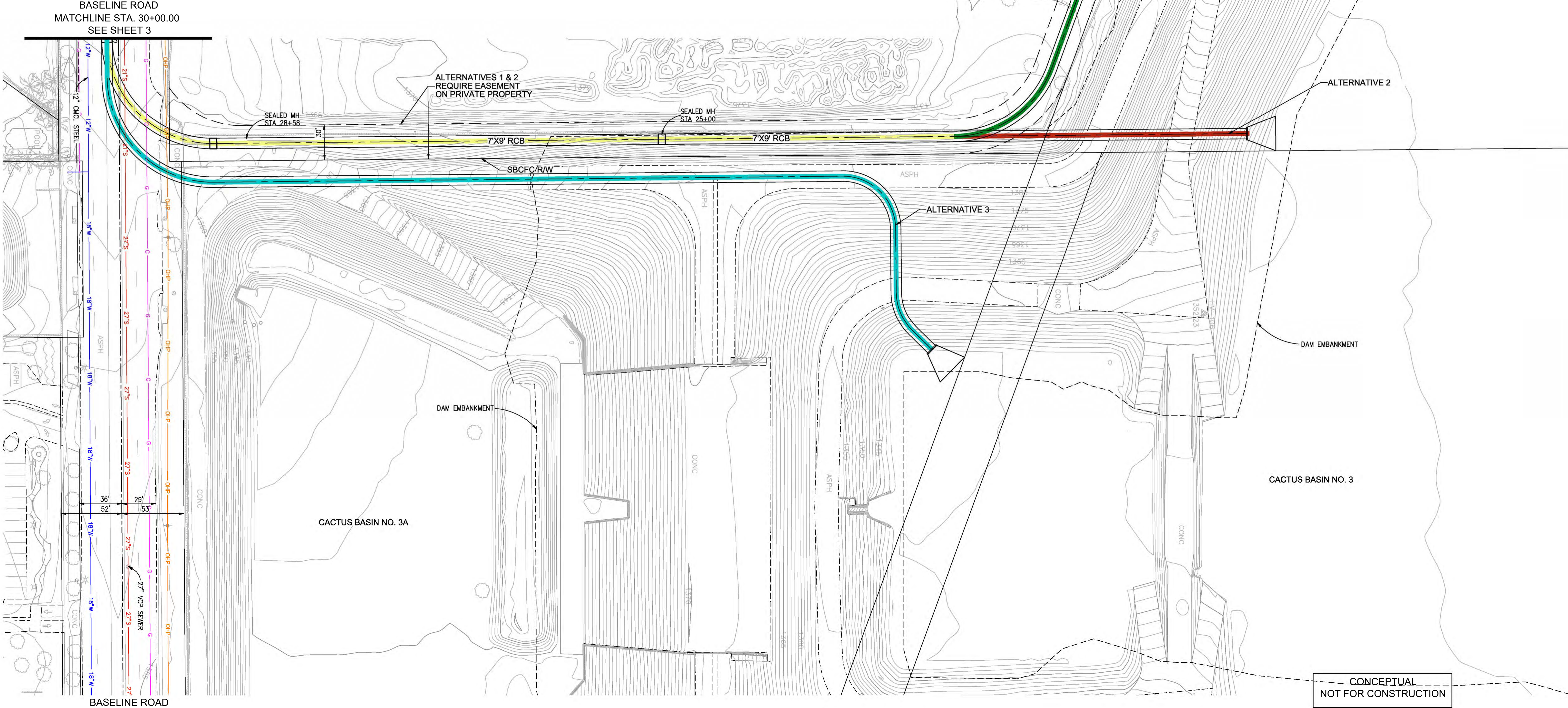
WATER VALVE COVER

MANHOLE

WATER METER

CENTERLINE

RIGHT OF WAY



HUITT-ZOLLARS

Huitt-Zollars, Inc. Ontario

3990 CONCOURS, #330 • ONTARIO, CALIFORNIA 91761 • (909) 941-7799

PREPARED UNDER THE SUPERVISION OF: JOHNNY MURAD

67512 6-30-19

R.C.E. EXPIRES DATE

CITY OF RIALTO, CALIFORNIA

COMPOSITE UTILITY PLAN

BASELINE STORM DRAIN BASIN CONNECTION ALTERNATIVES

DRAWN BY: H.Z. STAFF

DESIGNED BY: H.Z. STAFF

CHECKED BY: J.M./R.C./M.H.

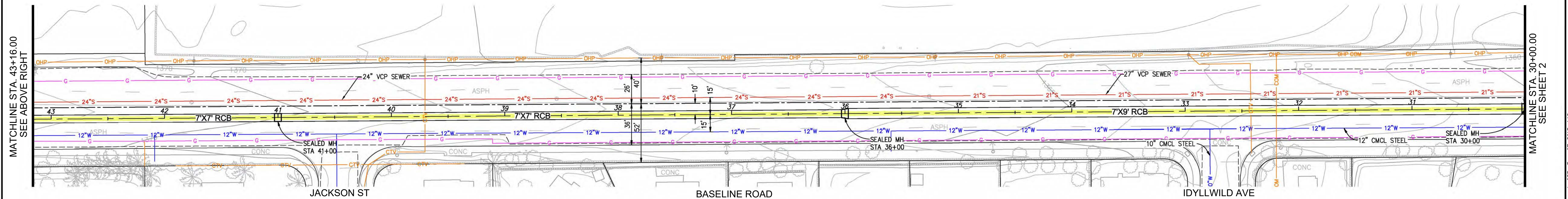
SCALE: AS SHOWN






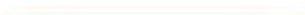
DATE: OCT 2018

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












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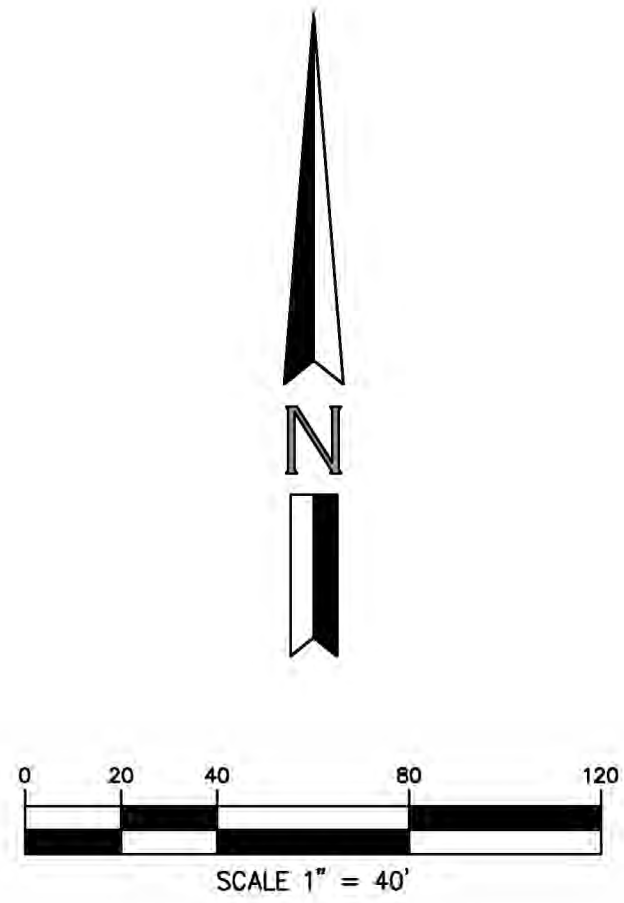





UNDERGROUND UTILITY LEGEND	
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	EXISTING SEWER LINES
	EXISTING STORM DRAIN LINES
	EXISTING ELEC, COM, TEL, & OH LINES
	EXISTING GAS LINES
	PROPOSED STORM DRAIN ALIGNMENT

### LEGEND

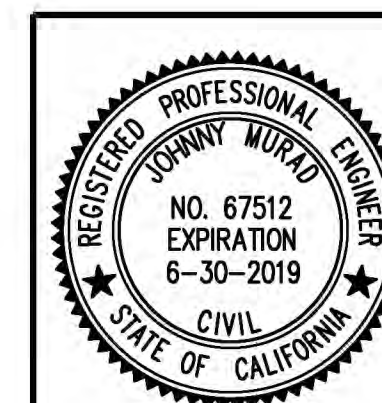
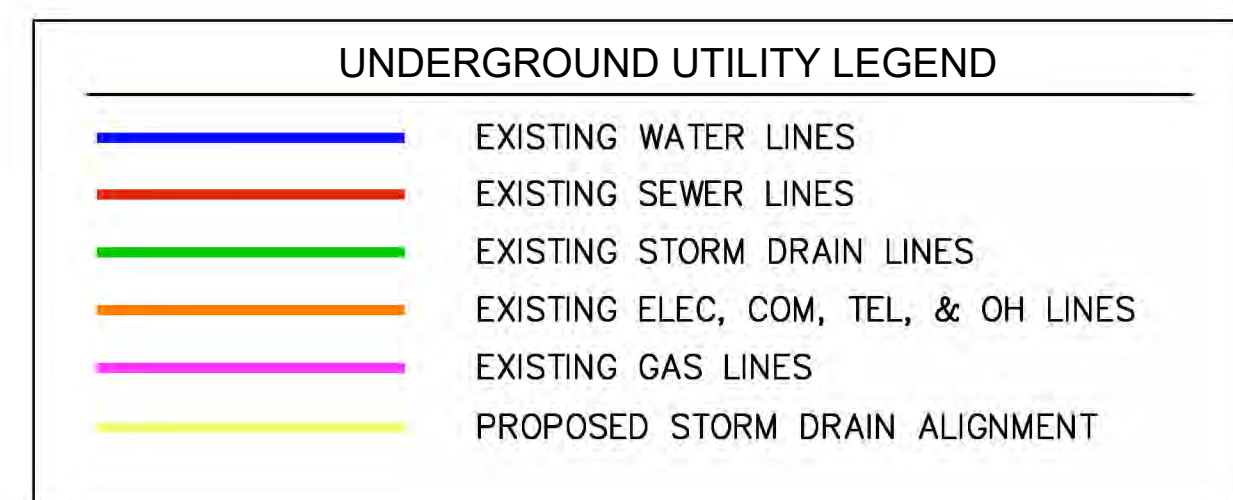
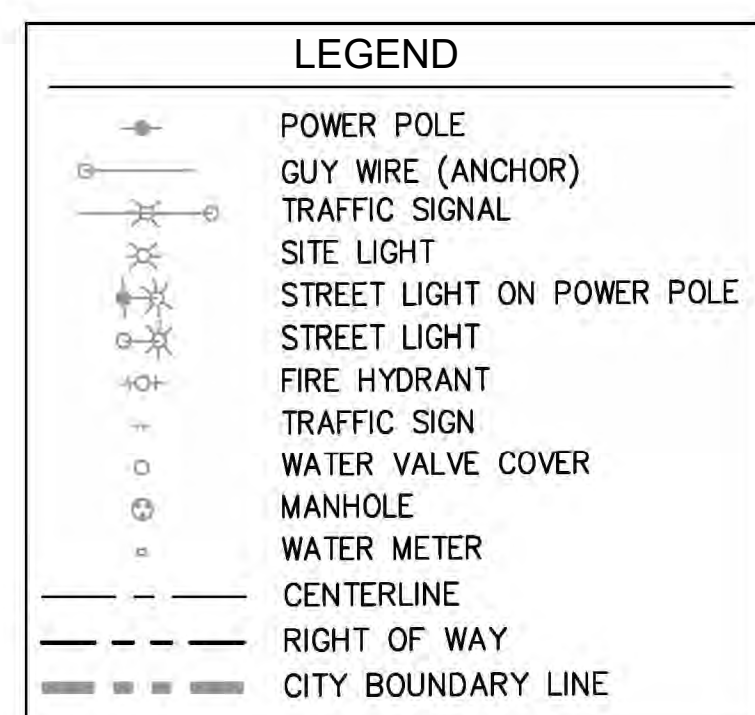
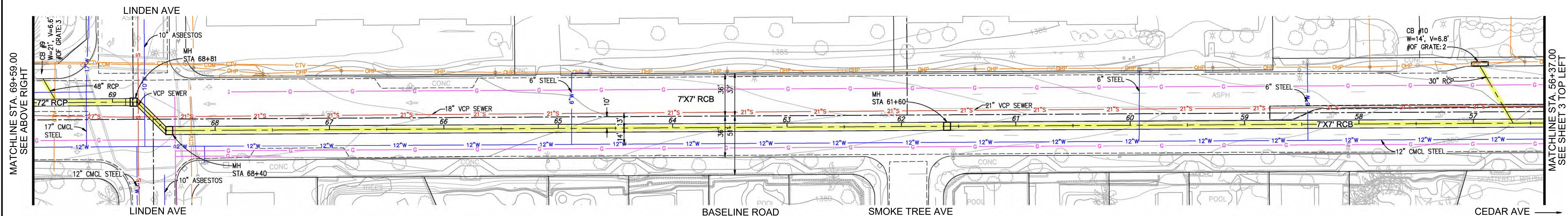
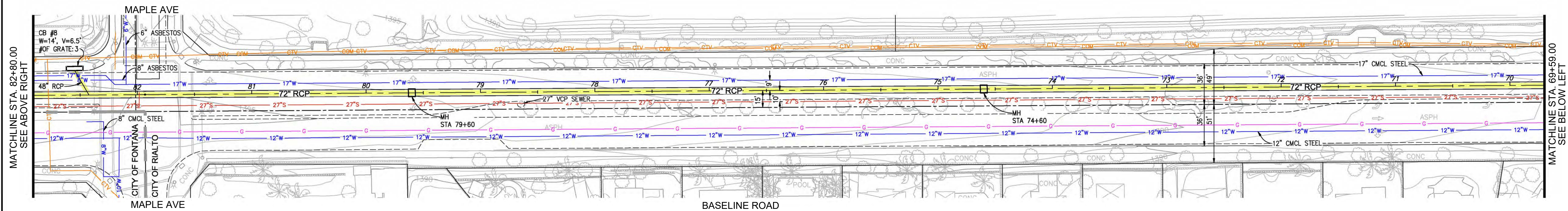
	POWER POLE
	GUY WIRE (ANCHOR)
	TRAFFIC SIGNAL
	SITE LIGHT
	STREET LIGHT ON POWER POLE
	STREET LIGHT
	FIRE HYDRANT
	TRAFFIC SIGN
	WATER VALVE COVER
	MANHOLE
	WATER METER
	CENTERLINE
	RIGHT OF WAY



CONCEPTUAL  
NOT FOR CONSTRUCTION

	<h1>HUITT-ZOLLARS</h1> <p>Huitt-Zollars, Inc. Ontario</p> <p>3990 CONCOURS, #330 • ONTARIO, CALIFORNIA 91761 • (909) 941-7799</p>		<h2>CITY OF RIALTO, CALIFORNIA</h2>	
	<p>PREPARED UNDER THE SUPERVISION OF: JOHNNY MURAD</p>		<h3>COMPOSITE UTILITY PLAN</h3>	
	<p>67512</p> <p>R.C.E.</p>	<p>6-30-19</p> <p>EXPIRES</p>	<p>DRAWN BY: H.Z. STAFF</p> <p>DESIGNED BY: H.Z. STAFF</p> <p>CHECKED BY: J.M./R.C./M.H.</p>	<p><b>BASELINE STORM DRAIN</b> <b>IDYLLWILD AVE TO CEDAR AVE</b> <b>STA. 30+00.00 TO 56+37.00</b></p>
				<p><b>5</b></p>



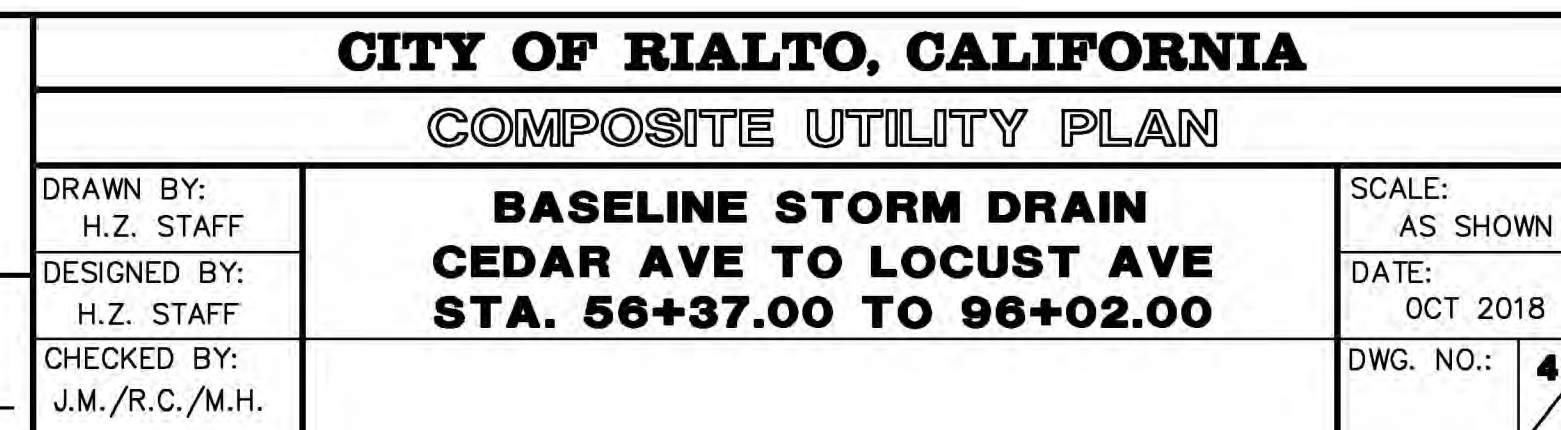


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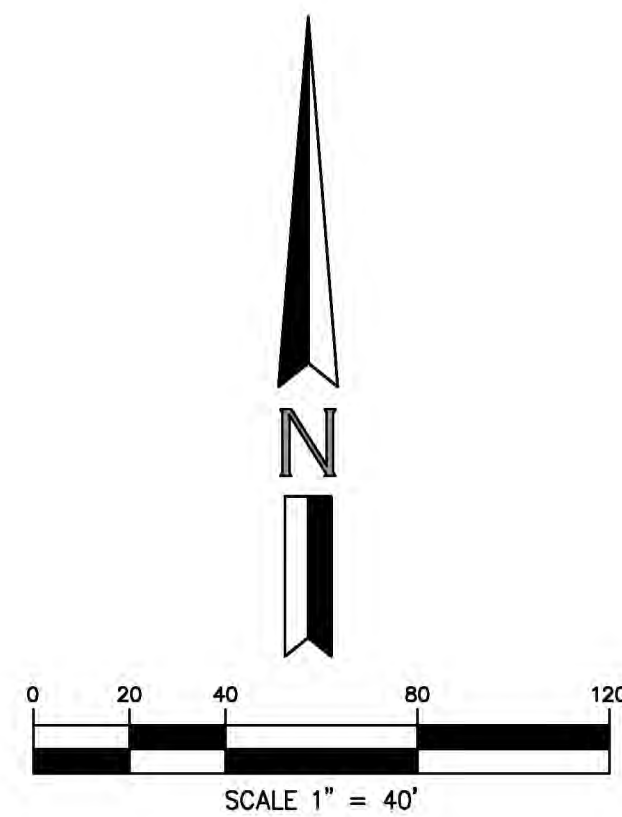
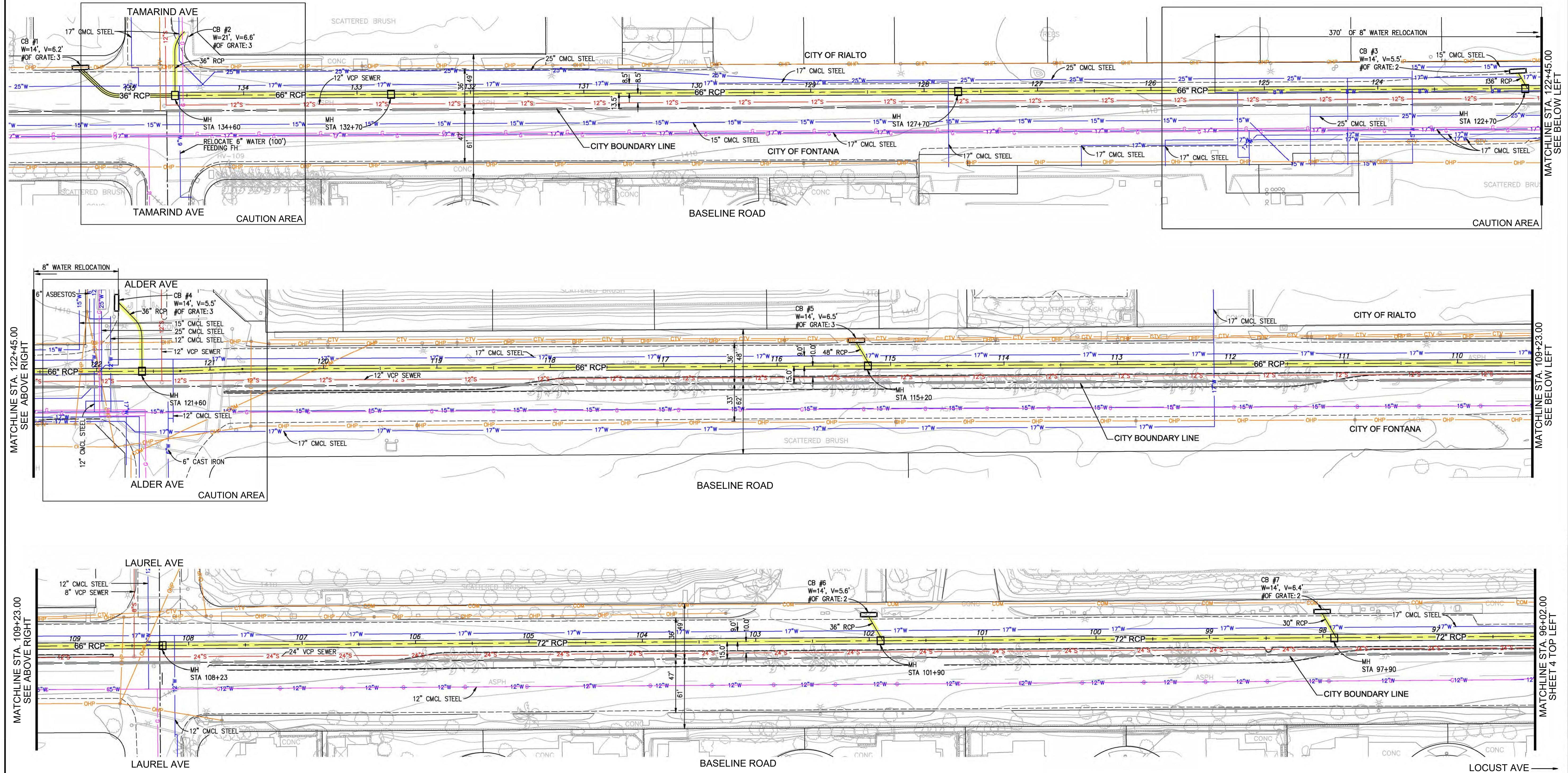
PREPARED UNDER THE SUPERVISION OF: JOHNNY MURAD

_____	67512	6-30-19	_____
_____	R.C.F.	EXPENSE	DAT#

CAUTION AREA







LEGEND	
	POWER POLE
	GUY WIRE (ANCHOR)
	TRAFFIC SIGNAL
	SITE LIGHT
	STREET LIGHT ON POWER POLE
	STREET LIGHT
	FIRE HYDRANT
	TRAFFIC SIGN
	WATER VALVE COVER
	MANHOLE
	WATER METER
	CENTERLINE
	RIGHT OF WAY
	CITY BOUNDARY LINE

UNDERGROUND UTILITY LEGEND	
	EXISTING WATER LINES
	EXISTING SEWER LINES
	EXISTING STORM DRAIN LINES
	EXISTING ELEC, COM, TEL, & OH LINES
	EXISTING GAS LINES
	PROPOSED STORM DRAIN ALIGNMENT

CONCEPTUAL  
NOT FOR CONSTRUCTION

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PREPARED UNDER THE SUPERVISION OF: JOHNNY MURAD

DRAWN BY:  
H.Z. STAFF

DESIGNED BY:  
H.Z. STAFF

CHECKED BY:  
J.M./R.C./M.H.

**CITY OF RIALTO, CALIFORNIA**  
**COMPOSITE UTILITY PLAN**

**BASELINE STORM DRAIN  
LOCUST AVE TAMARIND AVE  
STA 96+02.00 TO 134+00.00**

SCALE:  
AS SHOWN

DATE:  
OCT 2018

DWG. NO.:  
**5**

H:\Pro\183082501 - Rialto - Baseline SJ - Cactus to Tamarind\05 Design\051 DWG's Composite Utility.dwg, Layout 056, Dec. 07 2018 4:13pm



## **APPENDIX 2**



**AIR QUALITY and GHG IMPACT ANALYSES**

**HZ-116**

**RIALTO BASELINE STORM DRAIN PROJECT**

**CITY OF RIALTO, CALIFORNIA**

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Prepared for:

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2150 N. Arrowhead Avenue  
San Bernardino, California 92405

Date:

April 15, 2019

Project No.: P19-009 A

## ATMOSPHERIC SETTING

The climate of western San Bernardino County, as with all of Southern California, is governed largely by the strength and location of the semi-permanent high-pressure center over the Pacific Ocean and the moderating effects of the nearby vast oceanic heat reservoir. Local climatic conditions are characterized by very warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and comfortable humidities. Unfortunately, the same climatic conditions that create such a desirable living climate combine to severely restrict the ability of the local atmosphere to disperse the large volumes of air pollution generated by the population and industry attracted in part by the climate.

Rialto is situated in an area where the pollutants generated in coastal portions of the Los Angeles basin undergo photochemical reactions and then move inland across the project site during the daily sea breeze cycle. The resulting smog at times gives western San Bernardino County some of the worst air quality in all of California. Fortunately, significant air quality improvement in the last decade suggests that healthful air quality may someday be attained despite the limited regional meteorological dispersion potential.

Winds across the project area are an important meteorological parameter because they control both the initial rate of dilution of locally generated air pollutant emissions as well as controlling their regional trajectory. Winds across the project site display a very unidirectional onshore flow from the southwest-west that is strongest in summer with a weaker offshore return flow from the northeast that is strongest on winter nights when the land is colder than the ocean. The onshore winds during the day average 6-10 mph while the offshore flow is often calm or drifts slowly westward at 1-3 mph.

During the daytime, any locally generated air emissions are readily transported northeastward toward Cajon Pass without generating any localized air quality impacts. The nocturnal drainage winds which move slowly across the area have some potential for localized stagnation, but fortunately, these winds have their origin in the adjacent mountains where background pollution levels are low such that any localized contributions do not create any unhealthful impacts.

In conjunction with the two characteristic wind regimes that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. The summer on-shore flow is capped by a massive dome of warm, sinking air which caps a shallow layer of cooler ocean air. These marine/subsidence inversions act like a giant lid over the basin. They allow for local mixing of emissions, but they confine the entire polluted air mass within the basin until it escapes into the desert or along the thermal chimneys formed along heated mountain slopes.

In winter, when the air near the ground cools while the air aloft remains warm, radiation inversions are formed that trap low-level emissions such as automobile exhaust near their source. As background levels of primary vehicular exhaust rise during the seaward return flow, the combination of rising non-local baseline levels plus emissions trapped locally by these radiation inversions creates micro-scale air pollution "hot spots" near freeways, shopping centers and other

traffic concentrations in coastal areas of the Los Angeles Basin. Because the nocturnal airflow across the project site has its origin in very lightly developed areas of the San Gabriel Mountains, background pollution levels at night in winter are very low in the project vicinity. Localized air pollution contributions are insufficient to create a "hot spot" potential when superimposed upon the clean nocturnal baseline. The combination of winds and inversions are critical determinants in leading to the degraded air quality in summer, and the generally good air quality in winter in the project area.

# AIR QUALITY SETTING

## AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to "non-attainment" for the 8-hour ozone standard.

Table 1

Ambient Air Quality Standards							
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>			
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>	
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )			
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—			
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)	
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—		
	8 Hour (Lake Tahoe)	8 ppm (7 mg/m <sup>3</sup> )		—	—		
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard		
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )		
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	—		
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>	—		
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>14</sup>	Same as Primary Standard		
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>			
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards			
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence				
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography				

See footnotes on next page ...



Table 1 (continued)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

**Table 2**  
**Health Effects of Major Criteria Pollutants**

<b>Pollutants</b>	<b>Sources</b>	<b>Primary Effects</b>
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust.</li> <li>• Natural events, such as decomposition of organic matter.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced tolerance for exercise.</li> <li>• Impairment of mental function.</li> <li>• Impairment of fetal development.</li> <li>• Death at high levels of exposure.</li> <li>• Aggravation of some heart diseases (angina).</li> </ul>
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Motor vehicle exhaust.</li> <li>• High temperature stationary combustion.</li> <li>• Atmospheric reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory illness.</li> <li>• Reduced visibility.</li> <li>• Reduced plant growth.</li> <li>• Formation of acid rain.</li> </ul>
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory and cardiovascular diseases.</li> <li>• Irritation of eyes.</li> <li>• Impairment of cardiopulmonary function.</li> <li>• Plant leaf injury.</li> </ul>
Lead (Pb)	<ul style="list-style-type: none"> <li>• Contaminated soil.</li> </ul>	<ul style="list-style-type: none"> <li>• Impairment of blood function and nerve construction.</li> <li>• Behavioral and hearing problems in children.</li> </ul>
Respirable Particulate Matter (PM-10)	<ul style="list-style-type: none"> <li>• Stationary combustion of solid fuels.</li> <li>• Construction activities.</li> <li>• Industrial processes.</li> <li>• Atmospheric chemical reactions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced lung function.</li> <li>• Aggravation of the effects of gaseous pollutants.</li> <li>• Aggravation of respiratory and cardio respiratory diseases.</li> <li>• Increased cough and chest discomfort.</li> <li>• Soiling.</li> <li>• Reduced visibility.</li> </ul>
Fine Particulate Matter (PM-2.5)	<ul style="list-style-type: none"> <li>• Fuel combustion in motor vehicles, equipment, and industrial sources.</li> <li>• Residential and agricultural burning.</li> <li>• Industrial processes.</li> <li>• Also, formed from photochemical reactions of other pollutants, including NO<sub>x</sub>, sulfur oxides, and organics.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases respiratory disease.</li> <li>• Lung damage.</li> <li>• Cancer and premature death.</li> <li>• Reduces visibility and results in surface soiling.</li> </ul>
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Combustion of sulfur-containing fossil fuels.</li> <li>• Smelting of sulfur-bearing metal ores.</li> <li>• Industrial processes.</li> </ul>	<ul style="list-style-type: none"> <li>• Aggravation of respiratory diseases (asthma, emphysema).</li> <li>• Reduced lung function.</li> <li>• Irritation of eyes.</li> <li>• Reduced visibility.</li> <li>• Plant injury.</li> <li>• Deterioration of metals, textiles, leather, finishes, coatings, etc.</li> </ul>

Source: California Air Resources Board, 2002.



Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide (NO<sub>2</sub>) that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO<sub>2</sub> standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 µg/m<sup>3</sup> to 12 µg/m<sup>3</sup> which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

In response to continuing evidence that ozone exposure at levels just meeting federal clean air standards is demonstrably unhealthful, EPA had proposed a further strengthening of the 8-hour standard. A new 8-hour ozone standard was adopted in 2015 after extensive analysis and public input. The adopted national 8-hour ozone standard is 0.07 ppm which matches the current California standard. It will require three years of ambient data collection, then 2 years of non-attainment findings and planning protocol adoption, then several years of plan development and approval. Final air quality plans for the new standard are likely to be adopted around 2022. Ultimate attainment of the new standard in ozone problem areas such as Southern California might be after 2025.

In 2010 a new federal one-hour primary standard for nitrogen dioxide (NO<sub>2</sub>) was adopted. This standard is more stringent than the existing state standard. Based upon air quality monitoring data in the South Coast Air Basin, the California Air Resources Board has requested the EPA to designate the basin as being in attainment for this standard. The federal standard for sulfur dioxide (SO<sub>2</sub>) was also recently revised. However, with minimal combustion of coal and mandatory use of low sulfur fuels in California, SO<sub>2</sub> is typically not a problem pollutant.

## **BASELINE AIR QUALITY**

Existing levels of ambient air quality and historical trends and projections in the project area are best documented from measurements made near the project site. The South Coast Air Quality Management District (SCAQMD) operates a monitoring station in Fontana that monitors the complete spectrum of gaseous and particulate pollutants for which there are clean air standards. From these data resources, one can well infer that baseline air quality levels near the project site are improving, but occasionally unhealthy. Full attainment may still be many years away. Table 3 summarizes the last four years of published monitoring data from the Fontana station.

1. Photochemical smog (ozone) levels frequently exceed standards. The 1-hour state standard was violated 9.2 percent of all days in the last four years in Fontana. The 8-hour state ozone standard has been exceeded 14 percent of all days in the past four years. The Federal eight-hour ozone standard has averaged around 10 percent of the time during this period. While ozone levels are still high, they are much lower than 10 to 20 years ago. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade.

2. Carbon monoxide (CO) levels at the Fontana station have remained level throughout the last four years. The 8-hour standard has not been exceeded and the maximum 8-hour standard has been steadily declining, with 2016 having the lowest concentration in the time period analyzed. These data suggest that baseline CO levels in the project area are generally healthful and can accommodate a reasonable level of additional traffic emissions before any adverse air quality effects would be expected.

3. PM-10 levels periodically exceed the state 24-hour standard, but no measurements in excess of the national 24-hour particulate standard has been recorded in the last four years. State PM-10 standards are exceeded an average of 22 percent of all days per year.

4. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). Year 2016 showed the fewest violations in recent years. Less than one percent of all days exceeded the current national 24-hour standard of 35  $\mu\text{g}/\text{m}^3$ .

5. More localized pollutants such as nitrogen oxides, lead, etc. are very low near the project site because background levels never exceed allowable levels, and there are only limited sources of such emissions near the project site.

**Table 3**  
**Air Quality Monitoring Summary (2014-2017)**  
**(Number of Days Standards Were Exceeded, and**  
**Maximum Levels During Such Violations)**  
**(Entries shown as ratios = samples exceeding standard/samples taken)**

<b>Pollutant/Standard</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Ozone</b>				
1-Hour > 0.09 ppm (S)	31	36	34	33
8-Hour > 0.07 ppm (S)	52	57	49	49
8- Hour > 0.075 ppm (F)	37	39	34	38
Max. 1-Hour Conc. (ppm)	0.127	0.133	0.139	0.137
Max. 8-Hour Conc. (ppm)	0.105	0.111	0.105	0.118
<b>Carbon Monoxide</b>				
8- Hour > 9. ppm (S,F)	0	0	0	0
Max 8-hour Conc. (ppm)	1.2	1.2	1.0	1.3
<b>Nitrogen Dioxide</b>				
1-Hour > 0.18 ppm (S)	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.074	0.089	0.071	0.069
<b>Inhalable Particulates (PM-10)</b>				
24-hour > 50 µg/m <sup>3</sup> (S)	13/58	13/55	15/61	7/43
24-hour > 150 µg/m <sup>3</sup> (F)	0/58	0/55	0/61	0/43
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	68.	96.	94.	75.
<b>Ultra-Fine Particulates (PM-2.5)</b>				
24-Hour > 35 µg/m <sup>3</sup> (F)	1/58	2/113	0/111	1/120
Max. 24-Hr. Conc. (µg/m <sup>3</sup> )	78.9	47.3	30.4	39.2

S=State Standard

F=Federal Standard

Source: South Coast AQMD – Fontana Air Quality Monitoring Station  
data: [www.arb.ca.gov/adam/77](http://www.arb.ca.gov/adam/77)

## AIR QUALITY PLANNING

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM-10. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times as earlier attainment forecasts were shown to be overly optimistic.

The 1990 Federal Clean Air Act Amendment (CAAA) required that all states with air-sheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised and approved over the past decade. The most current regional attainment emissions forecast for ozone precursors (ROG and NO<sub>x</sub>) and for carbon monoxide (CO) and for particulate matter are shown in Table 4. Substantial reductions in emissions of ROG, NO<sub>x</sub> and CO are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM-10 and PM-2.5 are forecast to slightly increase.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in August 2003. The 2003 Air Quality Management Plan (AQMP) was approved by the EPA in 2004. The AQMP outlined the air pollution measures needed to meet federal health-based standards for ozone by 2010 and for particulates (PM-10) by 2006. The 2003 AQMP was based upon the federal one-hour ozone standard which was revoked late in 2005 and replaced by an 8-hour federal standard. Because of the revocation of the hourly standard, a new air quality planning cycle was initiated.

With re-designation of the air basin as non-attainment for the 8-hour ozone standard, a new attainment plan was developed. This plan shifted most of the one-hour ozone standard attainment strategies to the 8-hour standard. As previously noted, the attainment date was to “slip” from 2010 to 2021. The updated attainment plan also includes strategies for ultimately meeting the federal PM-2.5 standard.

Because projected attainment by 2021 required control technologies that did not exist yet, the SCAQMD requested a voluntary “bump-up” from a “severe non-attainment” area to an “extreme non-attainment” designation for ozone. The extreme designation was to allow a longer time period for these technologies to develop. If attainment cannot be demonstrated within the specified deadline without relying on “black-box” measures, EPA would have been required to impose sanctions on the region had the bump-up request not been approved. In April 2010, the EPA approved the change in the non-attainment designation from “severe-17” to “extreme.” This reclassification set a later attainment deadline (2024), but also required the air basin to adopt even more stringent emissions controls.

**Table 4**  
**South Coast Air Basin Emissions Forecasts (Emissions in tons/day)**

<b>Pollutant</b>	<b>2015<sup>a</sup></b>	<b>2020<sup>b</sup></b>	<b>2025<sup>b</sup></b>	<b>2030<sup>b</sup></b>
<b>NO<sub>x</sub></b>	357	289	266	257
<b>VOC</b>	400	393	393	391
<b>PM-10</b>	161	165	170	172
<b>PM-2.5</b>	67	68	70	71

<sup>a</sup>2015 Base Year.

<sup>b</sup>With current emissions reduction programs and adopted growth forecasts.

Source: California Air Resources Board, 2013 Almanac of Air Quality

In other air quality attainment plan reviews, EPA had disapproved part of the SCAB PM-2.5 attainment plan included in the AQMP. EPA stated that the current attainment plan relied on PM-2.5 control regulations that had not yet been approved or implemented. It was expected that a number of rules that were pending approval would remove the identified deficiencies. If these issues were not resolved within the next several years, federal funding sanctions for transportation projects could result. The 2012 AQMP included in the current California State Implementation Plan (SIP) was expected to remedy identified PM-2.5 planning deficiencies.

The federal Clean Air Act requires that non-attainment air basins have EPA approved attainment plans in place. This requirement includes the federal one-hour ozone standard even though that standard was revoked almost ten years ago. There was no approved attainment plan for the one-hour federal standard at the time of revocation. Through a legal quirk, the SCAQMD is now required to develop an AQMP for the long since revoked one-hour federal ozone standard. Because the current SIP for the basin contains a number of control measures for the 8-hour ozone standard that are equally effective for one-hour levels, the 2012 AQMP was believed to satisfy hourly attainment planning requirements.

AQMPs are required to be updated every three years. The 2012 AQMP was adopted in early 2013. An updated AQMP was required for completion in 2016. The 2016 AQMP was adopted by the SCAQMD Board in March, 2017, and has been submitted the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NO<sub>x</sub>, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

8-hour ozone (70 ppb)	2032
Annual PM-2.5 (12 µg/m <sup>3</sup> )	2025
8-hour ozone (75 ppb)	2024 (former standard)
1-hour ozone (120 ppb)	2023 (rescinded standard)

## 24-hour PM-2.5 (35 µg/m<sup>3</sup>) 2019

The key challenge is that NO<sub>x</sub> emission levels, as a critical ozone precursor pollutant, are forecast to continue to exceed the levels that would allow the above deadlines to be met. Unless additional stringent NO<sub>x</sub> control measures are adopted and implemented, ozone attainment goals may not be met.

The proposed project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing storm drain improvement projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less-than-significant just because the proposed development is consistent with regional growth projections. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis.

# AIR QUALITY IMPACT

## STANDARDS OF SIGNIFICANCE

Air quality impacts are considered “significant” if they cause clean air standards to be violated where they are currently met, or if they “substantially” contribute to an existing violation of standards. Any substantial emissions of air contaminants for which there is no safe exposure, or nuisance emissions such as dust or odors, would also be considered a significant impact.

Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. A project would have a potentially significant impact if it:

- a) Conflict with or obstruct implementation of the applicable air quality plan?
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c) Expose sensitive receptors to substantial pollutant concentrations?
- d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

## Primary Pollutants

Air quality impacts generally occur on two scales of motion. Near an individual source of emissions or a collection of sources such as a crowded intersection or parking lot, levels of those pollutants that are emitted in their already unhealthful form will be highest. Carbon monoxide (CO) is an example of such a pollutant. Primary pollutant impacts can generally be evaluated directly in comparison to appropriate clean air standards. Violations of these standards where they are currently met, or a measurable worsening of an existing or future violation, would be considered a significant impact. Many particulates, especially fugitive dust emissions, are also primary pollutants. Because of the non-attainment status of the South Coast Air Basin (SCAB) for PM-10, an aggressive dust control program is required to control fugitive dust during project construction.

## Secondary Pollutants

Many pollutants, however, require time to transform from a more benign form to a more unhealthful contaminant. Their impact occurs regionally far from the source. Their incremental regional impact is minute on an individual basis and cannot be quantified except through complex photochemical computer models. Analysis of significance of such emissions is based upon a specified amount of emissions (pounds, tons, etc.) even though there is no way to translate those emissions directly into a corresponding ambient air quality impact.

Because of the chemical complexity of primary versus secondary pollutants, the SCAQMD has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. Projects with daily emissions that



exceed any of the following emission thresholds are recommended by the SCAQMD to be considered significant under CEQA guidelines.

**Table 5**  
**Daily Emissions Thresholds**

<b>Pollutant</b>	<b>Construction</b>	<b>Operations</b>
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

#### **Additional Indicators**

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- Project could generate vehicle trips that cause a CO hot spot.

## CONSTRUCTION ACTIVITY IMPACTS

CalEEMod was developed by the SCAQMD to provide a model by which to calculate construction emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions.

The City of Rialto proposes to upgrade the existing drainage infrastructure conditions within Baseline Road from Cactus Basin (Cactus Avenue) to Tamarind Avenue. The project consists of installing approximately 11,000 lineal feet (LF) of various diameter storm drains that would capture flows north of Baseline Road.

The Project will be constructed once funding becomes available, which is anticipated to be secured in 2021 or 2022. Construction is anticipated to require between 6 months and one year to complete. At any given time during construction a maximum of 30 employees would be required each day, though the number of construction workers required will range from 10 to 30 persons per day.

Although exhaust emissions will result from on and off-site equipment, the exact types and numbers of equipment will vary among contractors such that such emissions cannot be quantified with certainty. The CalEEMod.2016.3.2 computer model was used to calculate emissions from the prototype construction equipment fleet and schedule as indicated in Table 6.

**Table 6**  
**CalEEMod Construction Activity Equipment Fleet and Workdays**  
**(30 workers daily)**

<b>Prep and Concrete Removal</b> (3 months)	1 Concrete Saw
	1 Dozer
	1 Loader/Backhoe
	2 Skid Steer Loaders
<b>Trench and Install Pipeline</b> (4 months)	1 Loader/Backhoe
	2 Trenchers
	1 Forklifts
	1 Crane
	1 Excavator
<b>Backfill and Paving</b> (3 months)	1 Paver
	1 Roller
	1 Loader/Backhoe
	4 Mixers
	2 Compactors

Utilizing the indicated equipment fleet shown in Tables 6 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 7.

**Table 7**  
**Construction Activity Emissions**  
**Maximum Daily Emissions (pounds/day)**

Maximal Construction Emissions per Calendar Year	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM-10	PM-2.5
<b>Year 2021</b>	2.4	21.9	19.5	0.0	1.8	1.2
<b>SCAQMD Thresholds</b>	75	100	550	150	150	55

Source: CalEEMod.2016.3.2 output in appendix

Peak daily construction activity emissions are below their respective SCAQMD CEQA significance thresholds without the need for any additional mitigation.

### LOCALIZED SIGNIFICANCE THRESHOLDS

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

For the proposed project, the primary source of possible LST impact would be during construction. LST screening tables are available for various source-receptor distances. For this project the most stringent thresholds for a 1-acre site and a 25-meter source-receptor distance was used to compare to construction emissions as shown in Table 8.

**Table 8**  
**LST and Project Emissions (pounds/day)**

<b>LST 1 acre/25 meters Central San Bernardino Valley</b>	<b>CO</b>	<b>NO<sub>x</sub></b>	<b>PM-10</b>	<b>PM-2.5</b>
<b>LST Thresholds</b>	667	118	4	3
<b>Max On-Site Project Emissions</b>	20	22	2	1

LSTs were compared to the maximum daily construction activities. As seen in Table 8, even without use of mitigation, emissions easily meet the LST thresholds. LST impacts are less-than-significant.

### OPERATIONAL IMPACTS

There are no operational air pollution emissions associated with a gravity fed storm drain.

## **CONSTRUCTION EMISSIONS MINIMIZATION**

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, emissions minimization through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin. Recommended measures include:

### **Fugitive Dust Control**

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, ozone precursor emissions (ROG and NO<sub>x</sub>) are calculated to be below SCAQMD CEQA thresholds. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. Combustion emissions control options include:

### **Exhaust Emissions Control**

- Utilize well-tuned off-road construction equipment.
- Establish a preference for contractors using Tier 3 or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

# GREENHOUSE GAS EMISSIONS

## GREENHOUSE GAS EMISSIONS

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” These greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statutes and executive orders (EO) include AB 32, SB 1368, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California’s reputation as a “national and international leader on energy conservation and environmental stewardship.” It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate “early action” control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California’s GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25-40%, from business as usual, to be achieved by 2020.
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is under way. Maximum GHG reductions are expected to derive from increased vehicle fuel efficiency, from greater use of renewable energy and from increased structural energy efficiency. Additionally, through the California Climate Action Registry (CCAR now called the Climate Action Reserve), general and industry-specific protocols for assessing and reporting GHG emissions have been



developed. GHG sources are categorized into direct sources (i.e. company owned) and indirect sources (i.e. not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

## **GREENHOUSE GAS EMISSIONS SIGNIFICANCE THRESHOLDS**

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or,
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, deciding significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have sufficient expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

On December 5, 2008 the SCAQMD Governing Board adopted an Interim quantitative GHG Significance Threshold for industrial projects where the SCAQMD is the lead agency (e.g., stationary source permit projects, rules, plans, etc.) of 10,000 Metric Tons (MT) CO<sub>2</sub> equivalent/year. In September 2010, the Working Group released revisions which recommended a threshold of 3,000 MT CO<sub>2</sub>e for all land use types. This 3,000 MT/year recommendation has been used as a guideline for this analysis.

## PROJECT RELATED GHG EMISSIONS GENERATION

### Construction Activity GHG Emissions

The project is assumed to require 10 months for construction starting in November of 2019 and continuing September 2021. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO<sub>2</sub>e emissions identified in Table 9.

**Table 9**  
**Construction Emissions (Metric Tons CO<sub>2</sub>(e))**

Year 2021	
<b>Total</b>	<b>252.4</b>
Amortized	8.4
Significance Threshold	3,000

\*CalEEMod Output provided in appendix

SCAQMD GHG emissions policy from construction activities is to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

### CONSISTENCY WITH GHG PLANS, PROGRAMS AND POLICIES

The City of Rialto has participated in the San Bernardino County Regional Greenhouse Gas Reduction Plan with the San Bernardino Associated Governments (SANBAG). This study includes an inventory compilation of GHG emissions and an evaluation of reduction measures that could be adopted by the 21 partnership cities of San Bernardino County.

The proposed project has no associated operational emissions and generates minimal construction GHG emissions. Project GHG emissions will cease after the 10-month construction period. Therefore, there are no applicable mitigation measures for the proposed project.

Storm water conveyance is a very small component of the total City of Rialto GHG emissions inventory. Since project construction is below the recommended SCAQMD 3,000 MT CO<sub>2</sub>e threshold it would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

## **CALEEMOD OUTPUT**

- **Construction Daily**
- **Construction Annual**



## Riato Storm Drain - South Coast Air Basin, Summer

## Riato Storm Drain

### South Coast Air Basin, Summer

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	10			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MW hr)</b>	702.44	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 11,000 lf x 72"

Construction Phase - Prep and Concrete Removal: 3 months, Trench and Install Pipe: 4 months, Cover and Fill: 3 months

Off-road Equipment - Cover and Fill: 4 mixers, 1 paver, 1 roller, 1 loader/backhoe, 2 compactors

Off-road Equipment - Prep and Concrete Removal: 1 concrete saw, 1 dozer, 3 loader/backhoes, 2 skid steer loaders

Off-road Equipment - Pipeline Install: 1 loader/backhoe, 2 trenchers, 1 forklift, 1 crane, 1 excavator

Trips and VMT - 30 workers-60 trips per day

Construction Off-road Equipment Mitigation -

## Riato Storm Drain - South Coast Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	1/28/2021	3/25/2021
tblConstructionPhase	PhaseEndDate	11/26/2021	10/22/2021
tblConstructionPhase	PhaseStartDate	11/13/2021	8/1/2021
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	18.00	60.00
tblTripsAndVMT	WorkerTripNumber	25.00	60.00
tblTripsAndVMT	WorkerTripNumber	15.00	60.00

## 2.0 Emissions Summary

## Riato Storm Drain - South Coast Air Basin, Summer

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3945	21.8593	19.5140	0.0349	0.6771	1.1272	1.7979	0.1797	1.0509	1.2287	0.0000	3,385.6295	3,385.6295	0.7408	0.0000	3,404.1501
Maximum	2.3945	21.8593	19.5140	0.0349	0.6771	1.1272	1.7979	0.1797	1.0509	1.2287	0.0000	3,385.6295	3,385.6295	0.7408	0.0000	3,404.1501

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	2.3945	21.8593	19.5140	0.0349	0.6771	1.1272	1.7979	0.1797	1.0509	1.2287	0.0000	3,385.6295	3,385.6295	0.7408	0.0000	3,404.1501
Maximum	2.3945	21.8593	19.5140	0.0349	0.6771	1.1272	1.7979	0.1797	1.0509	1.2287	0.0000	3,385.6295	3,385.6295	0.7408	0.0000	3,404.1501

[illegible]



## Riato Storm Drain - South Coast Air Basin, Summer

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.3000e-004</b>

## Riata Storm Drain - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

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#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Prep and Concrete Removal	Demolition	1/1/2021	3/25/2021	5	60	
2	Pipeline Install	Trenching	4/1/2021	7/21/2021	5	80	
3	Cover and Fill	Paving	8/1/2021	10/22/2021	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

#### OffRoad Equipment

## Riata Storm Drain - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Cover and Fill	Plate Compactors	2	7.00	8	0.43
Cover and Fill	Cement and Mortar Mixers	4	6.00	9	0.56
Prep and Concrete Removal	Concrete/Industrial Saws	1	8.00	81	0.73
Prep and Concrete Removal	Skid Steer Loaders	2	8.00	65	0.37
Pipeline Install	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipeline Install	Trenchers	2	8.00	78	0.50
Pipeline Install	Forklifts	1	8.00	89	0.20
Cover and Fill	Pavers	1	6.00	130	0.42
Cover and Fill	Rollers	1	7.00	80	0.38
Prep and Concrete Removal	Rubber Tired Dozers	1	8.00	247	0.40
Pipeline Install	Cranes	1	8.00	231	0.29
Pipeline Install	Excavators	1	8.00	158	0.38
Prep and Concrete Removal	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Cover and Fill	Paving Equipment	1	8.00	132	0.36
Cover and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Prep and Concrete Removal	7	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline Install	6	60.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Cover and Fill	10	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area



## Riata Storm Drain - South Coast Air Basin, Summer

**3.2 Prep and Concrete Removal - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1434	21.6955	17.2612	0.0282		1.1222	1.1222		1.0463	1.0463		2,721.4906	2,721.4906	0.7229		2,739.5636
<b>Total</b>	<b>2.1434</b>	<b>21.6955</b>	<b>17.2612</b>	<b>0.0282</b>		<b>1.1222</b>	<b>1.1222</b>		<b>1.0463</b>	<b>1.0463</b>		<b>2,721.4906</b>	<b>2,721.4906</b>	<b>0.7229</b>		<b>2,739.5636</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2511</b>	<b>0.1638</b>	<b>2.2528</b>	<b>6.6700e-003</b>	<b>0.6707</b>	<b>4.9600e-003</b>	<b>0.6756</b>	<b>0.1779</b>	<b>4.5700e-003</b>	<b>0.1824</b>		<b>664.1390</b>	<b>664.1390</b>	<b>0.0179</b>		<b>664.5865</b>

## Riata Storm Drain - South Coast Air Basin, Summer

**3.2 Prep and Concrete Removal - 2021****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1434	21.6955	17.2612	0.0282		1.1222	1.1222		1.0463	1.0463	0.0000	2,721.4906	2,721.4906	0.7229		2,739.5636
<b>Total</b>	<b>2.1434</b>	<b>21.6955</b>	<b>17.2612</b>	<b>0.0282</b>		<b>1.1222</b>	<b>1.1222</b>		<b>1.0463</b>	<b>1.0463</b>	<b>0.0000</b>	<b>2,721.4906</b>	<b>2,721.4906</b>	<b>0.7229</b>		<b>2,739.5636</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2511</b>	<b>0.1638</b>	<b>2.2528</b>	<b>6.6700e-003</b>	<b>0.6707</b>	<b>4.9600e-003</b>	<b>0.6756</b>	<b>0.1779</b>	<b>4.5700e-003</b>	<b>0.1824</b>		<b>664.1390</b>	<b>664.1390</b>	<b>0.0179</b>		<b>664.5865</b>

## Riato Storm Drain - South Coast Air Basin, Summer

**3.3 Pipeline Install - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7258	17.1142	13.9215	0.0223		1.0086	1.0086		0.9279	0.9279		2,163.336 4	2,163.336 4	0.6997		2,180.828 1
<b>Total</b>	<b>1.7258</b>	<b>17.1142</b>	<b>13.9215</b>	<b>0.0223</b>		<b>1.0086</b>	<b>1.0086</b>		<b>0.9279</b>	<b>0.9279</b>		<b>2,163.336 4</b>	<b>2,163.336 4</b>	<b>0.6997</b>		<b>2,180.828 1</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.8100e-003	0.0958	0.0233	2.5000e-004	6.4000e-003	2.0000e-004	6.5900e-003	1.8400e-003	1.9000e-004	2.0300e-003		27.0744	27.0744	1.6700e-003		27.1162
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2539</b>	<b>0.2596</b>	<b>2.2761</b>	<b>6.9200e-003</b>	<b>0.6771</b>	<b>5.1600e-003</b>	<b>0.6822</b>	<b>0.1797</b>	<b>4.7600e-003</b>	<b>0.1845</b>		<b>691.2133</b>	<b>691.2133</b>	<b>0.0196</b>		<b>691.7027</b>



## Riato Storm Drain - South Coast Air Basin, Summer

**3.3 Pipeline Install - 2021****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7258	17.1142	13.9215	0.0223		1.0086	1.0086		0.9279	0.9279	0.0000	2,163.336 4	2,163.336 4	0.6997		2,180.828 1
<b>Total</b>	<b>1.7258</b>	<b>17.1142</b>	<b>13.9215</b>	<b>0.0223</b>		<b>1.0086</b>	<b>1.0086</b>		<b>0.9279</b>	<b>0.9279</b>	<b>0.0000</b>	<b>2,163.336 4</b>	<b>2,163.336 4</b>	<b>0.6997</b>		<b>2,180.828 1</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	2.8100e-003	0.0958	0.0233	2.5000e-004	6.4000e-003	2.0000e-004	6.5900e-003	1.8400e-003	1.9000e-004	2.0300e-003		27.0744	27.0744	1.6700e-003		27.1162
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2539</b>	<b>0.2596</b>	<b>2.2761</b>	<b>6.9200e-003</b>	<b>0.6771</b>	<b>5.1600e-003</b>	<b>0.6822</b>	<b>0.1797</b>	<b>4.7600e-003</b>	<b>0.1845</b>		<b>691.2133</b>	<b>691.2133</b>	<b>0.0196</b>		<b>691.7027</b>

## Riata Storm Drain - South Coast Air Basin, Summer

**3.4 Cover and Fill - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9763	9.0104	9.9190	0.0160		0.4646	0.4646		0.4322	0.4322		1,470.867 1	1,470.867 1	0.4292		1,481.596 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9763</b>	<b>9.0104</b>	<b>9.9190</b>	<b>0.0160</b>		<b>0.4646</b>	<b>0.4646</b>		<b>0.4322</b>	<b>0.4322</b>		<b>1,470.867 1</b>	<b>1,470.867 1</b>	<b>0.4292</b>		<b>1,481.596 5</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2511</b>	<b>0.1638</b>	<b>2.2528</b>	<b>6.6700e-003</b>	<b>0.6707</b>	<b>4.9600e-003</b>	<b>0.6756</b>	<b>0.1779</b>	<b>4.5700e-003</b>	<b>0.1824</b>		<b>664.1390</b>	<b>664.1390</b>	<b>0.0179</b>		<b>664.5865</b>

## Riata Storm Drain - South Coast Air Basin, Summer

**3.4 Cover and Fill - 2021****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9763	9.0104	9.9190	0.0160		0.4646	0.4646		0.4322	0.4322	0.0000	1,470.867 1	1,470.867 1	0.4292		1,481.596 5
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>0.9763</b>	<b>9.0104</b>	<b>9.9190</b>	<b>0.0160</b>		<b>0.4646</b>	<b>0.4646</b>		<b>0.4322</b>	<b>0.4322</b>	<b>0.0000</b>	<b>1,470.867 1</b>	<b>1,470.867 1</b>	<b>0.4292</b>		<b>1,481.596 5</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2511	0.1638	2.2528	6.6700e-003	0.6707	4.9600e-003	0.6756	0.1779	4.5700e-003	0.1824		664.1390	664.1390	0.0179		664.5865
<b>Total</b>	<b>0.2511</b>	<b>0.1638</b>	<b>2.2528</b>	<b>6.6700e-003</b>	<b>0.6707</b>	<b>4.9600e-003</b>	<b>0.6756</b>	<b>0.1779</b>	<b>4.5700e-003</b>	<b>0.1824</b>		<b>664.1390</b>	<b>664.1390</b>	<b>0.0179</b>		<b>664.5865</b>

**4.0 Operational Detail - Mobile**



## Riato Storm Drain - South Coast Air Basin, Summer

## 4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

## Riato Storm Drain - South Coast Air Basin, Summer

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Riato Storm Drain - South Coast Air Basin, Summer

**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**



## Riato Storm Drain - South Coast Air Basin, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

## Riato Storm Drain - South Coast Air Basin, Summer

**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
<b>Total</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>		<b>2.3000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

## Riata Storm Drain - South Coast Air Basin, Summer

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

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

Equipment Type	Number
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**11.0 Vegetation**

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## Riato Storm Drain - South Coast Air Basin, Annual

## Riato Storm Drain

### South Coast Air Basin, Annual

## 1.0 Project Characteristics

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### 1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	1.50	0.00	0

### 1.2 Other Project Characteristics

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	31
<b>Climate Zone</b>	10			<b>Operational Year</b>	2021
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 11,000 lf x 72"

Construction Phase - Prep and Concrete Removal: 3 months, Trench and Install Pipe: 4 months, Cover and Fill: 3 months

Off-road Equipment - Cover and Fill: 4 mixers, 1 paver, 1 roller, 1 loader/backhoe, 2 compactors

Off-road Equipment - Prep and Concrete Removal: 1 concrete saw, 1 dozer, 3 loader/backhoes, 2 skid steer loaders

Off-road Equipment - Pipeline Install: 1 loader/backhoe, 2 trenchers, 1 forklift, 1 crane, 1 excavator

Trips and VMT - 30 workers-60 trips per day

Construction Off-road Equipment Mitigation -

## Riato Storm Drain - South Coast Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	60.00
tblConstructionPhase	NumDays	10.00	60.00
tblConstructionPhase	PhaseEndDate	1/28/2021	3/25/2021
tblConstructionPhase	PhaseEndDate	11/26/2021	10/22/2021
tblConstructionPhase	PhaseStartDate	11/13/2021	8/1/2021
tblLandUse	LotAcreage	0.00	1.50
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.20	0.20
tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	18.00	60.00
tblTripsAndVMT	WorkerTripNumber	25.00	60.00
tblTripsAndVMT	WorkerTripNumber	15.00	60.00

## 2.0 Emissions Summary

## Riato Storm Drain - South Coast Air Basin, Annual

## 2.1 Overall Construction

### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1877	1.6281	1.5826	2.8600e-003	0.0661	0.0885	0.1545	0.0176	0.0819	0.0995	0.0000	250.9695	250.9695	0.0584	0.0000	252.4283
Maximum	0.1877	1.6281	1.5826	2.8600e-003	0.0661	0.0885	0.1545	0.0176	0.0819	0.0995	0.0000	250.9695	250.9695	0.0584	0.0000	252.4283

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1877	1.6281	1.5826	2.8600e-003	0.0661	0.0885	0.1545	0.0176	0.0819	0.0995	0.0000	250.9692	250.9692	0.0584	0.0000	252.4280
Maximum	0.1877	1.6281	1.5826	2.8600e-003	0.0661	0.0885	0.1545	0.0176	0.0819	0.0995	0.0000	250.9692	250.9692	0.0584	0.0000	252.4280

[illegible]

## Riata Storm Drain - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2021	3-31-2021	0.7289	0.7289
2	4-1-2021	6-30-2021	0.6290	0.6290
3	7-1-2021	9-30-2021	0.3718	0.3718
		Highest	0.7289	0.7289

## 2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005



## Riata Storm Drain - South Coast Air Basin, Annual

**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Prep and Concrete Removal	Demolition	1/1/2021	3/25/2021	5	60	
2	Pipeline Install	Trenching	4/1/2021	7/21/2021	5	80	
3	Cover and Fill	Paving	8/1/2021	10/22/2021	5	60	

## Riata Storm Drain - South Coast Air Basin, Annual

**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 0****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Cover and Fill	Plate Compactors	2	7.00	8	0.43
Cover and Fill	Cement and Mortar Mixers	4	6.00	9	0.56
Prep and Concrete Removal	Concrete/Industrial Saws	1	8.00	81	0.73
Prep and Concrete Removal	Skid Steer Loaders	2	8.00	65	0.37
Pipeline Install	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Pipeline Install	Trenchers	2	8.00	78	0.50
Pipeline Install	Forklifts	1	8.00	89	0.20
Cover and Fill	Pavers	1	6.00	130	0.42
Cover and Fill	Rollers	1	7.00	80	0.38
Prep and Concrete Removal	Rubber Tired Dozers	1	8.00	247	0.40
Pipeline Install	Cranes	1	8.00	231	0.29
Pipeline Install	Excavators	1	8.00	158	0.38
Prep and Concrete Removal	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Cover and Fill	Paving Equipment	1	8.00	132	0.36
Cover and Fill	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

## Riata Storm Drain - South Coast Air Basin, Annual

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Prep and Concrete Removal	7	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Pipeline Install	6	60.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Cover and Fill	10	60.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Water Exposed Area

**3.2 Prep and Concrete Removal - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0643	0.6509	0.5178	8.5000e-004		0.0337	0.0337		0.0314	0.0314	0.0000	74.0668	74.0668	0.0197	0.0000	74.5587
<b>Total</b>	<b>0.0643</b>	<b>0.6509</b>	<b>0.5178</b>	<b>8.5000e-004</b>		<b>0.0337</b>	<b>0.0337</b>		<b>0.0314</b>	<b>0.0314</b>	<b>0.0000</b>	<b>74.0668</b>	<b>74.0668</b>	<b>0.0197</b>	<b>0.0000</b>	<b>74.5587</b>

## Riata Storm Drain - South Coast Air Basin, Annual

**3.2 Prep and Concrete Removal - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.5500e-003	0.0628	1.9000e-004	0.0198	1.5000e-004	0.0199	5.2400e-003	1.4000e-004	5.3800e-003	0.0000	17.2197	17.2197	4.6000e-004	0.0000	17.2313
<b>Total</b>	<b>7.4800e-003</b>	<b>5.5500e-003</b>	<b>0.0628</b>	<b>1.9000e-004</b>	<b>0.0198</b>	<b>1.5000e-004</b>	<b>0.0199</b>	<b>5.2400e-003</b>	<b>1.4000e-004</b>	<b>5.3800e-003</b>	<b>0.0000</b>	<b>17.2197</b>	<b>17.2197</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>17.2313</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0643	0.6509	0.5178	8.5000e-004		0.0337	0.0337		0.0314	0.0314	0.0000	74.0668	74.0668	0.0197	0.0000	74.5586
<b>Total</b>	<b>0.0643</b>	<b>0.6509</b>	<b>0.5178</b>	<b>8.5000e-004</b>		<b>0.0337</b>	<b>0.0337</b>		<b>0.0314</b>	<b>0.0314</b>	<b>0.0000</b>	<b>74.0668</b>	<b>74.0668</b>	<b>0.0197</b>	<b>0.0000</b>	<b>74.5586</b>



## Riata Storm Drain - South Coast Air Basin, Annual

**3.2 Prep and Concrete Removal - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.5500e-003	0.0628	1.9000e-004	0.0198	1.5000e-004	0.0199	5.2400e-003	1.4000e-004	5.3800e-003	0.0000	17.2197	17.2197	4.6000e-004	0.0000	17.2313
<b>Total</b>	<b>7.4800e-003</b>	<b>5.5500e-003</b>	<b>0.0628</b>	<b>1.9000e-004</b>	<b>0.0198</b>	<b>1.5000e-004</b>	<b>0.0199</b>	<b>5.2400e-003</b>	<b>1.4000e-004</b>	<b>5.3800e-003</b>	<b>0.0000</b>	<b>17.2197</b>	<b>17.2197</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>17.2313</b>

**3.3 Pipeline Install - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0690	0.6846	0.5569	8.9000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	78.5018	78.5018	0.0254	0.0000	79.1366
<b>Total</b>	<b>0.0690</b>	<b>0.6846</b>	<b>0.5569</b>	<b>8.9000e-004</b>		<b>0.0403</b>	<b>0.0403</b>		<b>0.0371</b>	<b>0.0371</b>	<b>0.0000</b>	<b>78.5018</b>	<b>78.5018</b>	<b>0.0254</b>	<b>0.0000</b>	<b>79.1366</b>

## Riata Storm Drain - South Coast Air Basin, Annual

**3.3 Pipeline Install - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-004	3.8900e-003	9.8000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9712	0.9712	6.0000e-005	0.0000	0.9728
Worker	9.9700e-003	7.4000e-003	0.0838	2.5000e-004	0.0263	2.0000e-004	0.0265	6.9900e-003	1.8000e-004	7.1800e-003	0.0000	22.9597	22.9597	6.2000e-004	0.0000	22.9751
<b>Total</b>	<b>0.0101</b>	<b>0.0113</b>	<b>0.0847</b>	<b>2.6000e-004</b>	<b>0.0266</b>	<b>2.1000e-004</b>	<b>0.0268</b>	<b>7.0600e-003</b>	<b>1.9000e-004</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>23.9309</b>	<b>23.9309</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>23.9479</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0690	0.6846	0.5569	8.9000e-004		0.0403	0.0403		0.0371	0.0371	0.0000	78.5017	78.5017	0.0254	0.0000	79.1365
<b>Total</b>	<b>0.0690</b>	<b>0.6846</b>	<b>0.5569</b>	<b>8.9000e-004</b>		<b>0.0403</b>	<b>0.0403</b>		<b>0.0371</b>	<b>0.0371</b>	<b>0.0000</b>	<b>78.5017</b>	<b>78.5017</b>	<b>0.0254</b>	<b>0.0000</b>	<b>79.1365</b>

## Riata Storm Drain - South Coast Air Basin, Annual

**3.3 Pipeline Install - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1000e-004	3.8900e-003	9.8000e-004	1.0000e-005	2.5000e-004	1.0000e-005	2.6000e-004	7.0000e-005	1.0000e-005	8.0000e-005	0.0000	0.9712	0.9712	6.0000e-005	0.0000	0.9728
Worker	9.9700e-003	7.4000e-003	0.0838	2.5000e-004	0.0263	2.0000e-004	0.0265	6.9900e-003	1.8000e-004	7.1800e-003	0.0000	22.9597	22.9597	6.2000e-004	0.0000	22.9751
<b>Total</b>	<b>0.0101</b>	<b>0.0113</b>	<b>0.0847</b>	<b>2.6000e-004</b>	<b>0.0266</b>	<b>2.1000e-004</b>	<b>0.0268</b>	<b>7.0600e-003</b>	<b>1.9000e-004</b>	<b>7.2600e-003</b>	<b>0.0000</b>	<b>23.9309</b>	<b>23.9309</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>23.9479</b>

**3.4 Cover and Fill - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0293	0.2703	0.2976	4.8000e-004		0.0139	0.0139		0.0130	0.0130	0.0000	40.0304	40.0304	0.0117	0.0000	40.3225
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0293</b>	<b>0.2703</b>	<b>0.2976</b>	<b>4.8000e-004</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0130</b>	<b>0.0130</b>	<b>0.0000</b>	<b>40.0304</b>	<b>40.0304</b>	<b>0.0117</b>	<b>0.0000</b>	<b>40.3225</b>

## Riata Storm Drain - South Coast Air Basin, Annual

**3.4 Cover and Fill - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.5500e-003	0.0628	1.9000e-004	0.0198	1.5000e-004	0.0199	5.2400e-003	1.4000e-004	5.3800e-003	0.0000	17.2197	17.2197	4.6000e-004	0.0000	17.2313
<b>Total</b>	<b>7.4800e-003</b>	<b>5.5500e-003</b>	<b>0.0628</b>	<b>1.9000e-004</b>	<b>0.0198</b>	<b>1.5000e-004</b>	<b>0.0199</b>	<b>5.2400e-003</b>	<b>1.4000e-004</b>	<b>5.3800e-003</b>	<b>0.0000</b>	<b>17.2197</b>	<b>17.2197</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>17.2313</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0293	0.2703	0.2976	4.8000e-004		0.0139	0.0139		0.0130	0.0130	0.0000	40.0304	40.0304	0.0117	0.0000	40.3224
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0293</b>	<b>0.2703</b>	<b>0.2976</b>	<b>4.8000e-004</b>		<b>0.0139</b>	<b>0.0139</b>		<b>0.0130</b>	<b>0.0130</b>	<b>0.0000</b>	<b>40.0304</b>	<b>40.0304</b>	<b>0.0117</b>	<b>0.0000</b>	<b>40.3224</b>



## Riata Storm Drain - South Coast Air Basin, Annual

**3.4 Cover and Fill - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	5.5500e-003	0.0628	1.9000e-004	0.0198	1.5000e-004	0.0199	5.2400e-003	1.4000e-004	5.3800e-003	0.0000	17.2197	17.2197	4.6000e-004	0.0000	17.2313
<b>Total</b>	<b>7.4800e-003</b>	<b>5.5500e-003</b>	<b>0.0628</b>	<b>1.9000e-004</b>	<b>0.0198</b>	<b>1.5000e-004</b>	<b>0.0199</b>	<b>5.2400e-003</b>	<b>1.4000e-004</b>	<b>5.3800e-003</b>	<b>0.0000</b>	<b>17.2197</b>	<b>17.2197</b>	<b>4.6000e-004</b>	<b>0.0000</b>	<b>17.2313</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Riata Storm Drain - South Coast Air Basin, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

## 5.0 Energy Detail

Historical Energy Use: N

## Riato Storm Drain - South Coast Air Basin, Annual

## 5.1 Mitigation Measures Energy

[illegible]

## 5.2 Energy by Land Use - NaturalGas

### Unmitigated

[illegible]

## Riata Storm Drain - South Coast Air Basin, Annual

**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



## Riata Storm Drain - South Coast Air Basin, Annual

**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

## Riata Storm Drain - South Coast Air Basin, Annual

**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>3.0000e-005</b>

**7.0 Water Detail**

## Riata Storm Drain - South Coast Air Basin, Annual

**7.1 Mitigation Measures Water**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use****Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

## Riata Storm Drain - South Coast Air Basin, Annual

**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail****8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000



## Riata Storm Drain - South Coast Air Basin, Annual

**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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## Riata Storm Drain - South Coast Air Basin, Annual

## 10.0 Stationary Equipment

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### Fire Pumps and Emergency Generators

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

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

Equipment Type	Number
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## 11.0 Vegetation

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## **APPENDIX 3**



May 20, 2019

Tom Dodson  
Tom Dodson and Associates  
2150 N Arrowhead Ave  
San Bernardino, CA 92405

RE: Biological Resources Assessment, Jurisdictional Waters Delineation  
Rialto Storm Drain, Rialto, CA

Dear Tom:

Jericho Systems, Inc. (Jericho) is pleased to provide this letter report that details the results of a general Biological Resources Assessment/Jurisdictional Waters Delineation (BRA/JD) for a proposed storm drainage system located in the City of Rialto.

Jericho Systems, Inc. (Jericho) is pleased to provide this letter report that details the results of a general Biological Resources Assessment (BRA) that includes habitat suitability assessments for nesting birds, Burrowing owl (*Athene cunicularia*) [BUOW], Delhi sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) [DSF], small mammals such as the San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) [SBKR] and Los Angeles Pocket mouse (*Perognathus longimembris brevinasus*) [LAPM] and a Jurisdictional Waters Delineation (JD) for the proposed construction and operation of the Rialto Storm Drain Project (Project).

This report is designed to address potential effects of the proposed Project to designated Critical Habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), or species designated as sensitive by the California Department of Fish and Wildlife (CDFW), or the California Native Plant Society (CNPS). Attention was focused sensitive species known to occur locally. This report also addresses resources protected under the Migratory Bird Treaty Act, federal Clean Water Act (CWA) regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) respectively; and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW.

## PROJECT LOCATION

The proposed project is located at Cactus Basin (just west of Cactus Avenue and Baseline Road) connecting to Baseline Road south of Cactus Basin and traveling west within Baseline Road to just west of Tamarind Avenue within the City of Rialto, CA. The Project is mostly located within existing roadways, though Cactus Basin (which the proposed project will connect the new storm drain to) is located on land designated for Open Space Resource Use. The project is located in Section 34 Township 1 North, Range 5 West within the Fontana USGS Topo 7.5-minute series maps. The project is primarily

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linear with an approximate Lat/Long of 34.124043, -117.388063 at the eastern portion of the project and 34.121298, -117.422797 at the western portion of the project.

## PROJECT UNDERSTANDING

The project consists of installing an approximately 2-mile or 11,000 lineal feet (LF) storm drain system within Baseline Road that would capture flows north of Baseline Road. The storm drain line starts at the Tamarind Avenue/Baseline Road intersection and runs along Baseline Road to the outlet at Cactus Basin No. 3. The City of Rialto Master Plan of Drainage was used to size the storm drain system to improve drainage systems in the City of Rialto. The new storm drain will be developed within a reinforced concrete box (RCB) that will vary in size between 6' x 12', 7' x 7', and 3' x 10' depending on the location within the new storm drain alignment. The majority of the storm drain footprint (located within Baseline Road) will be constructed as a 72" reinforced concrete pipe (RCP), though a portion of the easternmost section of the alignment, which leaves from Baseline Road to Cactus Basin, will vary in size as either a 72", 84", 48", 36", or 30" RCP.

The project site corresponds to the proposed storm drain "Line D" as described in the City of Rialto Master Plan of Drainage. The project area is located within the Renaissance Development, which consists of the redevelopment of the Rialto Airport and the surrounding areas. The Renaissance Specific Plan was used to get additional information for Line D and meet drainage facility requirements. Subarea D is bounded by 210 freeway on the north, Baseline Road on the south, Cactus Avenue on the east, and Palmetto Avenue on the west. Overland flow travels in southeastern direction in the southern portion of the Renaissance site before it is captured by Line D and outlets to Cactus Basin No. 3.

Flows leaving Basin No. 3 continue on to Basin 1 and 2 and Rialto Channel, which ultimately discharges to the Santa Ana River. Outflow from the Cactus Basin System are limited due to the poor downstream channel capacities.

The proposed project will install one of three Alternative Alignments that will connect the new Baseline Road storm drain alignment with Cactus Basin. The project will retrofit an existing 36" RCP outlet to the larger structure. Energy dissipation measures (such as rip rap pad, baffle) may be installed at the outlet, to control erosive damage from the higher volume discharged from the new pipeline.

## SETTING

The City of Rialto sits at the base of the Cajon Pass, where high winds are common meteorological events within the region. The climate in the region is typically characterized as Mediterranean. Typical rainfall averages approximately 17 inches per year. Hydrologically, the Project site is within the Chino Hydrologic Sub-Area (HSA 801.21) which comprises a 17,765-acre drainage area within the larger Middle Santa Ana River Watershed (HUC 180702030804).

The subject parcel is situated in a developing area of the Inland Valleys ecoregion.

Most of the project occurs along Baseline Road, and the stretch of road consists of residential and commercial development with ornamental vegetation that is regularly gardened. Plots of undeveloped land adjacent to Baseline Road consist primarily of ripgut brome (*Bromus diandrus*) and wild oat (*Avena fatua*). Habitat within and adjacent to the Cactus Basin portion consists of degraded alluvial fan sage scrub.

The stretch that parallels the northbound portion of fence line consists of a steep grade (~70 degree) with evidence of standing water. The northeast portion of the basin consists of a shallow grade (~10 degree).

## METHODS

As stated above, the objective of this document is to determine whether the Project area supports special status or otherwise sensitive species and/ or their habitat, and to address the potential effects associated with the Proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*;
- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey;
- USFWS National Wetland Inventory;
- Environmental Protection Agency (EPA) Water Program “My Waters” data layers
- USFWS Designated Critical Habitat Maps

We also reviewed other available technical information on the biological resources of the site, including previous trapping surveys and discussed recent findings with researchers in the field.

Jericho biologist Christian Nordal conducted a general biological resources assessment on March 1, 2019, with an emphasis on special-status species known to occur in the area. Mr. Nordal has advanced degrees and multiple years of experience surveying biological resources within Southern California. Mr. Nordal conducted the systematic and comprehensive survey during calm weather, between the hours of 7 a.m. and 11 a.m. Weather conditions during the survey consisted of clear skies with temperatures ranging from 65 degrees Fahrenheit (° F) to 73° F and light wind <5 mph.

On March 30, 2019, Jericho ecologist Shay Lawrey performed a follow up site assessment to evaluate the potential to support for DSF, BUOW and small mammals to occur on site, specifically the federally endangered SBKR and State species of special concern LAPM and federally threatened CAGN. Ms. Lawrey has advanced degrees in biology, is permitted to trap and handle SBKR and has two decades of experience with surveying for sensitive small mammals and birds.

Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the project area. Disturbance characteristics and all animal sign encountered on the site are recorded in the results section.

The Project area was also evaluated for the presence of jurisdictional waters, i.e. waters of the U.S. as regulated by the USACE and RWQCB, and/or streambed and associated riparian habitat as regulated by the CDFW. Evaluation of potential federal jurisdiction followed the regulations set forth in 33CFR part 328 and the USACE guidance documents and evaluation of potential State jurisdiction followed guidance

in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds (CDFW, 2010).

## RESULTS

The project site is primarily a multi-use urban setting, with the Cactus Basin component holding the only vegetation not actively managed by landscaping. The habitat adjacent to the north-bound fencing in Cactus Basin is high disturbance new growth, whereas the habitat in the northeast corner of the project site is high disturbance alluvial fan sage scrub.

Habitat within or adjacent to the north-bound portion on the easternmost part of the Project alignment at Cactus Basin consists primarily of foxtail (*Hordeum murinum*), wild oat (*Avena fatua*), stinging nettle (*Urtica urens*), coastal heron's bill (*Erodium cicutarium*) and common fiddleneck (*Amsinckia intermedia*). Shrubs become increasingly numerous the further north into the basin. Those shrubs are primarily California buckwheat (*Eriogonum fasciculatum*) and California sagebrush (*Artemisia californica*). Adjacent to the northernmost portion of the basin is degraded alluvial fan sage scrub that consists of interspersed California sagebrush, California buckwheat, foxtail, ripgut (*Bromus diandrus*), a single holly-leaf cherry (*Prunus ilicifolia*) shrub, and a single beavertail cactus (*Opuntia basilaris* var. *basilaris*). Vegetation on or adjacent to all other aspects of the project are ornamental landscaped shrubs or ruderal vegetation composed of ripgut and foxtail.

Common wildlife was observed during survey which included side-blotched lizard (*Uta stansburiana*), western meadowlark (*Sturnella neglecta*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Haemorhous mexicanus*), and American crow (*Corvus brachyrhynchos*).

The soil conditions within the Project are composed of loam and are not Delhi sands. The loamy soils not suitable to support Delhi sands flower-loving fly [DSF]. Further investigation in to DSF is not warranted or recommended.

Due to the habitat conditions at the east end, northbound portion of the alignment that approaches Cactus Basin, and due to previous records of SBKR in Cactus Basins, there remains a moderate potential for occurrence of SBKR and LAPM. Further the Project site at Cactus Basin is potentially suitable for BUOW.

### **San Bernardino Kangaroo Rat (SBKR)**

The SBKR is one of several kangaroo rat species in its range. The Dulzura kangaroo rat (*Dipodomys simulans*), the Pacific kangaroo rat (*Dipodomys agilis*) and the Stephens kangaroo rat (*Dipodomys stephensi*) can occur in areas occupied by the SBKR, but these other species have a wider habitat range. The habitat of the SBKR is confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. Burrows are dug in loose soil, usually near or beneath shrubs. SBKR, are confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage. Most of these drainages have been historically altered as a result of flood control efforts and the resulting increased use of river resources, including mining, off-road vehicle uses and road and housing development. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the SBKR. The past habitat losses and potential future losses prompted the emergency listing of the SBKR as an endangered species.

The Cactus Basin aspect of the Project area does contain habitat elements typically associated with SBKR. Further, small mammal burrows were noted of appropriate size, shape or aspect for SBKRs. There are documented occurrences of this species within Cactus Basins. For these reasons absence cannot be presumed without a focused presence/absence survey.

### **Los Angeles Pocket Mouse (LAPM)**

The LAPM is one of two pocket mice found in this area of San Bernardino County. Both the LAPM and the San Diego pocket mouse occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the LAPM is confined to lower elevation grasslands and coast sage scrub habitats, in areas with soils composed of fine sands. The present known distribution of this species extends from Rancho Cucamonga east to Morongo and south to the San Diego County border. LAPM forages in open ground and underneath shrubs. Pocket mice in general dig burrows in loose soil, although this has not been completely documented for this subspecies. The LAPM is listed as a Critical Species of Concern by the CDFW.

The Project site contains habitat marginally suitable habitat for LAPM and there are several documented occurrences of LAPM in the near vicinity of the Cactus Basin. No protocol surveys were conducted as part of this assessment, therefore presence or absence of LAPM was not determined, only their potential to occur. Potential of occurrence for LAPM is moderate. Presence or absence of LAPM cannot be presumed without a focused presence/absence survey..

### **Burrowing owl (BUOW)**

BUOW are known to occur locally within suitable habitat areas. BUOW is a ground-dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW depends on the presence of mammal burrows, i.e. ground squirrel burrows to provide shelter from predators, inclement weather and to provide a nesting place. They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows. They feed primarily on insects but will also take small rodents, birds, and reptiles. They are active during the day and night, generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31. The BUOW is not listed under the State or Federal Endangered Species Act but is considered both a State and federal SSC. The BUOW is protected by the international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5).

Per the definition provided in the *2012 CDFG Staff Report on Burrowing Owl Mitigation*, “Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey.” Therefore, the Cactus Basin aspect of the Project area and immediate vicinity contains suitable habitat for this species.

No evidence of BUOW was found in the survey area. No burrows of appropriate shape size or aspect for BUOW or BUOW pellets, feathers or whitewash were found on site. No BUOW individuals were observed. Therefore, BUOW are considered absent from the site at the time of surveys.



### **Nesting Birds and Raptors**

The site is suitable for use by raptors for foraging purposes. The project site and immediate surrounding areas do contain habitat suitable for nesting birds in general, including the shrubs on site.

Nesting birds are protected under the MBTA which provides protection for nesting birds that are both residents and migrants whether they are considered sensitive by resource agencies. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. The USFWS, in coordination with the CDFW administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all non-game birds that occur naturally in the State.

### **Jurisdiction Waters**

Cactus Basin is a jurisdictional water subject to Sections 404 and 401 of the CWA and Section 1600 of the FGC. Modifications within the basin will likely require permits from the USACE, RWQCB and CDFW.

## **CONCLUSIONS**

Several occurrences of SBKR and LAPM are documented in the immediate vicinity of the east end of the Project area. Although the habitat conditions are marginal for these species, absence of either species cannot be determined without focused survey.

Habitat suitability of BUOW is marginal along the alignment where there is vacant land. This species was not observed during survey and no sign of the presence was found. Prior to construction a 30-day survey is warranted and recommended..

The vegetation on site does have a potential to support nesting birds and foraging raptors such as red-tailed hawks. Therefore, to reduce the potential impacts to nesting birds, the following is recommended:

- Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage and expected types, intensity and duration of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

Jericho appreciates the opportunity to continue to be of service. If you have any questions or need any clarifications, feel free to contact me at (909) 915-5900 or at [shay@jericho-systems.com](mailto:shay@jericho-systems.com)

Sincerely,

A handwritten signature in black ink, appearing to read "Shay Lawrey". The signature is fluid and cursive, with the first name "Shay" being more prominent and the last name "Lawrey" following in a similar style.

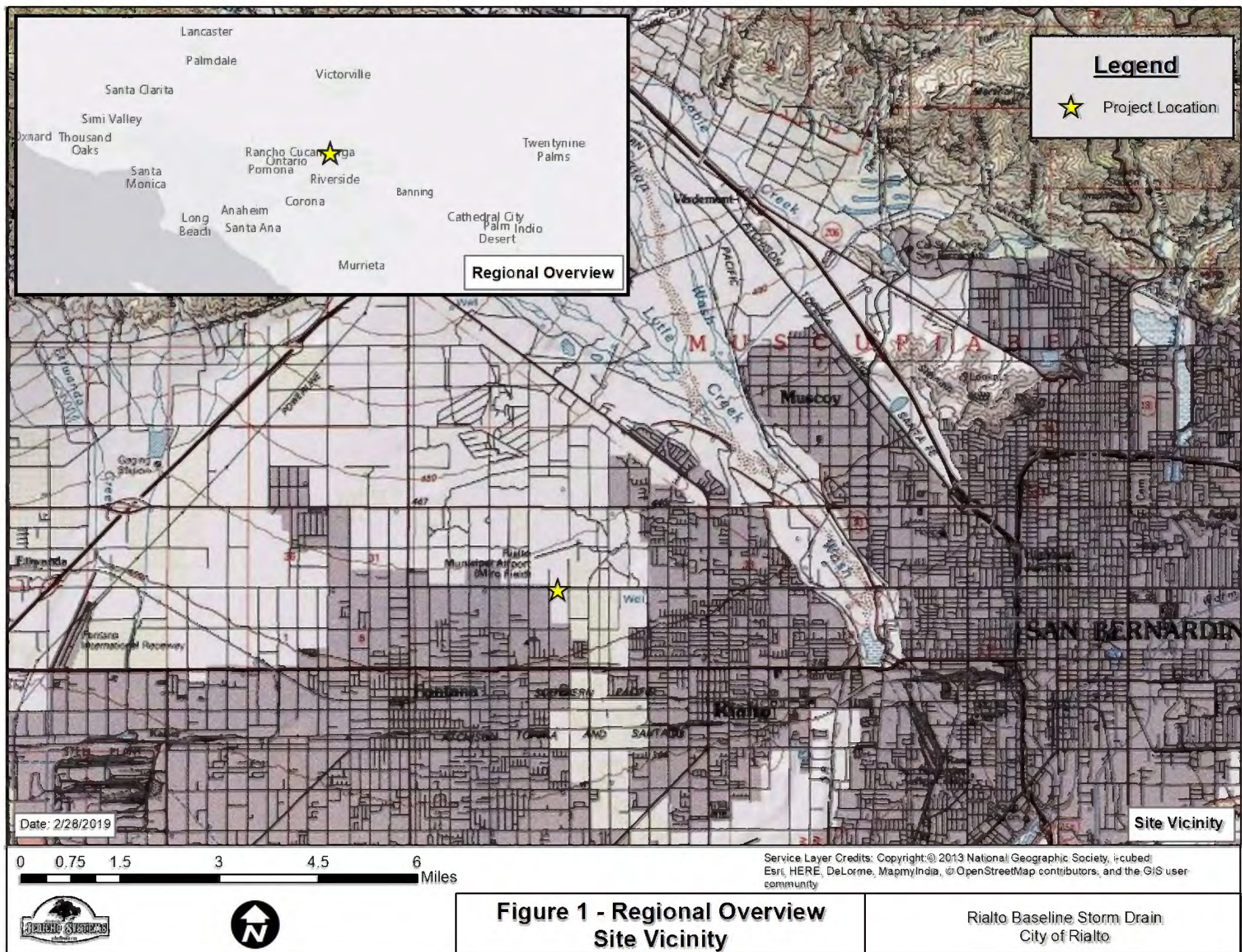
Shay Lawrey, President

Attachments:

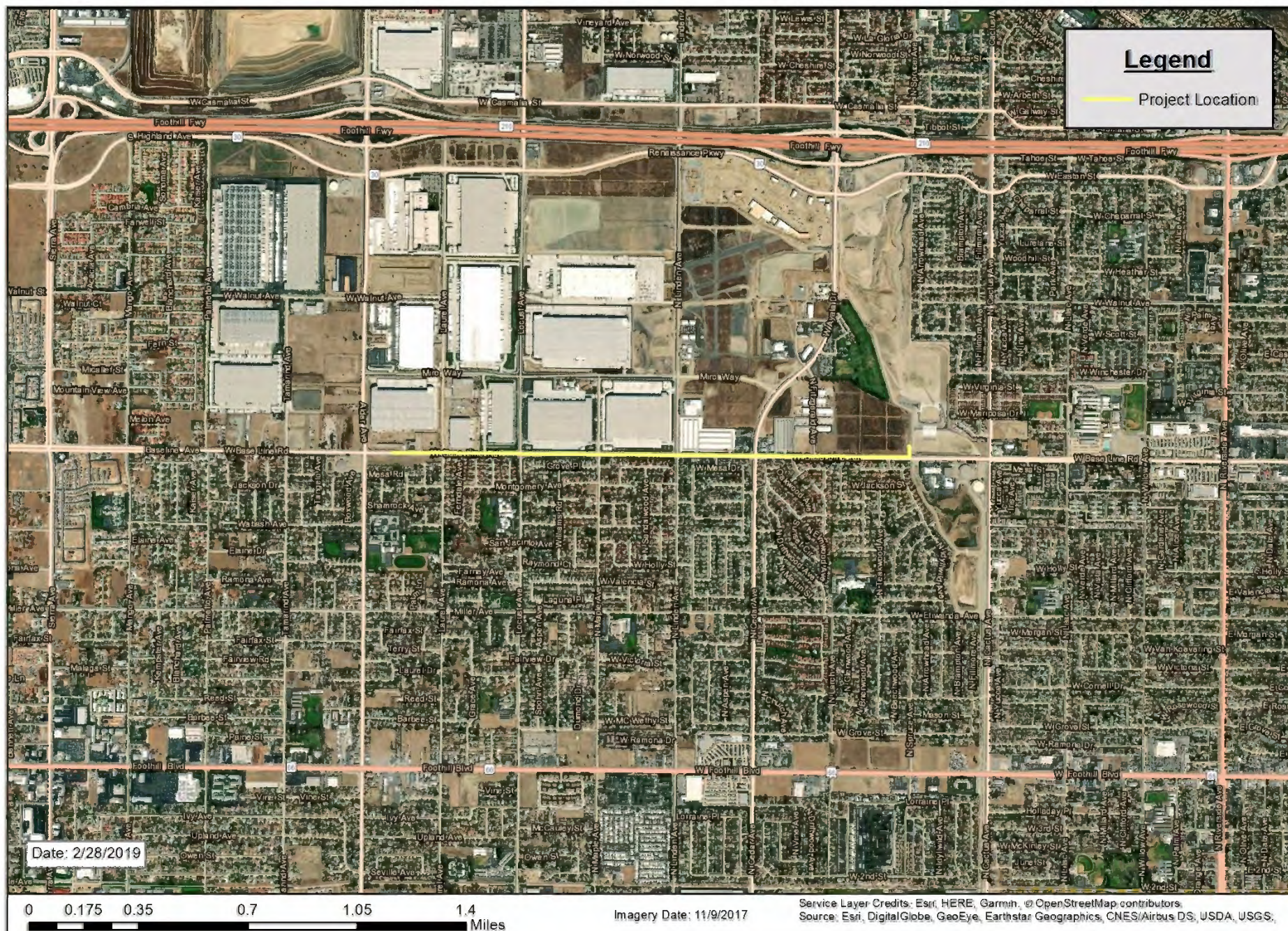
Attachment 1 - Figures

Attachment 2 – Table of Potential to Occur

Attachment 3 – Site Photos



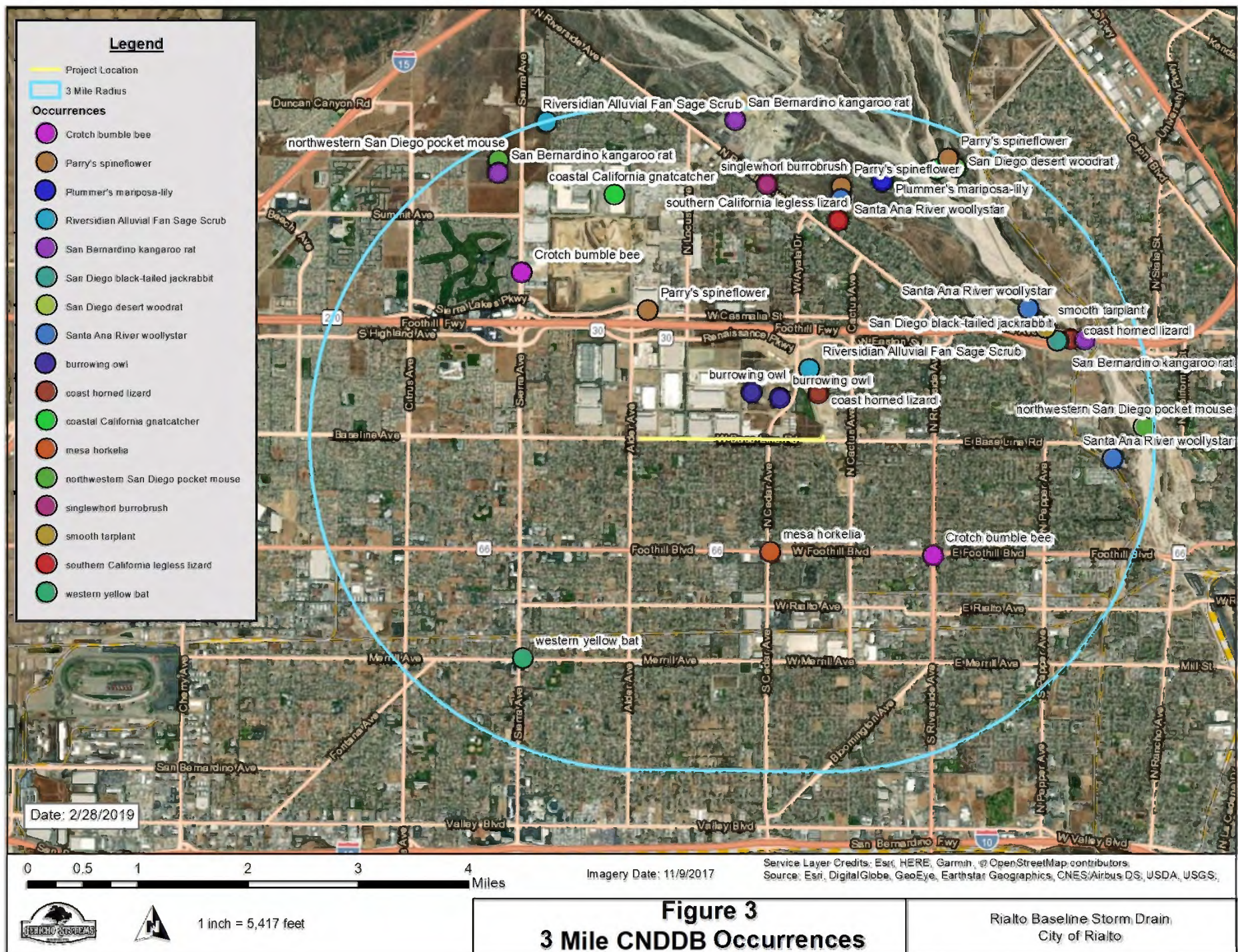




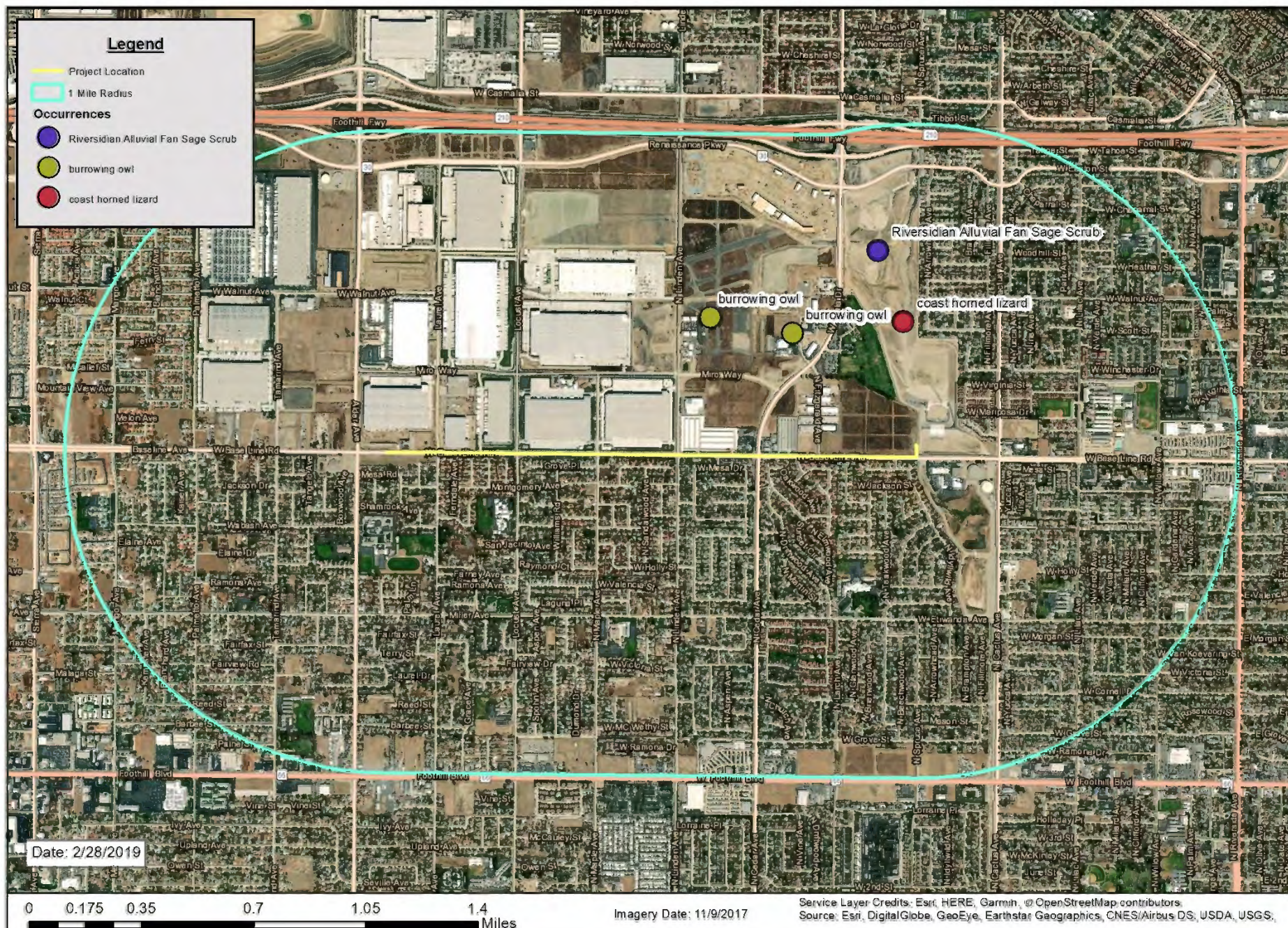
**Figure 2**  
**Project Location**

Rialto Baseline Storm Drain  
City of Rialto









**Figure 3.2**  
**1 Mile CNDDDB Occurrences**

Rialto Baseline Storm Drain  
City of Rialto





**Figure 4**  
**My Waters Overlay**

Rialto Baseline Storm Drain  
City of Rialto





**Figure 5**  
**100-Year FEMA Flood Zone**

Rialto Baseline Storm Drain  
City of Rialto



Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
<i>Agelaius tricolor</i>	tricolored blackbird	None/ Candidate Endangered	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Ambrosia monogyra</i>	singlewhorl burrobrush	None/None	Chaparral, Sonoran desert scrub. Sandy soils. 5-475 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Anniella stebbinsi</i>	southern California legless lizard	None/None	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Arenaria paludicola</i>	marsh sandwort	Endangered/ Endangered	Marshes and swamps. Growing up through dense mats of <i>Typha</i> , <i>Juncus</i> , <i>Scirpus</i> , etc. in freshwater marsh. Sandy soil. 3-170 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Arizona elegans occidentalis</i>	California glossy snake	None/None	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Artemisiospiza belli</i>	Bell's sage sparrow	None/None	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Athene cunicularia</i>	burrowing owl	None/None	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin and within the vacant parcels bordering the alignment. This species or sign of BUOW was not observed during survey. Potential to occur is <b>low to moderate</b> .

Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
<i>Batrachoseps gabrieli</i>	San Gabriel slender salamander	None/None	Known only from the San Gabriel Mountains. Found under rocks, wood, and fern fronds, and on soil at the base of talus slopes. Most active on the surface in winter and early spring.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Bombus crotchii</i>	Crotch bumble bee	None/None	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin. This species was not observed during survey. Potential to occur is <b>low to moderate</b> .
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	None/None	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin. This species was not observed during survey. Potential to occur is <b>low to moderate</b> .
<i>Catostomus santaanae</i>	Santa Ana sucker	Threatened/None	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	None/None	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat to support this species occurs within the Project area at Cactus Basin. Potential to occur is <b>moderate</b> .
<i>Chaetodipus fallax pallidus</i>	pallid San Diego pocket mouse	None/None	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	Endangered/Endangered	Marshes and swamps, coastal dunes. Limited to the higher zones of salt marsh habitat. 0-10 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	None/None	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	None/None	Mojavean desert scrub, pinyon and juniper woodland, coastal scrub (alluvial fans). Sandy or gravelly places. 365-1830 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .

Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
<i>Cicindela tranquebarica viridissima</i>	greenest tiger beetle	None/None	Inhabits the woodlands adjacent to the Santa Ana River basin. Usually found in open spots between trees.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	Endangered/None	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin. Potential to occur is <b>low to moderate</b> .
<i>Dodecahema leptoceras</i>	slender-horned spineflower	Endangered/Endangered	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include <i>Encelia</i> , <i>Dalea</i> , <i>Lepidospartum</i> , etc. Sandy soils. 200-765 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	Endangered/Endangered	Coastal scrub, chaparral. In sandy soils on river floodplains or terraced fluvial deposits. 180-705 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Gila orcuttii</i>	arroyo chub	None/None	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None/None	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Lasiurus xanthinus</i>	western yellow bat	None/None	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/None	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges. Coastal sage scrub habitats in Southern California.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Lilium parryi</i>	lemon lily	None/None	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain;	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .

Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
			generally in forested areas; on shady edges of streams, in open boggy meadows & seeps. 625-2930 m.	
<i>Lycium parishii</i>	Parish's desert-thorn	None/None	Coastal scrub, Sonoran desert scrub. 135-1000 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Malacothamnus parishii</i>	Parish's bush-mallow	None/None	Chaparral, coastal sage scrub. In a wash. 305-455 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Monardella pringlei</i>	Pringle's monardella	None/None	Coastal scrub. Sandy hills. 300-400 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/None	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Oncorhynchus mykiss irideus</i> pop. 10	steelhead - southern California DPS	Endangered/None	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely have greater physiological tolerances to warmer water and more variable conditions.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	None/None	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon-juniper woodland. Sandy soil or coarse, granitic loam. 425-1800 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	None/None	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin. Potential to occur is <b>low to moderate</b> .
<i>Phrynosoma blainvillii</i>	coast horned lizard	None/None	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Marginally suitable habitat to support this species occurs within the Project area at Cactus Basin. Potential to occur is <b>low to moderate</b> .
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Threatened/None	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .



Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
			mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	
<i>Rana muscosa</i>	southern mountain yellow-legged frog	Endangered/ Endangered	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, Apr 2014, effective Jun 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi Sands flower-loving fly	Endangered/ None	Found only in areas of the Delhi Sands formation in southwestern San Bernardino & northwestern Riverside counties. Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation. Oviposition req. shade.	No Delhi sands or host plant species on site. Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	None/None	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
Riversidian Alluvial Fan Sage Scrub		None/None	<i>Habitat Type</i>	Present within Cactus Basin.
<i>Senecio aphanactis</i>	chaparral ragwort	None/None	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
Southern Riparian Forest		None/None	<i>Habitat Type</i>	Habitat type <b>does not occur</b> onsite.
Southern Sycamore Alder Riparian Woodland		None/None	<i>Habitat Type</i>	Habitat type <b>does not occur</b> onsite.
<i>Sphenopholis obtusata</i>	prairie wedge grass	None/None	Cismontane woodland, meadows and seeps. Open moist sites, along rivers and springs, alkaline desert seeps. 15-2625 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	None/None	Chaparral, lower montane coniferous forest. Clay or decomposed granite soils; sometimes in disturbed areas such as streamsides or roadcuts. 1440-2500 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .

Scientific Name	Common Name	State/Federal Ranking	Habitat	Potential to Occur
<i>Symphyotrichum defoliatum</i>	San Bernardino aster	None/None	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernal mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .
<i>Vireo bellii pusillus</i>	least Bell's vireo	Endangered/ Endangered	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, <i>Baccharis</i> , mesquite.	Suitable habitat to support this species does not occur onsite. Potential to occur is <b>low</b> .

Source: USFWS/NMFS- 2019 IPaC species list; CNDDB 2019; CNPS 2019.

#### Status Codes:

E = endangered;

T = threatened;

P = proposed for listing;

C = candidate for listing; and

CH = designated critical habitat

CP = CA state proposed for listing;

FP = CDFW fully protected



**Photo 1** – Vantage point facing north into Cactus Basin from Baseline Rd



**Photo 2** – Photo depicting the conditions east at any location within the fence line stretch of the project as well as the levee that separates the concrete wash from adjacent land



**Photo 3** – Photo taken facing southwest from the northeast corner of the project site depicting the alluvial fan sage scrub



**Photo 4** – Photo taken facing northeast from the southwest corner of the project site depicting the alluvial fan sage scrub





**Photo 5** – West-facing picture of the vegetation of the hillside near the entrance of the project site from Baseline Rd



**Photo 6** – West-facing picture of the vegetation of the hillside midway between the alluvial fan sage scrub and Baseline Rd



**Photo 7** – West-facing picture of the vegetation of the hillside as the community transitions to alluvial fan sage scrub





## **APPENDIX 4**

**HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT**

**RIALTO BASELINE STORM DRAIN PROJECT**

**City of Rialto  
San Bernardino County, California**

**For Submittal to:**

City of Rialto  
Public Works/Engineering Division  
335 W. Rialto Avenue  
Rialto, CA 92376

**Prepared for:**

Tom Dodson & Associates  
2150 N. Arrowhead Avenue  
San Bernardino, CA 92405

**Prepared by:**

CRM TECH  
1016 East Cooley Drive, Suite A/B  
Colton, CA 92324

Bai “Tom” Tang, Principal Investigator  
Michael Hogan, Principal Investigator

May 16, 2019  
CRM TECH Contract No. 3454

**Title:** Historical/Archaeological Resources Survey Report: Rialto Baseline Storm Drain Project, City of Rialto, San Bernardino County, California

**Author(s):** Bai “Tom” Tang, Principal Investigator/Historian  
Ben Kerridge, Archaeologist/Report Writer  
Daniel Ballester, Archaeologist/Field Director  
Nina Gallardo, Archaeologist/Native American Liaison

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**Date:** May 16, 2019

**For Submittal to:** City of Rialto  
Public Works/Engineering Division  
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**Prepared for:** Kaitlyn Dodson, Vice President  
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2150 N. Arrowhead Avenue  
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(909) 882-3612

**USGS Quadrangle:** Fontana, Calif., 7.5’ quadrangle (Sections 32-34, T1N R5W, and 3-5, T1S R5W, San Bernardino Baseline and Meridian)

**Project Size:** Approximately 2.25 linear miles

**Keywords:** Eastern San Bernardino Valley; Phase I historical/archaeological resources survey; Site 36-015497 (San Bernardino Baseline/Baseline Road); no “historical resources” under CEQA

## MANAGEMENT SUMMARY

Between March and May 2019, at the request of Tom Dodson & Associates, CRM TECH performed a cultural resources study for the proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County, California. The project seeks to upgrade current drainage infrastructure along Baseline Road from a retention basin known as Cactus Basin No. 3 west to the intersection with Tamarind Avenue. The subject property of the study consists of approximately 2.25 linear miles of storm drain right-of-way lying mostly within the existing right-of-way of Baseline Road, in Sections 32-34 of T1N R5W and Sections 3-5 of T1S R5W, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the project. The City of Rialto, as the project sponsor and the lead agency, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any “historical resources,” as defined by CEQA, that may exist in or near the project area. In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, consulted with the Native American representatives, and carried out a systematic field survey.

The results of the records search indicate that five historical/archaeological sites were previously recorded within or adjacent to the project area:

36-010659 (CA-SBR-10659H)	sparse refuse scatter
36-010908 (CA-SBR-10908H)	structural foundation, standpipe, and refuse scatter
36-015497 (CPHI SBr-012)	San Bernardino Baseline (Baseline Road)
36-021612	three early 20th century bungalows
36-029057 (CA-SBR-29057H)	multi-origin refuse dumping site

The field survey and the historical background research reveal that four of these five sites are no longer extant today, having evidently been removed during subsequent residential and commercial developments at their former locations. The remaining site, 36-015497, represents the San Bernardino Baseline, embodied by Baseline Road in the project vicinity. As a part of the basis for all land surveys and titles in southern California since 1853, the San Bernardino Baseline was officially designated a California Point of Historical Interest (CPHI-SBr-12) in 1973. As such, Site 36-015497 meets the definition of a “historical resource” under CEQA provisions.

The historic value of Site 36-015497, however, is symbolic in nature and is derived from the conceptual line across the landscape instead of the existing roadway, a heavily traveled major thoroughfare of entirely modern character and appearance. Therefore, the current configuration and physical features of Baseline Road do not contribute to the historic significance of the site. Since Site 36-015497 exists in the project area largely on paper only, this study concludes that the proposed project has no potential to affect the significance or integrity of this “historical resource.”



During the course of the Native American contacts, the State of California Native American Heritage Commission reported the presence of unspecified Native American cultural resource(s) in the project vicinity but referred further inquiries to the Gabrieleño Band of Mission Indians–Kizh Nation. In subsequent correspondence, however, the Gabrieleño Band of Mission Indians–Kizh Nation did not provide any further information on such resources. According to CEQA guidelines, the identification of potential “tribal cultural resources” is beyond the scope of this study and needs to be addressed through government-to-government consultations between the City of Rialto and the pertinent Native American groups pursuant to Assembly Bill 52.

Based on these findings, CRM TECH recommends to the City of Rialto a preliminary conclusion of *No Impact* on cultural resources, pending the completion of the City’s government-to-government consultation process with local Native American tribes. No additional cultural resources investigation is recommended for the project unless construction plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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## INTRODUCTION

Between March and May 2019, at the request of Tom Dodson & Associates, CRM TECH performed a cultural resources study for the proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County, California (Figure 1). The project seeks to upgrade current drainage infrastructure along Baseline Road from a retention basin known as Cactus Basin No. 3 west to the intersection with Tamarind Avenue. The subject property of the study consists of approximately 2.25 linear miles of storm drain right-of-way lying mostly within the existing right-of-way of Baseline Road, in Sections 32-34 of T1N R5W and Sections 3-5 of T1S R5W, San Bernardino Baseline and Meridian (Figures 2, 3).

The study is part of the environmental review process for the project. The City of Rialto, as the project sponsor and the lead agency, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any “historical resources,” as defined by CEQA, that may exist in or near the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, consulted with the Native American representatives, and carried out a systematic field survey. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

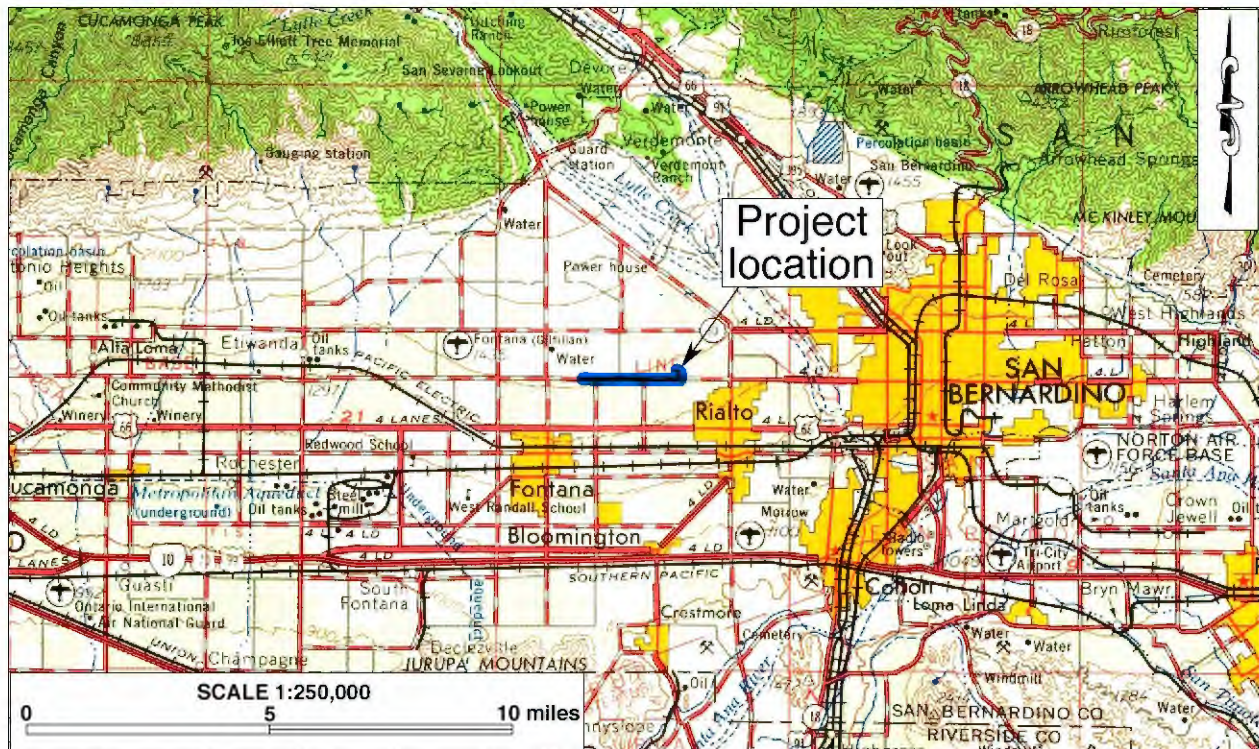


Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 60'x30' quadrangle [USGS 1969])





Figure 2. Project location. (Based on USGS Fontana and Devore, Calif., 7.5' quadrangle [USGS 1980; 1988])





Figure 3. Recent aerial photograph of the project area. (Based on Google Earth imagery)



## SETTING

### CURRENT NATURAL SETTING

The City of Rialto is situated in the eastern portion of the San Bernardino Valley, a broad inland valley defined by the San Gabriel and San Bernardino Mountain Ranges on the north and a series of low rocky hills on the south. The environment of the region is characterized by its temperate Mediterranean climate, with the average maximum temperature in July reaching above 90 degrees Fahrenheit and the average minimum temperature in January hovering around 35 degrees. Annual rainfall is typically less than 20 inches, most of which occurs between November and March.

As mentioned above, most of the project alignment lies within the Baseline Road right-of-way, while the easterly end of the project, from Baseline Road to the Cactus Basins, follows the course of an unpaved access road (Figure 3). This segment of Baseline Road, a heavily traveled local thoroughfare, is lined predominantly by suburban residential neighborhoods on the south and by recent commercial and warehouse developments on the north, with some vacant land and a few older residences of rural character still present (Figures 3, 4).

The terrain in the vicinity is relatively level, with a slight incline to the west, and the elevations in the project area range approximately from 1,360 feet to 1,415 feet above mean sea level. Virtually the entire project area has been disturbed by past construction activities associated with Baseline Road, the retention basins, the access road, underground utilities, nearby buildings, and other urban development. The existing vegetation in and around the project area consisted mainly of landscaping plants with some small grasses and shrubs, and little vestige of the native landscape remains (Figure 4).



Figure 4. Typical landscape in the project area. Photograph taken on March 22, 2019, along Baseline Road near the intersection of Ayala Drive; view to the west.

## **CULTURAL SETTING**

### **Prehistoric Context**

The earliest evidence of human occupation in inland southern California was discovered below the surface of an alluvial fan in the northern portion of the Lakeview Mountains, overlooking the San Jacinto Valley, with radiocarbon dates clustering around 9,500 B.P. (Horne and McDougall 2008). Another site found near the shoreline of Lake Elsinore, close to the confluence of Temescal Wash and the San Jacinto River, yielded radiocarbon dates between 8,000 and 9,000 B.P. (Grenda 1997). Additional sites with isolated Archaic dart points, bifaces, and other associated lithic artifacts from the same age range have been found in the nearby Cajon Pass area, typically atop knolls with good viewsheds (Basgall and True 1985; Goodman and McDonald 2001; Goodman 2002; Milburn et al. 2008).

The cultural history of southern California has been summarized into numerous chronologies, including the works of Chartkoff and Chartkoff (1984), Warren (1984), and others. The prehistory of Riverside County specifically has been addressed by O'Connell et al. (1974), McDonald, et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary regionally, the general framework of the prehistory of inland southern California can be divided into three primary periods:

- **Paleoindian Period (ca. 18,000-9,000 B.P.):** Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- **Archaic Period (ca. 9,000-1,500 B.P.):** Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- **Late Prehistoric Period (ca. 1,500 B.P.-contact):** Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

### **Ethnohistoric Context**

Ethnographically, the present-day Rialto area lies between the traditional territories of the Serrano and the Gabrielino, which adjoined and overlapped with each other, at least during the Late Prehistoric and Protohistoric Periods. The homeland of the Gabrielinos, probably the most influential Native American group in aboriginal southern California (Bean and Smith 1978a:538), was centered in the Los Angeles Basin and reached as far east as the San Bernardino-Riverside area.

The homeland of the Serranos was centered in the San Bernardino Mountains but also included the slopes and lowlands on the flanks of the mountain range and the southern portion of the Mojave Desert.

Whatever the linguistic affiliation, Native Americans in and around the Rialto area exhibited similar social organization and resource procurement strategies. Villages were based on clan or lineage groups. Their home/base sites are marked by midden deposits, often with bedrock mortars. During their seasonal rounds to exploit plant resources, small groups would migrate within their traditional territory in search of specific plants and animals. Their gathering strategies often left behind signs of special use sites, usually grinding slicks on bedrock boulders, at the locations of the resources.

As early as 1542, the Gabrielino were in contact with the Spanish during the historic expedition of Juan Rodríguez Cabrillo, but it was not until 1769 that the Spaniards took steps to colonize Gabrielino territory. Shortly afterwards, most of the Gabrielino people were incorporated into Mission San Gabriel and other missions in southern California. The Serrano were brought into the mission system during the 1810s, when an *asistencia* of Mission San Gabriel was established in present-day Loma Linda. Due to introduced diseases, dietary deficiencies, and forceful reduction, Gabrielino and Serrano population dwindled rapidly. By 1900, the Gabrielino had almost ceased to exist as a culturally identifiable group (Bean and Smith 1978a:540). The Serrano, meanwhile, were mostly settled on the San Manuel and the Morongo Indian Reservations (Bean and Smith 1978b:573).

## **Historic Context**

In 1772, three years after the beginning of Spanish colonization of Alta California, Pedro Fages, *comandante* of the new province, and a small force of soldiers under his command became the first Europeans to set foot in the San Bernardino Valley (Beck and Haase 1974:15). They were followed in the next few years by two other famed Spanish explorers, Juan Bautista de Anza and Francisco Garcés, who traveled through the valley in the mid-1770s (*ibid.*). Despite these early visits, for the next 40 years the inland valley received little impact from the Spanish colonization activities in Alta California, which were concentrated predominantly in the coastal regions.

Following the establishment of Mission San Gabriel in 1771, the San Bernardino Valley became nominally a part of the landholdings of that mission. The name “San Bernardino” was bestowed on the region at least by 1819, when a mission *asistencia* and an associated rancho were officially established under that name in the eastern end of the valley (Lerch and Haenszel 1981). After gaining independence from Spain in 1821, the Mexican government began in 1834 the process of secularizing the mission system in Alta California, which in practice meant the confiscation of the Franciscan missions’ vast land holdings, to be distributed later among prominent citizens of the province. During the 1830s and 1840s, several large land grants were made around present-day Rialto (Beck and Haase 1974:38). However, most of what is now the City of Rialto, including the project area, was not included in any of these land grants, and thus remained unclaimed public land when California was annexed by the U.S. in 1848.

Used primarily as cattle ranches, the area around Rialto saw little development until the mid-19th century, when a group of Mormon settlers from Salt Lake City founded the town of San Bernardino in 1851. After the completion of the Southern Pacific Railroad and the competing Atchison, Topeka



and Santa Fe Railway in the 1870s-1880s, a phenomenal land boom swept through much of southern California, ushering in a number of new settlements in the San Bernardino Valley. In 1887, the Semi-Tropic Land and Water Company purchased a large tract of land near the mouth of Lytle Creek, together with the necessary water rights to the creek, and laid out the townsites of Rialto, Bloomington, and Rosena (now Fontana; Ingersoll 1904:619; Brown and Boyd 1922:249-250).

With the collapse of the 1880s land boom, the Semi-Tropic Land and Water Company lost its holdings to its creditors in 1896, and the entire enterprise was thrown into financial turmoil (Schuiling 1984:90, 102). The community of Rialto survived, thanks largely to the newly established citrus industry. Throughout the late 19th and early 20th centuries, Rialto grew steadily as one of San Bernardino Valley's "citrus showcases," with most of its residents devoted primarily to the cultivation of the navel orange (Brown and Boyd 1922:249-250). Since the mid-20th century, the Rialto area became increasingly urbanized—and its economic livelihood diversified—along with the rest of southern California. Today, the area's once thriving citrus industry is more a part of its cultural heritage than a force in the local economy.

## **RESEARCH METHODS**

### **RECORDS SEARCH**

On March 20, 2019, CRM TECH archaeologist Ben Kerridge completed the historical/archaeological resources records search at the South Central Coastal Information Center (SCCIC), California State University, Fullerton. During the records search, Kerridge examined maps, records, and electronic databases at the SCCIC for previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or San Bernardino County Historical Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

### **HISTORICAL BACKGROUND RESEARCH**

Historical background research on the project area was conducted by CRM TECH principal investigator/historian Bai "Tom" Tang on the basis of published literature in local and regional history, U.S. General Land Office (GLO) land survey plat maps dated 1856-1875, U.S. Geological Survey (USGS) topographic maps dated 1901-1988, and aerial photographs taken in 1938-2018. The historic maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley. The aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

### **NATIVE AMERICAN CONSULTATION**

On March 14, 2019, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands

File. Following the NAHC's recommendations and previously established consultation protocol, CRM TECH further contacted a total of nine nearby tribes in writing on March 28 for additional information on potential Native American cultural resources in the vicinity. Correspondence between CRM TECH and the Native American representatives is summarized below and attached to this report in Appendix 2.

## **FIELD SURVEY**

On March 22, 2019, CRM TECH archaeologist Daniel Ballester carried out the field survey of the project area. The portion of the project area along the dirt access road between the Cactus Basins and Baseline Road was surveyed at an intensive level by walking two parallel transects placed on either side of the alignment, and the rest of the project area, lying within the Baseline Road right-of-way, was surveyed at a reconnaissance level from a slow-moving motor vehicle. In this way, the ground surface in the entire project area was systematically examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). Visibility of the native ground surface was poor within the Baseline Road right-of-way but good (80 percent) along the dirt access road.

## **RESULTS AND FINDINGS**

### **RECORDS SEARCH**

According to SCCIC records, five previous cultural resources studies completed between 1995 and 2016 have evidently included various portions of the project area (Figure 5). As a result of these studies, one historical/archaeological site, designated 36-015497 in the California Historical Resources Inventory, was previously recorded as lying partially within the project area. The site represents the San Bernardino Baseline, which is embodied by Baseline Road in the project vicinity, and was officially designated a California Point of Historical Interest (CPHI-SBr-12) in 1973 (OHP 1973). In addition to 36-015497, four other sites were previously recorded on properties adjacent to the project area. The four adjacent sites are listed below:

36-010659 (CA-SBR-10659H)	sparse refuse scatter
36-010908 (CA-SBR-10908H)	structural foundation, standpipe, and refuse scatter
36-021612	three early 20th century bungalows
36-029057 (CA-SBR-29057H)	multi-origin refuse dumping site

Outside the project area but within the one-mile radius, SCCIC records show more than 20 other studies on various tracts of land and linear features, including at least four studies on adjacent properties (Figure 5). In all, approximately 75 percent of the land within the scope of the records search has been surveyed, resulting in the identification of seven additional sites. Like the five sites within or adjacent to the project boundaries, all of these sites dated to the historic period. Among them were buildings, structural foundations, water storage tanks, refuse scatters, and the former Rialto Municipal Airport. None of these seven sites was found in the immediate vicinity of the project area. Therefore, none of them requires further consideration during this study.





## HISTORICAL BACKGROUND RESEARCH

Historical maps demonstrate that in the mid-19th century, when the U.S. government conducted the earliest systematic land surveys in the San Bernardino Valley, the only man-made features known to be present in the project vicinity were a few winding roads (Figure 6). The most notable among these was the forerunner of present-day Baseline Road, which was then a part of a main thoroughfare between San Bernardino and Los Angeles. The road was blazed by the Mormon settlers in San Bernardino in the mid-1850s and was laid out generally along the San Bernardino Baseline (Haenszel 1979:31). In the vicinity of the project area, however, the actual route of that road was roughly a half-mile south of the baseline and well outside the project area (Figure 6).

By the late 19th century, the early roads had been replaced by a grid of widely spaced roads lined by scattered buildings, in a settlement pattern that was typical of rural southern California at the time (Figure 7). The current alignments of Baseline Road and some of the intersecting streets across the project area dated to that period. Between the 1890s and the 1940s, a few buildings, presumably farmsteads, were noted along the segment of Baseline Road in the project area, but most of the land was used as agricultural fields, including citrus groves or other types of orchards (Figure 8; NETR Online 1938; 1948).

In the early days of the post-World War II boom, the number of building along the project route began to rise, but the rural character of the area did not change until the 1966-1980 era, when the first suburban residential tract developments occurred on the south side of Baseline Road (Figure 9; NETR Online 1948-1980). To the east of the project area, a gravel quarry was in operation in the

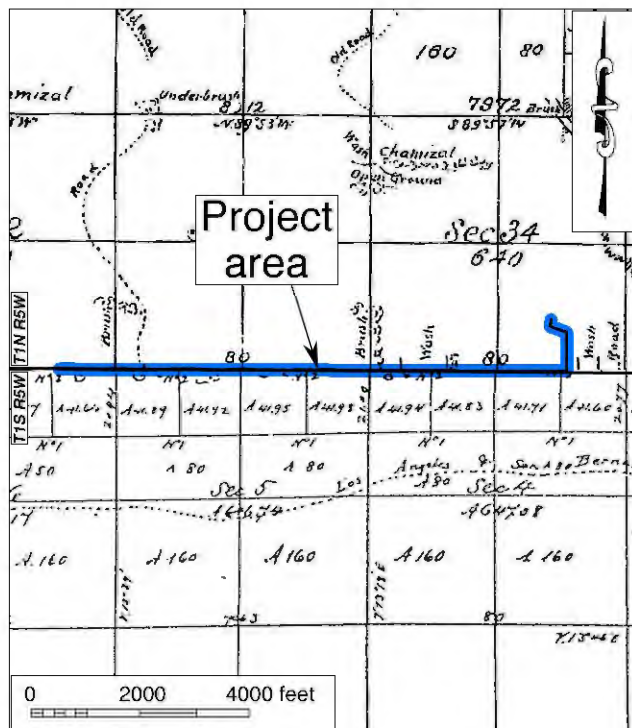


Figure 6. The project area and vicinity in 1852-1874  
(Source: GLO 1856; 1875)

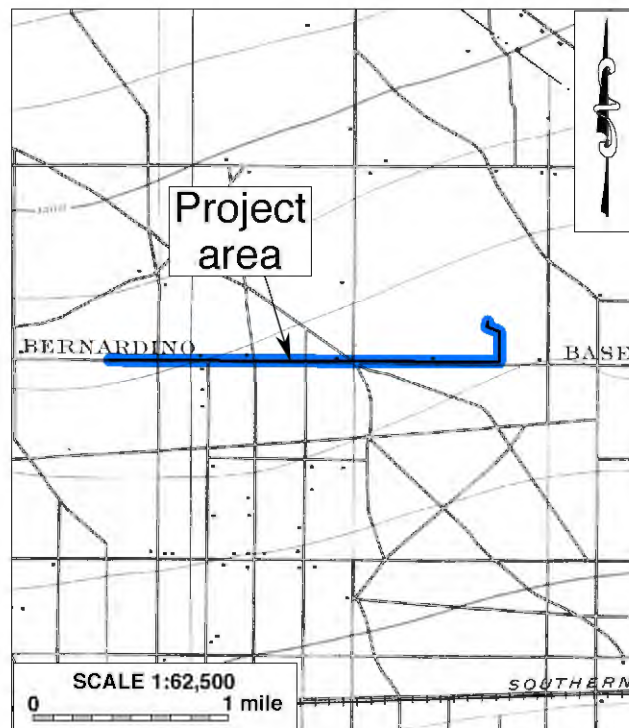


Figure 7. The project area and vicinity in 1893-1894  
(Source: USGS 1901)



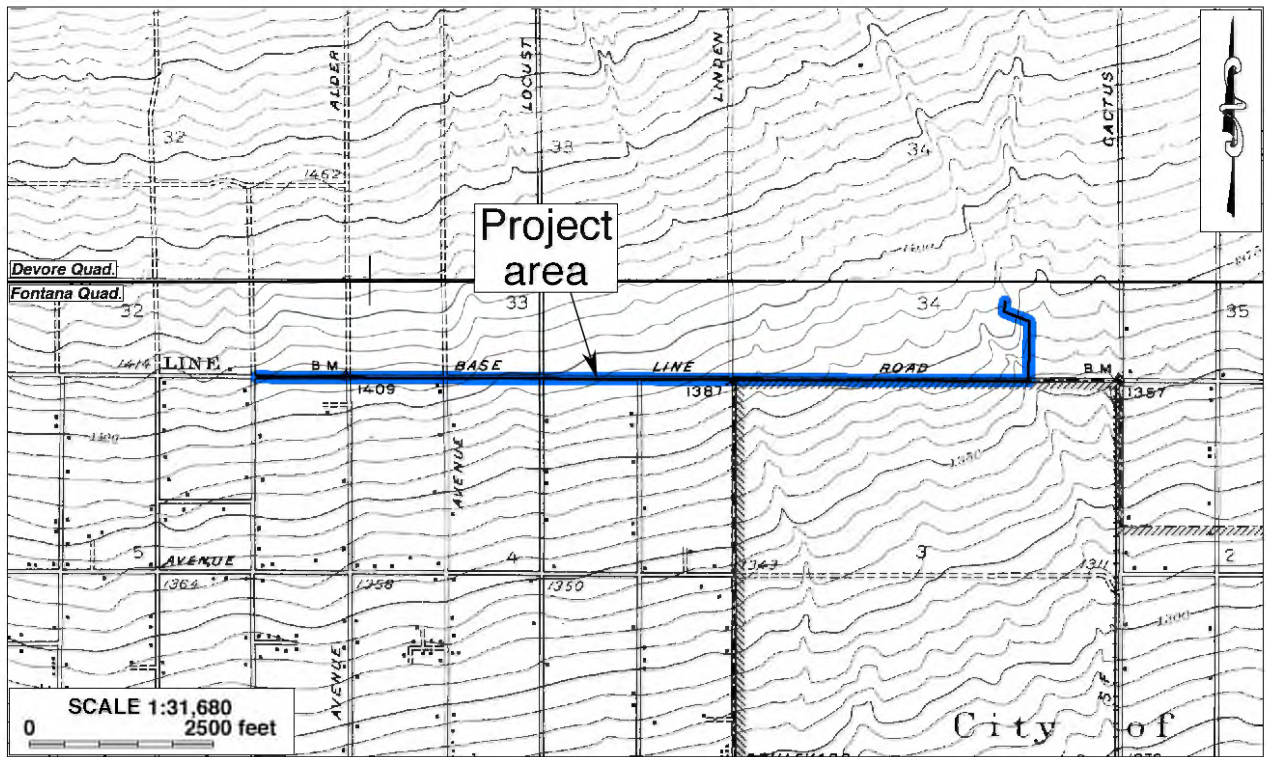


Figure 8. The project area and vicinity in 1936-1938. (Source: USGS 1941; 1943)

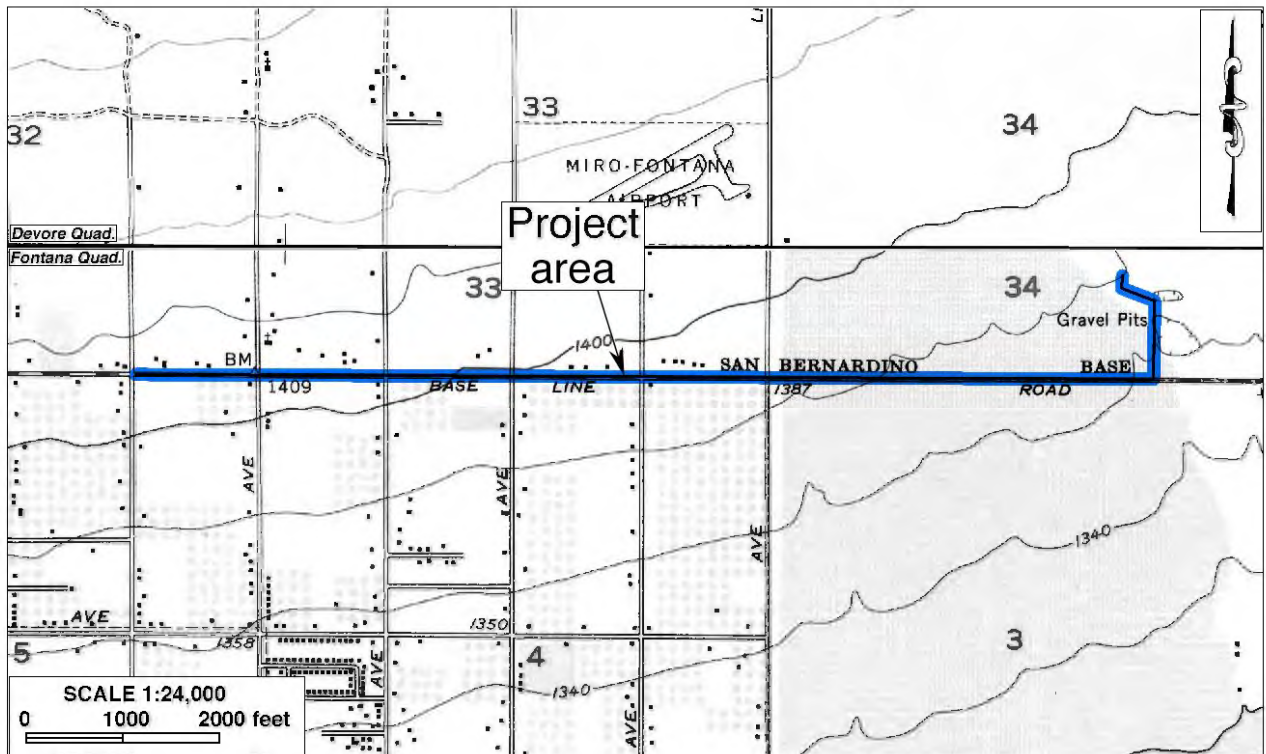


Figure 9. The project area and vicinity in 1952-1954. (Source: USGS 1953; 1954)

area of the present-day Cactus Basins during the 1940s-1970s (Figure 9; NETR Online 1948-1980). The retention basins adjacent to the project area today, namely Cactus Basins No. 3 and No. 3A, were built sometime between 1980 and 1994, after the quarry ceased operation (NETR Online 1980; 1994).

By the mid-1990s, most of the land along the south side of Baseline Road had been developed into residential neighborhoods (NETR Online 1994; Google Earth 1994; 1995). The final infill development, along Grove Place between Maple Avenue and Locus Avenue, was completed between 2005 and 2009 (Google Earth 2002-2009). On the north side of Baseline Road, the rural land uses persisted well into the 1990s before the construction of two self-storage facilities near the eastern end of the project area began to transform the landscape, followed by two strip malls at the intersection of Ayala Road in 2004-2005 (Google Earth 1994-2005).

The large warehouses that dominate the land use on that side of Baseline Road is the most recent development along the project route, dating only to 2013-2018 (Google Earth 2005-2018). With the accelerated residential and commercial development along its course since the 1980s, the character and configuration of Baseline Road itself have also been significantly altered, most notably with the addition of curbs, sidewalks and, during the current decade, landscaped medians (NETR Online 1968-1994; Google Earth 1994-2018).

## **NATIVE AMERICAN CONSULTATION**

In response to CRM TECH's request, the NAHC reported in a letter dated March 26, 2019, that the sacred Lands Record File indicated the presence of Native American cultural resource(s) in the project vicinity but referred further inquiries to the Gabrieleño Band of Mission Indians–Kizh Nation. In the meantime, the NAHC also recommended that other local Native American groups be contacted for further information and provided a list of potential contacts in the region (see Appendix 2).

Upon receiving the NAHC's reply, CRM TECH sent written requests for comments to all nine tribal organizations on the referral list (see Appendix 2). For some of the tribes, the designated spokespersons on cultural resources issues were contacted in lieu of the tribal political leaders on the referral list, as recommended in the past by the pertinent tribal government staff. The nine tribal representatives contacted during this study are listed below:

- Andy Salas, Chairperson, Gabrieleño Band of Mission Indians–Kizh Nation;
- Sandonne Goad, Chairperson, Gabrielino/Tongva Nation;
- Anthony Morales, Chairperson, Gabrielino/Tongva San Gabriel Band of Mission Indians;
- Robert Dorame, Chairperson, Gabrielino Tongva Indians of California Tribal Council;
- Charles Alvarez, Chairperson, Gabrielino Tongva Tribe;
- Travis Armstrong, Tribal Historic Preservation Officer, Morongo Band of Mission Indians;
- Donna Yocum, Chairperson, San Fernando Band of Mission Indians;
- Jessica Mauck, Cultural Resources Analyst, San Manuel Band of Mission Indians;
- Mark Cochrane, Chairperson, Serrano Nation of Mission Indians.

As of this time, three of the nine tribes have responded in writing (see Appendix 2). Travis Armstrong of the Morongo Band and Jessica Mauck of the San Manuel Band stated that their respective tribes have no additional information to provide for this study. Ms. Mauck indicated that the San Manuel Band “is unlikely to have concerns during formal consultation with the lead agency,” while Mr. Armstrong indicated that the Morongo Band “may provide other information to the lead agency during the AB 52 consultation process.”

On behalf of the Gabrieleño Band of Mission Indians–Kizh Nation, Brandy Salas, Tribal Administrative Specialist, replied that the tribe would like to pursue government-to-government consultation with the City of Rialto. She did not, however, provide any further information on Native American cultural resource(s) that may exist in the project vicinity.

## **FIELD SURVEY**

The results of the field survey indicate that all four of the historical/archaeological sites previously recorded on properties adjacent to the project area (36-010659, 36-010908, 36-021612, and 36-029057) have been removed. Their former locations are now occupied by the residential neighborhood along Grove Place and the warehouses between Maple Avenue and Laurel Avenue, which were built in 2005-2009 and 2013-2018, respectively (Google Earth 2005-2018).

Baseline Road, the physical embodiment of Site 36-015497 (San Bernardino Baseline), remains in heavy use today as a local thoroughfare. As a result of continuous alterations in response to the gradual urbanization of the area along its course, this segment of the road is now entirely modern in appearance and demonstrates no historical characteristics despite its 19th century origin (Figure 4). No other potential “historical resources” were encountered within the project area throughout the course of the survey.

## **DISCUSSION**

The purpose of this study is to identify any cultural resources within or adjacent to the project area and assist the City of Rialto in determining whether such resources meet the official definition of “historical resources” or as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), “‘historical resource’ includes, but is not limited to, any object, building, 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.”

More specifically, CEQA guidelines state that the term “historical resources” applies to any properties listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). In other words, buildings, structures, sites, or districts that belong to one or more of the following three categories are to be considered “historical resources” for the purposes of CEQA compliance (160 Cal. App. 4th 1051):

- Mandatory historical resources: properties that are listed in or formally determined to be eligible for listing in the California Register of Historical Resources;

- Presumptive historical resources: properties that are designated in an officially established local register, recognized by local ordinance, resolution, or general plan, or identified in a local survey prepared in accordance with PRC §5024.1(g), unless determined not to be historically or culturally significant by the lead agency upon a preponderance of the evidence;
- Discretionary historical resources: properties that are determined to be historically significant in the lead agency's discretion, independent of any decision to list or designate them in a national, state, or local register of historical resources.

In summary of the research results presented above, five historical/archaeological sites were previously recorded within or adjacent to the project area, but four of them, 36-010659, 36-010908, 36-021612, and 36-029057, are no longer extant today. The remaining site, 36-015497, represents the San Bernardino Baseline, which is embodied by Baseline Road in the project vicinity. As a part of the basis for all land surveys and titles in southern California since 1853, the San Bernardino Baseline has been designated a California Point of Historical Interest (CPHI-SBr-12). As a property included in a state-wide register of local historical resources, Site 36-015497 clearly meets the definition of a "historical resource" in the category of "presumptive historical resources."

The historic value of Site 36-015497, however, is symbolic in nature and is derived from the conceptual line across the landscape instead of the existing roadway. The current configuration and physical features of Baseline Road, which are modern and in fact quite recent in origin, do not contribute to the historic significance of the site. Since Site 36-015497 exists in the project area largely on paper only, CRM TECH concludes that the proposed project has no potential to affect the significance or integrity of this "historical resource." As no other potential "historical resources" were identified within the project area, CRM TECH further concludes that no "historical resources" will be impacted by the project.

## **CONCLUSION AND RECOMMENDATIONS**

CEQA establishes that a project that may cause a substantial adverse change in the significance of a "historical resource" or a "tribal cultural resource" is a project that may have a significant effect on the environment (PRC §21084.1-2). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

As stated above, the results of the present study indicate that no "historical resources" will be impacted by the proposed project. However, the NAHC reported the presence of unspecified Native American cultural resource(s) in the project vicinity and referred further inquiries to the Gabrieleño Band of Mission Indians–Kizh Nation, who did not provide any information on such resources during this study. According to CEQA guidelines, the identification of potential "tribal cultural resources" is beyond the scope of this study and needs to be addressed through government-to-government consultations between the City of Rialto and the pertinent Native American groups pursuant to Assembly Bill 52.

Based on these findings, CRM TECH presents the following recommendations to the City of Rialto:



- A preliminary conclusion of *No Impact* on cultural resources appears to be appropriate for this project, pending the completion of the City's government-to-government consultation process with local Native American tribes to ensure the proper identification of potential "tribal cultural resources."
- No additional cultural resources investigation will be necessary for the project unless construction plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are encountered inadvertently during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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- 1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.
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## **APPENDIX 1: PERSONNEL QUALIFICATIONS**

### **PRINCIPAL INVESTIGATOR/HISTORIAN Bai “Tom” Tang, M.A.**

#### **Education**

- 1988-1993 Graduate Program in Public History/Historic Preservation, UC Riverside.  
1987 M.A., American History, Yale University, New Haven, Connecticut.  
1982 B.A., History, Northwestern University, Xi’an, China.
- 2000 “Introduction to Section 106 Review,” presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.  
1994 “Assessing the Significance of Historic Archaeological Sites,” presented by the Historic Preservation Program, University of Nevada, Reno.

#### **Professional Experience**

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.  
1993-2002 Project Historian/Architectural Historian, CRM TECH, Riverside, California.  
1993-1997 Project Historian, Greenwood and Associates, Pacific Palisades, California.  
1991-1993 Project Historian, Archaeological Research Unit, UC Riverside.  
1990 Intern Researcher, California State Office of Historic Preservation, Sacramento.  
1990-1992 Teaching Assistant, History of Modern World, UC Riverside.  
1988-1993 Research Assistant, American Social History, UC Riverside.  
1985-1988 Research Assistant, Modern Chinese History, Yale University.  
1985-1986 Teaching Assistant, Modern Chinese History, Yale University.  
1982-1985 Lecturer, History, Xi’an Foreign Languages Institute, Xi’an, China.

#### **Cultural Resources Management Reports**

Preliminary Analyses and Recommendations Regarding California’s Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.



## **PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST**

**Michael Hogan, Ph.D., RPA\***

### **Education**

- 1991 Ph.D., Anthropology, University of California, Riverside.
- 1981 B.S., Anthropology, University of California, Riverside; with honors.
- 1980-1981 Education Abroad Program, Lima, Peru.
- 2002 Section 106—National Historic Preservation Act: Federal Law at the Local Level.  
UCLA Extension Course #888.
- 2002 “Recognizing Historic Artifacts,” workshop presented by Richard Norwood,  
Historical Archaeologist.
- 2002 “Wending Your Way through the Regulatory Maze,” symposium presented by the  
Association of Environmental Professionals.
- 1992 “Southern California Ceramics Workshop,” presented by Jerry Schaefer.
- 1992 “Historic Artifact Workshop,” presented by Anne Duffield-Stoll.

### **Professional Experience**

- 2002- Principal Investigator, CRM TECH, Riverside/Colton, California.
- 1999-2002 Project Archaeologist/Field Director, CRM TECH, Riverside.
- 1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands.
- 1992-1998 Assistant Research Anthropologist, University of California, Riverside
- 1992-1995 Project Director, Archaeological Research Unit, U. C. Riverside.
- 1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C.  
Riverside, Chapman University, and San Bernardino Valley College.
- 1991-1992 Crew Chief, Archaeological Research Unit, U. C. Riverside.
- 1984-1998 Archaeological Technician, Field Director, and Project Director for various southern  
California cultural resources management firms.

### **Research Interests**

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

### **Cultural Resources Management Reports**

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

### **Memberships**

\* Register of Professional Archaeologists; Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

**PROJECT ARCHAEOLOGIST/FIELD DIRECTOR**  
**Daniel Ballester, M.S.**

**Education**

2013 M.S., Geographic Information System (GIS), University of Redlands, California.  
1998 B.A., Anthropology, California State University, San Bernardino.  
1997 Archaeological Field School, University of Las Vegas and University of California, Riverside.  
1994 University of Puerto Rico, Rio Piedras, Puerto Rico.  
  
2007 Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.  
2002 “Historic Archaeology Workshop,” presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

**Professional Experience**

2002- Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.  
2011-2012 GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.  
2009-2010 Field Crew Chief, Garcia and Associates, San Anselmo, California.  
2009-2010 Field Crew, ECorp, Redlands.  
1999-2002 Project Archaeologist, CRM TECH, Riverside, California.  
1998-1999 Field Crew, K.E.A. Environmental, San Diego, California.  
1998 Field Crew, A.S.M. Affiliates, Encinitas, California.  
1998 Field Crew, Archaeological Research Unit, University of California, Riverside.

**PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON**  
**Nina Gallardo, B.A.**

**Education**

2004 B.A., Anthropology/Law and Society, University of California, Riverside.

**Professional Experience**

2004- Project Archaeologist, CRM TECH, Riverside/Colton, California.

**PROJECT ARCHAEOLOGIST/REPORT WRITER**  
**Ben Kerridge, M.A.**

**Education**

2014            Archaeological Field School, Institute for Field Research, Kephallenia, Greece.  
2010            M.A., Anthropology, California State University, Fullerton.  
2009            Project Management Training, Project Management Institute/CH2M HILL, Santa  
                  Ana, California.  
2004            B.A., Anthropology, California State University, Fullerton.

**Professional Experience**

2015-           Project Archaeologist/Report Writer, CRM TECH, Colton, California.  
2015           Teaching Assistant, Institute for Field Research, Kephallenia, Greece.  
2009-2014    Publications Delivery Manager, CH2M HILL, Santa Ana, California.  
2010-           Naturalist, Newport Bay Conservancy, Newport Beach, California.  
2006-2009    Technical Publishing Specialist, CH2M HILL, Santa Ana, California.  
2002-2006    English Composition/College Preparation Tutor, various locations, California.

**Papers Presented**

- Geomorphological Survey of Tracts T126–T151 to Support Archaeological Shoreline Research Project. Institute for Field Research, Kephallenia, Greece, 2014.
- The Uncanny Valley of the Shadow of Modernity: A Re-examination of Anthropological Approaches to Christianity. Graduate Thesis, California State University, Fullerton, 2010.
- Ethnographic Endeavors into the World of Counterstrike. 74th Annual Conference of the Southwestern Anthropological Association, 2003.

**Cultural Resources Management Reports**

Co-author and contributor to numerous cultural resources management reports since 2013.

**Memberships**

Society for California Archaeology; Pacific Coast Archaeological Society.

**APPENDIX 2**

**CORRESPONDENCE WITH  
NATIVE AMERICAN REPRESENTATIVES\***

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\* Nine local Native American representatives were contacted; a sample letter is included in this report.



# SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

## NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Boulevard, Suite 100  
West Sacramento, CA 95691  
(916)373-3710  
(916)373-5471 (Fax)  
nahc@nahc.ca.gov

**Project:** Proposed Rialto Baseline Storm Drain Project (CRM TECH No. 3454)

**County:** San Bernardino

**USGS Quadrangle Name:** Devore and Fontana, Calif.

**Township** 1 North **Range** 5 West **SB BM; Section(s):** 32-34

**Township** 1 South **Range** 5 West **SB BM; Section(s):** 3-5

**Company/Firm/Agency:** CRM TECH

**Contact Person:** Nina Gallardo

**Street Address:** 1016 E. Cooley Drive, Suite A/B

**City:** Colton, CA **Zip:** 92324

**Phone:** (909) 824-6400 **Fax:** (909) 824-6405

**Email:** ngallardo@crmtech.us

**Project Description:** The primary component of the project is to install 2.25 linear miles of new storm drain system that runs south from the existing Cactus Basin to Baseline Road and then west within the Baseline Road right-of way to Tamarind Avenue, in the City of Rialto, San Bernardino County, California.

*March 14, 2019*



March 26, 2019

Nina Gallardo  
CRM Tech

VIA Email to: [ngallardo@crmtech.us](mailto:ngallardo@crmtech.us)

RE: Proposed Rialto Baseline Storm Drain Project, San Bernardino County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Gabrieleno Band of Mission Indians – Kizh Nation on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: [steven.quinn@nahc.ca.gov](mailto:steven.quinn@nahc.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Steven Quinn".

Steven Quinn  
Associate Governmental Program Analyst

Attachment

**Native American Heritage Commission  
Native American Contact List  
San Bernardino County  
3/26/2019**

***Gabrieleno Band of Mission  
Indians - Kizh Nation***

Andrew Salas, Chairperson  
P.O. Box 393  
Covina, CA, 91723  
Phone: (626) 926 - 4131  
admin@gabrielenoindians.org

Gabrieleno

***Gabrieleno/Tongva San Gabriel  
Band of Mission Indians***

Anthony Morales, Chairperson  
P.O. Box 693  
San Gabriel, CA, 91778  
Phone: (626) 483 - 3564  
Fax: (626) 286-1262  
GTTribalcouncil@aol.com

Gabrieleno

***Gabrielino /Tongva Nation***

Sandonne Goad, Chairperson  
106 1/2 Judge John Aiso St.,  
#231  
Los Angeles, CA, 90012  
Phone: (951) 807 - 0479  
sgoad@gabrielino-tongva.com

Gabrielino

***Gabrielino Tongva Indians of  
California Tribal Council***

Robert Dorame, Chairperson  
P.O. Box 490  
Bellflower, CA, 90707  
Phone: (562) 761 - 6417  
Fax: (562) 761-6417  
gtongva@gmail.com

Gabrielino

***Gabrielino-Tongva Tribe***

Charles Alvarez,  
23454 Vanowen Street  
West Hills, CA, 91307  
Phone: (310) 403 - 6048  
roadkingcharles@aol.com

Gabrielino

***Morongo Band of Mission  
Indians***

Robert Martin, Chairperson  
12700 Pumarra Road  
Banning, CA, 92220  
Phone: (951) 849 - 8807  
Fax: (951) 922-8146  
dtorres@morongo-nsn.gov

Cahuilla  
Serrano

***Morongo Band of Mission  
Indians***

Denisa Torres, Cultural Resources  
Manager  
12700 Pumarra Road  
Banning, CA, 92220  
Phone: (951) 849 - 8807  
Fax: (951) 922-8146  
dtorres@morongo-nsn.gov

Cahuilla  
Serrano

***San Fernando Band of Mission  
Indians***

Donna Yocum, Chairperson  
P.O. Box 221838  
Newhall, CA, 91322  
Phone: (503) 539 - 0933  
Fax: (503) 574-3308  
ddyocum@comcast.net

Kitanemuk  
Vanyume  
Tataviam

***San Manuel Band of Mission  
Indians***

Lee Clauss, Director of Cultural  
Resources  
26569 Community Center Drive  
Highland, CA, 92346  
Phone: (909) 864 - 8933  
Fax: (909) 864-3370  
lclauss@sanmanuel-nsn.gov

Serrano

***Serrano Nation of Mission  
Indians***

Goldie Walker, Chairperson  
P.O. Box 343  
Patton, CA, 92369  
Phone: (909) 528 - 9027

Serrano

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Rialto Baseline Storm Drain Project, San Bernardino County.

**From:** Nina Gallardo <ngallardo@crmtech.us>  
**Sent:** Thursday, March 28, 2019 12:27 PM  
**To:** admin@gabrielenoindians.org  
**Subject:** NA Scoping Letter for the Proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County (CRM TECH #3454)

Hello Mr. Salas,

I'm emailing to inform you that CRM TECH will be conducting a cultural study for the proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County (CRM TECH #3454). We have received the Native American Heritage Commission (NAHC) SLF response and NA contact list. The NAHC reports that SLF indicates the presence of Native American cultural resources in the project area and recommends that the Gabrieleno Band of Mission Indians - Kizh Nation be contacted for further information (see attached).

I'm contacting you to see if the Gabrieleno Band of Mission Indians - Kizh Nation has any specific information regarding cultural sites located in the project area. I'm also attaching the NA scoping letter, a copy of the NAHC response letter, and a project area map.

Thanks for your time and input on this project.

Nina Gallardo  
Project Archaeologist/Native American liaison  
CRM TECH  
1016 E. Cooley Drive Ste. A/B  
Colton, CA 92324  
(909) 824-6400

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March 28, 2019

Sandonne Goad, Chairperson  
Gabrielino/Tongva Nation  
P.O. Box 86908  
Los Angeles, CA 90086

RE: Proposed Rialto Baseline Storm Drain Project  
2.25 Linear Miles of Pipeline Alignment in the City of Rialto  
San Bernardino County, California  
CRM TECH Contract #3454

Dear Ms. Goad:

I am writing to bring your attention to an ongoing CEQA-compliance study for the proposed project referenced above. The project entails the installation of approximately 2.25 linear miles of new storm drain pipeline from the existing Cactus Basins south to Baseline Road and then west within the Baseline Road right-of-way to Tamarind Avenue. The accompanying map, based on USGS



Devore and Fontana, Calif., 7.5' quadrangles, depicts the location of the project area in Sections 32-34, T1N R5W, and Sections 3-5, T1S R5W, SBBM.

Records on file at the South Central Coastal Information Center (SCCIC) report that Baseline Road (Site 36-015497) is the only known historical/archaeological site in the project area. However, the Native American Heritage Commission Sacred Lands File indicates the presence of Native American cultural resources in the project area, and the commission recommends that the Gabrieleno Band of Mission Indians - Kizh Nation and other local tribes be contacted for further information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the project area.

Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value in or near the project area, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency, namely the City of Rialto.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the project area that we should be aware of and to help us assess the sensitivity of the project area. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo  
Project Archaeologist/Native American liaison  
CRM TECH  
Email: [ngallardo@crmtech.us](mailto:ngallardo@crmtech.us)

Encl.: NAHC response letter and project location map

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**From:** Tribal Historic Preservation Office <[thpo@morongo-nsn.gov](mailto:thpo@morongo-nsn.gov)>  
**Sent:** Thursday, March 28, 2019 3:44 PM  
**To:** 'ngallardo@crmtech.us'  
**Subject:** RE: NA Scoping Letter for the Proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County (CRM TECH #3454)

Hello,

Regarding the above referenced project, we have no additional information to provide at this time but may provide other information to the lead agency during the AB 52 consultation process.

Thank you for reaching out to our office.

Sincerely,

Travis Armstrong  
Tribal Historic Preservation Officer  
Morongo Band of Mission Indians  
951-755-5259  
Email: thpo@morongo-nsn.gov

---

**From:** Jessica Mauck <JMauck@sanmanuel-nsn.gov>  
**Sent:** Friday, March 29, 2019 4:08 PM  
**To:** ngallardo@crmtech.us  
**Subject:** RE: NA Scoping Letter for the Proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County (CRM TECH #3454)

Hi Nina,

Thank you for contacting the San Manuel Band of Mission Indians (SMBMI) regarding the above referenced project. SMBMI appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on 28 March 2019. While SMBMI consults on projects within the City of Rialto, this particular area has not historically been of major concern. Additionally, based on recent information obtained by the Tribe, I am going to start pulling back on the nearby areas for which SMBMI previously expressed concern. As such, SMBMI does not have information to provide for the study and is unlikely to have concerns during formal consultation with the lead agency.

Thank you,

Jessica Mauck  
CULTURAL RESOURCES ANALYST  
O: (909) 864-8933 x3249  
M: (909) 725-9054  
26569 Community Center Drive Highland California 92346

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**From:** Administration Gabrieleno <admin@gabrielenoindians.org>  
**Sent:** Tuesday, April 2, 2019 1:34 PM  
**To:** Nina Gallardo  
**Subject:** Re: NA Scoping Letter for the Proposed Rialto Baseline Storm Drain Project in the City of Rialto, San Bernardino County (CRM TECH #3454)

Hello Nina

Thank you for your letter dated March 28, 2018. If there will be any ground disturbance taking place regarding the project our Tribal government would like to consult with the lead agency. Can you please provide us with the lead agency contact info.

Thank you

Sincerely,

Brandy Salas

Admin Specialist

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**CITY OF RIALTO**  
**RIALTO BASELINE STORM DRAIN PROJECT**  
**MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification
<b>Air Quality</b> AIR-1 <u>Dust Control</u> . The following measures shall be incorporated into Project plans and specifications for implementation: <ul style="list-style-type: none"> <li>• Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.</li> <li>• Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.</li> <li>• Stabilize previously disturbed areas if subsequent construction is delayed.</li> <li>• Water exposed surfaces and haul roads 3 times/day.</li> <li>• Cover all stockpiles with tarps.</li> <li>• Replace ground cover in disturbed areas quickly.</li> <li>• Reduce speeds on unpaved roads to less than 15 mph.</li> <li>• Trenches shall be left exposed for as short a time as possible.</li> <li>• <u>Implementation of erosion control Best Management Practices identified in the project Storm Water Pollution Prevention Plan</u></li> </ul>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.	A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
	Source	Responsible Party
	Initial Study / MMRP	City of Rialto

Mitigation Measure	Implementation Schedule	Verification
<b>Air Quality</b> AIR-2 <u>Exhaust Emissions Control</u> . The following measures shall be incorporated into Project plans and specifications for implementation: <ul style="list-style-type: none"> <li>• Utilize <del>well-tuned</del> off-road construction equipment that <u>has met or exceeded the maker's recommendations for vehicle/equipment maintenance schedule.</u></li> <li>• <del>Establish a preference for Contractors shall using</del> <u>utilize</u> Tier 4 <del>3</del> or better heavy equipment.</li> <li>• Enforce 5-minute idling limits for both on-road trucks and off-road equipment.</li> </ul>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.	A copy of the construction contract including this air mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the air quality measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
	Source	Responsible Party
	Initial Study	City of Rialto



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<b><i>Biological Resources</i></b> BIO-1 Burrowing Owl. Preconstruction presence/absence surveys for burrowing owl shall be conducted <del>within 30</del> <u>no less than 14 days</u> prior to any onsite ground disturbing activity <u>by a qualified biologist</u> . The burrowing owl surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife in the "California Department of Fish and Wildlife 2012 Staff Report on Burrowing Owl Mitigation." In the event this species is not identified within the Project limits, no further mitigation is required, <u>and a letter shall be prepared by the qualified biologist documenting the results of the survey. The letter shall be submitted to CDFW prior to commencement of Project activities.</u> If during <del>the</del> preconstruction survey, the burrowing owl <del>if</del> <u>is</u> found to occupy the site, Mitigation Measure BIO- 2 shall be required.	This measure shall be implemented no less than 14 days prior to initiation of construction.	A copy of the preconstruction survey shall be documented and retained in the project file. A notation stating whether the burrowing owl is present or absent from the site shall be included in the file.
	<b>Source</b> Initial Study / Response to Comments	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>

Mitigation Measure	Implementation Schedule	Verification
<b><i>Biological Resources</i></b> BIO-2 If burrowing owls are identified during the survey period, the City shall take the following actions to offset impacts prior to ground disturbance:  Active nests within the areas scheduled for disturbance or degradation shall be avoided <del>from February 1 through August 31, and a minimum of 250-foot buffer shall be provided</del> until fledging has occurred, <u>as confirmed by a qualified biologist</u> . Following fledging, owls may be passively relocated by a qualified biologist, <u>as described below</u> .  If impacts on occupied burrows <del>in the non-nesting period</del> are unavoidable, onsite passive relocation techniques may be used if approved by the CDFW to encourage owls to move to alternative burrows <u>provided by the City</u> outside of the impact area.  If relocation of the owls is approved for the site by <del>the</del> CDFW, CDFW shall require the City to hire a qualified biologist to prepare a plan for relocating the owls to a suitable site <u>and conduct an impact assessment. A qualified biologist shall prepare and submit a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 Staff Report on Burrowing Owl Mitigation (CDFG 2012) to the</u>	This measure shall be implemented during construction and followed through until construction is complete. This shall be incorporated into the construction contract.	The City shall document that, if appropriate, active nests are avoided during nesting season; outside of nesting season, verification that passive techniques are utilized to encourage owl relocation shall be provided to the City. The City shall retain the relocation plan, if required, and the impact assessment prepared in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing project construction. The final letter report shall be retained in the project file, as shall documentation that the letter is submitted to CDFW. All field notes generated by the biologist shall be retained in the project file. Documentation of any burrowing owls located on site and any actions taken shall be retained in the project file.

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<p><u>CDFW for review/approval prior to the commencement of disturbance activities onsite.</u></p> <p>The relocation plan must include all of the following and as indicated in Appendix E:</p> <ul style="list-style-type: none"> <li>• The location of the nest and owls proposed for relocation.</li> <li>• The location of the proposed relocation site.</li> <li>• The number of owls involved and the time of year when the relocation is proposed to take place.</li> <li>• The name and credentials of the biologist who will be retained to supervise the relocation.</li> <li>• The proposed method of capture and transport for the owls to the new site.</li> <li>• A description of site preparation at the relocation site (e.g., enhancement of existing burrows, creation of artificial burrows, one-time or long-term vegetation control).</li> </ul> <p><u>The applicant shall conduct an impact assessment, in accordance with the Staff Report on Burrowing Owl Mitigation prior to commencing Project activities to determine appropriate mitigation, including the acquisition and conservation of occupied replacement habitat at no less than a 2:1 ratio.</u></p> <p><u>Prior to passive relocation, suitable replacement burrows site(s) shall be provided at a ratio of 2:1 and permanent conservation and management of burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owl impacts are replaced consistent with the Staff Report on Burrowing Owl Mitigation including its Appendix A within designated adjacent conserved lands identified through coordination with CDFW and the City of Rialto. A qualified biologist shall confirm the natural or artificial burrows on the conservation lands are suitable for use by the owls. Monitoring and management of the replacement burrow site(s) shall be conducted and a reporting plan shall be prepared. The objective shall be to manage the replacement burrow sites for the benefit of burrowing owls (e.g., minimizing weed cover), with the specific goal of maintaining the functionality of the burrows for a minimum of 2 years.</u></p> <p><u>A final letter report shall be prepared by the qualified biologist documenting the results of the passive relocation. The letter shall be submitted to CDFW.</u></p>			
	Source	Responsible Party	Status / Date / Initials
	Initial Study / Response to Comments	City of Rialto	

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<b>Biological Resources</b> BIO-3      Preconstruction presence/absence surveys for San Bernardino kangaroo rat (SBKR) shall be conducted within 45 <del>365</del> days prior to any onsite ground disturbing activity <del>by a permitted biologist</del> . SBKR surveys shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service (USFWS). If no presence of SBKR is found during the survey, mitigation measure BIO- <del>34</del> need not be enforced.	This measure shall be implemented within a year prior to initiation of construction.	A copy of the preconstruction survey shall be documented and retained in the project file. A notation stating whether the SBKR is present or absent from the site shall be included in the file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study / Response to Comments	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Biological Resources</b> BIO-4      In the event that the preconstruction survey determines the presence of SBKR, <del>and complete avoidance is not possible, the Project proponent shall acquire a CESA Incidental Take Permit (ITP) prior to any vegetation- or ground disturbing activities. Any take of SBKR without take authorization would be a violation of Fish and Game Code section 2050 et seq. the following actions shall be implemented:</del> . The the City shall provide compensation for temporary loss of habitat and individual to SBKR in the following manner: 4) the City shall obtain a 2081 <del>Incidental Take Permit (ITP)</del> from the CDFW; the City shall offset the loss of the temporarily disturbed habitat to SBKR by <del>purchase purchasing of acceptable suitable</del> SBKR habitat at a minimum <del>3:1</del> <del>4:4</del> ratio <del>depending on the habitat quality of the impact site and the location and habitat quality of the identified mitigation site; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed in perpetuity by an agency or party considered acceptable to the CDFW. No ground disturbance within potential SBKR habitat shall occur until an ITP is obtained by the City from CDFW and USFWS. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.</del>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction. Prior to implementing construction in an area with a population of SBKR, the City shall obtain an Incidental Take Permit (ITP) from the State Department of Fish and Wildlife. All measures identified in the ITP shall be completed in accordance with the time schedule in this document.	A copy of both the SBKR survey and, if required, the ITP shall be retained in the project file. The City shall document shall document specific compliance with each ITP condition and retain the documented verification in the project file. The City shall retain documentation of any required compensation for loss of habitat.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study / Response to Comments	City of Rialto	

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Mitigation Measure	Implementation Schedule	Verification	
<b>Biological Resources</b> BIO-5      Preconstruction presence/absence surveys for Los Angeles pocket mouse (LAPM) shall be conducted <u>in conjunction with SBKR trapping within 30 days</u> prior to any onsite ground disturbing activity. LAPM survey shall be conducted pursuant to the recommendations and guidelines established by the California Department of Fish and Wildlife. If no presence of LAPM is found during the survey, mitigation measure BIO-5 <del>6</del> need not be enforced.	This measure shall be implemented in conjunction with SBKR trapping, prior to the initiation of construction.	A copy of the preconstruction survey shall be documented and retained in the project file. A notation stating whether the LAPM is present or absent from the site shall be included in the file.	
		Source	Responsible Party
		Initial Study / Response to Comments	City of Rialto

Mitigation Measure	Implementation Schedule	Verification	
<b>Biological Resources</b> BIO-6      In the event that the preconstruction survey determines the presence of LAPM, the following actions shall be implemented: <u>1) the City shall prepare and implement a set of avoidance and minimization measures aimed at protecting special-status small mammals from Project-related impacts. The proposed avoidance and minimization measures shall be provided to CDFW for review and approval no fewer than 30 days prior to the initiation of Project activities</u> <u>2) the City shall provide compensation for temporary loss of habitat to and individual LAPM in the following manner: 1) the City shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; the City shall offset the loss of the temporarily disturbed habitat by purchase purchasing of acceptable suitable LAPM habitat at a 4:1 2:1 ratio; and any conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed in perpetuity by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur within potential LAPM habitat until CDFW approves appropriate mitigation and avoidance and minimization measures an ITP is obtained by the City. Note that the final compensation package contained in the permit may differ from the above compensation package, but the City finds that this compensation package shall at a minimum meet the requirements of this measure.</u>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction. Prior to implementing construction in an area with a population of LAPM, the City shall obtain an Incidental Take Permit (ITP) from the State Department of Fish and Wildlife. All measures identified in the ITP shall be completed in accordance with the time schedule in this document.	A copy of both the LAPM survey and, if required, the ITP shall be retained in the project file. The City shall document shall document specific compliance with each ITP condition and retain the documented verification in the project file.	
		Source	Responsible Party
		Initial Study / Response to Comments	City of Rialto



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Mitigation Measure	Implementation Schedule	Verification
<b>Biological Resources</b> BIO-7 The City shall prepare and submit a 1602 Streambed Alteration Agreement (SAA) to the California Department of Fish and Wildlife (CDFW) <del>a Section 401 Certification Permit to the Santa Ana Regional Water Quality Control Board; and, a Section 404 (Nationwide Permit No. 43) Permit to the USACE.</del> No ground disturbance within jurisdictional waters shall occur until the City obtains the above permits. Note that the final compensation package contained in the permit shall be implemented by the City. If the permit conditions are different than the mitigation listed in this Document to protect biological resources, the City shall implement the mitigation identified in the permits, <u>which must be equivalent or more effective in mitigating or avoiding potential significant effects and the substitution of any mitigation measure will not cause any potentially significant effect on the environment.</u>	If necessary, the Streambed Alteration Agreement from the CDFW shall be obtained prior to ground disturbance within the jurisdictional area and the conditions of the permits shall be implemented as defined within the permits by each permit.	A copy of these permit—if required—shall be retained in the project file, and verification that all conditions have been implemented shall be retained in the project file.
	<b>Source</b> Initial Study / Response to Comments	<b>Responsible Party</b> City of Rialto
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Mitigation Measure	Implementation Schedule	Verification
<b>Biological Resources</b> BIO-8 The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the <del>the State</del> identified nesting season (generally, Raptor nesting season is <del>February 15</del> January 1 through July 31 September 15; and migratory passerine bird nesting season is <del>March 15</del> February 1 through September 1). <del>Alternatively</del> Additionally, the site shall be <del>evaluated</del> surveyed by a qualified biologist <del>3 days</del> prior to the initiation of ground disturbance to determine the presence or absence of nesting birds, <u>at the appropriate time of day/night, during appropriate weather conditions.</u> Active bird nests MUST be avoided during the nesting season. If an active nest is located in the Project construction area it will be flagged and a 300-foot avoidance buffer placed around it for <u>passerines and a 500-foot avoidance buffer for raptors.</u> No activity shall occur within the 300-foot or 500-foot buffer until the young have fledged the nest, <u>as confirmed by a qualified biologist.</u>	Construction shall occur outside of the nesting season or a copy of the field survey documenting no nesting birds shall be completed prior to initiating construction within the nesting season.	City personnel shall document the dates of construction. If construction is proposed to occur within the nesting season, a copy of the field survey documenting the absence of nesting birds shall be retained in the project file.
	<b>Source</b> Initial Study / Response to Comments	<b>Responsible Party</b> City of Rialto
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Mitigation Measure	Implementation Schedule	Verification
<b>Biological Resources</b> BIO-9 <u>Any impacts to RAFSS shall be mitigated at a minimum 3:1 or greater depending on the location and habitat quality of the mitigation site.</u>	This measure shall be implemented by the City upon any impacts to RAFSS as a result of implementation of construction. It shall be implemented prior to any impacts to this species.	The City shall retain any documentation of mitigation for RAFSS. All field notes generated by the biologist shall be retained in the project file. Documentation of any burrowing owls located on site and any actions taken shall be retained in the project file.
	<b>Source</b> Initial Study / Response to Comments	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>

Mitigation Measure	Implementation Schedule	Verification
<b>Biological Resources</b> BIO-10 <u>The City shall work with SBCFCD to minimize impacts to their obligatory habitat mitigation within Cactus Basin No. 3. The City shall work collaboratively with SBCFCD to avoid and minimize impacts to the greatest extent feasible.</u>	This measure shall occur prior to construction within Cactus Basin No. 3.	The City shall retain documentation of communication with the SBCFCD and shall document habitat mitigation carried out in collaboration. Documentation shall be retained in the project file.
	<b>Source</b> Initial Study / Response to Comments	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>

Mitigation Measure	Implementation Schedule	Verification
<b>Cultural Resources</b> CUL-1     Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the City's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.	Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.	A copy of the Program shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the archaeological monitoring program is being implemented by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.
	<b>Source</b> Initial Study	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>

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<b>Cultural Resources</b> CUL-2 Should human remains or funerary objects be encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.	This measure shall be implemented during construction if human remains are exposed during construction		The City shall retain all records of the discovery and management actions taken in regard to human remains in the project file.
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule		Verification
<b>Geology and Soils</b> GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup. <u>Implementation of erosion control Best Management Practices identified in the project Storm Water Pollution Prevention Plan</u>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.		A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
	Source	Responsible Party	Status / Date / Initials
	Initial Study / MMRP	City of Rialto	

Mitigation Measure	Implementation Schedule		Verification
<b>Geology and Soils</b> GEO-2 Excavated areas shall be <del>properly</del> backfilled and compacted <u>such that erosion does not occur</u> . Paved areas disturbed by this Project will be repaved in such a manner that roadways and other disturbed areas are returned to <del>as near the</del> pre-Project conditions or better. <u>Implementation of erosion control Best Management Practices identified in the project Storm Water Pollution Prevention Plan</u>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.		A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
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	Initial Study / MMRP	City of Rialto	

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<b><i>Geology and Soils</i></b> GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from the site within which the water facilities are being installed. <u>Implementation of erosion control Best Management Practices identified in the project Storm Water Pollution Prevention Plan.</u>	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.	A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
	<b>Source</b> Initial Study / MMRP	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>

Mitigation Measure	Implementation Schedule	Verification
<b><i>Geology and Soils</i></b> GEO-4 The length of trench which can be left open at any given time will be limited to that needed to <del>reasonably</del> perform construction activities, <u>as dictated by the contractor</u> . This will serve to reduce the amount of backfill stored onsite at any given time.	This measure shall be included in the construction contract as a contract specification and implemented by the contractor during construction.	A copy of the construction contract including this geology/soils mitigation measure shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the geology/soils measures have been implemented as required in these measures. Field notes documenting verification shall be retained in the project file.
	<b>Source</b> Initial Study / Responses to Comments	<b>Responsible Party</b> City of Rialto
		<b>Status / Date / Initials</b>



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Mitigation Measure	Implementation Schedule	Verification	
<b>Geology and Soils</b> GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City onsite inspector. The paleontological professional shall assess the find, determine its significance, and <del>make recommendations for</del> <u>determine</u> appropriate mitigation measures within the guidelines of the California Environmental Quality Act <u>that shall be implemented to minimize any impacts to a paleontological resource.</u>	Any response to exposed resources shall occur during construction. Any reports documenting management and findings for accidentally exposed resources shall be completed within one year of the discovery.	The City shall be notified within 24-hours of accidental exposure of any paleontological resources. A copy of initial findings shall be provided to the City and retained in the project file. A copy of the final report shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study / Responses to Comments	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Hazards and Hazardous Materials</b> HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the Project development.	These measures shall be identified in the project Stormwater Pollution Prevention Plan (SWPPP) and implemented during construction.	A copy of the SWPPP shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the SWPPP BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

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<b>Hydrology and Water Quality</b> HYD-1 The City shall require that the construction contractor prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving offsite into receiving waters. The SWPPP shall include a Spill Prevention and Cleanup Plan that identifies the methods of containing, cleanup, transport and proper disposal of hazardous chemicals or materials released during construction activities that are compatible with applicable laws and regulations. BMPs to be implemented in the SWPPP may include but not be limited to: <ul style="list-style-type: none"> <li>• The use of silt fences;</li> <li>• The use of temporary stormwater desilting or retention basins;</li> <li>• The use of water bars to reduce the velocity of stormwater runoff;</li> <li>• The use of wheel washers on construction equipment leaving the site;</li> <li>• The washing of silt from public roads at the access point to the site to prevent the tracking of silt and other pollutants from the site onto public roads;</li> <li>• The storage of excavated material shall be kept to the minimum necessary to efficiently perform the construction activities required. Excavated or stockpiled material shall not be stored in water courses or other areas subject to the flow of surface water; and</li> <li>• Where feasible, stockpiled material shall be covered with waterproof material during rain events to control erosion of soil from the stockpiles.</li> </ul>	This measure shall be incorporated into the SWPPP and construction contract and implemented during construction.	A copy of the SWPPP and construction contract shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the SWPPP BMPs have been implemented as required in this measure. Field notes documenting verification shall be retained in the project file.	
	<b>Source</b>	<b>Responsible Party</b>	<b>Status / Date / Initials</b>
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-1 No construction activities shall occur during the hours of 5:30 PM and 7 AM Monday – Friday, and between 5 PM and 8 AM on Saturdays from October to April, and between 7 PM and 6 AM Monday – Friday and 5 PM to 8 AM on Saturdays from May to September; at no time shall construction activities occur on Sundays or holidays, unless a declared emergency exists.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	<b>Source</b>	<b>Responsible Party</b>	<b>Status / Date / Initials</b>
	Initial Study	City of Rialto	

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<b>Noise</b> NOI-2     The City shall establish a noise complaint response program and shall respond to any noise complaints received for this Project by measuring noise levels at the affected receptor site. If the noise level exceeds an Ldn of 60 dBA exterior or an Ldn of 45 dBA interior at the receptor, the City will implement adequate measures (which may include portable sound attenuation walls, use of quieter equipment, shift of construction schedule to avoid the presence of sensitive receptors, etc.) to reduce noise levels to the greatest extent feasible.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-3     The City will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by City personnel during construction activities.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-4     Equipment not in use for five minutes shall be shut off.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-5     Equipment shall be maintained and operated such that loads are secured from rattling or banging.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

**CITY OF RIALTO**  
**RIALTO BASELINE STORM DRAIN PROJECT**  
**MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-6 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-7 No radios or other sound equipment shall be used at this site unless required for emergency response by the contractor.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	

Mitigation Measure	Implementation Schedule	Verification	
<b>Noise</b> NOI-8 The construction contractor shall provide signs (2) along the roadway identifying a phone number for adjacent property owners to contact regarding excessive vibration. The contractor shall respond within 24 hours to any complaint at this phone number; assess the complaint; and, if reasonable, adjust construction activities (use different construction methods, slow down construction activity, or other measures) to reduce vibration at the property from where the complaint was received.	This measure shall be implemented during construction and included in the contract with the construction contractor.	City personnel shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.	
	Source	Responsible Party	Status / Date / Initials
	Initial Study	City of Rialto	



**CITY OF RIALTO**  
**RIALTO BASELINE STORM DRAIN PROJECT**  
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Mitigation Measure	Implementation Schedule		Verification
<b>Transportation / Traffic</b> TRAF-1 The construction contractor will provide <del>adequate</del> traffic management resources <u>that meet the County of San Bernardino, the City of Fontana, and the City of Rialto standards.</u> The City shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. The traffic management plan shall be prepared and approved by the City(s) and County prior to initiation of excavation or pipeline construction. At a minimum this plan shall include how to minimize the amount of time spent on construction activities; how to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes; how to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure that traffic can flow adequately during construction; the identification of alternative routes that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.	The Construction Traffic Management Plan shall be compiled and approved prior to the initiation of construction.		A copy of the Plan shall be retained in the project file. Verification of implementation shall be based on field inspections by City inspection personnel that verify the construction traffic management plan is being implemented by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.
	Source	Responsible Party	Status / Date / Initials
	Initial Study / Response to Comments / MMRP	City of Rialto	

Mitigation Measure	Implementation Schedule		Verification
<b>Transportation / Traffic</b> TRAF-2 The City shall require that all disturbances to public roadways be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable County of San Bernardino, <u>the City of Fontana</u> , and the City of Rialto standard design requirements.	This measure shall be implemented during construction and included in the contract with the construction contractor.		These measures shall be included in the construction contract, and City staff shall verify that construction activities comply with this requirement. The verification shall be retained in the project file.
	Source	Responsible Party	Status / Date / Initials
	Initial Study / MMRP	City of Rialto	

**CITY OF RIALTO**  
**RIALTO BASELINE STORM DRAIN PROJECT**  
**MITIGATION MONITORING AND REPORTING PROGRAM**

Mitigation Measure	Implementation Schedule	Verification
<p><b><i>Tribal Cultural Resources</i></b></p> <p>TRC-1 The Contractor shall be required to notify the Gabrieleño Band of Mission Indians-Kizh Nation (Tribe) at least 2 weeks prior to the commencement of any construction activities requiring excavation related to the proposed Project at (844) 390-0787. The Contractor shall document the date that the Tribe was notified, and give the Tribe two weeks to respond prior to commencement of any excavation required to develop the proposed Project.</p> <p>If the Tribe responds, the City shall negotiate with the Tribe to arrange any requests of the Tribe related to the handling of and potential for Tribal Cultural Resources with the understanding that the City has no responsibility to fund any requests of the City from the Tribe.</p> <p>If the Tribe does not respond with any formal requests of the City within the two week period, the Contractor shall proceed with construction with the understanding that the Tribe does not wish to provide further input on the proposed Project. This shall conclude the City's effort to enable to the Tribe to provide input on this Project.</p>	<p>This measure shall be implemented during construction and followed through until final disposition of such resources has been achieved.</p>	<p>The City shall document that the Tribe was contacted in the Project File and any response thereof. Any requests and actions take to satisfy the Tribe's interest in this Project shall be documented and retained in the Project file.</p>
	Source	Responsible Party
	Initial Study	City of Rialto
		Status / Date / Initials

Mitigation Measure	Implementation Schedule	Verification
<p><b><i>Utilities and Service Systems</i></b></p> <p>UTIL-1 The contract with demolition and construction contractors shall include the requirement that all materials that can feasibly be recycled shall be salvaged and recycled. This includes, but is not limited to, wood, metals, concrete, road base, and asphalt. The contractor shall submit a recycling plan to the City for review and approval prior to the start of demolition/construction activities to accomplish this objective.</p>	<p>This measure shall be included in the construction contract and implemented during construction.</p>	<p>Verification of implementation shall be based on field inspections by City inspection personnel that verify adequate traffic management resources are being used by the contractor as required in this measure. Field notes documenting verification shall be retained in the project file.</p>
	Source	Responsible Party
	Initial Study	City of Rialto
		Status / Date / Initials