

**Initial Study/Mitigated Negative Declaration
County of San Bernardino Department of Public Works**

**Santa Ana River Trail (SART) Phase IV, Reach A
City of Redlands and Unincorporated San Bernardino County**

Lead Agency



County of San Bernardino Department of
Public Works
825 E. Third Street
San Bernardino, CA 92415

Technical assistance provided by:



Lilburn Corporation
1905 Business Center Drive
San Bernardino, CA 92408

January 2020

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SECTION 1 – INTRODUCTION

History

The Santa Ana River corridor extends over approximately 110 miles from the Pacific Ocean inland to the San Bernardino National Forest. Upon completion, the Santa Ana River Trail (SART) would be the “Crest to Coast” regional trail link connecting an area encompassing over four million residents in three counties (Orange, Riverside and San Bernardino). The Trail would provide safe use and enjoyment of open space, environmental education, and a transportation trail system. Portions of the Trail, particularly in Orange County, have been developed over the past 20 years; currently it is possible to travel from the Riverside/Orange County line to Huntington Beach on the SART.

The County of San Bernardino is responsible for the completion of approximately 20 miles of the SART. Development of the trail in San Bernardino County has been divided into four phases with several reaches in each phase to provide for construction as funding becomes available. Phase I and II, extending from the Riverside/San Bernardino county line to approximately 50 feet westerly of La Cadena Drive in the City of Colton and from the terminus of Phase I to Waterman Avenue in the City of San Bernardino respectively have been constructed. It is anticipated that Phase III extending from the Phase II terminus to California Street in the City of Redlands will be constructed in 2020. Phase IV is the last segment of the trail extending from California Street in Redlands to Garnet Street in unincorporated Mentone. For planning and analysis purposes, the Phase IV Section of the SART is divided into four major reaches as follows:

- Reach A – California Street to Orange Street
- Reach B – Orange Street to Judson Street
- Reach C – Judson Street to Opal Avenue
- Reach D – Opal Avenue to Garnet Street

Initial Studies for each of the reaches have been prepared separately as grants and/or other funding sources are identified. Recently, an IS/MND was prepared for Reaches B and C and was circulated for public review beginning October 1, 2018 and ending on October 30, 2018. An Initial Study for Reach D will be prepared in the future. This IS/MND analyses potential environmental impacts associated with construction and operation of SART Phase IV, Reach A.

Project Purpose and Need:

The purpose of the Project is to meet the identified need for a regional non-vehicular trail for the region’s residents. The Project consists of the design and construction of a bicycle trail, which is defined as a shared use path that is physically separated from any street or highway and may be used by pedestrians, bicyclists, skaters, wheelchair users, and joggers. The trail will provide safe contiguous use and enjoyment of open space, environmental education, and an alternative multi-use trail system for transportation. Currently, various segments of the SART have been constructed or approved and Reach A is a portion of Phase IV that extends the trail to its easterly terminus near the foothills of the San Bernardino Mountains.

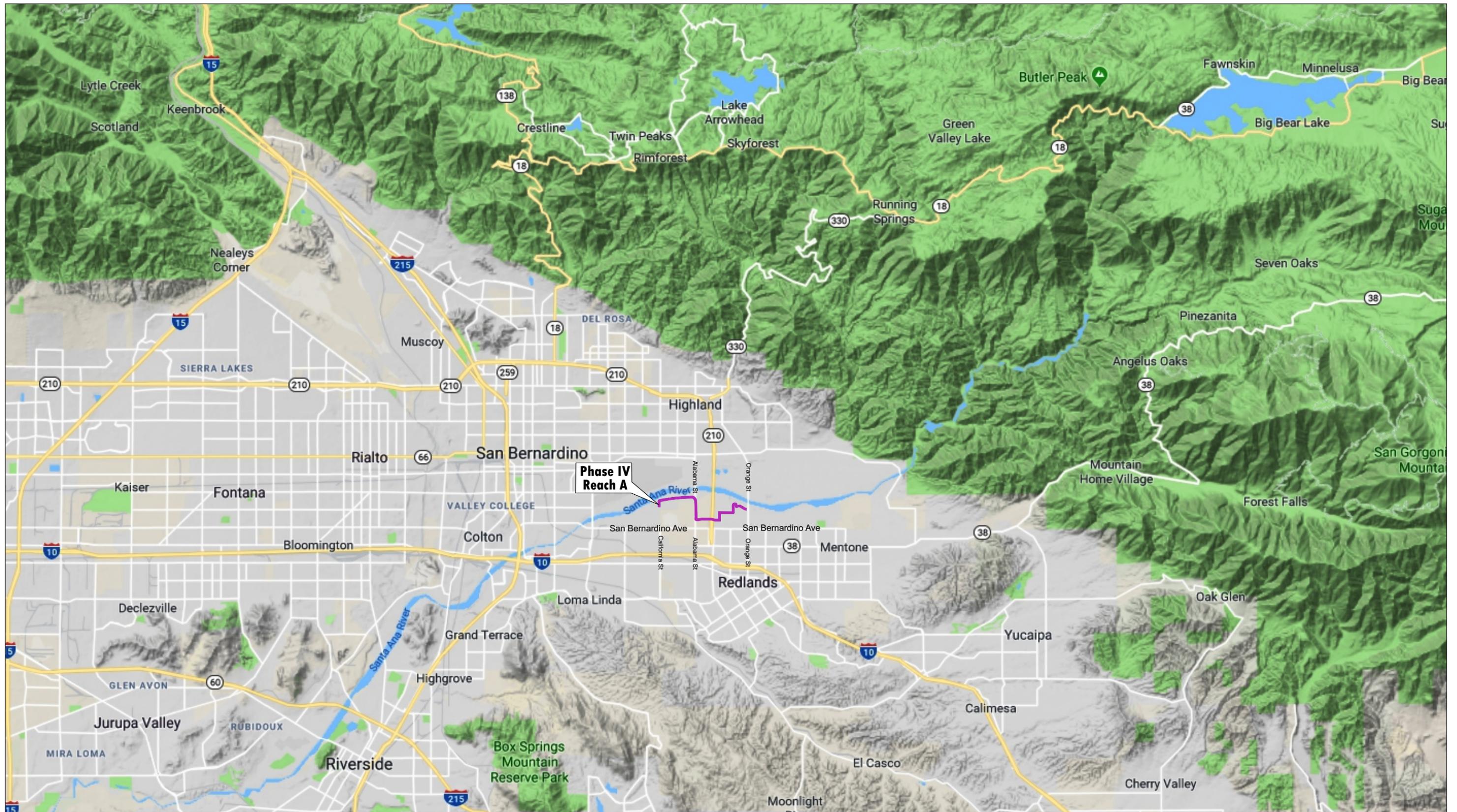
Ultimately, the Phase IV of the SART will enhance access to recreational opportunities in the region by: (a) providing neighborhood links to green space and natural areas; (b) providing connections with city urban trails that provide safe travel to parks, community recreation facilities, fairgrounds, urban lakes, amphitheaters, historic neighborhoods, and tourist attractions; and (c) providing direct access to San Bernardino National Forest camping and outdoor recreation areas. In conjunction with fulfilling basic

non-motorized transportation purposes, the proposed Project will also meet the needs of individuals with disabilities; specifically, in an area where few trails fulfill the outdoor trail needs of these individuals. All access ramps to the SART will be designed to comply with requirements of the Americans with Disabilities Act (ADA). The SART facilities will incorporate Caltrans Highway Design Manual, Chapter 1000, "Bikeway Planning and Design" to ensure that individuals with disabilities will have both access to and effective use of the SART facilities.

Post-construction activities associated with the trail would include general maintenance including but not limited to: weed abatement, fence and pavement repair including repainting, etc. A Memorandum of Understanding (MOU) between the County of San Bernardino and City of Redlands shall be prepared to address the future maintenance of this extension of the trail and the allocation of responsibilities for the two agencies.

This Initial Study evaluates the County of San Bernardino Regional Parks Department (Regional Parks) and County of San Bernardino Department of Public Works (Public Works) proposed construction of an approximately 3.9-mile linear extension of the Santa Ana River Trail (SART) within the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. The SART is a regional recreational trail; segments of the trail within San Bernardino County have been constructed in various sections (phases). The proposed section of the SART evaluated in this IS/MND is SART Phase IV, Reach A ("proposed Project"); the trail would begin on the west side of California Street and terminate at Orange Street in the City of Redlands. Portions of the alignment would occur on the southern bluffs of the Santa Ana River and are within unincorporated areas of the County. From Pioneer Avenue to Domestic Avenue and from Texas Street east to Orange Avenue the alignment would occur on unpaved roads, and the remaining portions of the alignment would occur on local streets and on other properties within the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. The proposed Project would serve as the connection between the completed Phase III of the trail and the future Phase IV Reaches B and C.

Exhibit 1, *Regional Location*, shows the location of SART Phase IV, Reach A in the context of the region. Exhibit 2, *Project Site and Vicinity*, is an aerial photograph showing the extent of the Reach A along the Santa Ana River, streets, and other properties. Exhibit 3 shows the location of all reaches of the SART Phase IV. Exhibit 4 shows the alignment from California Street along the river bluff to just east of the California Street Landfill; Exhibit 5 shows the alignment from eastern edge of the California Street Landfill to Alabama Street; Exhibit 6 shows the alignment along Alabama Street including Option 1 and Option 2; Exhibit 7 shows the alignment from Alabama Street to Pioneer Avenue with a crossing under the I-210 Freeway; Exhibit 8 shows the alignment along Pioneer Street, Tennessee Street and Domestic Avenue; Exhibit 9 shows the alignment along Domestic Avenue to Texas Street; and Exhibit 10 shows the alignment from Texas Street through to Orange Avenue.



**Phase IV
Reach A**



Source: Lilburn Corp., November, 2018.

LILBURN
CORPORATION

REGIONAL LOCATION

Santa Ana River Trail, Phase IV-Reach A
San Bernardino County

EXHIBIT 1



Reach A Segment Begins

Reach A Segment Ends



Source: Lilburn Corp., November, 2018.

LILBURN
CORPORATION

PROJECT VICINITY

Santa Ana River Trail, Phase IV-Reach A
San Bernardino County

EXHIBIT 2



★ Reach D specific alignment yet to be determined.

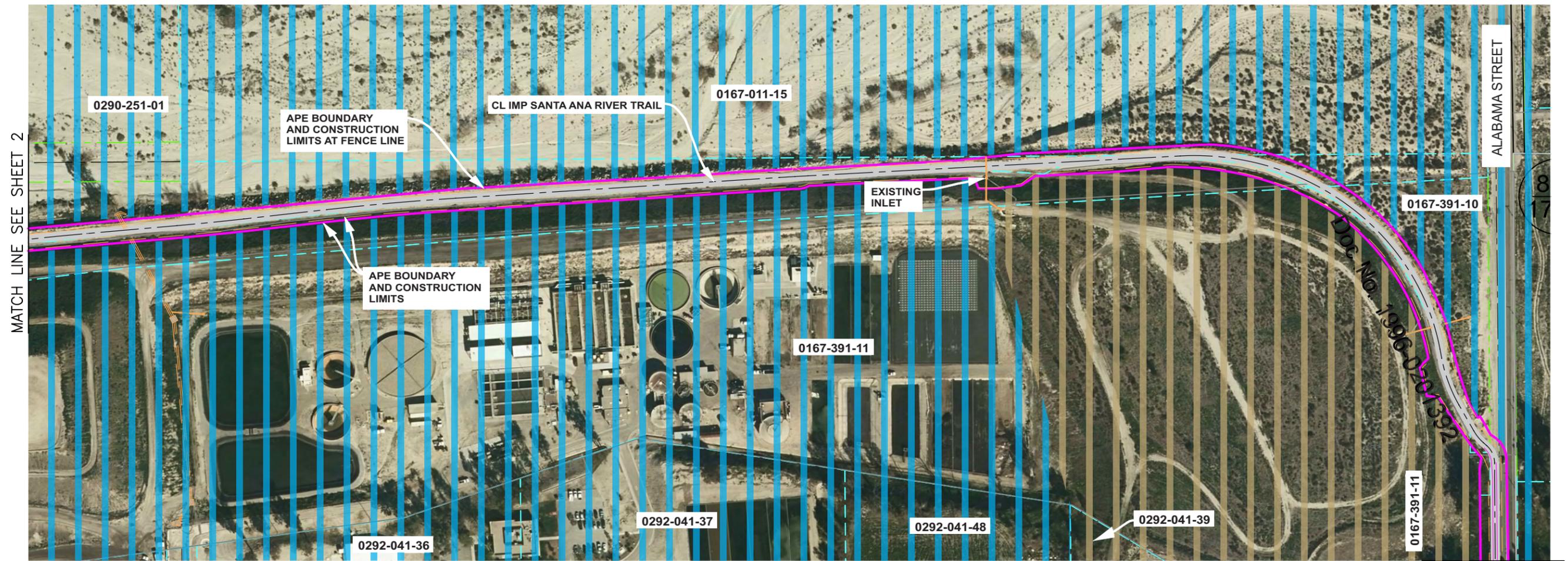


Source: Lilburn Corp., November, 2018.

LILBURN
CORPORATION

PHASE IV REACHES A THROUGH D

Santa Ana River Trail, Phase IV-Reach A
San Bernardino County



MATCH LINE SEE SHEET 2

MATCH LINE SEE SHEET 4

APE MAP LEGEND

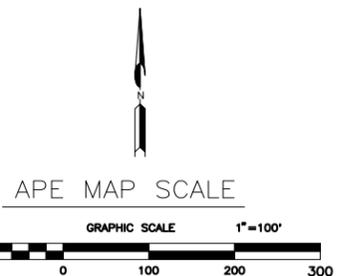
- XXXX-XX-XX APN #'S
- EXISTING FC PROPERTY LINES
- EXISTING PROPERTY LINES
- CONSTRUCTION LIMITS
- APE BOUNDARY
- AC BIKE TRAIL
- CONSTRUCTION STAGING AREA
- CENTERLINE BIKE TRAIL
- EXISTING STORM DRAIN

REDLANDS CITY GENERAL PLAN LAND USE DESIGNATION

- EAST VALLEY/SPECIAL DEVELOPMENT (EV/SD)

COUNTY GENERAL PLAN LAND USE ZONING DISTRICT

- PUBLIC/INSTITUTIONAL



APE RATIONALE

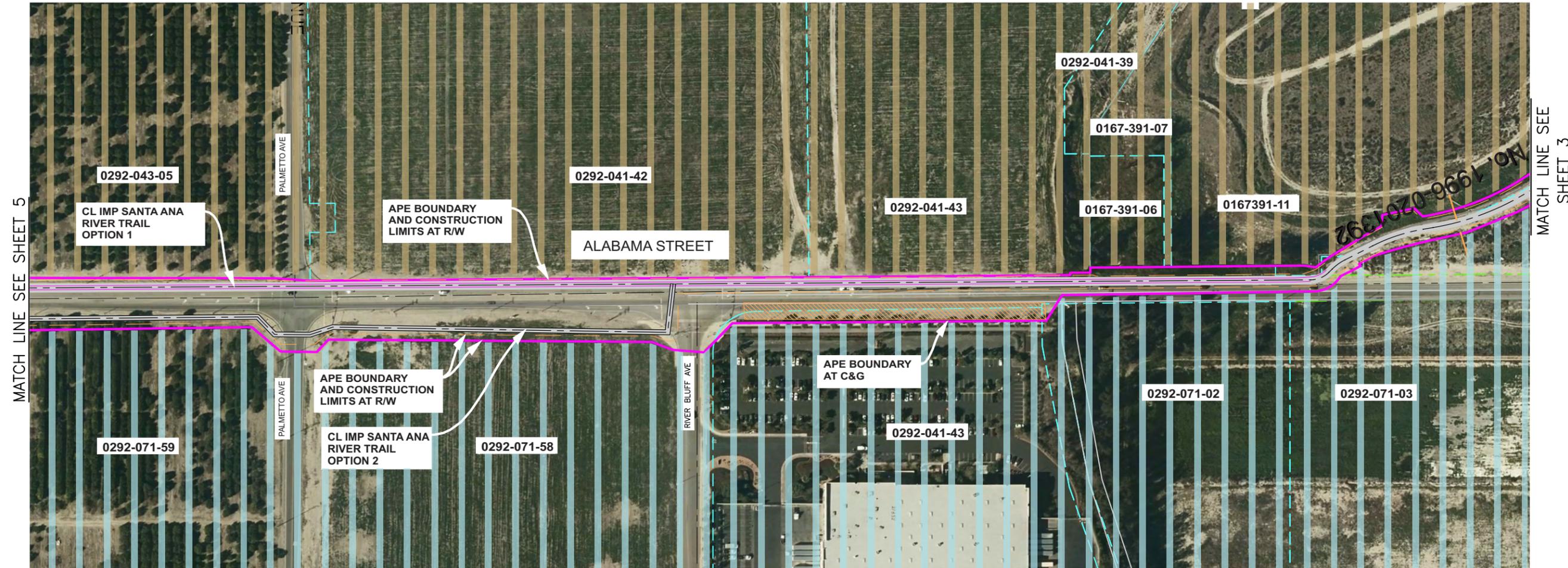
THE AREA OF POTENTIAL EFFECTS (APE) FOR THIS PROJECT WAS DRAWN TO INCLUDE ALL AREAS SUBJECT TO DIRECT EFFECTS TO ARCHAEOLOGICAL RESOURCES, AND A 25 FOOT BUFFER AREA SURROUNDING THE MAXIMUM CONSTRUCTION IMPACT AREA, EXCEPT WHERE SHOWN HEREIN. WHERE THE S.A.R.T. PHASE IV REACH A IS LOCATED WITHIN AN EXISTING ROADWAY ALIGNMENT, THE APE IS SHOWN AS THE ROADWAY R/W BOUNDARY, EXCEPT WHERE SHOWN HEREIN.

R/W & PROPERTY LINES

THIS MAP HAS BEEN COMPILED FROM RECORD DATA AND OTHER AVAILABLE MATERIAL AND DOES REPRESENT A FIELD SURVEY. NOTE: PROPERTY LINES ADJACENT TO STREETS AND ROADS DEFINE R/W BOUNDARIES.

AREA OF POTENTIAL EFFECTS MAP			
COUNTY OF SAN BERNARDINO DEPARTMENT OF PUBLIC WORKS		S.A.R.T. PHASE IV REACH A CALIFORNIA STREET TO ORANGE STREET REDLANDS	
DESIGNED BY: DJ	DRAWN BY: OP	PROJ. ENG. OP	AUGUST 14, 2018 PROJECT NO. ATPL-XXXX(XXX)
SUBMITTED BY: DPW - TRANSPORTATION DESIGN		J.L. REF. JL 8832	W.O. NO. H14346
		PLAN SCALE 1" = 100'	SHT. NO. 3
		TOT. SHTS. 8	

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MATCH LINE SEE SHEET 5

MATCH LINE SEE SHEET 3

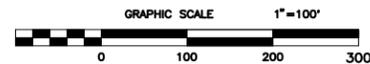
APE MAP LEGEND

- XXXX-XX-XX APN #'S
- EXISTING FC PROPERTY LINES
- EXISTING PROPERTY LINES
- CONSTRUCTION LIMITS
- APE BOUNDARY
- AC BIKE TRAIL
- CONSTRUCTION STAGING AREA
- CENTERLINE BIKE TRAIL
- EXISTING STORM DRAIN

COUNTY GENERAL PLAN LAND USE ZONING DISTRICT

- EAST VALLEY/SPECIAL DEVELOPMENT (EV/SD)
- EAST VALLEY/REGIONAL INDUSTRIAL (EV/IR)

APE MAP SCALE



APE RATIONALE

THE AREA OF POTENTIAL EFFECTS (APE) FOR THIS PROJECT WAS DRAWN TO INCLUDE ALL AREAS SUBJECT TO DIRECT EFFECTS TO ARCHAEOLOGICAL RESOURCES, AND A 25 FOOT BUFFER AREA SURROUNDING THE MAXIMUM CONSTRUCTION IMPACT AREA, EXCEPT WHERE SHOWN HEREIN. WHERE THE S.A.R.T. PHASE IV REACH A IS LOCATED WITHIN AN EXISTING ROADWAY ALIGNMENT, THE APE IS SHOWN AS THE ROADWAY R/W BOUNDARY, EXCEPT WHERE SHOWN HEREIN.

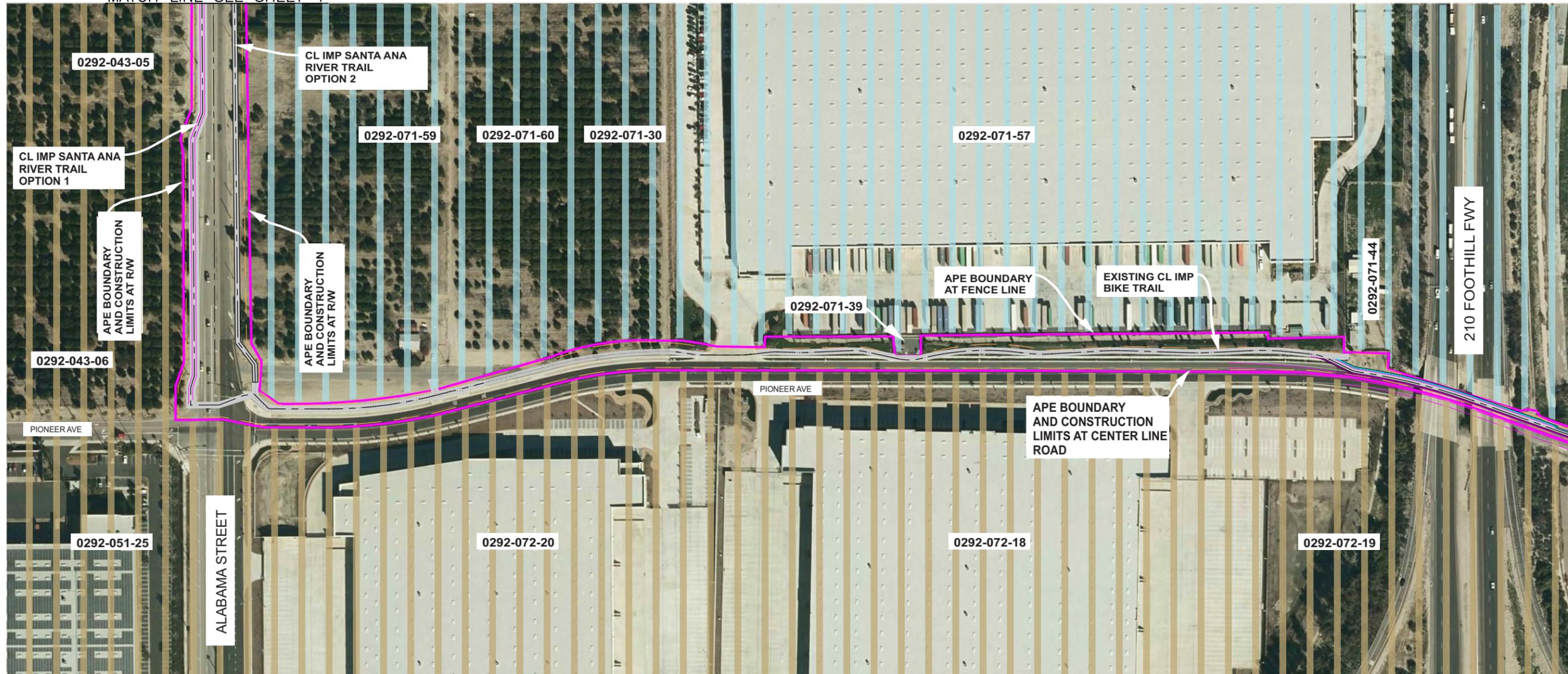
R/W & PROPERTY LINES

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AREA OF POTENTIAL EFFECTS MAP			
COUNTY OF SAN BERNARDINO DEPARTMENT OF PUBLIC WORKS		S.A.R.T. PHASE IV REACH A CALIFORNIA STREET TO ORANGE STREET REDLANDS	
DESIGNED BY: D.J.	DRAWN BY: O.P.	PROJ. ENG. O.P.	AUGUST 14, 2018 PROJECT NO. ATPL-XXXX(XXX)
SUBMITTED BY: DPW - TRANSPORTATION DESIGN		J.L. REF. JL 8832	W.O. NO. H14346
		PLAN SCALE 1" = 100'	SHT. NO. 4
		TOT. SHTS. 8	

MapScale: 1"=100' Date: 8/14/2018 11:44:04 AM Project: S.A.R.T. PHASE IV REACH A SHEET 3 OF 8

MATCH LINE SEE SHEET 4



MATCH LINE SEE SHEET 6

APE RATIONALE

THE AREA OF POTENTIAL EFFECTS (APE) FOR THIS PROJECT WAS DRAWN TO INCLUDE ALL AREAS SUBJECT TO DIRECT EFFECTS TO ARCHAEOLOGICAL RESOURCES, AND A 25 FOOT BUFFER AREA SURROUNDING THE MAXIMUM CONSTRUCTION IMPACT AREA, EXCEPT WHERE SHOWN HEREIN. WHERE THE S.A.R.T. PHASE IV REACH A IS LOCATED WITHIN AN EXISTING ROADWAY ALIGNMENT, THE APE IS SHOWN AS THE ROADWAY R/W BOUNDARY, EXCEPT WHERE SHOWN HEREIN.

R/W & PROPERTY LINES

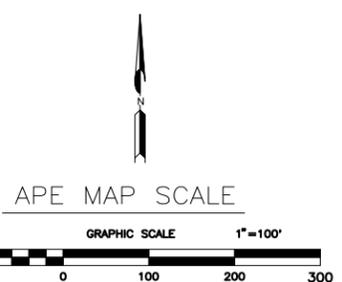
THIS MAP HAS BEEN COMPILED FROM RECORD DATA AND OTHER AVAILABLE MATERIAL AND DOES REPRESENT A FIELD SURVEY. NOTE: PROPERTY LINES ADJACENT TO STREETS AND ROADS DEFINE R/W BOUNDARIES.

APE MAP LEGEND

- XXXX-XX-XX
- EXISTING FC PROPERTY LINES
- EXISTING PROPERTY LINES
- CONSTRUCTION LIMITS
- APE BOUNDARY
- AC BIKE TRAIL
- CONSTRUCTION STAGING AREA
- CENTERLINE BIKE TRAIL

COUNTY GENERAL PLAN LAND USE ZONING DISTRICT

- EAST VALLEY/SPECIAL DEVELOPMENT (EV/SD)
- EAST VALLEY/REGIONAL INDUSTRIAL (EV/IR)

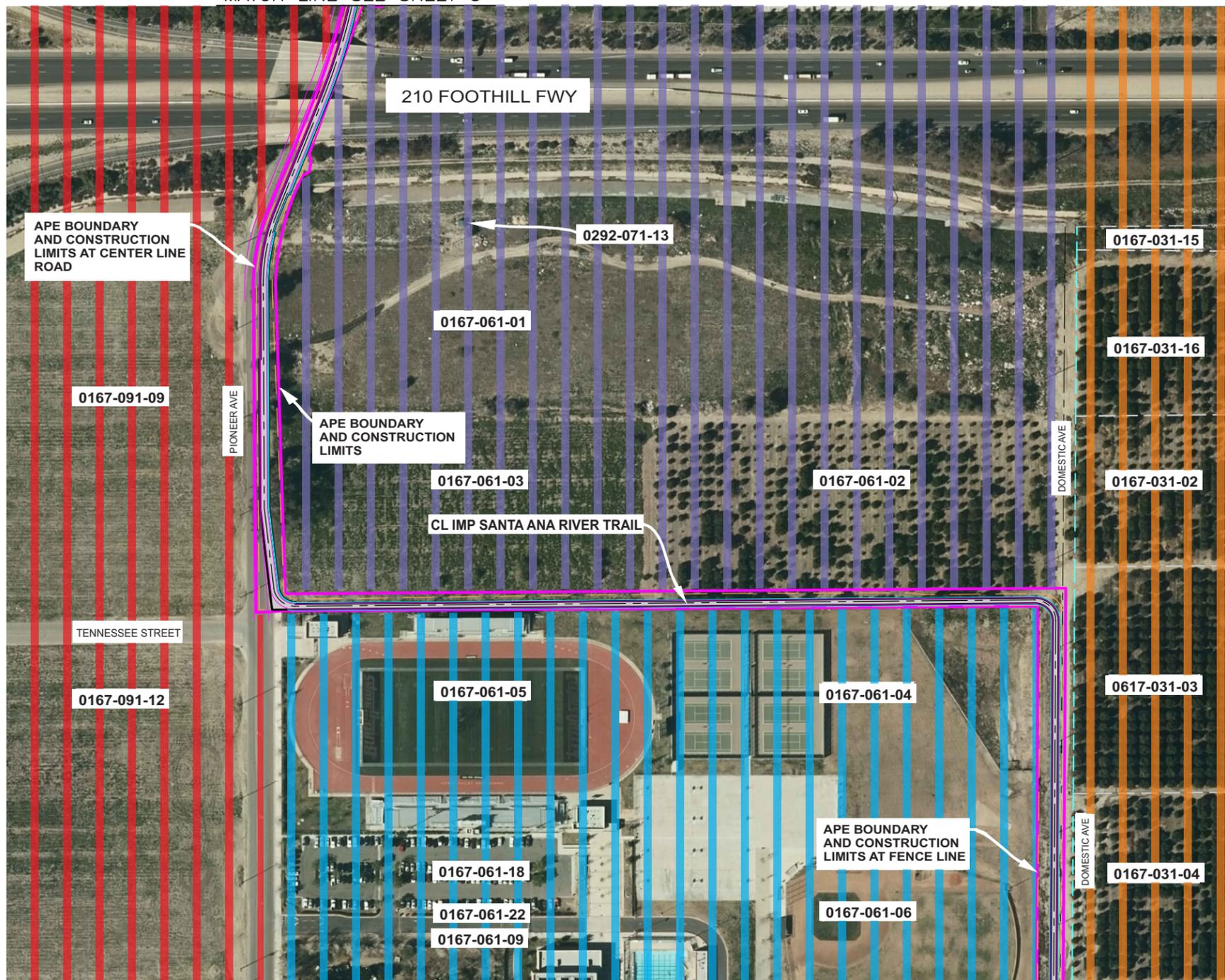


AREA OF POTENTIAL EFFECTS MAP

COUNTY OF SAN BERNARDINO DEPARTMENT OF PUBLIC WORKS			S.A.R.T. PHASE IV REACH A CALIFORNIA STREET TO ORANGE STREET REDLANDS		
DESIGNED BY: DJ	DRAWN BY: OP	PROJ. ENG. OP	AUGUST 14, 2018 PROJECT NO. ATPL-XXXX(XXX)	J.L. REF. JL 8832	W.O. NO. H14346
SUBMITTED BY DPW - TRANSPORTATION DESIGN				PLAN SCALE 1" = 100'	SHT. NO. 5

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MATCH LINE SEE SHEET 5



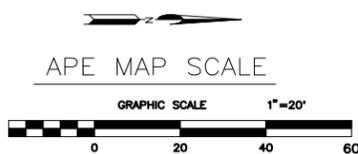
MATCH LINE SEE SHEET 7

APE MAP LEGEND

- XXXX-XX-XX
— — — — —
EXISTING FC PROPERTY LINES
- — — — —
EXISTING PROPERTY LINES
- — — — —
CONSTRUCTION LIMITS
- — — — —
APE BOUNDARY
- — — — —
AC BIKE TRAIL
- — — — —
CONSTRUCTION STAGING AREA
- — — — —
CENTERLINE BIKE TRAIL

REDLANDS CITY GENERAL PLAN LAND USE DESIGNATION

- COMMERCIAL
- COMMERCIAL/INDUSTRIAL
- PUBLIC/INSTITUTION
- LOW DENSITY RESIDENTIAL



APE RATIONALE

THE AREA OF POTENTIAL EFFECTS (APE) FOR THIS PROJECT WAS DRAWN TO INCLUDE ALL AREAS SUBJECT TO DIRECT EFFECTS TO ARCHAEOLOGICAL RESOURCES, AND A 25 FOOT BUFFER AREA SURROUNDING THE MAXIMUM CONSTRUCTION IMPACT AREA, EXCEPT WHERE SHOWN HEREIN. WHERE THE S.A.R.T. PHASE IV REACH A IS LOCATED WITHIN AN EXISTING ROADWAY ALIGNMENT, THE APE IS SHOWN AS THE ROADWAY R/W BOUNDARY, EXCEPT WHERE SHOWN HEREIN.

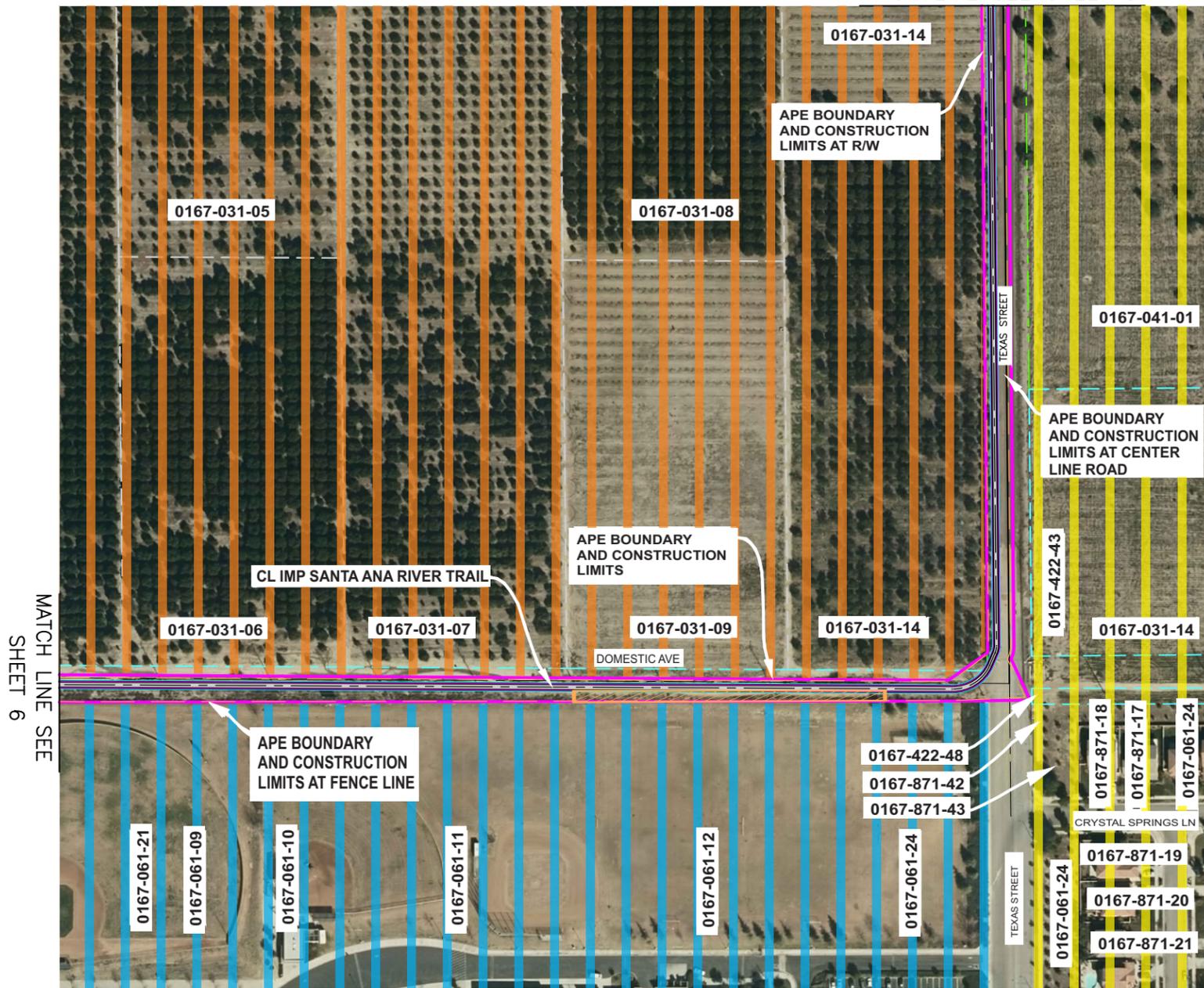
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AREA OF POTENTIAL EFFECT MAP			
COUNTY OF SAN BERNARDINO		DEPARTMENT OF PUBLIC WORKS	
S.A.R.T. PHASE IV REACH A		CALIFORNIA STREET TO ORANGE STREET REDLANDS	
DESIGNED BY: DJ	DRAWN BY: OP	PROJ. ENG. DJ	FEBRUARY 22, 2018 PROJECT NO. ATPL-5954(146)
J.L. REF. JL8832	W.O. NO. H14923	PLAN SCALE 1" = 20'	SHT. NO. 6 TOT. SHTS. 9

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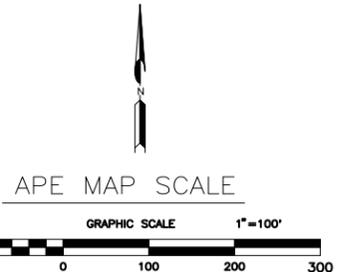
MATCH LINE SEE SHEET 6

APE MAP LEGEND

- XXXX-XX-XX APN #'S
- EXISTING FC PROPERTY LINES
- EXISTING PROPERTY LINES
- CONSTRUCTION LIMITS
- APE BOUNDARY
- AC BIKE TRAIL
- CONSTRUCTION STAGING AREA
- CENTERLINE BIKE TRAIL

REDLANDS CITY GENERAL PLAN LAND USE DESIGNATION

- VERY LOW DENSITY RESIDENTIAL
- PUBLIC/INSTITUTION
- LOW DENSITY RESIDENTIAL



APE RATIONALE

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AREA OF POTENTIAL EFFECTS MAP			
COUNTY OF SAN BERNARDINO DEPARTMENT OF PUBLIC WORKS		S.A.R.T. PHASE IV REACH A CALIFORNIA STREET TO ORANGE STREET REDLANDS	
DESIGNED BY: DJ	DRAWN BY: OP	PROJ. ENG. OP	AUGUST 14, 2018 PROJECT NO. ATPL-XXXX(XXX)
SUBMITTED BY: DPW - TRANSPORTATION DESIGN		J.L. REF. JL 8832	W.O. NO. H14346
		PLAN SCALE 1" = 100'	SHT. NO. 7
		TOT. SHTS. 8	

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SECTION 2 – REGULATORY FRAMEWORK

The County of San Bernardino Department of Public Works has identified that the Santa Ana River Trail Phase IV, Reach A Project meets the California Environmental Quality Act (CEQA) Guidelines Section 15378 definition of a Project. CEQA Guidelines Section 15378 defines a Project as the following:

"Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000-21177), this Initial Study has been prepared to determine potentially significant impacts upon the environment resulting from the construction, operation and maintenance of the Santa Ana River Trail Phase IV, Reach A Project (hereinafter referred to as the "Project" or "proposed Project"). In accordance with Section 15063 of the State *CEQA Guidelines*, this Initial Study is a preliminary analysis prepared by the San Bernardino County Flood Control District (District) as Lead Agency to inform the Lead Agency decision makers, other affected agencies, and the public of potential environmental impacts associated with the implementation of the proposed Project.

Initial Study Organization

This Initial Study is organized as follows:

Introduction: Provides the regulatory context for the review along a brief summary of the CEQA process.

Project Information: Provides fundamental Project information, such as the Project description, Project location and figures.

Lead Agency Determination: Identifies environmental factors potentially affected by the Project and identifies the Lead Agency's determination based on the initial evaluation.

Mitigated Negative Declaration: Prepared when a determination can be made that no significant environmental effects will occur because revisions to the Project have been made or mitigation measures will be implemented which will reduce all potentially significant impacts to less than significant levels.

Evaluating Environmental Impacts: Provides the parameters the County uses when determining level of impact.

CEQA Checklist: Provides an environmental checklist and accompanying analysis for responding to checklist questions.

References: Includes a list of references and various resources utilized in preparing the analysis.

SECTION 3 – DETAILED PROJECT DESCRIPTION

Project Background

The County of San Bernardino Regional Parks Department (Regional Parks) with the assistance of the County of San Bernardino Department of Public Works (Public Works) proposes to construct an approximately 3.9-mile long section of the Santa Ana River Trail (SART) on the southern bank of the Santa Ana River and local streets in the City of Redlands and unincorporated County areas (Exhibit 1). The SART is a regional recreational trail; segments of the trail within San Bernardino County have been constructed in various sections (phases) with projects named sequentially.

Project Location

The proposed section of the SART is SART Phase IV, Reach A; the trail would begin on the west side of California Street in the City of Redlands and terminate at Orange Street (Exhibit 2).

Project Characteristics

Project construction would begin near the northerly terminus of California Street and continue north for approximate 900 feet where it will connect to the easterly terminus of SART Phase III on the south side of the Santa Ana River and continue east along the river bluff for approximately one-mile to Alabama Street. Along Alabama Street there are two options for the trail alignment; Option 1 would continue south along the westside of Alabama Street to Pioneer Street; Option 2 would cross Alabama Street just south of River Bluff Avenue (at an existing signal) and continue south along the eastside of Alabama Street to Pioneer Street. In both options, the trail transitions from the river bluff to local city streets and continues south toward Pioneer Avenue. At Pioneer Avenue Option 1 would cross at an existing traffic signal at the intersection of Alabama Street and Pioneer Avenue; Option 2 would continue south along the eastside to Pioneer Avenue. In both options, the alignment would continue along the northside of Pioneer Avenue for approximately 0.5 miles then pass underneath State Route 210 (SR-210) and continue east toward Citrus Valley High School. The trail would proceed north along the west high school fence line and continue east to Domestic Avenue (an unpaved road immediately north of the high school fence line). The trail would continue east along Domestic Avenue to Texas Street. From the intersection of Domestic Avenue and Texas Street the trail is proposed to continue north on the west side of Texas Street for approximately one-quarter mile. The alignment will then cross Texas Street and continue east through an abandoned citrus orchard/grove to Israel Beal Park.

The trail segments along the river bluff would consist of a Class 1, 10-foot wide asphalt/concrete trail and 2-foot graded shoulder on each side of the asphalt/concrete trail; on the existing right-of-way the existing road surfaces would be widened where possible to accommodate a modified Class I bicycle lane. Under existing conditions portions of Pioneer Avenue does not have curb and gutter; where possible ultimate curb and gutter would be constructed as part of the proposed Project.

Class I is defined by the Caltrans design standards and has specific trail width requirements, shoulder requirements, etc. Existing right-of-way is limited at certain locations of the alignment; therefore, along these portions of the alignment, a modified Class I would be constructed. Specific modifications are not known at this time. However, it is likely that the trail width of 10-feet would be accommodated but other aspects such as the full width requirement for shoulders may not.

In general, construction activities associated with development of the proposed Project would include: earthwork including excavation and grading; construction of embankments and/or retaining walls; construction of storm drains, headwalls, and slope protection; construction of asphalt concrete dike, curb

and gutter; installation of fencing, railing, access gates, trail delineators, and signage; painting of pavement striping and pavement markings; and, construction of appurtenant features.

Equipment staging and borrow/disposal during Project construction may potentially occur at: (1) at various locations within the disturbed vacant lands on the river bluff; (2) on disturbed road shoulders and/or existing street right-of-way on the east side of Alabama Street north of River Bluff Avenue; (3) on the Domestic Avenue right-of-way ; and, (4) at Israel Beal Park (see Exhibits 4 through 10 for anticipated construction staging areas).

The area of potential effects (APE) for the Project includes all areas subject to direct effects from construction activities and is mapped with a 25-foot buffer area surrounding the maximum construction impact area, with the exception of where the trail is located within an existing roadway alignment. The APE for the segments of the trail within roadway alignments is mapped as the roadway right-of-way boundary (see Exhibits 4 – 10).

Project Timing

Construction would begin in 2020 and would take approximately six months to complete.

Regulatory Requirements, Permits, and Approvals

Construction of Reach A would require approvals from the City of Redlands to develop the trail on the City's existing right-of-way and may also require acquisition of right-of-way from private property owners.

Additionally, portions of the proposed trail alignment overlap or are located in close proximity to United States Fish and Wildlife Service (USFWS) designated critical habitat.

Equipment Staging Areas

Equipment staging and borrow/disposal during Project construction may potentially occur at: (1) at various locations within the disturbed vacant lands on the river bluff; (2) on disturbed road shoulders and/or existing street right-of-way on the east side of Alabama Street north of River Bluff Avenue; (3) on the Domestic Avenue right-of-way ; and, (4) at Israel Beal Park (see Exhibits 4 through 10 for anticipated construction staging areas).

Operation and Maintenance

Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan)

The SART Phase IV is a covered activity in the Wash Plan. However, because the trail alignment identified in the Wash Plan was conceptual, portions of the presently proposed alignment fall outside of the Wash Plan area. The Wash Plan identifies mitigation measures to off-set the impacts to the five covered species as well as sensitive and general biological resources in this area of San Bernardino County. The Wash Plan has not yet been adopted; however, the relevant measures provided in the Wash Plan are applicable and recommended for the proposed Project in the event the final Wash Plan is not adopted. The construction, operation, and maintenance of local trails is covered by the Wash Plan and is considered a conditionally compatible use; trails are permissible following preparation of a regional Trail Management Plan and its subsequent approval by the Wildlife Agencies. A draft of the Wash Plan Trails Master Plan was published in 2016; the plan would be finalized and approved concurrent with the Wash Plan approvals. Should the Wash Plan be approved prior to construction of the proposed Project; the County would complete a Consistency Determination to obtain coverage for potential impacts to covered species and habitat under the Wash Plan.

A Memorandum of Understanding (MOU) between the County of San Bernardino and City of Redlands shall be prepared to address the future maintenance of this extension of the trail and the allocation of responsibilities for the two agencies to ensure that incidental trash is routinely collected.

Project Design Features

The final design of the SART facilities would be completed in accordance with the guidance and requirements of the Caltrans Highway Design Manual, Chapter 1000, "Bikeway Planning and Design." Existing right-of-way are limited at certain locations of the alignment, and for these portions, a modified Class I bicycle lane is proposed. Additionally, portions of Pioneer Avenue would have ultimate curb and gutter constructed as part of the proposed Project. Construction of the Project would follow Caltrans design standards and specific trail width requirements and shoulder requirements to reduce impacts.

The proposed Project would be reviewed and approved by the City of Redlands to ensure that the final design conforms to applicable policies of Chapter 5 of the General Plan including but not limited to the multi-path policies as related to Pedestrian, Bicycle, and Vehicular Movement (Redlands 2017a). No hazards due to a design features of the trail are anticipated.

SECTION 4 – ENVIRONMENTAL CHECKLIST FORM

- 1. Project Title:** Santa Ana River Trail (SART) Phase IV, Reach A
- 2. Lead Agency Name:** County of San Bernardino Department of Public Works
Address: 825 East Third Street
San Bernardino, California 92415-0835
- 3. Contact Person:** Arnold Gerber, Planner II
Email: Arnold.Gerber@dpw.sbcounty.gov
Phone: 909-387-7802
- 4. Project Location:** *General Project Location*
The proposed Project would be located along the southern bank of the Santa Ana River, along local streets and other properties in the City of Redlands and unincorporated San Bernardino County. The proposed 3.9-mile trail would begin on the west side of California Street in the City of Redlands and terminate at Orange Street (Exhibit 2).

Topographic Quad (USGS 7.5"): Redlands
Topographic Quad Coordinates: 01S, 03W, Section 15, 16, and 17

Latitude/Longitude: 34°05'17.0" N, Longitude 117°13'34.0"W/
34°05'08.7"N, Longitude: 117°10'59.4"W
Site Access: Is available from the California Street cul-de-sac. The end use of the trail is for passive recreation, thus vehicular access roads are not proposed.
- 5. Project Sponsor:** Department of Public Works
Name and Address: County of San Bernardino Regional Parks Department
825 E 3rd Street, San Bernardino, CA 92415
- 6. General Plan/Zoning Designation:** Open Space; Industrial; Agriculture; Planned Residential Development (see Exhibits 5 through 11)
- 7. Project Description Summary:**
The County of San Bernardino Regional Parks Department (Regional Parks) with the assistance of the County of San Bernardino Department of Public Works (Public Works) proposes to construct an approximately 3.9-mile long section of the Santa Ana River Trail (SART) on the southern bank of the Santa Ana River, within local streets, and on other properties as shown in Exhibit 2. On the westerly end of Reach A, the trail would connect to the Santa Ana Trail Phase III; on the east, the trail would connect to the SART Phase IV Reach B. The SART is a regional recreational trail; segments of the trail within San Bernardino County have been constructed in various sections (phases) with projects named sequentially. Details of the Project are further discussed in Section 3.

8. Environmental/Existing Site Conditions:

The Project area includes the proposed trail alignment consisting of a 3.9-mile linear section of the Santa Ana River Trail (SART) identified as Phase IV Reach A. The proposed trail alignment is within the City of Redlands limits, except for the segment that travels south on Alabama Street and west on Pioneer Avenue, which occurs within unincorporated County area. Portions of the alignment would occur on the southern bluffs of the Santa Ana River. From Pioneer Avenue to Domestic Avenue and from Texas Street east to Orange Avenue the alignment would occur on unpaved roads, and the remaining portions of the alignment would occur on local streets and on other properties within the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. Equipment staging and borrow/disposal during Project construction may potentially occur at: (1) various locations within the disturbed vacant lands on the river bluff; (2) on disturbed road shoulders and/or existing street right-of-way on the east side of Alabama Street north of River Bluff Avenue; (3) on the Domestic Avenue right-of-way; and (4) at Israel Beal Park (see Exhibits 4 through 10 for anticipated construction staging areas).

9. Surrounding land uses and setting:

Portions of the proposed Project occur along the southern bluffs of the Santa Ana River; portions from Pioneer Avenue to Domestic Avenue and from Texas Street east to Orange Avenue would occur on unpaved roads, and other portions of the alignment are proposed on local streets and on other properties. Table 1 provides a list of surrounding land uses for each of the segments along Reach A as shown in Exhibits 5 through 10.

**Table 1
 Surrounding Land Uses
 SART Phase IV – Reach A**

Portion of Alignment	Corresponding Exhibit	Surrounding Land Uses to the North	Surrounding Land Uses to the South	Surrounding Land Uses to the East	Surrounding Land Uses to the West
California St along river bluff	Exhibit 4	Vacant land/Santa Ana River	California St landfill	California St landfill;	Vacant land, East Valley Corridor multi-use trail
River bluff to Alabama St	Exhibit 5	Vacant land/Santa Ana River	Wastewater Treatment Plant; vacant land	Vacant land	Vacant land
Alabama St Options 1 & 2	Exhibit 6	Vacant land	Vacant land	Vacant land	Vacant land; commercial uses
Alabama St to Pioneer Ave and Undercrossing at I-210 Freeway	Exhibit 7	Vacant land; light industrial – warehouse; I-210 Freeway	Vacant land; light industrial – warehouse; I-210 Freeway	Vacant land	Vacant land
Pioneer Ave to Tennessee St and Domestic Ave	Exhibit 8	Vacant land; agriculture	Vacant land; Citrus Valley High School	Citrus Valley High School	Vacant land
Domestic Avenue to Texas St	Exhibit 9	Vacant land; agriculture	Citrus Valley High School	Vacant land	Vacant land; agriculture
Texas St to Orange St	Exhibit 10	Vacant land; recreational (Gun Range)	Vacant land; single-family residential	Vacant land	Vacant land; single-family residential

As identified in the *City of Redlands Zoning Map*, zoning designations traversed by the trail and/or immediately adjacent to the alignment include: Open Space, Industrial, Agriculture and Planned Residential Development (Redlands 2018). As identified in the *City of Redlands General Plan*, land use designations traversed and/or immediately adjacent to the trail alignment include: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks (Redlands 2017). The City of Redlands Land Use designations along each of the segments are shown on Exhibits 5 through 10.

The portion of the trail alignment that occurs in an unincorporated County area, is identified within the County General Plan as occurring in the East Valley Corridor Specific Plan with designations of East Valley Special Development, and East Valley Regional Industrial.

10. Other public agencies whose approval is required:

Federal:

- None

State Agencies:

- None

City/County Agencies:

City of Redlands, Encroachment Permits

Upper Santa Ana Wash Land Management and Habitat Conservation Plan (Wash Plan)

The SART Phase IV is a covered activity in the Wash Plan. However, because the trail alignment identified in the Wash Plan was conceptual, portions of the presently proposed alignment fall outside of the Wash Plan area. The Wash Plan identifies mitigation measures to off-set the impacts to the five covered species as well as sensitive and general biological resources in this area of San Bernardino County. The Wash Plan has not yet been adopted; however, the relevant measures provided in the Wash Plan are applicable and recommended for the proposed Project in the event the final Wash Plan is not adopted. The construction, operation, and maintenance of local trails is covered by the Wash Plan and is considered a conditionally compatible use; trails are permissible following preparation of a regional Trail Management Plan and its subsequent approval by the Wildlife Agencies. A draft of the Wash Plan Trails Master Plan was published in 2016; the plan would be finalized and approved concurrent with the Wash Plan approvals. Should the Wash Plan be approved prior to construction of the proposed Project; the County would complete a Consistency Determination to obtain coverage for potential impacts to covered species and habitat under the Wash Plan.

Financing Approval or Participation Agreements:

- None

11. Have California Native American tribes traditionally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation?

In September 2017, the County of San Bernardino Department of Public Works Environmental Management Division mailed Project notices in accordance with AB 52 to the following tribes: Gabrieleño Band of Mission Indians – Kizh Nation; San Manuel Band of Mission Indians; and, Soboba Band of Luiseno Indians. The San Manuel Band of Mission Indians expressed interest in the Project and requested further consultation. No response was received from the Gabrieleño Band of Mission Indians – Kizh Nation or Soboba Band of Luiseño Indians. Measures as recommended by the consulting Tribe have been incorporated into the Proposed Project in sections V and VXII of this document.

12. Lead Agency Discretionary Actions:

Discretionary actions that may be taken by the Lead Agency include, but are not limited to, the following:

- Board of Supervisors, certification of environmental documentation

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

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

LEAD AGENCY DETERMINATION

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

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

Harold Zamora
 Signature [Harold Zamora, P.E., Chief]

1/15/2020
 Date

1. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

(Check if project is located within a view-shed of any Scenic Route listed in the General Plan):

Environmental Setting

The proposed Santa Ana River Trail (SART) identified as Phase IV, Reach A is located along the southern bluffs of the Santa Ana River, on unpaved roads, on local streets and along other properties within the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. Regionally the Project Site is located approximately 60 miles northeast of Los Angeles and 45 miles west of Palm Springs, nestled against the backdrop of the San Bernardino Mountains in San Bernardino County. The City of Redlands is bound by the Santa Ana River, the City of Highland, and the San Bernardino Mountains to the north, Crafton Hills and the City of Yucaipa to the east, the northern boundary of Riverside County to the south, and the cities of Loma Linda and San Bernardino to the west (City of Redlands 2017a).

The California Scenic Highway Program protects and enhances the scenic beauty of California’s highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. The proposed Project is located approximately 1.6 miles north of Interstate 10 (I-10) and 1.0 miles east of State Route 210 (SR-210) which are not designated as state scenic highways by California Scenic Highway Mapping System (Caltrans 2018).

The Project area is characterized by its backdrop mountain scenery with views of the San Bernardino Mountains and the Santa Ana River. As identified in the Land Use Map within the *City of Redlands General Plan*, land use designations traversed and/or immediately adjacent to the trail alignment include: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks (Redlands 2017a). The County of San Bernardino General Plan identifies

the Project area as occurring in the East Valley Corridor Specific Plan with designations of East Valley Special Development, and East Valley Regional Industrial.

Impact Analysis

a) *Have a substantial adverse effect on a scenic vista?*

No Impact. The proposed trail alignment is surrounded by scenic views of the Santa Ana River and the foothills of the San Bernardino Mountains to the north. The objective of the proposed Project is to enhance access to recreational opportunities in the region by providing a multi-use trail that will ultimately provide access to the Santa Ana River Wash and scenic views of the San Bernardino Mountains. The trail segments along the river bluff would consist of a Class 1, 10-foot wide asphalt/concrete trail and 2-foot graded shoulder on each side of the asphalt/concrete trail; on the existing right-of-way the existing road surfaces would be widened where possible to accommodate a modified Class I bicycle lane. The above-mentioned Project elements are not anticipated to affect the viewshed or scenic vista of the site and in turn would enhance accessibility for non-motorized vehicles (e.g. bicycles). No impact is anticipated.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. The proposed trail alignment is located approximately 1.6 miles north of Interstate 10 (I-10) and crosses under State Route 210 (SR-210), neither of which are designated as state scenic highways by the California Scenic Highway Mapping System (Caltrans 2018). State Highway 330 is the closest eligible State Scenic Highway, 3 miles north of the proposed Project. No impact is anticipated.

c) *Substantially degrade an 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact. The proposed 3.9-mile trail alignment lies along the southern bluffs of the Santa Ana River Wash and within developed urban areas. The proposed Project will ultimately assist in the continuation of the existing SART to the east. As described in the response to I(a) above, the objective of the proposed Project is to provide regional connectivity along the SART, ultimately providing access to scenic vistas of the Santa Ana River Wash and San Bernardino Mountains through the completion of this phase of the SART. These improvements would not substantially degrade the visual character or quality of the surroundings. No impact is anticipated.

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

No Impact. The proposed Project does not incorporate lighting. Therefore, no new sources of substantial light or glare, which would adversely affect day or nighttime view in the area, would result from the proposed Project. No impact is anticipated.

Mitigation Measures:

None.

Aesthetics Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

2. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			X	
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment 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?			X	

(Check if project is located in the Important Farmlands Overlay):

Environmental Setting

The proposed Project is located along the southern bluffs of the Santa Ana River, on unpaved roads, and on local streets and properties within the City of Redlands, with the exception of the segment going south on Alabama Street and west on Pioneer Avenue which is within unincorporated County area. Portions of the proposed Project traverse properties with a land use designation of Agriculture, in the City of Redlands General Plan, (Redlands 2017a). Prime farmland, mapped by the California Farmland Mapping and Monitoring Program (FMMP), occurs at various locations along the proposed alignment according to

the California Department of California (CDC). Specifically, prime farmland occurs at: (1) the east and west side of Alabama Street between Palmetto Avenue and Pioneer Avenue; (2) existing citrus grove on the west side of Citrus Valley High School; and, (3) the citrus groves on the north side of the unpaved Domestic Avenue west of Texas Street (CDC 2017). Other FMMP designations along the proposed alignment include Urban and Built-Up Land and Grazing Land.

Impact Analysis

- 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?*

Less than Significant. The Project site is located mostly on land that is designated as Open Space and within the existing street right-of-way in the City of Redlands (Redlands 2018). According to the California Farmland Mapping and Monitoring Program (FMMP) Important Farmlands Map for San Bernardino County, the proposed Project would be located within land designated as Urban and Built-Up Land, Prime Farmland, and Grazing Land (CDC 2017). Prime Farmland within the City of Redlands occurs at the existing citrus grove on the west side of Citrus Valley High School and at the citrus groves on the north side of the unpaved Domestic Avenue west of Texas Street. The *City of Redlands General Plan Update and Climate Action Plan EIR* (Redlands, 2017b) has identified the loss of up to 200 acres of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland designations under the FMMP program as an unavoidable impact. The affected farmland is mainly located where non-contiguous agricultural uses are interspersed with more intensive uses. Policies in the *City of Redland's General Plan* provide a framework to ensure the continued existence of agricultural uses for as long as such use is financially feasible.

The area designated as Prime Farmland occurs within the East Valley Corridor Specific Plan occurs along Alabama Street. Proposed street widening to ultimate right-of-way on Alabama Street may require removal of orange trees on the east, and potentially west, side of the street between Palmetto Avenue and Pioneer Avenue (CDC 2019). There are two options for the trail alignment along this street (see Exhibit 6-7); Option 1 would continue south along the westside of Alabama Street to Pioneer Street and cross to the east side of Alabama Street at an existing traffic signal at the intersection of Alabama Street and Pioneer Avenue. In this scenario, the portion of the alignment zoned as Commercial General within the East Valley Corridor Specific Plan would potentially remove orange trees from locations where the right-of-way is not built out to ultimate conditions. Potential re-planting of the trees would occur as feasible elsewhere within the same property. In Option 2, the alignment would cross Alabama Street just south of River Bluff Avenue (at an existing signal) and continue south along the eastside of Alabama Street to Pioneer Avenue. Both options would ultimately continue east and pass underneath State Route 210 (SR-210) to the Citrus Valley High School. In Option 2, a staging area is proposed within the existing paved road right-of-way on the east side of Alabama Street just north of River Bluff Avenue. Staging would occur in front of a Home Depot Distribution Center and no disturbance to the existing landscape is anticipated.

Potentially affected Prime Farmland occurs at three locations: (1) the east and west side of Alabama Street between Palmetto Avenue and Pioneer Avenue; (2) existing citrus grove on the west side of Citrus Valley High School; and, (3) the citrus groves on the north side of the unpaved Domestic Avenue west of Texas Street (CDC 2017). The *City of Redlands General Plan* (Redlands 2017a) encourages buildout of public outdoor recreational facilities including, the Santa Ana River Trail buildout. The City's goals encourage actions towards the improvement of bicycle routes throughout the City and for improved trail linkages along the Santa Ana River in order to provide intra-city and regional connections. The *County of San Bernardino General Plan* also identifies the functionality and convenience of a transportation

system for bicycles, pedestrians, and horses as one of its goals. It promotes the extension, enhancement, and increased connectivity of trail systems throughout the County (Goals CI6 and OS-2). Therefore, the portions of the trail alignment that fall within the prime farmland designation would be enhanced by the proposed Project and would further develop the visions of both the City and County's General Plans.

Development of the proposed trail alignment may require removal of citrus trees within land designated as Prime Farmland, specifically along the east and west side of Alabama Street, at the citrus grove west of Citrus Valley High School, and on the west side of Texas Street. Citrus trees would be removed from both private property and from the street right-of-way where the right-of-way is not built out to ultimate conditions (portions of Alabama Avenue and Texas Street). Although portions of the alignment, as described above, occur in Prime Farmland, the proposed trail alignment would not convert Prime Farmland into a non-farmland use. Citrus trees removed to allow for construction access would be replaced upon completion of the trail. Therefore, the proposed Project would not directly impact any State of California Farmland Mapping and Monitoring Program designation of Unique Farmland, Farmland of Statewide Importance, Prime Farmland, or Grazing Land by converting to non-agricultural uses. A less than significant impact is anticipated.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The Project site is located mostly on land that is designated as Open Space and within the existing right-of-way in the City of Redlands (City of Redlands 2018). The SART Phase IV, Reach A alignment is not proposed on or adjacent to property identified under the Williamson Act contract. As such, the proposed Project will not conflict with an established Williamson Act contract (CDC 2017).

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))?

No Impact. As identified in the *City of Redlands General Plan Land Use Map*, land use designations traversed and/or immediately adjacent to portions of the trail alignment that occur within the City of Redlands include: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks (Redlands 2017a). Additionally, as identified in the *City of Redlands Zoning Map*, zoning designations traversed by the trail and/or immediately adjacent to the alignment include: Open Space, Industrial, Agriculture, and Planned Residential Development. (Redlands 2018).

The portion of the trail alignment that occurs in an unincorporated County area is identified within the County General Plan as occurring in the East Valley Corridor Specific Plan with designations of East Valley Special Development, and East Valley Regional Industrial. The Project does not conflict with existing zoning of forest land, timberland, or timberland zone production. Therefore, no impact is anticipated.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed Project would be located along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties along the existing street right-of-way within the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. The proposed trail alignment would not be located on forest land. The Project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact is anticipated.

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?*

Less than Significant. The proposed trail alignment would be located along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties along the existing street right-of-way within the City of Redlands (Exhibit 2) and within an unincorporated area of the County within the East Valley Corridor Specific Plan. The proposed trail alignment does not cross lands designated as Farmland or forest land. The proposed Project would not involve other changes that could convert farmland to non-agricultural use or convert forest land to non-forest use. A less than significant impact is anticipated.

Mitigation Measures:

None.

Agriculture and Forestry Services Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

3. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

(Discuss conformity with the South Coast Air Quality Management Plan, if applicable):

Environmental Setting

The Project site is located in the South Coast Air Basin (SCAB). The South Coast Air Quality Management District (SCAQMD) has jurisdiction over air quality issues and regulations within the SCAB. To assist local agencies to determine if a Project’s emissions could pose a significant threat to air quality, the SCAQMD has published its Air Quality Rule Book. The air and dust emissions from the implementation of the Project would be temporary, occurring during the excavation and grading activities. These were measured based on the SCAQMD standards and evaluated against the most recent thresholds applicable.

Impact Analysis

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

Less Than Significant: Development of the project involves the disturbance of an approximate 3.9-mile alignment for construction of a section of the Santa Ana River Trail (SART). The trail would begin on the west side of California Street in the City of Redlands and terminate at Orange Street. A Class I Bikeway will be developed as a ten-foot wide asphalt trail with an adjacent unpaved two-foot decomposed granite shoulder to accommodate non-motorized modes of transportation and pedestrians. Upon completion of earthmoving activities, no permanent emissions would occur from the proposed SART. Therefore, the project will not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMD) or any other applicable air quality plans. No significant impacts are anticipated.

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?*

Less Than Significant. The proposed project individually would not exceed any SCAQMD thresholds for criteria pollutants. The *County of San Bernardino General Plan EIR* concluded that continued development would contribute to pollutant levels in the San Bernardino valley, which already exceed

State and Federal air quality criteria. Findings on potentially significant impacts of the General Plan indicated that policies contained in the General Plan and mitigation measures in the EIR are expected to reduce emissions associated with future development. However, even after application of these policies and mitigation measures, the General Plan when viewed as a whole project, is expected to generate emissions levels that would exceed the SCAQMD thresholds for criteria pollutants, resulting in a significant unavoidable adverse air quality impact. A Statement of Overriding Considerations for the General Plan EIR was adopted by the County Council.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant. Development of the improvements would require earthmoving, importing and exporting, and other activities such as material handling and compacting. As the area is prepared, sections of the SART will be constructed.

The project's proposed earthwork activities were screened for emission generation using SCAQMD "Rule Book" guidelines, and SCAQMD Off-Road Mobile Source Emissions Factors (2019). These tables are used to generate emissions estimates for development projects. The criteria pollutants screened for included: reactive organic gases (ROG), nitrous oxides (NO_x), carbon monoxide (CO), and particulates (PM₁₀ and PM_{2.5}). Two of these, ROG and NO_x, are ozone precursors.

Construction Emissions

Construction earthwork emissions are considered short-term, temporary emissions and are estimated in Tables 2 and 3. The following construction parameters were assumed:

SART Earthwork Activities, Typical daily equipment:

- 1 Water Truck operating 2 hours per day
- 1 Loader operating 8 hours per day
- 2 Other Material Handling Equipment operating 8 hours per day

Import of Material

- The import of approximately
 - 3,000 CY of Asphalt
 - 600 CY of Concrete
 - 6,000 CY of Decomposed Granite
 - 1,800 CY of Rip Rap
 - 3,500 CY of fill material
- Approximately 20-mile haul distance (roundtrip)
- 1 Loader/Backhoe operating 8 hours per day
- 4 street legal haul trucks operating per hour, 32 trips per day.
- 2 Other Material Handling Equipment operating 8 hours per day

Table 2
SART Earthwork Activities
(Pounds per Day)

Source¹	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Water Truck	0.1	0.8	0.7	0.0	0.0
Loader	0.6	4.2	3.5	0.2	0.2
Other Material Handling Equipment	1.0	6.4	5.6	0.6	0.6
Totals (lbs/day)	1.7	11.4	9.8	0.8	0.8
SCAQMD Threshold	75	100	550	150	55
Significant	No	No	No	No	No

¹ SCAQMD Off-Road Mobile Source Emissions Factors (2019)

Table 3
Construction Emissions
“Import”
(Pounds per Day)

Source	ROG	NO_x	CO	PM₁₀	PM_{2.5}
Loader ¹	0.6	4.2	3.5	0.2	0.5
Other Material Handling Equipment ¹	1.0	6.4	5.6	0.6	0.6
Haul Trucks ²	0.8	8.9	3.6	0.8	0.8
Totals (lbs/day)	2.4	19.5	12.7	1.6	1.6
SCAQMD Threshold	75	100	550	150	55
Significant	No	No	No	No	No

¹ SCAQMD Off-Road Mobile Source Emissions Factors (2019)

² Emission Factors for On-Road Heavy-Heavy Duty Diesel Trucks (2019)

As shown in Tables 2 and 3 project emissions would not exceed SCAQMD thresholds.
Compliance with SCAQMD Rules 402 and 403

Although the proposed project does not exceed SCAQMD thresholds for construction emissions, the County Public Works Department (“project proponent”) is required to comply with all applicable SCAQMD rules and regulations as the SCAB is in non-attainment status for suspended particulates (PM₁₀). The project shall comply with, Rules 402 nuisance, and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACM) for each fugitive dust source; and the AQMP, which identifies Best Available Control Technologies (BACT) for area sources and point sources, respectively. This would include, but not be limited to the following BACMs and BACTs:

1. The project proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.
 - I. The project proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading activity on the site. Portions of the site that are actively being graded shall be watered regularly to ensure that a crust is formed on the ground surface and shall be watered at the end of each workday.
 - II. The project proponent shall ensure that all disturbed areas are treated to prevent erosion.

III. The project proponent shall ensure that all grading activities are suspended during first and second stage ozone episodes or when winds exceed 25 miles per hour.

Exhaust emissions from construction vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces, would increase NO_x and PM_{10} levels in the area. Although the proposed project would not exceed SCAQMD thresholds during construction, the County will be required to implement the following conditions as required by SCAQMD:

2. To reduce emissions, all equipment used in earthwork must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel.
3. The project proponent shall ensure that construction personnel are informed of ride sharing and transit opportunities.
4. The operator shall maintain and effectively utilize and schedule on-site equipment in order to minimize exhaust emissions from truck idling.
5. The operator shall comply with all existing and future CARB and SCAQMD regulations related to diesel-fueled trucks, which may include among others: (1) meeting more stringent emission standards; (2) retrofitting existing engines with particulate traps; (3) use of low sulfur fuel; and (4) use of alternative fuels or equipment.

Operational Emissions

Routine operational emissions are not anticipated to be significant as the proposed project is a bike trail. The project is consistent with the County General Plan. Therefore, less than significant impact is anticipated.

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. Sensitive receptors occur at the eastern end of the proposed trail alignment at Citrus Valley High School via Domestic Avenue and the single-family residential west of Orange Street.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; application of architectural coatings; and other miscellaneous activities. For construction activity, DPM is the primary Toxic Air Contaminant (TAC) of concern. Particulate exhaust emissions from diesel-fueled engines (i.e., DPM) were identified as a TAC by the CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs. Accordingly, DPM is the focus of this discussion.

Based on the emission modeling conducted the maximum construction-related emissions of exhaust $\text{PM}_{2.5}$, would be 2.4 pounds per day (Table 2 and Table 3) during construction activity ($\text{PM}_{2.5}$ is considered a surrogate for DPM because more than 90 percent of DPM is less than 1 microgram in diameter and therefore is a subset of particulate matter under 2.5 microns in diameter (i.e., $\text{PM}_{2.5}$), according to CARB.

Most PM_{2.5} derives from combustion, such as use of gasoline and diesel fuels by motor vehicles.) Furthermore, even during the most intense month of construction, emissions of DPM would be generated from different locations on the Project site, rather than a single location, because different types of construction activities (e.g., site preparation, grading, paving) would not occur at the same place at the same time.

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-, 30-, or 9-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the proposed Project. Therefore, considering the relatively low mass of DPM emissions that would be generated during even the most intense season of construction, the relatively short duration of construction activities (less than 6 months) required to develop the site, and the highly dispersive properties of DPM, construction-related TAC emissions would not expose sensitive receptors to substantial amounts of air toxics. Impacts on sensitive receptors from short-term construction activities are anticipated to be less than significant.

Operational Air Contaminants

The proposed Project involves the construction of an approximately 3.9-mile-long section of the SART. The proposed Project will not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, will not generate quantifiable air toxic emissions from Project operations. The Project is not anticipated to generate any trips. Because the proposed Project would not increase traffic volumes at any intersection to more than 100,000 vehicles per day, there is no likelihood of the Project traffic exceeding CO values. Therefore, the proposed improvement is not anticipated to impact sensitive receptors. Less than significant impact is anticipated.

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

Less Than Significant: Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. Intensity refers to the strength of the odor.

During construction, the proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, under CEQA, construction odors would result in a less than significant impact related to odor emissions.

SCAQMD CEQA Air Quality Handbook (1993) identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The

proposed Project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, there would be no operational odor impacts from the proposed Project.

Mitigation Measures:

None.

Air Quality Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

4. BIOLOGICAL RESOURCES

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

Check if project is located in the Biological Resources Overlay or Contains habitat for any species listed in the California Natural Diversity Database

Environmental Setting

A project-specific Focused Biological Assessment (FBA) for the Santa Ana River Trail Phase IV, Reach A was prepared by Natural Resources Assessment, Inc. (NRAI) in January 2019. A second survey was conducted on December 10, 2019 to document any changes in the habitats crossed by the trail since the last survey conducted on October 24, 2018 and determine how those changes might affect trail design and use. Both reports are attached to the Initial Study as Appendix A and Appendix A-1 which should be referred to for more specific detail and exhibits. The findings of the reports are summarized herein.

The proposed Project is located within the Santa Ana River Watershed (Hydrological Unit Code 12-180702030507) along the southern bluffs of the Santa Ana River, local streets, and other properties along the right-of-way throughout the City of Redlands and within an unincorporated area of the County within the East Valley Corridor Specific Plan. The Santa Ana River floodplain is located to the north of

the alignment and consists of largely undeveloped and natural habitat areas. Analysis in the FBA is partially based on the Upper Santa Ana River Wash Plan (“Wash Plan”) which is intended as a comprehensive Habitat Conservation Plan (HCP) to conserve plant communities, species, and associated habitats in the southwestern San Bernardino County. The draft of the HCP was published in January 2018 and is currently out for public review. One of the activities covered by the plan is the Santa Ana River Trail, including Reach A. The HCP has identified mitigation measures to off-set the impacts to five covered species as well as sensitive and general biological resources in this area of San Bernardino County. Although a final HCP has not yet been adopted; the relevant measures provided in the HCP are applicable and recommended for the proposed Project in the event the final HCP is not adopted.

Impact Analysis

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?*

Less Than Significant with Mitigation Incorporated. NRAI conducted a Focused Biological Assessment of the 3.9-mile long segment of the SART Phase IV, Reach A to identify plant communities and assess the presence of suitable habitat for special-status plant and wildlife species. NRAI reviewed plant and wildlife species occurring within the Project vicinity and conducted field surveys and observations of potential habitat for sensitive species. The FBA focused on the proposed trail alignment and its 25-foot buffer area of potential effect (APE).

The FBA literature search identified several sensitive biological resources to have a potential to occur within the proposed Project’s vicinity. Based on subsequent field surveys and an evaluation of the FBA the following plant species have a potential to occur within the proposed trail alignment’s APE: slender-horned spineflower (*Dodecahema leptoceras*) and the Santa Ana River woolly star (*Eriastrum*). The FBA also identified several special status wildlife species to have a potential to occur within the proposed trail alignment. Based on subsequent field surveys and an evaluation by qualified biologists it was determined that the following wildlife species have a potential to occur within the proposed Project’s trail alignment: the San Bernardino kangaroo rat (*Dipodomys merriami parvus*), the California gnatcatcher (*Polioptila californica*), and the burrowing owl (*Athene cunicularia Hypogeta*).

Slender-horned Spineflower

The slender-horned spineflower, although a floodplain endemic, is not anticipated within the proposed Project’s vicinity. The proposed SART Phase IV Reach A alignment mostly follows existing dirt roads and runs parallel but outside of the road shoulder along paved streets. The proposed trail alignment enters natural habitats adjacent to the Citrus Valley High School from Pioneer Avenue to Texas Street, and Texas Street to Israel Beal Park. These sections are in ruderal habitat that has been highly disturbed and does not support habitat for the slender-horned spineflower. This species is not expected to be present and will not be impacted by trail construction or use.

Santa Ana River Woolly Star

The Santa Ana River woolly star is a short-lived perennial shrub that only occurs along the Santa Ana River drainage in San Bernardino County. The FBA survey included searching for this species and observed no woolly star plants within the footprint of Reach A. No direct impacts to woolly star are anticipated.

No individuals of slender-horned spineflower or Santa Ana River woolly star were found along the alignment of Reach A, and none are expected to occur. However, indirect impacts to slender-horned spineflower and Santa Ana River woolly star habitat could occur along the California Street to Alabama Street section of Reach A. Implementation of the mitigation measures below will avoid and/or minimize potential indirect impacts to these species to less than significant.

San Bernardino Kangaroo Rat

Suitable habitat for the San Bernardino kangaroo rat (SBKR) was identified at various locations within the Project limits as well as immediately adjacent to the Project limits as summarized below.

California Street to Alabama Street

Suitable habitat occurs in the Santa Ana River along the northern boundary of the construction limits between California Street and Alabama Street. However, the construction limits do not overlap with the suitable habitat. Additionally, there is a topographical separation between the proposed construction area and the suitable habitat. No direct impacts to SBKR are expected from the trail's proposed alignment between California Street and Alabama Street.

Alabama Street South

Suitable Habitat for SBKR exists on the west and east side of Alabama Street from the river south to the existing commercial buildings along River Bluff Avenue. The suitable habitat is continuous and includes the *Eriogonum fasciculatum* shrubland alliance and open fields on the west side down to the other open fields and orchards south of River Bluff Avenue. This section of the trail alignment is proposed beyond the limits of the existing road shoulders within the fields, there is a potential for direct impact to SBKR.

Citrus Valley High School to East End of Israel Beal Park

SBKR has been recorded within the abandoned orchard on the east side of Texas Street (NRAI 2013). SBKR populations are known along the Santa Ana River and some populations have been found on the river bluffs such as those immediately north of the proposed trail alignment within this reach. The orchards on the perimeter of the high school as well as the abandoned orchards east of Texas Street remain connected to SBKR populations in the Santa Ana River to the north, therefore, SBKR may still either persist in the orchards or continue to repopulate this area and there is a potential for direct impacts to SBKR at these locations.

Critical Habitat

The proposed trail alignment crosses into Critical Habitat at three locations:

- The first Critical Habitat location is in the northern section of the California Street to Alabama Street alignment. It is not clear from the available information if the boundary for the Critical Habitat includes the joint-use across road. Regardless, suitable SBKR habitat is not present on the joint-use access road.
- The second Critical Habitat location is where the alignment follows the joint-use access road down to connect with Alabama Street. The *Eriogonum fasciculatum* Shrubland Alliance in this area is entirely within Critical Habitat. Critical Habitat also extends a short way south on either side of Alabama Street. Suitable habitat for the SBKR is present on the slopes along Alabama Street.

- The third Critical Habitat location includes what is now Israel Beal Park and existing development to the south. However, suitable habitat does not exist within the park.

The Santa Ana River is known to support SBKR populations. Construction of SART Phase IV, Reach A will impact suitable and potentially occupied habitat for the SBKR along Alabama Street, along Pioneer Avenue east of I-210, north from Pioneer Avenue along the Citrus Valley High School fence, west to Texas Street and the abandoned citrus orchards east of Texas Street.

It is recommended that protocol Presence-or-Absence trapping studies be conducted prior to construction to determine whether SBKR occupy these areas of the alignment.

Additionally, it is recommended that the following measures from the HCP be implemented:

- Soil temporarily stockpiled during construction will be fenced to exclude SBKR and stockpiles will be removed within 45 days of the end of construction
- A qualified biologist or biological monitor with SBKR expertise will be present when construction or ground-disturbing activities that could result in take of SBKR occurs, or within 100 meter of SBKR habitat which is classified as low, medium, or high habitat potential for SBKR in the HCP.

Direct impacts to the SBKR and its habitat would be considered significant and would require consultation with the U.S. Fish and Wildlife Service.

Indirect impacts to SBKR habitat could occur along the California Street to Alabama Street section of Reach A. Implementation of mitigation measure BIO-8 and BIO-9 below will avoid and/or minimize potential indirect impacts to SBKR to less than significant.

California Gnatcatcher

The California gnatcatcher is a small songbird that is a year-round resident of sage scrub communities. The historical records for the California gnatcatcher are scarce for the San Bernardino County area. However, the alluvial fan scrub and coastal sage scrub habitats in the Santa Ana River north of the California Street to Alabama Street extension support suitable habitat for the California gnatcatcher. The FBA does not identify suitable habitat for the species within the proposed limits of construction; therefore, there is no direct impact to the species in the form of habitat loss. Construction activity may result in an indirect impact to the species if construction occurs during the nesting season. However, implementation of mitigation measures BIO-5 and BIO-7 below will avoid and/or minimize potential indirect impacts to California gnatcatcher to less than significant.

Burrowing Owl

The burrowing owl (*Athene cunicularia hypogea*) is a resident species in lowland areas of Southern California that prefers large flat open areas for nesting and hunting. This species lives in burrows constructed by other ground-dwelling species in grassy or sparse shrubby habitat and are also known for taking over other types of burrows, including manmade objects, such as pipes. This species forages low over the ground surface for insect prey, and seldom flies very high in the air. As a result of coastal development, the burrowing owl is declining in coastal habitats. The California Department of Fish and Wildlife (CDFW) has designated the burrowing owl as a California Species of Special Concern (CSC). These species are so designated because “declining population levels, limited ranges and/or continuing threats have made them vulnerable to extinction.” (California Department of Fish and Wildlife 2018).

The California Street to Alabama Street section has suitable habitat on either side of the proposed trail alignment, mostly along the river bluff. There is no suitable habitat immediately within the Project's construction limits. The portion of the proposed trail alignment from Pioneer Avenue parallel to but outside the fence around the Citrus Valley High School and then east to Texas Street also provides suitable habitat for burrowing owls. No burrowing owls were observed, and no burrows were found adjacent to this section during the field surveys. However, there may be animals nesting outside the alignment in either of these two sections that could be indirectly affected by construction. Most of the available habitat is of low quality, but these areas are located close to the Santa Ana River and open space areas where the burrowing owls may move into in the future. Implementation of mitigation measures BIO-5 and BIO-7 below, will avoid and/or minimize potential indirect impacts to burrowing owl to less than significant.

Overall impacts to sensitive biological resources are primarily concerned with the loss of habitat. Most of Reach A is in close proximity to habitats, but because it follows an existing dirt road/trail or otherwise disturbed surface, construction of the trail is not expected to have a significant direct impact on sensitive resources. No direct impacts are expected to occur to sensitive plant communities, habitats or species.

However, indirect impacts to sensitive resources, including one or more of the five species covered in the HCP, may occur as a result of construction activities. Best Management Practices (BMPs) and avoidance and minimization measures as recommended in the FBA and listed below shall be incorporated into the Project.

Implementation of mitigation measures BIO-1 to Bio-17 below would minimize potential impacts to habitat and wildlife, including potentially occurring special status species, to a less than significant level.

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?*

Less than Significant. Construction activities and expected earthwork would include cut and fill for trail grading and retaining wall construction. Although the majority of the proposed trail alignment overlies existing road or flood control right-of-way and mostly disturbed areas, it is anticipated that construction would require the removal and/or relocation of various trees, shrubs, bushes, and grasses.

The potential vegetation types identified within the SART Phase IV, Reach A alignment include: *Hirschfeldia Herbaceous* Semi-Natural Alliance, Agricultural Orchards (Citrus) with a ruderal understory beneath the trees, and Developed/Disturbed barren areas that do not support plant communities. At the time of the survey, farmed areas were observed to have no vegetation cover and were dominated by weeds such as red brome, slender wild oats (*Avena barbata*), and Russian thistle. Shrubs and tree species were mostly absent in this community because these areas tend to be subject to high disturbance levels. Types of disturbance include crop production, grading, disking for fire control, and legal and illegal uses such as off-roading and dumping of material.

During the December 10, 2019 survey, NRAI found only one change in the environment since the October 24, 2018 survey. The change included a reduction in the area of *Hirschfeldia* Semi-Natural Alliance habitat (located west of Alabama Street south to Palmetto Avenue). The southern three-fourths of the *Hirschfeldia* Semi-Natural Alliance habitat appeared graded and was undergoing development at the time of the survey. The northern one-fourth appeared abandoned and still retained *Hirschfeldia* Semi-Natural Alliance habitat. If the northern quarter of *Hirschfeldia* Semi-Natural Alliance habitat remains unused, then over time it could become marginally suitable habitat for the burrowing owl. As concluded in the December 16, 2019 Letter Report, since Project construction limits do not include this habitat, any

impacts to the burrowing owl would be indirect. No new mitigation measures, beyond the initial mitigation measures provided in the January 2019 FRA, would be recommended.

Reach A begins at the terminus of California Street and continues along a dirt access road which extends to the bank/levee of the Santa Ana River and turns east along the existing California Street landfill. This section of the proposed trail alignment travels along the joint-use access dirt road on the levee of the river past the Redlands Wastewater Treatment Facility to Alabama Street. There is no native habitat directly along this section of Reach A until just before reaching Alabama Street, where the alignment passes through a stand of the *Eriogonum fasciculatum* Shrubland Alliance.

The SART Phase IV, Reach A then travels on Alabama Street south to Pioneer Avenue and then easterly and under Interstate 210 (I-210). The proposed trail alignment then continues north from Pioneer Avenue and connects with Domestic Avenue at the northwest corner of Citrus Valley High School which then turns east on Domestic Avenue to Texas Street. The vegetation alliance along this section is a mix of ruderal (weedy), agricultural, orchard, and developed/disturbed vegetation.

The proposed trail alignment then travels north on the west side of Texas Street for approximately one-quarter mile. Vegetation along this section includes orchard on the west and ruderal and developed/disturbed on the east. Reach A then turns east, crossing Texas Street and continues east through ruderal habitat and an abandoned citrus orchard. The undergrowth in the former citrus orchard is dominated by weedy species such as slender wild oats, red brome, short-pod mustard and London rocket (*Sisymbrium irio*). There are also stumps of former citrus trees and isolated individuals of eucalyptus and Mexican elderberry (*Sambucus nigra*). East of the abandoned orchard an approximately 500-foot segment of the proposed trail alignment, which connects to Israel Beal Park, has been constructed by a private party and is within a developed/disturbed vegetation type, entirely landscaped and devoid of native habitat.

The impacts to general biological resources include the loss of ruderal and upland habitats. These impacts are minimal and are not considered to be significant. No impact to riparian habitat or other sensitive natural communities were identified in the FBA. Therefore, less than significant impacts are anticipated to occur.

- 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?

No Impact. The Santa Ana River is under the jurisdiction of the Army Corps of Engineers (ACOE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). During the FBA field survey, a small channel on the east side of Texas Street was identified as potentially under the jurisdiction of the ACOE and RWQCB. Subsequent to the FBA field survey, staff from the Environmental Management Division of the County coordinated a site visit with regulatory staff from the ACOE to evaluate jurisdiction. It was determined that the channel consists of a roadside drainage ditch and is not subject to a ACOE permit as defined in 40 CFR 230.3. The channel does not have relatively permanent water flows; it is constructed wholly in uplands for the purpose of draining upland sheet flow; it does not connect a natural drainage feature upstream to a downstream tributary; and, it does not intersect the groundwater table. Furthermore, vegetation in the drainage is limited to herbaceous species in the *Hirschfeldia Herbaceous* Semi-Natural Alliance. The drainage is also considered non-jurisdictional to the SWRCB under Section 401 of the Clean Water Act.

- 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?*

Less Than Significant with Mitigation Incorporated. A wildlife movement corridor is defined as an area which joins two or more larger areas of similar wildlife habitat; a wildlife corridor between such habitat blocks functions to allow for genetic exchange between populations. Movement corridors allow for dispersal of young, expanded foraging opportunities, and allow for animals to flee in the event of a fire or other large-scale disturbance. Viable connections between habitat areas effectively expand the usable areas for wildlife that use the habitats and corridors. The major regional blocks of habitat in the region of the proposed Project include the San Gabriel Mountains, the San Bernardino Mountains, the Chino Hills, the Prado Basin, the Jurupa Hills, the San Timoteo Badlands, and the Crafton Hills. The upper Santa Ana River floodplain between Redlands, Highland and San Bernardino is also a major block of habitat. Wildlife movement connections between these features are generally limited by urbanization. Restrictions are minimized where these habitat blocks are closer to each other.

In general, residential and commercial development is present throughout the proposed trail alignment and the Santa Ana River is located north of the proposed trail alignment. The segment of the trail along Pioneer Avenue is surrounded by agricultural and vacant fields with existing bicycle lanes. Agriculture, vacant fields, and the Citrus Valley High School exist along Domestic Avenue and urban developments and abandoned agricultural fields occur on the east and west sides of Texas Street. Urban developments are generally not conducive to wildlife travel between natural areas because of vehicular traffic, human presence, and the presence of noise and light. The vacant parcels of land may provide limited restricted movement but are typically not utilized by wildlife due to lack of protective cover and proximity to development.

The proposed Project would result in development of the trail along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties along the right-of-way within the City of Redlands and unincorporated County areas. The trail segments along the river bluff would consist of a Class 1, 10-foot wide asphalt/concrete trail and 2-foot graded shoulder on each side of the asphalt/concrete trail; on the existing right-of-way the existing road surfaces would be widened where possible to accommodate a modified Class I bicycle lane. Implementation of the Project would not result in a substantial physical change to the existing environment that would impact regional wildlife corridors or the non-specific movement patterns of wildlife adapted to urban environments. No significant loss to raptors and migratory birds or their habitats are expected, and therefore no mitigation is required. However, construction activity may indirectly affect nesting birds, especially in areas of native habitat.

Implementation of Mitigation Measure BIO-5 to BIO-7 below would minimize potential impacts to an established native resident or to migratory wildlife corridors, to a less than significant level.

- e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Less Than Significant. Shrub and tree species are mostly absent in the Project area which tends to be subject to high disturbance levels. Types of disturbance include crop production, grading, disking for fire control, and legal and illegal uses such as off-roading and dumping of material. However, portions of the trail alignment traverse land uses designated as agricultural and construction of the trail may require the removal of citrus trees located within the existing street's right-of-way. Trees that occur within the public domain are protected and managed pursuant to City Municipal Code Chapter 12.52. According to City Municipal Code Section 12.52.090, it shall be the policy of the City to protect and maintain mature and

healthy public trees. Special consideration shall be afforded public, landmark, native and specimen trees. A landmark tree is defined as a public tree designated as a historic resource under Chapter 2.62 of the City Municipal Code as a tree of historic or cultural significance and of importance to the community due to any of the following factors: 1) it is one of the largest or oldest public trees of the species located in the city; 2) it has historical significance due to an association with a historic building, site, street, person or event; or 3) it is a significant outstanding feature of a neighborhood. The policy also protects all public trees that meet the definition of native or specimen trees which are defined as any public tree, identified by a certified arborist as native to the local area, with a trunk more than eight inches in diameter at a height of four and one-half feet (4¹/₂') above natural grade that is identified on a list of native trees approved by the City Council.

In these instances, appropriate permits as outlined in the City of Redlands' Municipal Code Section 12.52 would be obtained to remove/relocate public trees to an area subject to less disturbance. If it is determined during the City's Plan Review of the final design that removal of a protected tree pursuant to City Municipal Code Chapter 12.52 will occur, permits and approvals would be required from the City as part of the project approval process. Compliance with the determinations of the plan review will ensure that the Project would not conflict with local policies protecting trees within the City.

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?*

Less Than Significant with Mitigation Incorporated. The Upper Santa Ana River Wash Plan (ICF 2018) is intended as a comprehensive Habitat Conservation Plan (HCP) that will conserve plant communities, species and associated habitats in southwestern San Bernardino County. It covers approximately 4,892 acres and identified five covered species requiring specific protection. The draft was published in January 2018 and has not yet been finalized. The SART Phase IV, Reach A is a covered activity in the HCP and even though the HCP has not yet been adopted, the relevant measures provided in the HCP are included in the mitigation measures below. Once finalized the SART Phase IV, Reach A will comply with applicable conservation measures and would minimize conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, to a less than significant level.

Mitigation Measures

- BIO-1 Prior to construction of the Project, the Project Proponent shall install and maintain barriers such as boulders, fences, and gates along work area and trail boundaries to help prevent unauthorized activities, including dumping and off-road vehicle use.
- BIO-2 Prior to construction, the Project Proponent shall delineate the limits of construction via marking or temporary fencing. The delineation shall be maintained as necessary until construction of the trail is completed.
- BIO-3 Throughout construction of the Project, construction personnel shall limit their activities, vehicles, equipment, and construction materials to the designated work area and equipment staging areas.
- BIO-5 All workers will receive environmental awareness training. The training will be developed in consultation with a qualified biologist and consist of an onsite or training center presentation for which supporting materials will be provided. Training will provide information about the special-status species potentially occurring on site and an explanation of the purpose and function of the avoidance and minimization measures and the possible penalties for not adhering to them.

- BIO-6 If construction takes place during the California gnatcatcher breeding season, burrowing owl nesting period, during nesting bird season (February 1 through August 31), or whether significant loss to raptors and migratory birds or their habitats is expected, a general nesting bird survey will be required. The protocol requires the following:
- Construction scheduled to occur between February 1 and August 31 will require a qualified biologist conduct a breeding bird survey no more than three days prior to the start of construction to determine if nesting is occurring.
 - “Construction” includes selection of staging areas, demolition, tree, trash and debris removal, placement of equipment and machinery on to the site preparatory to grading, and any other Project-related activity that increases noise and human activity on the Project site beyond existing levels. Emergency measures are exempt from this definition.
 - If occupied nests are found, they shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are capable of independent survival.
 - If the biologist is not able to verify one of the above conditions, then no disturbance shall occur within a distance specified by the qualified biologist for each nest or nesting site. The qualified biologist will determine the appropriate distance in consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.
- BIO-7 Protocol SBKR presence-or-absence studies will be conducted prior to construction to determine whether SBKR occupy suitable habitat along the alignment. If the studies are positive the County will consult with the U.S. Fish and Wildlife Service. Construction will not proceed until the appropriate authorization from U.S Fish and Wildlife Service is received.
- BIO-8 A qualified biologist or biological monitor with SBKR expertise will be present when construction or ground-disturbing activities that could result in take of SBKR occurs, or within 100 meters of SBKR habitat which is classified as low, medium or high habitat potential for SBKR in the HCP.
- BIO-9 Equipment (e.g., passenger vehicles, trucks, and heavy equipment) will be cleaned prior to entering the worksite and between worksites to prevent the importation and spread of exotic plant species.
- BIO-10 Ingress and egress of construction equipment and personnel will be confined to designated access points. Cross-country travel by vehicles and equipment will be prohibited.
- BIO-11 No open trenches or holes will be left overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they will be inspected for trapped wildlife by a qualified biologist or biological monitor prior to the start of work activities each day the trenches or holes remain uncovered. Animals found will be captured and moved to the nearest safe location outside the construction area.
- BIO-12 Soil temporarily stockpiled during construction will be fenced to exclude SBKR and stockpiles will be removed within 45 days of the end of construction.

- BIO-13 Dust will be controlled. If water trucks are to be used, pooling of water will be avoided to minimize the potential of attracting opportunistic predators.
- BIO-14 Adequate fire suppression capability will be maintained in active construction areas including having a water tender on site in active construction areas during periods of high fire danger.
- BIO-15 No firearms or pets will be allowed at the work areas. Firearms carried by authorized security and law enforcement personnel are exempt.
- BIO-16 Litter control measures will be implemented during construction and post-construction. Trash and food items will be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.

Biological Resources Impact Conclusions:

With implementation of the above listed measures, less than significant impacts are anticipated.

5. CULTURAL RESOURCES

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

(Check if project is located in the Cultural overlays or cite results of cultural resource review)

Environmental Setting

Potential impacts to cultural resources are identified in the *Phase I Cultural Resources Investigation and Assessment (CRIA) of Impacts on Cultural Resources Identified within the Proposed Santa Ana River Trail, Phase IV, Reach A, California Street to Orange Street, Redlands, San Bernardino County, California* prepared by McKenna et al. (McKenna 2018) for the 3.9-mile-long alignment. The cultural study included an archaeological records search, Native American consultation, historic background research, paleontological overview, and a field survey. The report is available for review at the Department of Public Works and findings of the report are summarized herein.

Impact Analysis

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Less Than Significant. As reported in the cultural resources investigation, historic period resources were identified in and around the trail alignment. However, the resources were found to be previously impacted by earlier improvements and/or previously evaluated and found to be ineligible for listing on any of the registers (federal, state, regional, or local). Previous studies have identified over 100 historic period sites within one-mile of the Project area. Most of the historic structures were identified near the Norton Air Force Base (less than a mile northwest of the Project site) and along Lugonia Avenue (less than a mile south of Pioneer Street alignment). Of the resources, two were identified as significant to the Project alignment; the Lugonia School Monument and the San Bernardino County Museum. However, neither will be impacted by the proposed Project.

McKenna et al. identified the following roadways as significant to the Project alignment:

California Street	Texas Street	Olive Avenue
Nevada Street	Orange Street	Palmetto Avenue
Alabama Street	Pioneer Avenue	Domestic Avenue

With the exception of Domestic Avenue each of the road alignments listed have been widened and paved or substantially altered through modern improvements and no longer resemble their original designs or materials.

The open areas surrounding Citrus Valley High School, specifically the fields west and north of the school, along Domestic Avenue have evidence of early orchards, which continue to be harvested. The survey of

the area around the school confirmed a dirt road extension of Domestic Avenue and sewer caps indicating the presence of disturbed soils and buried pipelines. A few irrigation remnants were found on the western boundary of the school and to the north, however, these structural remains have been previously assessed and determined to be insignificant. The proposed trail alignment would occur outside of any potential historic listing.

The open field to the east of Texas Street also yielded evidence of an early irrigation system, an abandoned orchard, and the remnants of large, old eucalyptus trees along the river bluff. This property has been previously recorded as Site 36-007052; the site was evaluated, and it was concluded that site avoidance or protection are not necessary (McKenna 2018). Furthermore, the off-road area connecting Texas Street to Israel Beal Park is subject to significant dumping of modern refuse, homeless encampments, and other surface disturbances. Despite the disturbances, no significant artifacts or features have been uncovered.

The results of the cultural resource investigation indicate that although the Project area has yielded historic period resources, the resources have been found to be insignificant and ineligible for recognition as historic resources (McKenna 2018). Therefore, a less than significant impact is anticipated.

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

Less Than Significant. The Project area has surface deposits composed of soil and younger Quaternary alluvium derived predominantly as alluvial fan deposits from the Crafton Hills and the San Bernardino Mountains to the east via the Santa Ana River. To adequately address the potential resources in the Project area, McKenna et al. completed a standard archaeological record search through the California State University, Fullerton, South Central Coastal Information Center on October 8, 2018.

In some cases, the research exceeded the one-mile radius to incorporate studies likely to yield additional data pertaining the area along the Santa Ana River. As a result of this research, McKenna et al. documented a minimum of 107 cultural resources studies in the immediate area of the proposed SART Phase IV, Reach A alignment. Previous surveys have amply addressed much of the proposed alignment. Of the 107 reported cultural resources, only two of the identified resources were found to be cross-referenced as a California Point of Historical Interest including the Lugonia School Monument and the San Bernardino County Museum. The Lugonia School Monument is located approximately 1.2 miles southwest of the eastern trail terminus and the San Bernardino County Museum is located approximately 1.4 miles south of the western trail terminus.

Additionally, three of the previously recorded cultural resources were determined to be of consequence to the proposed Project alignment. The first site is a historic refuse scatter on the west side of Orange Street north of the alignment recorded in 1987. The site was likely destroyed by the Gun Range and is not anticipated to be further impacted by the proposed trail alignment. The second site is a ranching complex that included a residence, barn, irrigation feature, and groves recorded in 1991. This site was relatively large and included structural improvements along Pioneer Avenue east of the Citrus Valley High School. The remainder of the property is covered in groves and remnants of eucalyptus wind rows. None of the structural locations are anticipated to be impacted by the proposed trail alignment. The third site consists of irrigation system remnants on the south side of Pioneer Avenue west of the State Route 210 alignment recorded in 2007. None of the features associated with this site are anticipated to be impacted by the proposed trail development.

Given the nature of the proposed SART Phase IV, Reach A alignment, much of the alignment consists of highly impacted areas with little to no native soils available for investigations. However, the alignment does not involve areas likely to be associated with standing structures and therefore, resources are more likely to be peripheral to the proposed alignment. However, implementation of Mitigation Measure CUL-1 below would minimize impacts to potential archaeological resources incidental finds to a less than significant level.

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

Less Than Significant with Mitigation Incorporated. No known human remains are present on the Project site. If human remains are inadvertently uncovered during Project activities, adherence to Mitigation Measure CUL-2 would reduce impacts to less than significant.

Mitigation Measures:

- CUL-1 In the event that previously unidentified resources are uncovered as a result of the trail development, a qualified archaeologist shall be on-call and available to inspect and assess the find in accordance with CEQA criteria. If deemed appropriate, archaeological monitoring shall be incorporated into the overall mitigation program.

- CUL-2 If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within 60-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.

Cultural Resources Impact Conclusions:

With implementation of the above listed measures, less than significant impacts are anticipated.

6. ENERGY

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

Environmental Setting

Portions of the alignment would occur along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and on other properties within the existing right-of-way in the City of Redlands and unincorporated area of the County. The proposed Project traverse properties with the following land use designations: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks.

Impact Analysis

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

Less than significant. Consumption of energy resources for the proposed Project is limited to fuel for construction equipment. Once the trail is operational, demand for energy resources is anticipated to be minimal for patrolling and maintenance of the facility. Use of the trail for recreational purposes would not generate demand for energy resources. A less than significant impact is anticipated.

b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less than significant. The Sustainable Community Element of the City of Redlands General Plan and the Renewable Energy and Conservation Element of the County of San Bernardino General plan outline goals promoting sustainable energy sources and energy efficient technologies. The proposed project is the construction and operation of a multi-use trail; operation of the trail consist of passive use for recreation and does not generate a demand for energy resources. Consumption of energy resources would be limited to fuel during construction and for patrolling/maintenance of the trail post-construction. The proposed Project does not conflict with or obstruct plans for renewable energy or energy efficiency because it does not preclude goals of the City and County related to renewable energy. Additionally, the project does not generate a significant demand for energy resources; therefore, it does not conflict with energy efficiency goals. A less than significant impact is anticipated.

Mitigation Measures:

None.

Energy Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

7. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii. Strong seismic ground shaking?			X	
iii. Seismic-related ground failure, including liquefaction?			X	
iv. Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
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?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

(Check if project is located in the Geologic Hazards or Paleontologic Resources Overlay District):

Environmental Setting

According to the *City of Redlands General Plan Update and Climate Action Plan EIR*, the Project area occurs within the San Bernardino Valley just south of the San Bernardino Mountains. Geologically, the area is located north of the Peninsular Range geomorphic province, which is characterized by northwest trending mountains and valleys of granite and older metamorphic rocks. The topography in the area generally slopes downward to the southwest (Redlands 2017b). Phase IV, Reach A of the SART is located near the northern City of Redlands boundary along the bluffs of the Santa Ana River and along local streets and within the existing right-of-way in the City of Redlands; with a portion of the trail occurring within an unincorporated area of the County within the East Valley Corridor Specific Plan.

Impact Analysis

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*
- ii. *Strong seismic ground shaking?*
- iii. *Seismic related ground failure, including liquefaction?*
- iv. *Landslides?*

Less Than Significant. The Project area lies southwest of the San Andreas Fault zone and southwest of the San Jacinto fault zone. The Crafton Hills fault zone also traverses sections of Redlands, Crafton, and Mentone. The San Andreas Fault zone is predicted to have the capacity to produce an earthquake with a maximum moment magnitude of 7.5. The San Jacinto fault is predicted to have the capacity to produce an earthquake with a maximum moment magnitude 6.7 (Redlands 2017b). The Project site is subject to ground shaking and potential impacts related to ground shaking. As shown in Figures 7-5 Faults of the City's General Plan, the proposed trail alignment does not traverse through any Alquist-Priolo fault zones or zones with identified landslide susceptibility. However, because portions of the trail along the river bluffs are located within high liquefaction susceptibility, the proposed trail alignment may be subject to risk related to ground shaking. However, such risk is not expected to be substantially adverse because trail use would be transitory and does not include residential or other structures that would encourage large densities of users to gather. Therefore, a less than significant impact is anticipated.

- b) *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant. Construction activities associated with development of the proposed Project would include: earthwork including excavation and grading; construction of embankments and/or retaining walls; construction of storm drains, headwalls, and slope protection; construction of asphalt concrete dike, curb and gutter; installation of fencing, railing, access gates, trail delineators, and signage; painting of pavement striping and pavement markings; and, construction of appurtenant features.

The area of potential effects (APE) for the Project includes all areas subject to direct effects from construction activities and is mapped with a 25-foot buffer area surrounding the maximum construction impact area, with the exception of where the trail is located within an existing roadway alignment. The APE for the segments of the trail within roadway alignments is mapped as the roadway right-of-way boundary (see Exhibits 4 – 10).

A Water Quality Management Plan (WQMP) and a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the proposed Santa Ana River Trail Phase IV, Reach A once the Project moves to final design stages. These reports will include Best Management Practices (BMP) to reduce the potential of fugitive dust and soil erosion (refer to Section III Air Quality). Compliance with the BMPs, as well as other applicable water quality standards and requirements (refer to Section IX, Hydrology and Water Quality) will reduce impacts from erosion associated with construction activities. Therefore, a less than significant impact is anticipated.

- 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?*

Less Than Significant. The *City of Redlands General Plan* identifies the Santa Ana River bluff as an area of high liquefaction susceptibility (Redlands 2017a). The proposed trail alignment adjacent to the Santa Ana River wash would consist of a 10-foot wide asphalt/concrete trail and would include a 2-foot wide graded shoulder on either side of the proposed trail alignment; specifically, from California Street to Alabama Street and along Texas Street to Orange Street. Development of the trail would require minimal earthwork and ground disturbance. It is not expected that development of the trail would result in instability of the river bluff. Therefore, a less than significant impact is anticipated.

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

Less Than Significant. Three different soil series occur on or in the immediate vicinity of the proposed trail alignment and include: Hanford, Pssaments and Fluvents, and Tujunga. A soil series is a group of soils with similar profiles. These profiles include major horizons with similar thickness, arrangement, and other important characteristics. Each of the soil series recorded are natural soil types, but there is the potential for presence of fill material derived from other sources within the many developed portions of the Project area, as well as potential mixing of soil types along the surface horizons due to ground disturbance.

The drainage classes of the soil series recorded within the Project area are well drained to excessively drained, meaning that they are not generally very wet. Water is removed from the soil readily to rapidly and internal free water occurrence is rare. Each of the recorded soil types are alluvium derived from granite or a sandy alluvium. Cobbles and coarse stones are common within the soils occurring within the Project area. Each of the soil types contain moderate to rapid permeability with variable runoff potential.

Expansive soils are clay-rich soils that expand when wet and shrink when they dry out. The Hanford, Pssaments and Fluvents, and Tujunga soils that occur within the Project area are well drained to excessively drained and are derived from granite or sandy alluvium not clay. The soils do not exhibit the characteristic of expansive soils; therefore, a less than significant impact is anticipated.

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?*

No Impact. The proposed Project is the development of the Santa Ana River Trail Phase IV, Reach A and does not include septic tanks or alternative wastewater disposal systems. Therefore, no impact is anticipated.

f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant with Mitigation Incorporated. McKenna et al. completed a paleontological overview for the SART Phase IV, Reach A alignment. It was concluded that the Project area consists of younger Quaternary alluvium originating from the San Bernardino Mountains via the Santa Ana River. Alluvial deposits of this type are not typically conducive to yield fossil specimens. However, fossil specimens have been recovered in similar settings at depths that may be as shallow as 9-10 feet. McKenna et al. found no evidence of fossil specimens. However, implementation of Mitigation Measure GEO-1 below would minimize potential impacts to paleontological resources incidental finds to a less than significant level.

Mitigation Measure:

- GEO-1 Should the Project require relatively deep excavations, generally in areas with disturbance exceeding nine (9) feet below the present surface, where older alluvium deposits are possible; a paleontological monitor shall be present and have authority to recover, analyze, and curate any specimens of paleontological significance. The paleontological monitoring program shall be conducted in a manner consistent with the protocols of the San Bernardino County Museum.

Geology and Soils Impact Conclusions:

With implementation of the above listed measure, less than significant impacts are anticipated.

8. GREENHOUSE GAS EMISSIONS

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

Background

The County of San Bernardino has adopted a screening threshold of significance of 3,000 MTCO₂e per year for GHG emissions (*Greenhouse Gas Emissions Development Review Processes County of San Bernardino* March 2015). Therefore, a screening threshold of 3,000 MTCO₂e per year to determine if additional analysis is required is an acceptable approach for small projects. This approach is a widely accepted screening threshold used by the County of San Bernardino and numerous cities in the South Coast Air Basin and is consistent with the South Coast Air Quality Management District (SCAQMD) staff's proposed GHG screening threshold for stationary source emissions for non-industrial projects, as described in the SCAQMD's *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans* (SCAQMD 2008).

Impact Analysis

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant: Per CEQA guidelines, new project emissions are treated as standard emissions, and air quality impacts are evaluated for significance on an air basin or even at a neighborhood level. Greenhouse gas emissions are treated differently as the perspective is global, not local. Therefore, emissions for certain types of projects may not necessarily be considered new emissions if the project is primarily population driven. Many gases make up the group of pollutants that are believed to contribute to global climate change. However the three gases that are currently evaluated include Carbon dioxide (CO₂) Methane (CH₄) and Nitrous oxide (N₂O). GHGs emissions were evaluated using SCAQMD's Off-Road Mobile Source Emissions Factors (2019) and California Climate Action Registry General Reporting Protocol, 2009I; Table A9-8-C SCAQMD Handbook; Climate Leaders EPA, Section 3, Table 3. Model results for GHG emissions related to the proposed Project are shown in Table 4.

As shown in Table 4, the Proposed Project's emissions would not exceed the threshold of significance. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

**Table 4
 Construction Emissions
 Greenhouse Gases**

Task	CO₂¹	CH₄¹	N₂O²
Haul Trucks	2,691.8	0.1	0.0
Loader	872	0.0	0.0
Water Truck	246	0.1	0.0
Other Material Handling Equipment	1,968	0.0	0.0
Total (lbs per day)	5,777.8	0.2	0.0
Total Per Year (lbs)*	577,780	20	0.0
MTCO ₂ e	262.1	0.2	0.0
Total MTCO₂e	262.3		
Threshold	3,000		
Significant	N/A		

¹ Off-Road Mobile Source Emissions Factors (2019);
 Emission Factors for On-Road Heavy-Duty Diesel Trucks (2019)
² California Climate Action Registry General Reporting Protocol, 2009;
 Table A9-8-C SCAQMD Handbook; Climate Leaders EPA, Section 3, Table 3.
 * Construction duration: 100 work days

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

Less Than Significant: The proposed project is the construction and operation of a multi-use trail. No operational emissions are anticipated. The City of Redlands and the County of San Bernardino have adopted a Climate Action Plan and a Greenhouse Gas Emissions Reduction Plan, respectively. The plans and how they pertain is discussed below:

City of Redlands Climate Action Plan (CAP)

The Redlands Community Sustainability Plan (2011) is a strategic planning document that identifies sources of GHG emissions within the City’s boundaries, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic programs, policies, and projects to reduce emissions from the energy, transportation, land use, water use, and waste sectors. The GHG-reduction strategies in the CAP build on inventory results and key opportunities prioritized by City staff and members of the public. The CAP strategies consist of strategies that identify the steps the City will take to support reductions in GHG emissions. The City will achieve these reductions in GHG emissions through a mix of voluntary programs and new strategic standards. All standards presented in the CAP respond to the needs of development, avoiding unnecessary regulation, streamlining new development, and achieving more efficient use of resources.

Construction of the proposed Project would last approximately six months and construction-related GHG emissions would cease upon completion. The proposed Project would not include the provision of new permanent stationary or mobile sources of emissions, and therefore, by its very nature, would not generate quantifiable GHG emissions from Project operations. Thus, the Project is consistent with the GHG inventory and forecast in the Redlands CAP since it would not contribute to the generation of GHG emissions beyond that considered in the CAP. Furthermore, the trail would promote the use of alternative transportation, including walking and cycling, which would, in turn, reduce GHG emissions due to the reduced reliance on automobiles, a primary source of GHG emissions. More

importantly, the Project directly implements CAP Goal LU3 and Policy LU3.3, which seeks to encourage non-motorized transportation and specifically complete the SART. The Project is consistent with the City's CAP as it would not conflict with the CAP GHG inventory or forecast and serves to directly implement CAP Goals and Policies. No impact would occur.

County of San Bernardino Greenhouse Gas Emissions Reduction Plan

The County of San Bernardino GHG Reduction Plan (2011) establishes a GHG emissions reduction target for the year 2020 that is 15 percent below year 2007 emission levels. The GHG Plan is consistent with AB 32 and sets the County on a path to achieve a more substantial long-term reduction in the post-2020 period. Achieving this level of emissions would ensure that the contribution to GHG emissions from activities covered by the GHG Reduction Plan would not be cumulatively considerable. All new development under the jurisdiction of the County is required to quantify a project's GHG emissions and adopt feasible mitigation to reduce project emissions below a level of significance.

The County GHG Reduction Plan identifies a review standard of 3,000 metric tons of CO₂e per year to identify and mitigate project emissions. Projects estimated to generate less than 3,000 metric tons of CO₂e per year are considered less than significant. For projects exceeding 3,000 metric tons of CO₂e per year, the developer may use the GHG Reduction Plan Screening Tables in the GHG Reduction Plan as a tool to assist with calculating GHG reduction measures and the determination of a significance finding. Projects that garner 100 or more points on the Screening Tables are considered less than significant. (The point system was devised to ensure project compliance with the reduction measures in the GHG Plan such that the GHG emissions from new development, when considered together with those from existing development, would allow the County to meet its year 2020 target and support longer-term reductions in GHG emissions beyond year 2020.)

As shown in Table 4, the total amount of proposed GHG emissions would total 262 metric tons of CO₂e per year, which does not exceed the County's 3,000 metric tons of CO₂e per year screening threshold. Therefore, the Project does not conflict with the San Bernardino Greenhouse Gas Emissions Reduction Plan. No impact would occur.

Mitigation Measures:

None.

Greenhouse Gas Emissions Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

9. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk loss, injury or death involving wildland fires?			X	

Environmental Setting

Portions of the alignment would occur along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and on other properties within the existing right-of-way in the City of Redlands; a portion of the alignment occurs within an unincorporated area of the County within the East Valley Corridor Specific Plan. The proposed Project traverse properties with the following land use designations: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks.

The City of Redlands adopted a *Hazard Mitigation Plan* (HMP) in 2015 to comply with the Disaster Mitigation Act of 2000 to increase disaster planning funding. The purpose of the HMP is to establish a plan for reducing and/or eliminating risks associated with flooding, earthquake, wildfire, hazardous material, and drought hazards within the City. The HMP identifies mitigation goals, objectives, and projects to reduce risk; the recommendations and goals of the HMP are incorporated into the City's General Plan and referenced below.

Impact Analysis

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. The construction phase of the proposed Project may include the transport of gasoline and diesel fuel to the Project site as well as the on-site storage of said products for the sole purpose of fueling construction equipment. All transport, handling, use and disposal of substances such as petroleum products, solvents, and paints related to the maintenance of the trail would comply with all Federal, State, and local laws regulating the management and use of hazardous materials. The potential impacts associated with the routine transport, use, or disposal of hazardous materials would be minimal occurring only during the short-term construction period and periodic maintenance activities. Therefore, a less than significant impact is anticipated.

- 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?*

Less Than Significant. Construction and maintenance would involve short-term use of petroleum-based fuels, lubricants, pesticides and other potentially hazardous materials. Use of these materials would occur only during the short-term construction period and during maintenance and is not considered a significant hazard to the public. Therefore, a less than significant impact is anticipated.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less Than Significant. Citrus Valley High School is located adjacent to a portion of the SART Phase IV, Reach A alignment; Clement Middle School is located approximately 0.8 mile southeast of the terminus at Orange Street. Construction activities would involve short-term use of petroleum-based fuels, lubricants, and other similar materials. As described in response b above, all transport, handling, use and disposal of substances such as petroleum products and solvents would be required to comply with all Federal, State, and local laws regulating the management and use of hazardous materials. Post-construction activities would include regular inspections and maintenance and would be completed as necessary. Similar to the construction phase, handling of potentially hazardous materials as needed for trail maintenance would comply with all Federal, State, and local laws regulating the management and use of hazardous materials. Therefore, a less than significant impacts is anticipated.

- 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?*

No Impact. A review of the California State Water Resources Control Board (SWRCB) GeoTracker website indicates that no listed hazardous material sites are located on or immediately adjacent to the proposed trail alignment (SWRCB 2018). GeoTracker is a data management system for hazardous material sites and identifies sites that require cleanup (e.g. Department of Toxic Substance Control, Leaking Underground Storage Tanks (USTs), Department of Defense, and Site Cleanup Programs) as well as permitted facilities that could impact groundwater (i.e., irrigated lands, oil and gas production, operating USTs, and land disposal sites) and meets Government Code Section 65962.5 (Cortese List) requirements. No hazardous material sites are known to occur within the limits of disturbance for construction of the proposed trail alignment. Therefore, a less than significant impact is anticipated.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

Less than Significant. The proposed trail alignment between California Street and Alabama Street is proposed on the southern bluffs of the Santa Ana River, the San Bernardino International Airport runways are located approximately 0.5-mile to the north on the north side of the river (Exhibits 4-5). As identified in the *City of Redlands General Plan*, the proposed trail alignment does not overlap airport compatibility zones for the Redland's Municipal Airport (Redlands 2017a). However, the proposed Project, is within the County of San Bernardino's Airport Safety Review Area 3 (AR3) as shown in the San Bernardino County Land Use Plan Hazard's Overlay Map FH31B. AR3 zones are classified as areas outside a 65 Ldn noise contour and/or areas within one-mile of the outer boundaries of the airport ownership. The County of San Bernardino's 2007 General Plan Table S-5, Land Use Compatibility in Aviation Safety Areas, categorizes neighborhood parks, extensive natural recreations, and all other land uses within the categories of "Clearly Acceptable" and "Normally Acceptable" with a no limit maximum gross density within the AR3 safety area. Use of the trail will be transitory; users would move in and out of the airport's vicinity without staying at any given location for a prolonged time. Therefore, a less than significant impact is anticipated.

- f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

No Impact. The proposed Project is a 3.9-mile linear extension of the SART, specifically Phase IV Reach A. Portions of the alignment would occur along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and on other properties within the existing right-of-way in the City of Redlands and unincorporated County. The proposed Project traverse properties with the following land use designations: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks (Redlands 2017a). The Proposed Project is a pedestrian/bicycle trail. The trail is proposed on existing undeveloped areas and within the rights-of-way of existing local streets. The developed trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. Therefore, post-construction activities associated with the trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. No impact is anticipated.

- g) *Expose people or structure, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less Than Significant. A majority of the proposed trail alignment occurs along a Moderate Threat fire zone interspersed by High Threat fire zones, as identified in the City's General Plan; no adjacent wildlands are identified within the unincorporated County area. Per the *City of Redlands Hazard Mitigation Plan (HMP)* and City policies, Redlands implements an on-going Weed Abatement Program to manage weeds and brush and provide defensible space in areas prone to fire due to vegetation. Additionally, the County of San Bernardino actively establishes fire hazard abatement programs year-round throughout unincorporated areas and within cities and fire districts per San Bernardino County Code Section 23.0301-23.0319. Construction and post-construction activities of the trail would not result in significant increase in risk related to wildland fires. Therefore, a less than significant impact is anticipated.

Mitigation Measure:

None.

Hazards and Hazardous Materials Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

10. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would?			X	
I. Result in substantial erosion or siltation on – or off-site;			X	
II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on – or off-site;			X	
III. Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X

Environmental Setting

A portion of the proposed trail alignment is located along the southern Santa Ana River bluffs. The Santa Ana River watershed is approximately 3,000 square miles and all drainage features within the Project area ultimately drain to the Santa Ana River. A Water Quality Management Plan (WQMP) and a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the proposed Santa Ana River Trail Phase IV, Reach A once the Project moves to final design stages. The findings in this section are based off a recent field visit, a subsequent literature review and the Focused Biological Assessment prepared by Natural Resources Assessment, Inc. The topography for the proposed 3.9-mile trail alignment was found to be relatively flat.

Impact Analysis

a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

Less Than Significant. Construction of the proposed Project would be subject to the National Pollution Discharge Elimination System (NPDES) permit requirements. The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State’s General Construction permit include removal of vegetation, grading, excavating, or any other activity that causes

the disturbance of one acre or more. The Regional Water Quality Control Board (RWQCB) has issued an area-wide NPDES Storm Water Permit for the County of San Bernardino, the San Bernardino County Flood Control District, and the incorporated cities of San Bernardino County.

Prior to the issuance of permits, the County shall prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the Department of Public Work's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity (General Permit No. CAS000003) to eliminate potential sedimentation effects off-site. The General Construction permit requires recipients to reduce or eliminate non-stormwater discharges into stormwater systems, and to develop and implement a Storm Water Pollution Prevention Plan. The purpose of a SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges or stormwater associated with construction activities; and 2) identify, construct and implement stormwater pollution control measures to reduce pollutants into stormwater discharges from the construction site during and after construction. The SWPPP is based on the principles of (BMPs) to control and abate pollutants. The SWPPP must include BMPs to prevent Project-related pollutants from impacting surface waters. BMPs may include or require the following:

- The Project Proponent shall avoid applying materials during periods of rainfall and protect freshly applied materials from runoff until dry.
- All waste to be disposed of in accordance with local, state and federal regulations. The Project Proponent shall contract with a local waste hauler or ensure that waste containers are emptied weekly. Waste containers cannot be washed out on-site.
- All equipment and vehicles to be serviced off-site.

Best Management Practices within the SWPPP will minimize any potential for sedimentation resulting from the discharge of untreated stormwater from the Project entering the Santa Ana River during construction.

In addition to complying with NPDES requirements, the County also requires the preparation of a Water Quality Management Plan (WQMP) which will be prepared once the final design stages are approved. However, construction of the proposed SART Phase IV, Reach A are not anticipated to violate waste discharge requirements (WDRs) because the Project does not include any commercial or industrial components that would require issuance of WDRs. Water quality in the Santa Ana River would not be compromised because the proposed trail alignment is intended to be used for passive recreational use. The WQMP would include Best Management Practices (BMPs) that would recommend general maintenance along the trail, including periodic inspections, cleanup of trash, fence, and asphalt repair. A Memorandum of Understanding (MOU) between the County of San Bernardino and City of Redlands shall be prepared to address the future maintenance of this extension of the trail and the allocation of responsibilities for the two agencies to ensure that incidental trash is routinely collected.

The proposed trail alignment would be utilized for passive recreational uses and would not allow non-motorized transportation. Due to its nature, it's expected to have a minimal adverse effect on stormwater quality associated with both construction and post-construction use of the trail. Therefore, a less than significant impact is anticipated.

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

Less Than Significant. According to the RWQCB Region 8 Basin Plan map, the proposed SART Phase IV, Reach A alignment occurs within the Bunker Hill- B groundwater management zone. Groundwater

near the Santa Ana River is anticipated to be shallower due to groundwater recharge from the river. The 3.9-mile trail alignment is proposed on undeveloped lands on the southern bluffs of the Santa Ana River and the remaining segments of the alignment are proposed along unpaved roads, local streets, and other properties along the existing right-of-way. The proposed trail alignment would not include landscaping or post-construction water usage and thereby result in a decrease of groundwater supplies. There are no recharge basins underlying this segment of the trail and the Proposed Project does not include the construction of groundwater recharge basins. Therefore, it is not anticipated that the proposed Project would affect the existing condition of the groundwater basin, result in a significant net addition of impervious areas to the overall watershed or have any adverse effects on aquifer recharge. Less than significant impact is anticipated.

- c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
- I. *Result in substantial erosion or siltation on – or off-site;*
 - II. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site;*
 - III. *Create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff; or*

Less Than Significant. The proposed trail alignment would be located along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and properties along the existing street right-of-way within the City of Redlands and unincorporated County. All drainage features within the Project area drain to the Santa Ana River. The proposed Project includes a 3.9-mile combination of Class I 10-foot wide asphalt/concrete trail with a widened 2-foot graded shoulder, modified Class I bicycle lane along the existing right-of way, and ultimate curb and gutter construction where possible; (i.e., portions of Pioneer Avenue). Portions of the trail alignment would occur along the southern bluffs of the Santa Ana River and would not preclude or significantly alter the existing drainage pattern of the area. Recommended BMPs from the WQMP and the SWPPP would be implemented during construction and post-construction activities (i.e., maintenance) to avoid and minimize potential erosion to surrounding areas. Existing drainage systems currently discharging into the Santa Ana River would not be impacted by implementation of the proposed trail alignment.

The proposed trail alignment would be constructed entirely outside of the Santa Ana River flood plain and would not cross any other streams or drainages. Development of the proposed Project would not impact the existing drainage pattern of the area and would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or off-site.

Development of the Project would result in a minimal increase of impervious area and would not significantly change the natural composition of the surrounding environments which are mostly impervious surfaces. As a result, the Project would not create or contribute additional runoff water which would exceed the capacity of the existing water drainage system. Therefore, a less than significant impact is anticipated.

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

No Impact. The proposed Project is located outside of the 100-year flood hazard area and does not include structures that would impede or redirect flood flows. Reach A of the Phase IV SART is located within a 500-year Floodplain (Zone X) as defined in Figure 7-3 Flood Hazards (Redlands 2017a). A 500-

year flood zone corresponds to an annual exceedance probability (AEP) of 0.2 percent (or a 1 in 500 chance) of occurring in a given year. This portion of the SART is located approximately 70 miles inland from the ocean. Therefore, the proposed Project would not be affected by severe storms or earthquake-related water hazards such as a seiche or tsunami. No impact is anticipated.

Mitigation Measures:

None.

Hydrology and Water Quality Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

11. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Environmental Setting

The proposed SART Phase IV, Reach A trail alignment would begin on the west side of California Street in the City of Redlands and terminate at Orange Street. The westerly and easterly limits are proposed on the southern bluffs of the Santa Ana River, the remaining alignment is proposed on unpaved roads, local streets, and other properties along existing right-of-way within the City of Redlands and unincorporated County. As identified in the General Plan, existing land uses traversed by the trail and/or immediately adjacent to the alignment include: Open Space, Industrial, Agriculture, and Planned Residential Development (Redlands 2017a).

Impact Analysis

a) *Physically divide an established community?*

No Impact. The purpose of the proposed Project is to develop a non-motorized transportation system that provides safe and contiguous use and enjoyment of open space and environmental education. The trail alignment is consistent with current and proposed bicycle trail alignments identified within the *City of Redlands Bicycle Master Plan* (Redlands 2015). The trail alignment would traverse unincorporated County land along Alabama Street; the alignment at this location is consistent with the County’s East Valley Plan Trail System. According to the County of San Bernardino General Plan non-motorized transportation systems fulfill an increasingly important role as recreational amenities and would not take away from the intended Regional Industrial development. Development of the proposed trail alignment would ultimately provide a bikeway connection to the existing City of Redlands East Valley Corridor Trail.

The East Valley Corridor Trail is part of the City of Redlands “Emerald Necklace.” The Emerald Necklace is a series of existing and proposed green open space and park areas encircling the city, joined together by roads and trail systems. The Emerald Necklace route consist of an approximately 45-mile circuit around the city and is accessible by motorists and bicycles and links a number of Redlands’ parks, trails, and open space areas including the San Timoteo Canyon, Live Oak Canyon, the Crafton groves, the Sports Parks, the Santa Ana River Wash, the Santa Ana River bluffs, Israel Beal Park, the East Valley Corridor Multi-Purpose Trail, and Heritage Park (Redlands 2017a). Access to the East Valley Corridor Trail is available from the California Street cul-de-sac, the same cul-de-sac will provide access to the SART trail and may serve as a connection between the two trail systems.

The purpose and concept of the trail are consistent with the vision of the *Redlands Bicycle Master Plan* and with the multi-path policies of the General Plan as related to Pedestrian, Bicycle, and Vehicular Movement (Redlands 2017a) and with the County’s East Valley Plan Trail System. The proposed trail alignment would further extend the SART to the San Bernardino Mountain foothills and would not divide an established community. Therefore, no impact is anticipated.

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?*

No Impact. The proposed SART Phase IV, Reach A is consistent with the *City of Redlands Bicycle Master Plan* and is consistent with the multi-path policies of the General Plan as related to Pedestrian, Bicycle, and Vehicular Movement as well as Community Cohesion (Redlands 2017a). Therefore, no impact is anticipated.

Mitigation Measures:

None.

Land Use and Planning Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

12. MINERAL RESOURCES

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

Environmental Setting

The Santa Ana River is located north of the Project area and contains high quality construction aggregates that have been mined since the 1920s (Redlands 2017a). Currently, mining in the Santa Ana River is occurring in both the cities of Redlands and Highland. New areas are currently being proposed for mining along the City of Redland’s northern planning boundary. Mining activities within the Santa Ana River are covered activities within the proposed *Upper Santa Ana Wash Land Management and Habitat Conservation Plan* (Wash Plan HCP); a Record of Decision has not been issued and a timeline for implementation of the Upper Santa Ana Wash Land Management and Habitat Conservation Plan is not definitively known.

Impact Analysis

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?*

No Impact. The proposed trail alignment is entirely within an MRZ-2 zone. The MRZ-2 designation indicates that significant Portland Cement Concrete (PCC-Grade) aggregate resources are present in the area. Accordingly, the proposed trail alignment occurs within overlays for “Regionally Significant PCC-grade Aggregate Resources” along Texas Street and within “Designated Areas Lost to Land Uses Incompatible with Mining since 1987” along Israel Beal Park, as designated by the State Mining and Geology Board (Redlands 2017b). However, the proposed trail alignment is located along the Santa Ana River bluffs, on local streets and other properties and within the right-of-way - not within the floodplain where mining typically occurs. Development of the trail would not conflict with the established mining areas in the Santa Ana River wash or with proposed mining land use boundaries as identified in the HCP. Therefore, implementation of the proposed Project would not result in the loss of availability of known aggregate resources of value to the region or the State. No impact is anticipated.

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?*

No Impact. As discussed in section XI(a) above the proposed Project would not conflict with identified mineral resource recovery sites as identified in the City of Redlands long term planning documents. Therefore, no impact is anticipated.

Mitigation Measures:

None.

Mineral Resources Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

13. NOISE

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

Environmental Setting

Construction of the trail will be required to adhere to the City of Redland’s Development Code, which allows for construction noise between the hours of 7:00 am to 6:00 pm on weekdays and Saturdays and to the County of San Bernardino Development Code, which allows for construction noise between 7:00 am to 7:00 pm, with the exceptions of Sundays and Federal Holidays.

The proposed trail alignment occurs along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties within the existing right-of-way in the City of Redlands and unincorporated County. The potential sensitive receptors within the proposed Project area include the Citrus Valley High School and the residences near Israel Beal Park; both occurring on the eastern end of the proposed trail alignment.

Noise Fundamentals: Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels (in $L_{dn}/CNEL$).

Noise can be generated by many sources including: mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 A-weighted decibels (dBA) per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (EPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the “line of sight” between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers.

Wooden fences or broad areas of dense foliage can also reduce noise but are less effective than solid barriers.

Vibration: Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

Impact Analysis

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

Less Than Significant.

Construction Impacts

Construction noise associated with the proposed Project would be temporary and would vary depending on the nature of the activities being performed. Project-related noise would primarily be associated with the operation of off-road equipment for on-site construction activities as well as construction vehicle traffic on nearby roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., demolition, grading, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could affect residences in the vicinity of the construction site. The nearest sensitive receptors to the Project site are the residences located approximately 500 feet from the proposed trail alignment on the easternmost end of the trail and the Citrus Valley High School located approximately 400 feet from the proposed trail alignment. Construction activities would move throughout the proposed alignment and would not be concentrated for extended periods of time at a single location during the estimated 100-workday overall construction schedule.

Noise levels associated with individual construction equipment, provided by the Federal Highway Administration (FHWA), in the Construction Noise Handbook are summarized in Table 5.

Table 5
Typical Construction Equipment
Noise Levels

Type of Equipment	Maximum Noise (L _{max}) at 50 Feet (dBA)	Maximum 8-Hour Noise (L _{eq}) at 50 Feet (dBA)
Blasting	94.0	74.0
Crane	80.6	72.6
Dozer	81.7	77.7
Excavator	80.7	76.7
Generator	80.6	77.6
Grader	85.0	81.0
Other Equipment (greater than 5 horsepower)	85.0	82.0
Paver	77.2	74.2
Roller	80.0	73.0
Tractor	84.0	80.0
Dump Truck	76.5	72.5
Concrete Pump Truck	81.4	74.4
Welder	74.0	70.0

Source: FHWA 2006

As depicted in Table 5, noise levels generated by specific types of construction equipment typically range from approximately 70.0 dBA L_{eq} to 82.0 dBA L_{eq} at 50 feet. During construction, exterior noise levels could affect the existing sensitive receptors identified as occurring approximately 400 and 500 feet from the proposed trail alignment.

Per Section 8.06.120 of the City of Redlands Municipal Code, noise sources associated with new construction, remodeling, rehabilitation or grading of any property is exempt from noise standards, provided such activities take place between the hours of 7:00 a.m. and 6:00 p.m. on weekdays, including Saturdays, with no activities taking place at any time on Sundays or Federal Holidays. Additionally, per Section 87.0901 of the County of San Bernardino Municipal Code, exempt noise and vibration sources include temporary construction, repair, or demolition activities and shall occur between 7:00 am and 7:00 pm on weekdays and Saturdays, except for Sundays and Federal Holidays. All motorized equipment used in such activity shall be equipped with functioning mufflers in adherence with the municipal code.

Operational Impacts

The proposed Project involves the construction of an approximately 3.9-mile portion of the SART. While it is anticipated that the Project would require intermittent maintenance, such maintenance would be minimal requiring a negligible amount of traffic trips on an annual basis. People using the trail for recreational activities (e.g., walking, running, cycling) would be the main source of noise in the Project vicinity. Noise generated by people using the trail will likely be fleeting and transitory in nature, so nearby sensitive receptors are not anticipated to notice a significant change in noise levels. Therefore, a less than significant impact is anticipated.

b) *Generation of excessive groundborne vibration of groundborne noise levels?*

Less Than Significant. Project construction would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. Ground vibration caused by temporary construction or demolition is not regulated by the City. For comparative purposes, this impact discussion utilizes Caltrans's (2002) recommended standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) with respect to the prevention of structural damage for normal buildings. Table 6 displays vibration levels for typical construction equipment.

**Table 6
Representative Vibration Source Levels
for Construction Equipment**

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003

Source: Caltrans 2013

The nearest existing structures to any construction activity area are located approximately 400 feet away (Citrus Valley High School). Based on the vibration levels presented in Table 6, ground vibration generated by heavy-duty equipment at the nearest structure would not be anticipated to exceed approximately 0.089 in/sec PPV. Therefore, the use of virtually any type of construction equipment would most likely not result in a ground borne vibration velocity level above 0.2 in/sec and predicted vibration levels at the nearest structure would not exceed recommended criteria. Additionally, this would be a temporary impact and would cease upon completion of the project construction.

Post-construction activities associated with the Project would not result in any ground borne vibration. Therefore, a less than significant impact is anticipated.

- 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?*

Less Than Significant. There are no private airstrips located within the vicinity of the Project site. The nearest airport to the Project site is the San Bernardino International Airport, located approximately 0.6 miles north of the proposed trail alignment between California Street and Alabama Street (Exhibit 4-5). Significant noise at the San Bernardino International Airport is dependent on the aircraft type and primarily generated by takeoffs, landings, aircraft storage hangars, aircraft maintenance hangars, and aircraft rescue and on-site firefighting services. Aircrafts at this airport include single and multi-engine airplanes, jet airplanes, helicopters, gliders, and ultralight aircrafts. Noise from the aircraft generates a relatively minor contribution to the overall noise environment. Aircraft-related noise would not exceed 65 dBA CNEL outside the boundary of the San Bernardino International Airport (ALP 2010).

The City of Redlands General Plan includes a land use compatibility table that provides the City with a tool to gauge the compatibility of new land uses relative to existing noise levels. This table identifies

normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable noise levels for various land uses, including open space land uses such as those proposed by the Project. In the case that the noise levels identified at a proposed Project site fall within levels considered normally acceptable, the proposed Project is considered compatible with the existing noise environment. An acceptable existing noise level for locating park uses is noise levels up to 72.5 dBA CNEL (Redlands 2017a). Since aircraft-related noise would not exceed 65 dBA CNEL outside the boundary of the San Bernardino International Airport, the existing noise level is below 72.5 dBA. Therefore, the Project is not anticipated to expose people using the trail to excessive noise level from airport operations; a less than significant impact is anticipated.

Mitigation Measures:

None.

Noise Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

14. POPULATION AND HOUSING

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

Environmental Setting

The proposed Project is a 3.9-mile linear section of the SART. Portions of the alignment would occur along the southern bluffs of the Santa Ana River, on unpaved roads, local streets and on other properties within the existing right-of-way in the City of Redlands and/or unincorporated County area. The City of Redlands is located at the base of the San Bernardino Mountains in San Bernardino County, approximately 60 miles northeast of Los Angeles and 45 miles west of Palm Springs. Redlands is a mid-sized city with a population of 68,049 persons as of 2016. As of 2016, 30,200 housing units were inventoried within the City of Redlands planning area (Redlands 2017a).

Impact Analysis

a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

No Impact. The proposed Project is the construction and operation of a non-motorized pedestrian/bicycle trail that is to connect to proposed SART Phase III on California Street and proposed SART Phase IV Reach B on Orange Street. The project is consistent with the *City of Redlands General Plan* and the *City of Redlands Bicycle Master Plan*. Implementation of the proposed Project does not include the construction of new residential uses or significant employment opportunities that would induce population growth. Therefore, no impact is anticipated.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed Project is the construction and operation of a non-motorized pedestrian/bicycle trail. The proposed alignment is consistent with bicycle trail alignments identified within the *City of Redlands Bicycle Master Plan*. Implementation of the proposed Project would not displace people or any existing housing necessitating the construction of replacement housing. Therefore, no impact is anticipated.

Mitigation Measures:

None.

Population and Housing Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

15. PUBLIC SERVICES

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

Environmental Setting

Public safety services within the City of Redlands are provided by the Redlands Police Department and by the Redlands Fire Department. The San Bernardino County Sheriff’s Department provides law enforcement services in collaboration with the City of Redlands for the unincorporated areas within the Project area. Fire protection services are also provided from collaboration between various agencies within the San Bernardino County.

The Redlands Unified School District serves Redlands and the surrounding communities of Mentone and Crafton as well as Loma Linda and the eastern portion of Highland.

The City of Redlands currently has 424.2 acres of recreational land; including parks, trails, and open space systems and has proposed to develop approximately 314 more acres of recreational lands by 2035 (Redland, 2017a). The *City of Redlands General Plan* has included the Santa Ana River Trail as part of its proposed future development through Redlands and Mentone and ultimately to the San Bernardino National Forest. Additionally, the County of San Bernardino is responsible for the completion of approximately 20 miles of the SART. Development of the trail in San Bernardino County has been divided into four phases with several reaches in each phase to provide for construction as funding becomes available. Phase I and II have been constructed and extend from the Riverside/San Bernardino county line to approximately 50 feet westerly of La Cadena Drive in the City of Colton and from the terminus of Phase I to Waterman Avenue in the City of San Bernardino. It is anticipated that Phase III extending from the Phase II terminus to California Street in the City of Redlands will be constructed in 2020. Phase IV is the last segment of the trail extending from California Street in Redlands to Garnet Street in unincorporated Mentone. This IS/MND analyses potential environmental impacts associated with construction and post-construction use of SART Phase IV, Reach A which is proposed to extend from California Street to Orange Street.

Impact Analysis

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, Police protection, Schools, Recreation/Parks, Other public facilities?*

Less Than Significant. Public safety services within the City of Redlands are provided by the Redlands Police Department and Redlands Fire Department. The proposed trail alignment occurs along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties within the City of Redlands and within an unincorporated area of the County. The Santa Ana River Phase IV, Reach A alignment is entirely within a moderate fire threat area. The nearest fire station to the Project site is Fire Station 263 located on the south side of Orange Street, approximately 0.7 miles south of the proposed trail alignment.

According to the *City of Redlands General Plan* the Police Department service ratio is 1.1 officers per 1,000 residents; the average response time in 2015 was reported to be 6.5 minutes. While there is no industry standard for response time to emergency calls, the City identified a desirable goal of 4.5 minutes (Redlands 2017a). The Redlands Police Department is located on W. Park Avenue approximately 1.5 miles south of the Project site.

The proposed trail alignment would be operated for recreational purposes and would be open to the public during daylight hours for hiking and cycling. The City of Redlands nor the County anticipates the need for new or expanded police or fire protection services specifically for the surveillance of the proposed SART Phase IV, Reach A extension. While occasional demand for emergency response may result from operation of the trail, such demand is not expected to substantially alter existing service ratios or response times.

The SART Phase IV, Reach A trail alignment is within the Redlands Unified School District (RUSD) which provides services for nearly 21,000 students. However, the proposed Project would not result in an increase in the population of the area or a demand of RUSD services.

Post-construction activities associated with the trail include general maintenance that would include but not be limited to: weed abatement, fence and pavement repair including repainting, etc. A Memorandum of Understanding (MOU) between the County of San Bernardino and City of Redlands will be prepared to address the future maintenance of this extension of the trail and the allocation of responsibilities for the two agencies.

Implementation of the proposed Project would not result in a demand for additional housing or increase the population of the area. Therefore, the proposed Project is not expected to result in substantial adverse physical impacts associated with public services within the City of Redlands or within the unincorporated County area. The Project would not result in the need for new or physically altered public facilities. Therefore, a less than significant impact is anticipated.

Mitigation Measures:

None.

Public Services Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

16. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
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?			X	

Environmental Setting

The *City of Redlands General Plan* provides for a system of trails serving recreational and emergency access needs to accommodate walking, jogging, bicycling, and equestrian use. Existing and proposed future trails are identified in the 2015 *City of Redlands Bicycle Master Plan* which is used as the primary source for planning and implementing bikeway improvements in Redlands. The proposed trail alignment for the SART Phase IV, Reach A is consistent with future trails as identified in the *City of Redlands Bicycle Master Plan*.

The Final Environmental Impact Report for the County of San Bernardino’s General Plan (San Bernardino 2007) supports the establishment of “urban open space areas” and seeks to develop or retain these areas through cooperation with local cities. Where possible, these areas shall be located along or near regional trail routes. The proposed Santa Ana River Trail Phase IV, Reach A is consistent with these plans. The proposed Project meets the goals of the City of Redlands and those of the County of San Bernardino.

Impact Analysis

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Less Than Significant. The proposed Project would result in the extension of an existing recreational facility consistent with the circulation policies of the *City of Redlands General Plan* and with the *City of Redlands Bicycle Master Plan*. The trail would ultimately link Israel Beal Park on Orange Street to the East Valley Corridor multi-use trail on California Street. Long-term use of the trail includes regular inspections and maintenance/repairs as needed. A MOU between the County of San Bernardino and City of Redlands will be prepared to address the future maintenance of this extension of the trail and the allocation of responsibilities for the two agencies. Implementation of the Project is not anticipated to result in substantial physical deterioration of the facility itself or of the City parks and is anticipated to result in a beneficial impact to regional recreational opportunities. Therefore, less than significant impacts are anticipated.

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

Less Than Significant. The proposed Project is the development of a recreational pedestrian and bicycle trail and is anticipated to result in a beneficial impact to regional recreational opportunities. Less than significant impacts are anticipated.

Mitigation Measures:

None.

Recreation Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

17. TRANSPORTATION

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

Environmental Setting

As stated in the *City of Redlands General Plan*, the City is proactively improving the active transportation network by providing more bicycle lanes and bicycle lockers, replacing and installing new sidewalk facilities, and improving the existing transit network. The General Plan seeks to further such efforts by incorporating policies that promote the development of a comprehensive network of on- and off- roadway bike routes. The City’s Bicycle Master Plan is the primary resource for planning and implementing the City’s bikeway improvements.

Impact Analysis

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

No Impact. The proposed SART IV, Reach A alignment is consistent with the multi-path policies in the *City of Redlands General Plan* as related to Pedestrian, Bicycle, and Vehicular Movement (Redlands 2017a). Additionally, the proposed trail alignment is within planned routes as identified in the *City of Redland’s Bicycle Route Master Plan* (Redlands, 2015). No impact is anticipated.

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

Less Than Significant. During construction of the trail, temporary impacts to traffic at various locations along the trail route may occur as a result of trucks transporting asphalt, cement, decomposed granite, etc. These impacts are anticipated to be short-term in nature and would result in a less than significant impact.

Post-construction use of the trail for recreational hiking and biking is not anticipated to significantly increase the existing traffic load on adjacent roadways. The proposed Project consists of a Class 1 trail physically separated from vehicular traffic. Therefore, traffic on the trail would not conflict with vehicular traffic or with the levels of service.

- c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

Less Than Significant. The final design of the SART facilities would be completed in accordance with the guidance and requirements of the Caltrans Highway Design Manual, Chapter 1000, "Bikeway Planning and Design." Existing right-of-way are limited at certain locations of the alignment; therefore, along these portions, a modified Class I bicycle lane is proposed. Additionally, portions of Pioneer Avenue would have ultimate curb and gutter constructed as part of the proposed Project. Construction of the Project would follow Caltrans design standards and specific trail width requirements and shoulder requirements.

The proposed Project would be reviewed and approved by the City of Redlands to ensure that the final design conforms to applicable policies of Chapter 5 of the General Plan including but not limited to the multi-path policies as related to Pedestrian, Bicycle, and Vehicular Movement (Redlands 2017a). No hazards due to a design features of the trail are anticipated. Therefore, a less than significant impact is anticipated.

- d) *Result in inadequate emergency access?*

No Impact. The proposed trail alignment is located along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and other properties within the City of Redlands and unincorporated County areas. Post construction use of the trail would not conflict with access for emergency vehicles and/or emergency services. No impact is anticipated.

Mitigation Measures:

None.

Transportation Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

18. TRIBAL CULTURAL RESOURCES

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

Environmental Setting

Assembly Bill (AB) 52 signed on September 25, 2014 and effective on July 1, 2015 established a formal consultation process for California Native American tribes as part of CEQA. AB 52 requires that CEQA Lead Agencies, such as the County of San Bernardino, provide California Native American tribes with notice of projects under CEQA consideration by a Lead Agency; the Lead Agency is required to provide notice only to those Tribes that previously requested to be notified by the Lead Agency.

In September 2017, the County of San Bernardino Department of Public Works Environmental Management Division mailed Project notices in accordance with AB 52 to the following tribes: Gabrieleño Band of Mission Indians – Kizh Nation; San Manuel Band of Mission Indians; and, Soboba Band of Luiseno Indians. The San Manuel Band of Mission Indians expressed interest in the Project and requested further consultation. No response was received from the Gabrieleño Band of Mission Indians – Kizh Nation or Soboba Band of Luiseño Indians. Measures as recommended by the consulting tribes have been incorporated into the proposed Project in section V and XVIII of this Initial Study.

Impact Analysis

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)?*

Less Than Significant. The Project specific Phase I Cultural Resources Investigation and Assessment completed by McKenna et al. in November 2018 (McKenna 2018) resulted in negative findings for prehistoric or Native American resources due to extensive and subsequent disturbances for borrow pits, removal of orchards, and general use of the area. McKenna et al. researched the history of the Project area through the County Assessor’s Office, County Archives, and aerial photographs made available through the County Surveyor’s Office. Historic maps were reviewed, along with the various listings for the National Register of Historic Places and California Register of Historical Resources.

- 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?*

Less than Significant Impact with Mitigation Incorporated. Refer to discussion in Section XVII (a) above.

In September 2017, the County of San Bernardino Department of Public Works Environmental Management Division mailed Project notices in accordance with AB 52 to the following tribes: Gabrieleño Band of Mission Indians – Kizh Nation; San Manuel Band of Mission Indians; and, Soboba Band of Luiseno Indians. The San Manuel Band of Mission Indians expressed interest in the Project and requested further consultation. No response was received from the Gabrieleño Band of Mission Indians – Kizh Nation or Soboba Band of Luiseño Indians.

The Archeological Resource Assessment was provided to San Manuel Band of Mission Indians as part of the AB 52 consultation. The Tribe provided their comments on the report on January 18, 2019. Incidental find measures as recommended by the Tribe have been incorporated into this Initial Study.

Mitigation Measures:

- TCR-1 In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work in other portions of the project, outside of the buffered area, may continue during this assessment period. Additionally, consulting tribes (San Manuel Band of Mission Indians) will be contacted if any such find occurs and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. The archaeologist shall complete and isolate/site record for the find and submit this document to the applicant and the Lead Agency for dissemination of the consulting Tribes.
- TCR-2 If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to consulting tribes (San Manuel Band of Mission Indians) for review and comment. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians on the disposition and treatment of any cultural materials encountered during the project.

Tribal Cultural Resources Conclusions:

With implementation of the above listed measures, less than significant impacts are anticipated, and consulting tribes agreed to close consultation under AB52.

19. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the wastewater treatment provider 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?				X
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Environmental Setting

The City of Redlands Municipal Utilities and Engineering Department is responsible for providing infrastructure and related public services, including water production and distribution, wastewater collection and treatment, engineering review and inspections of development proposals, public infrastructure improvements, and development/construction of new facilities within the City's water and sewer service areas. The proposed Project lies entirely within the service areas of the department. The City operates two surface water treatment plants; water distribution infrastructure includes 15 wells, 37 booster pumps, 18 reservoirs, and 400 miles of transmission and distribution lines. The City also operates a wastewater treatment plant. The wastewater treatment plant is located on the south side of the Santa Ana River, at the north end of California Street adjacent to this section of the SART. It is a secondary plant which disposes solids off-site and includes basins for effluent to percolate into the underlying aquifer after treatment. The sewer collection system includes one lift station and approximately 230 miles of pipelines.

The City's stormwater drainage system serves an area of approximately 37 square miles; the system is composed of a combination reinforced concrete pipe and corrugated metal pipe, box culverts, covered rubble rock and concrete channels, and concrete and natural drains. Stormwater runoff flows by gravity into the San Bernardino County Flood Control District's Mission Channel, Morrey Arroyo Creek, and San Timoteo Canyon, and discharge into in the Santa Ana River.

Solid waste collection services are provided by the City's Quality of Life Department to customers within the City limits. Solid waste is disposed of at either the City's California Street Landfill (adjacent to this reach of the SART) or at the San Timoteo Sanitary Landfill operated by County of San Bernardino.

Impact Analysis

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

No Impact. The proposed Project does not include development of public facilities such as public restrooms and would not require construction of any new water service, sewer collection or wastewater treatment facilities. In addition, the trail would not require the construction or relocation of any new electric power, natural gas or telecommunication facilities. No impact is anticipated.

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

No Impact. The proposed Project is the development and use of the SART Phase IV Reach A. Post-construction use of the trail would not require irrigation or place a demand on potable water resources which would result on a need for new or expanded entitlements. Therefore, no impact is anticipated.

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?*

No Impact. The proposed Project does not include development of public facilities such as public restrooms. The Project would not have an end use that would place a demand on wastewater treatment capacity. Therefore, no impact is anticipated.

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?*

No Impact. Construction of the proposed Project would require minimal grubbing and earthwork. It is expected that solid waste generated by construction activities would be disposed of at either the California Street Landfill or at the San Timoteo Sanitary Landfill. The California Street Landfill encompasses 115 acres and has a design capacity of 11.4 million cubic yards; its maximum permitted capacity is 10 million cubic yards. As of 2017 the landfill had a remaining capacity of 6,800,000 cubic yards (Redlands 2017b). The San Timoteo Sanitary Landfill encompasses 366 acres (114 acres permitted for disposal) and has a permitted capacity of 20,400,000 cubic yards. As of 2017 the reported remaining capacity was 11,402,000 cubic yards (CalRecycle 2018). Post-construction use of the trail would be limited to transitory use by pedestrians/bicyclists for recreation. In general, post-construction activities of the trail are not refuse generating. Therefore, no new demand on the waste disposal capacity is expected. No impact is anticipated.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less Than Significant. All solid waste generated during Project construction would be disposed of by the contractor at an approved site. The contractor is required to comply with federal, State, and local statutes and regulations regarding solid waste. Therefore, less than significant impact is anticipated.

Mitigation Measures

None.

Utilities and Service Systems Impact Conclusions

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

20. WILDFIRE

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

Environmental Setting

The City of Redlands adopted a *Hazard Mitigation Plan* (HMP) in 2015 to comply with the Disaster Mitigation Act of 2000 to increase disaster planning funding. The purpose of the HMP is to establish a plan for reducing and/or eliminating risks associated with flooding, earthquake, wildfire, hazardous material, and drought hazards within the City. The HMP identifies mitigation goals, objectives, and projects to reduce risk; the recommendations and goals of the HMP are incorporated into the City's General Plan and referenced below.

Impact Analysis

a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

No Impact. The proposed Project is a 3.9-mile linear extension of the SART, specifically Phase IV Reach A. Portions of the alignment would occur along the southern bluffs of the Santa Ana River, on unpaved roads, local streets, and on other properties within the existing right-of-way in the City of Redlands and unincorporated County. The proposed Project traverse properties with the following land use designations: Agriculture, Public Institutional, Open Space, East Valley (EV) Special Development, (EV) Regional Industrial, (EV) Commercial General, Commercial/Industrial, Public/Institutional, Low and Very Low Density Residential, and Parks (Redlands 2017a). The Proposed Project is a pedestrian/bicycle trail. The trail is proposed on existing undeveloped areas and within the rights-of-way of existing local streets. The developed trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. Therefore, post-construction activities associated with the trail would not conflict with access and/or circulation of emergency vehicles in response to an emergency and/or evacuation. No impact is anticipated.

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

Less than Significant. A majority of the proposed trail alignment occurs along a Moderate Threat fire zone interspersed by High Threat fire zones, as identified in the City's General Plan; no adjacent wildlands are identified within the unincorporated County area. Per the *City of Redlands Hazard Mitigation Plan (HMP)* and City policies, Redlands implements an on-going Weed Abatement Program to manage weeds and brush and provide defensible space in areas prone to fire due to vegetation. Additionally, the County of San Bernardino actively establishes fire hazard abatement programs year-round throughout unincorporated areas and within cities and fire districts per San Bernardino County Code Section 23.0301-23.

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?*

Less than Significant. The proposed Project is the construction and operation of a multi-use trail consistent with the goals of the City of Redlands Bicycle Master Plan, City of Redlands Pedestrian, Bicycle, and Vehicular Movement General Plan Goals, and with the County of San Bernardino trail system policies in the East Valley Area Plan. The end use of the trail is for passive recreation, therefore, infrastructure such as vehicular access roads and utilities are not proposed. As described in section XX(b) above, the proposed alignment traverses moderate and high fire threat zones. However, both the City and County implement fire mitigation policies. Therefore, the proposed Project is not expected to significantly exacerbate fire risks or result in temporary or ongoing impacts to the environment.

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

Less than Significant. Reach A of the Phase IV SART is located within a 500-year Floodplain (Zone X) as defined in Figure 7-3 Flood Hazards (Redlands 2017a). A 500-year flood zone corresponds to an annual exceedance probability (AEP) of 0.2 percent (or a 1 in 500 chance) of occurring in a given year. As shown in Figure 7-5: Faults, of the City's General Plan, the proposed trail alignment does not traverse zones with identified landslide susceptibility; therefore, in the event of a fire, it is not expected that slope instability would be experienced.

Mitigation Measures:

None.

Wildfire Impact Conclusions:

No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

21. MANDATORY FINDINGS OF SIGNIFICANCE

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

a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less Than Significant. A Project specific Focused Biological Assessment (FBA) for the Santa Ana River Trail Phase IV, Reach A was prepared by Natural Resources Assessment, Inc. (NRAI, January 2019). The findings of the report are summarized in this Initial Study; all direct, indirect, and cumulative impacts as identified in the report were reduced to a less than significant impact with implementation of Mitigation Measures BIO-1 to BIO-17. Impacts to potentially occurring rare or endangered plant or animal species and their habitats have been reduced to a less than significant impact with implementation of mitigation measures. Development of the proposed Project would not cause fish or wildlife populations to drop below self-sustaining levels or restrict the movement/distribution of a rare or endangered species.

Potential impacts to cultural resources are identified in the *Phase I Cultural Resources Investigation and Assessment (CRIA) of Impacts on Cultural Resources Identified within the Proposed Santa Ana River Trail, Phase IV, Reach A, California Street to Orange Street, Redlands, San Bernardino County, California* prepared by McKenna et al. (McKenna 2018) for the 3.9-mile-long alignment. The cultural study included a cultural resources records search, Sacred Lands File search, field survey, and California Register of Historical Resources (CRHR) evaluation. A Paleontological Identification Report of the Project area was completed as well. The findings of the two reports are summarized in this Initial Study. All direct, indirect, and cumulative impacts as identified in the technical study were reduced to a less than significant impact with implementation of Mitigation Measures CUL-1, CUL-2, GEO-1 and TCR-1 and TCR-2. Adherence to the mitigation measures would ensure that important examples of the major periods of California history or prehistory are not eliminated as a result of the proposed Project.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

Less Than Significant. The proposed Project does not have impacts that are individually limited, but cumulatively considerable. The SART has been included in local and regional plans and evaluated in their respective Environmental Impact Report for cumulative impacts. Additionally, the evaluation contained in this document determined that potential impacts to the environment can be reduced to a less than significant level with implementation of the identified mitigation measures. Based on data provided in this document, including the type of project proposed and its location, it is concluded that implementation of the proposed Project will not result in impacts that are either individually or cumulatively considerable or significant when viewed in relation to past, present or probable future projects.

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

Less Than Significant. The proposed Project will not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly, as there are no such impacts identified within this analysis or in the project specific technical analyses or available data from other agencies.

Only minor temporary increases in air emissions and noise will be created by implementation of the proposed Project. These potential impacts have been thoroughly evaluated and have been deemed to be neither individually significant nor cumulatively considerable in terms of any adverse effects upon the region, the local community or its inhabitants.

SECTION 5 – SUMMARY OF MITIGATION MEASURES

The following mitigation measures were identified to reduce impacts to less than significant:

- BIO-1 Prior to construction of the Project, the Project Proponent shall install and maintain barriers such as boulders, fences, and gates along work area and trail boundaries to help prevent unauthorized activities, including dumping and off-road vehicle use.
- BIO-2 Prior to construction, the Project Proponent shall delineate the limits of construction via marking or temporary fencing. The delineation shall be maintained as necessary until construction of the trail is completed.
- BIO-3 Throughout construction of the Project, construction personnel shall limit their activities, vehicles, equipment, and construction materials to the designated work area and equipment staging areas.
- BIO-4 Throughout construction of the Project, the Project Proponent shall implement seasonal avoidance and minimization measures adopted as advised in the Upper Santa Ana River Wash Plan for nesting birds.
- BIO-5 All workers will receive environmental awareness training. The training will be developed in consultation with a qualified biologist and consist of an onsite or training center presentation for which supporting materials will be provided. Training will provide information about the special-status species potentially occurring on site and an explanation of the purpose and function of the avoidance and minimization measures and the possible penalties for not adhering to them.
- BIO-6 If construction takes place during the California gnatcatcher breeding season, burrowing owl nesting period, during nesting bird season (February 1 through August 31), or whether significant loss to raptors and migratory birds or their habitats is expected, a general nesting bird survey will be required. The protocol requires the following:
- Construction scheduled to occur between February 1 and August 31 will require a qualified biologist conduct a breeding bird survey no more than three days prior to the start of construction to determine if nesting is occurring.
 - “Construction” includes selection of staging areas, demolition, tree, trash and debris removal, placement of equipment and machinery on to the site preparatory to grading, and any other Project-related activity that increases noise and human activity on the Project site beyond existing levels. Emergency measures are exempt from this definition.
 - If occupied nests are found, they shall not be disturbed unless the qualified biologist verifies through non-invasive methods that either (a) the adult birds have not begun egg-laying and incubation; or (b) the juveniles from the occupied nests are capable of independent survival.
 - If the biologist is not able to verify one of the above conditions, then no disturbance shall occur within a distance specified by the qualified biologist for each nest or nesting site. The qualified biologist will determine the appropriate distance in consultation with the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

- BIO-7 Protocol SBKR presence-or-absence studies will be conducted prior to construction to determine whether SBKR occupy suitable habitat along the alignment. If the studies are positive the County will consult with the U.S. Fish and Wildlife Service. Construction will not proceed until the appropriate authorization from U.S Fish and Wildlife Service is received.
- BIO-8 A qualified biologist or biological monitor with SBKR expertise will be present when construction or ground-disturbing activities that could result in take of SBKR occurs, or within 100 meters of SBKR habitat which is classified as low, medium or high habitat potential for SBKR in the HCP.
- BIO-9 Equipment (e.g., passenger vehicles, trucks, and heavy equipment) will be cleaned prior to entering the worksite and between worksites to prevent the importation and spread of exotic plant species.
- BIO-10 Ingress and egress of construction equipment and personnel will be confined to designated access points. Cross-country travel by vehicles and equipment will be prohibited.
- BIO-11 No open trenches or holes will be left overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they will be inspected for trapped wildlife by a qualified biologist or biological monitor prior to the start of work activities each day the trenches or holes remain uncovered. Animals found will be captured and moved to the nearest safe location outside the construction area.
- BIO-12 Soil temporarily stockpiled during construction will be fenced to exclude SBKR and stockpiles will be removed within 45 days of the end of construction.
- BIO-13 Dust will be controlled. If water trucks are to be used, pooling of water will be avoided to minimize the potential of attracting opportunistic predators.
- BIO-14 Adequate fire suppression capability will be maintained in active construction areas including having a water tender on site in active construction areas during periods of high fire danger.
- BIO-15 No firearms or pets will be allowed at the work areas. Firearms carried by authorized security and law enforcement personnel are exempt.
- BIO-16 Litter control measures will be implemented during construction and post-construction. Trash and food items will be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.

CULTURAL RESOURCES:

- CUL-1 In the event that previously unidentified resources are uncovered as a result of the trail development, a qualified archaeologist shall be on-call and available to inspect and assess the find in accordance with CEQA criteria. If deemed appropriate, archaeological monitoring shall be incorporated into the overall mitigation program.
- CUL-2 If human remains or funerary objects are encountered during any activities associated with the Project, work in the immediate vicinity (within 60-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 Should the Project require relatively deep excavations, generally in areas with disturbance exceeding 9 feet below the present surface, where older alluvium deposits are possible; a paleontological monitor should be present and have authority to recover, analyze, and curate any specimens of paleontological significance. The paleontological monitoring program should be conducted in a manner consistent with the protocols of the San Bernardino County Museum.

TRIBAL CULTURAL RESOURCES

- TCR-1 In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, consulting tribes (San Manuel Band of Mission Indians) will be contacted if any such find occurs and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. The archaeologist shall complete and isolate/site record for the find and submit this document to the applicant and the Lead Agency for dissemination of the consulting Tribes.
- TCR-2 If significant Native American historical resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, an SOI-qualified archaeologist shall be retained to develop a cultural resources Treatment Plan, as well as a Discovery and Monitoring Plan, the drafts of which shall be provided to consulting tribes (San Manuel Band of Mission Indians, Soboba Band of Mission Indians and Morongo Band of Mission Indians) for review and comment. The Lead Agency and/or applicant shall, in good faith, consult with San Manuel Band of Mission Indians, Soboba Band of Mission Indians and Morongo Band of Mission Indians on the disposition and treatment of any cultural materials encountered during the project.

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APPENDIX A
FOCUSED BIOLOGICAL
ASSESSMENT



NATURAL RESOURCES ASSESSMENT, INC.

FOURTH DRAFT

**Focused Biological Assessment
Santa Ana River Trail Phase IV, Reach A
San Bernardino County, California**

Prepared for:

**Lilburn Corporation
1905 Business Center Drive
San Bernardino, California 92408**

Prepared by:

**Natural Resources Assessment, Inc.
3415 Valencia Hill Drive
Riverside, California 92507**

January 30, 2019

Project Number: LIL07-118

*3415 Valencia Hill Drive
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*T (951) 686-4483
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CERTIFICATION

I hereby certify that the statements furnished below and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Karen Kirtland
Natural Resources Assessment, Inc.

January 30, 2019
Date

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- Appendix B - Sensitive Biological Resources In the Vicinity of the Project
- Appendix C - Plants and Animal Species Observed
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1.0 Introduction

Natural Resources Assessment, Inc. (NRAI) was contacted by Lilburn Corporation to provide biological services for the County of San Bernardino, Public Works Department, Regional Parks. The County is proposing to construct Phase IV, Reach A of the Santa Ana River Trail Phase IV, Reach A (Reach A).

The Santa Ana River Trail is a hiking and biking trail that extends from the Pacific Ocean to the mountains of San Bernardino. Phase IV, Reach A is the last segment of the trail scheduled for construction.

2.0 Project Information

2.1 Site Location

The proposed alignment for Reach A runs generally along the south side of the Santa Ana River east from California Street to Orange Avenue in Redlands, San Bernardino County (Figures 1 and 2).

The alignment passes through Sections 13 through 17, Township 1 south, Range 3 west and Sections 17, 18 and 21, Township 1 south, Range 2 west, Redlands 7.5' USGS topographic quadrangle, San Bernardino base and meridian (Figure 2).

2.2 Project Description

The County of San Bernardino has initiated environmental review under the California Environmental Quality Act (CEQA) for the Santa Ana River Trail (SART) Phase IV (Reach A) Project. The proposed project is construction of a recreational trail extending from California Street to Orange Street within the City of Redlands in San Bernardino County (refer to Figures 1 and 2). On the westerly end of Reach A, the trail would connect to the Santa Ana Trail Phase III (construction expected 2018); on the east, the trail would ultimately connect to the future SART Phase IV (Reach B).

The SART Phase IV (Reach A) is an approximately 3.9-mile long segment of a larger regional trail ultimately envisioned to extend from Huntington Beach to Big Bear Lake. Segments of the trail have been built in Orange, Riverside, and San Bernardino Counties. The alignment of the Future SART Phase IV (Reach B) and beyond have not yet been clearly defined; therefore, the subject CEQA review and associated AB52 Consultation opportunity is limited to the SART Phase IV (Reach A) segment only. Future segments of the trail will be subject to their own review under CEQA and AB52.

Construction activities anticipated as part of the proposed project include excavation, grading, embankment/ retaining walls; installation of fencing, railing, access gates, trail delineators, and signage; pavement striping and markings and all other appurtenant work. Expected earthwork would include cut (approximately 2 feet) and fill (approximately 3 feet) for trail grading and retaining wall construction. Additionally, it is anticipated that construction would require the removal and/ or relocation of various trees, shrubs, bushes, and grasses along the proposed alignment.

3.0 Project History

NRAI has worked with the County and Lilburn Corporation on the Phase IV section since 2009, including informal surveys with County and resources agencies staff, and formal biological assessment surveys.

On April 19, 2009, NRAI reviewed available information on then current alignment from California Street east to Opal Avenue. The review was provided at the request of Lilburn Corporation and provided input on potential impacts to sensitive resources,

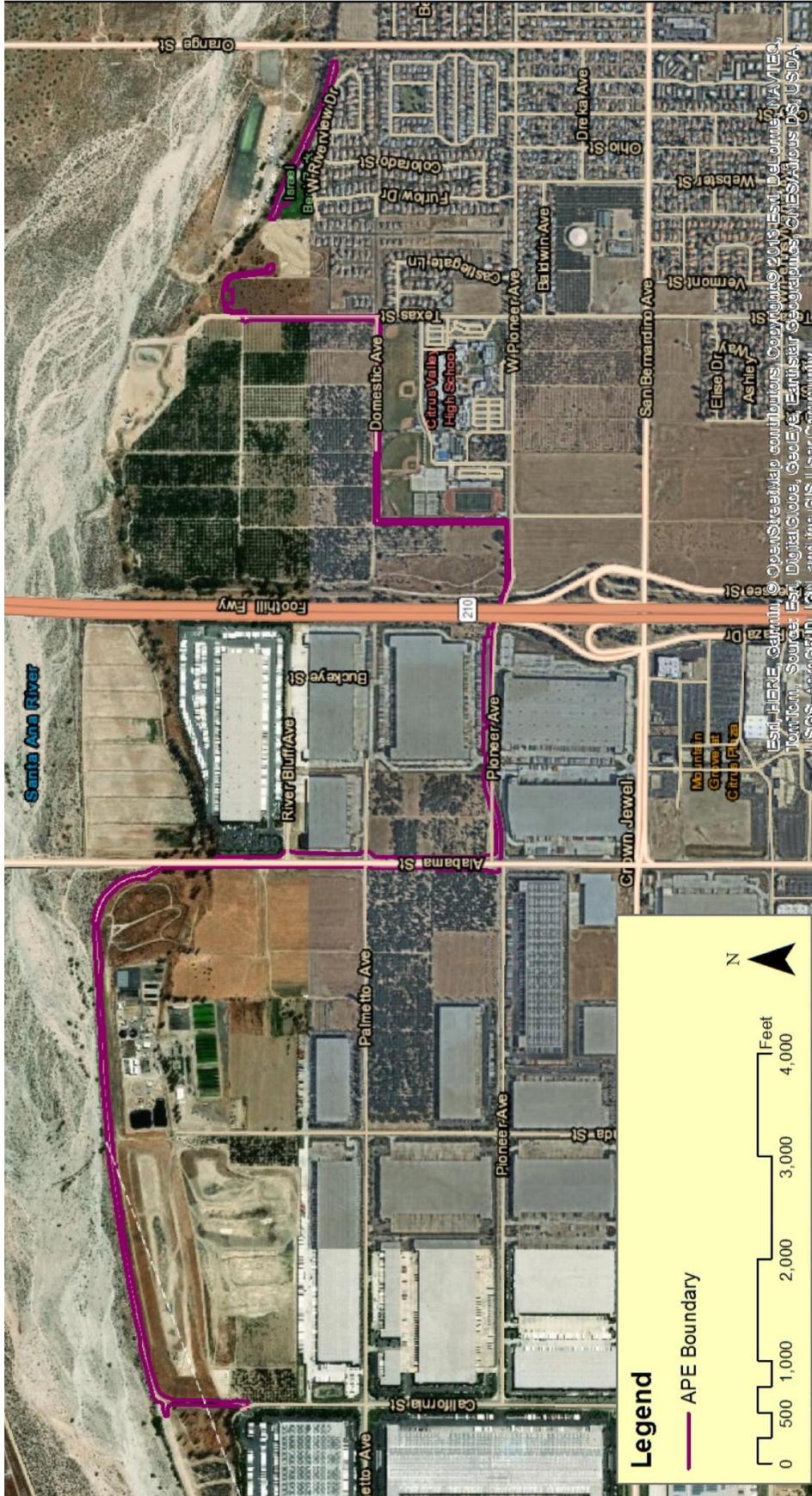
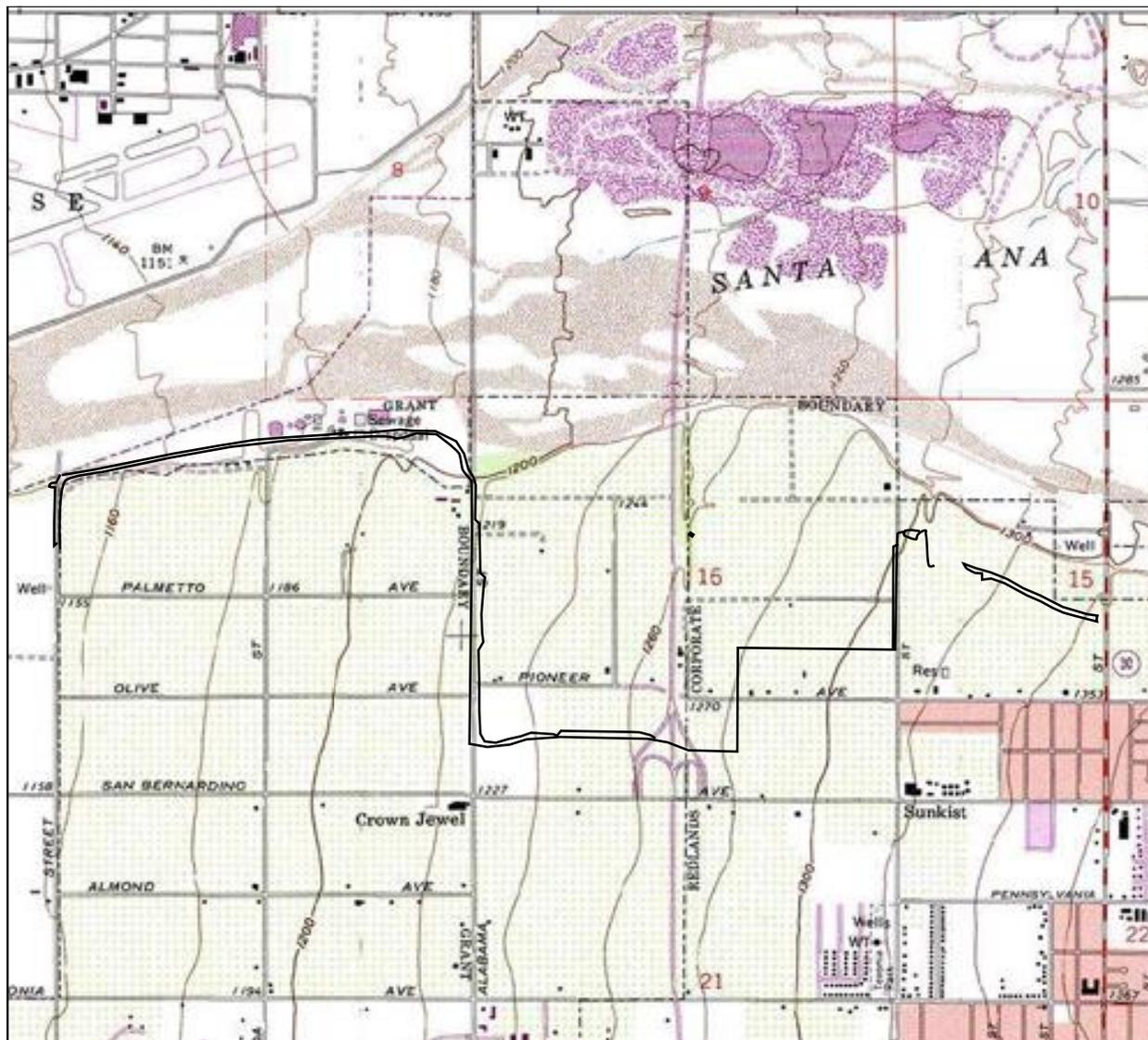


Figure 1. Project Aerial Showing
 2018 Site Conditions

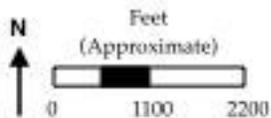
Source: San Bernardino County Public
 Works Department, 2018

Santa Ana River Trail Phase IV, Reach A
 County of San Bernardino
 Public Works Department, Regional Parks
 San Bernardino, California



Map Base: Redlands (1996) 7.5' USGS
topographic quadrangle

Figure 2. Project Topography, 1996



Santa Ana River Trail
Phase IV, Reach A
County of San Bernardino
Public Works Department, Regional Parks
San Bernardino, California

NRAI conducted a preliminary site assessment on May 20, 2009, to determine the potential issues for trail construction and possible trail redesign. The preliminary assessment was limited to checking sections of Phase IV for potentially sensitive areas

On August 13, 2009, NRAI attended a field meeting held by the Regional Parks Department. The meeting included representatives from the Department, Lilburn Corporation and U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and U.S. Army Corps of Engineers. The list does not include a representative from the Santa Ana Regional Water Quality Control Board (Appendix A).

We conducted a formal survey of both reaches on May 24 and 25, 2010. We documented the habitats and site conditions along the entire SART IV alignment, except for the flood wall maintenance road extending from Greenspot Road down to the crossing of the Santa Ana River. This section was blocked by flood control gates. Because it is a maintained road, NRAI determined that no foot survey was necessary because no new habitat would be impacted.

We updated our previous site assessment of SART IV, Reach A and B on May 5 and May 28, 2014. The purpose of the survey was to document any substantial changes that may have occurred along the alignment since our 2010 survey.

Our current survey was focused on Reach A (Figures 1 and 2). We conducted the survey on October 24, 2018. Ms. Karen Kirtland of NRAI, Mr. Ricardo Montijo (subconsultant to NRAI), Ms. Gabriela Huerta and Ms. Kim Fowler of Lilburn Corporation surveyed Reach A from California Street to Orange Street in Redlands.

4.0 Methods

4.1 Agency Review

Based on the August 13, 2009 meeting, the principal resources of concern for the Reach A segment of the Trail were:

- San Bernardino kangaroo rat (*Dipodomys merriami parvus*)
- Jurisdictional waters

The California gnatcatcher (*Polioptila californica*), burrowing owl (*Athene cunicularia*) and nesting birds were not identified as resources of concern. Santa Ana River woolly star (*Eriastrum densiflorum* var. *sanctorum*) and slender-horned spineflower (*Dodecahema leptoceras*) were not expected to be directly impacted by the proposed alignment of the trail at that time.

4.2 Data Review

NRAI reviewed the available information on plant and wildlife species known occurrences within the vicinity of the project. This review included information provided by the County, biological texts on general and specific biological resources, and those resources considered to be sensitive by various wildlife agencies, local governmental agencies and interest groups. It also included our work and work by other biologists on projects in the vicinity of Reach A. We used the information to focus our survey efforts in the field.

Specific documents reviewed included:

- Upper Santa Ana River Wash Habitat Conservation Plan, Public Draft. January 2018 (ICF 2018).
- Santa Ana River Trail, Phase IV, Reaches B & C, Final Natural Environment Study, San Bernardino County, City of Redlands, Caltrans District 8 Federal Project No. ATPL 5954(146) October 2018.

Sensitive species potentially present include those listed, or candidates for listing by the U. S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS).

4.3 Field Surveys

The field team conducted the field survey on October 24, 2018. The survey was focused on updating our previous findings and surveying revised sections of the proposed alignment. The work included identifying changes that have taken place along those remaining parts of the original alignment since our previous work.

As part of our field work, we documented the soils, plant communities and wildlife in the various sections. We also included observations of potential habitat for sensitive species. Signs surveyed for included nests, tracks, scat, burrows, remains, and individuals. Our documentation included photographs of representative sections of Reach A.

4.4 Survey Limitations

There were two limitations to accessing Reach A. Starting at the western end, they are listed below:

- The section along the western end of Citrus Valley High School was only surveyed briefly from the northern end to avoid trespass issues with local residents.
- The section from Texas Street to Israel Beal Park was partly surveyed from both sides, but the central section was occupied by what appeared to be an illegal trailer encampment.

As a result of these difficulties the field team did not fully survey all sections of Reach A. However, based on aerial photos and what could be surveyed, the habitats along Reach A do not appear to have substantially changed since the original site surveys were conducted in 2010.

5.0 Results

5.1 Research Findings

Table 1 in Appendix B provides information on the habitat requirements and regional distribution, seasonal distribution, listing status, and probability of occurrence on the project site of the various sensitive resources of concern for this project.

5.2 Weather

At the beginning of the survey on October 24, 2018, the temperature was 61 degrees Fahrenheit, with calm conditions and winds and clear skies. By the end of the survey, the temperature was 76 degrees Fahrenheit, with calm conditions and clear skies.

5.3 Soils

There are three soils that occur along Reach A. Psamments, Fluvents and Frequently Flooded soils are found primarily in the Santa Ana River and the lower slopes. Tujunga soils are found in upland areas. Hanford soils are also found in the upland area.

Hanford sandy loam is found on zero to two percent slopes. They are composed of alluvium derived from granite and are found on alluvial fans. Hanford loams are non-hydric, well-drained soils. The frequency of flooding is rare.

Psamments, Fluvents, and Frequently Flooded soils are somewhat excessively drained soils (Psamments) found along drainage ways. These are frequently flooded soils derived from sandy alluvium (Psamments) and alluvium (Fluvents).

Tujunga loamy sand soils are somewhat excessively drained soils found on alluvial fans. They are formed from alluvium derived from granite. The frequency of flooding is rare.

5.3.1 California Street to Alabama Street

The soils are mostly Psamments, Fluvents and Frequently Flooded soils, with the upper bluffs composed of Tujunga loamy sand.

5.3.2 Alabama Street South and East on Pioneer Avenue to Interstate 210

This part of Reach A is on paved streets; however, the underlying soil type is almost entirely Hanford sandy loam. There is a small area of Tujunga loamy sand just before Interstate 210.

5.3.3 Interstate 210 to Citrus Valley High School

The first part is on a paved street; however, the underlying soil type is almost entirely Hanford sandy loam.

5.3.4 Citrus Valley High School from Pioneer Avenue to Texas Street

Reach A turns and runs north along the west side of Citrus Valley High School and then turns east to Texas Street. Soils in this area are Hanford sandy loam and Tujunga sandy loam.

5.3.5 Texas Street to Israel Beal Park

From Texas Street to Israel Beal Park, the soil is entirely Hanford sandy loam.

5.3.6 Israel Beal Park to Orange Street

Israel Beal Park is underlain by Tujunga sandy loam.

5.4 Topography

Although there is a gradual rise in overall elevation, the topographic profile is flat (Figure 2).

5.5 Vegetation Types and Wildlife Habitats

The vegetation maps provided in this report include a finer division of vegetation types than the plant communities described in the following text (Figures 3a through 3d). The map groupings are taken from *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). We have included the matching vegetation alliance names displayed on the map within the descriptions provided below.

5.5.1 *Hirschfeldia* Semi-Natural Alliance

This vegetation alliance description includes the *Bromus* Herbaceous Semi-Natural Alliance, *Hirschfeldia* Herbaceous Semi-Natural Alliance, Agricultural and Ruderal vegetation types.

The *Hirschfeldia* Semi-Natural Alliance vegetation alliance is composed primarily of weedy species such as red brome (*Bromus madritensis* ssp. *rubens*), pigweed (*Chenopodium album*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*) and short-pod mustard (*Hirschfeldia incana*). Other plant species present include those found in farmed fields. At the time of the survey, these farmed areas either had no vegetation cover or were dominated by weeds such as red brome, slender wild oats (*Avena barbata*), and Russian thistle.

Wildlife observed in these areas was limited to common bird species such as house finch (*Haemorhous mexicanus*), mourning dove (*Zenaidura macroura*) and horned lark (*Eremophila alpestris*). Side-blotched lizard (*Uta stansburiana*) may be present along the edges and less disturbed areas of the farmed field.

California ground squirrel (*Spermophilus beecheyi*) and pocket gopher (*Thomomys bottae*) are two common mammal species. Kangaroo rats (*Dipodomys* spp.) and deer mice (*Peromyscus maniculatus*) may forage and occasionally build burrows in ruderal habitat adjacent to scrub or orchard habitats.

Shrub and tree species are mostly absent in this community because these areas tend to be subject to high disturbance levels. Types of disturbance include crop production, grading, disking for fire control, and legal and illegal uses such as off-roading and dumping of material.

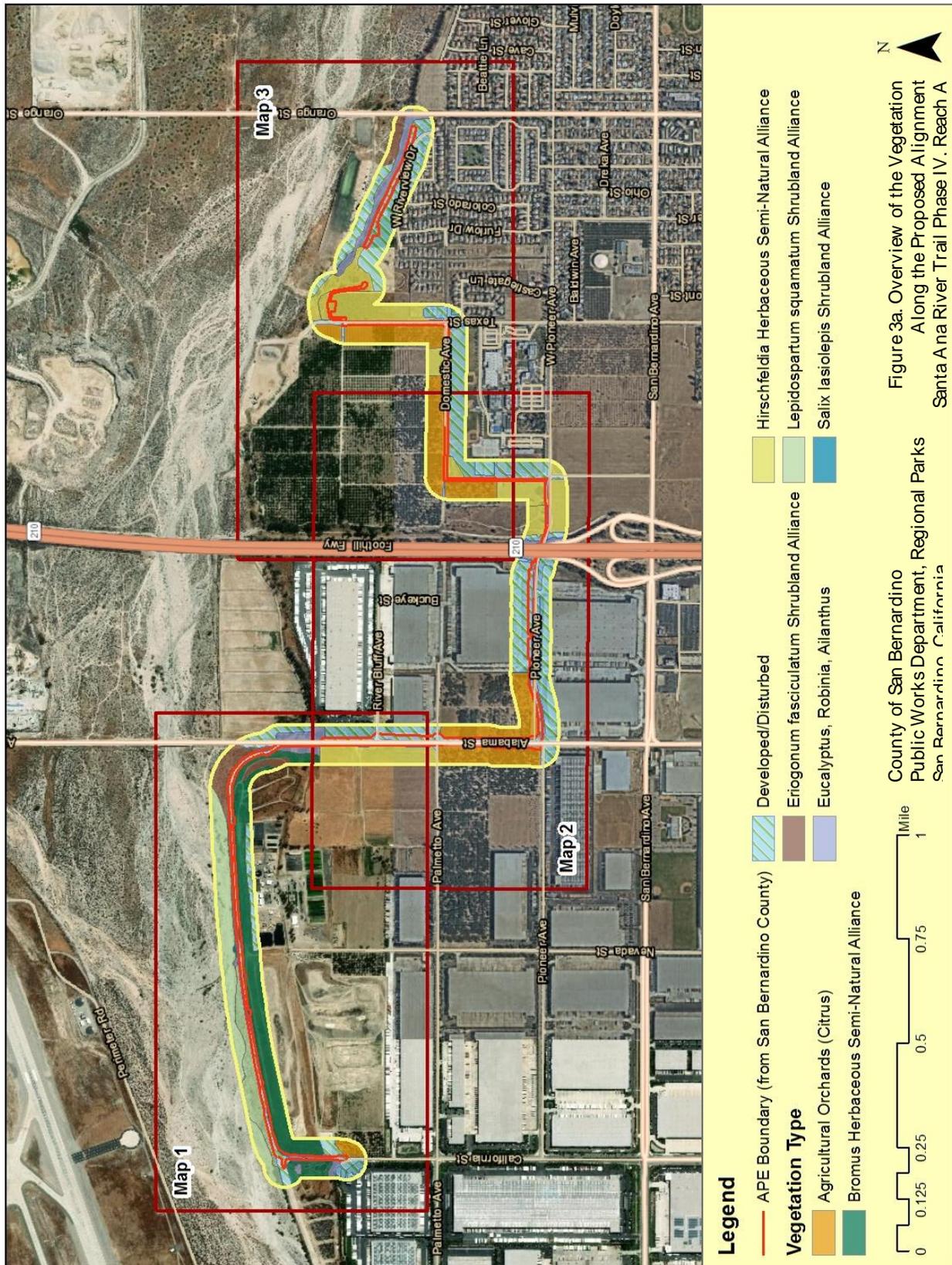
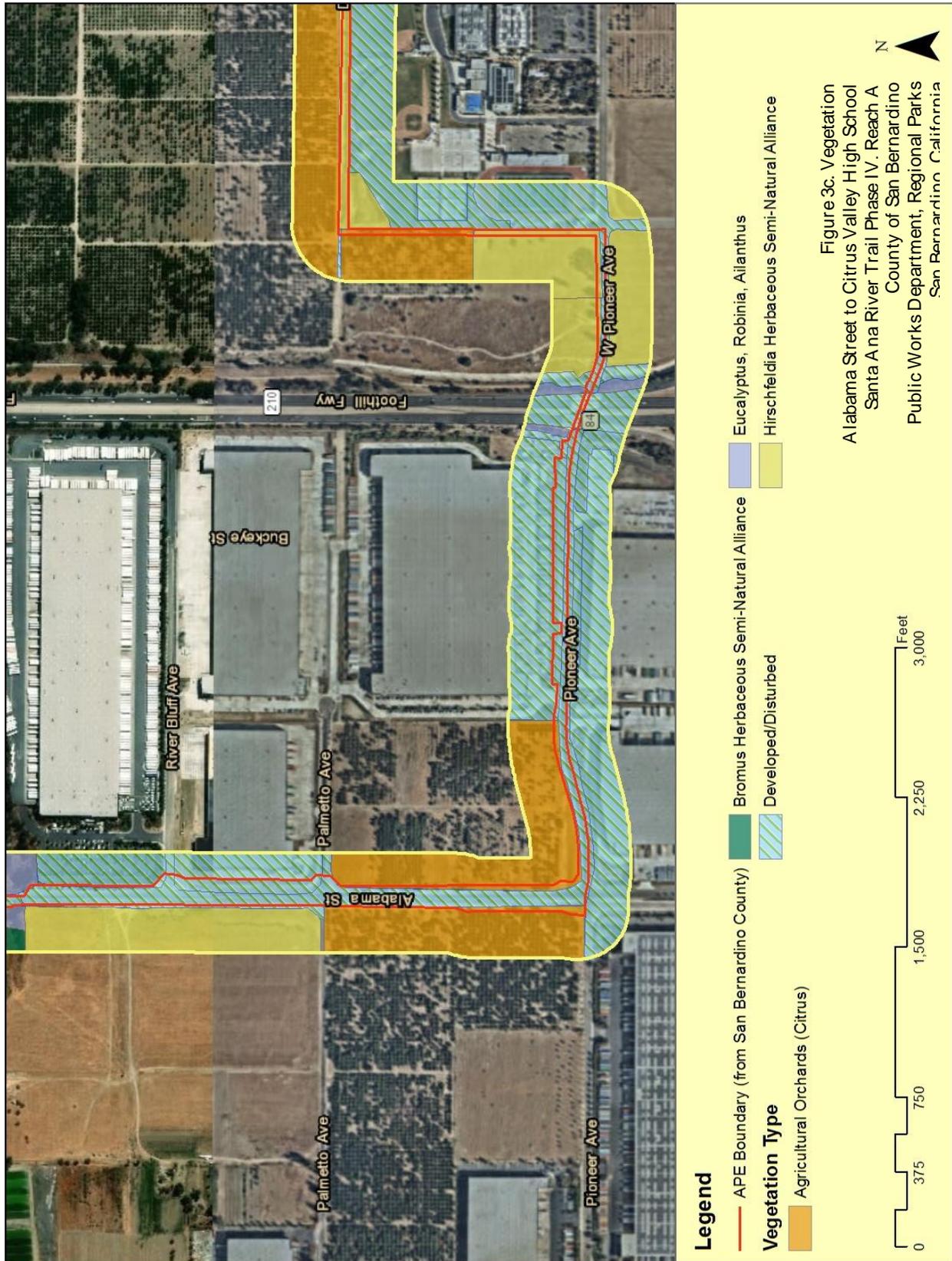
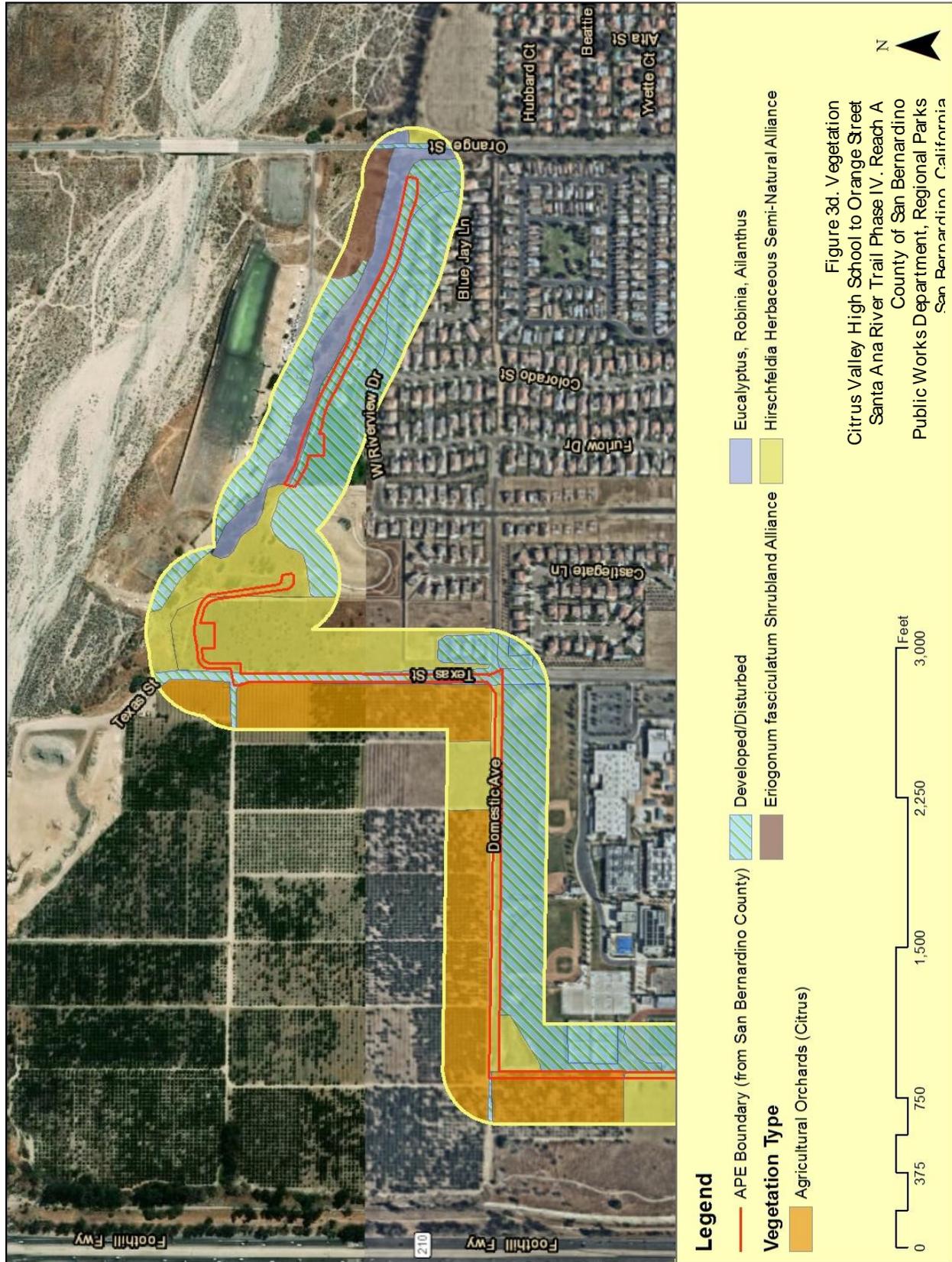


Figure 3a. Overview of the Vegetation
 Along the Proposed Alignment
 Santa Ana River Trail Phase IV, Reach A

County of San Bernardino
 Public Works Department, Regional Parks
 San Bernardino, California







5.5.2 *Lepidospartum squamatum* Shrubland Alliance

Lepidospartum squamatum Shrubland Alliance does not occur within the alignment of Reach A. This vegetation is present within the Santa Ana River downslope from the proposed trail alignment between California Street and Alabama Street (Figures 3a and 3b).

Lepidospartum squamatum Shrubland Alliance species observed in this area include California buckwheat (*Eriogonum fasciculatum*), deerweed (*Acmispon glaber*), scale broom (*Lepidospartum squamatum*), and California croton (*Croton californicus*). The vegetation also includes weedy species such as Mediterranean grass (*Schismus barbatus*) and short-pod mustard (*Hirschfeldia incana*).

The *Lepidospartum squamatum* Shrubland Alliance provides habitat for a number of wildlife species. Reptile species expected to occur include side-blotched lizard, western fence lizard (*Sceloporus occidentalis*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*) and orange-throated whiptail (*Aspidoscelis hyperythra*).

Mammal species expected to occur include Audubon's cottontail (*Sylvilagus audubonii*), deer mouse, Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), Dulzura kangaroo rat (*Dipodomys simulans*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*) and coyote (*Canis latrans*).

5.5.3 *Eriogonum fasciculatum* Shrubland Alliance

Eriogonum fasciculatum Shrubland Alliance occurs at the slopes of the joint-use access road on the west side of Alabama Street and within the Santa Ana River at the eastern end of the trail terminus at Israel Beal Park (Figures 3a and 3c).

5.5.4 *Salix lasiolepis* Shrubland Alliance

One stand belonging to the *Salix lasiolepis* Shrubland Alliance occurs adjacent to the joint use access road between California Street and Alabama Street.

5.5.5 Orchard

This vegetation alliance includes the Agricultural Orchards (Citrus) vegetation type.

The orchard vegetation alliance in Redlands is predominately citrus trees, with a ruderal understory beneath the trees.

Common reptile species often use or will be found in orchards. Bird species found in this habitat are mostly foraging for food, and include such species as house finch, Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*) and, on a seasonal basis, such species as yellow-rumped warbler (*Setophaga coronata*).

Mammal species are usually California ground squirrel and pocket gopher. Orchards close to the bluff areas of Redlands may support the San Bernardino kangaroo rat.

5.5.6 Developed/Disturbed

The Developed/ Disturbed description includes barren areas, developed areas, and areas vegetated with non-native trees such as Eucalyptus, black locust (*Robinia* sp.), tree of heaven (*Ailanthus* sp.) as well as vegetation typically used in landscaping.

Barren areas do not support plant communities. They are dirt lots or comparable sites scraped or disked clear of any plants. Wildlife in this area is virtually absent or only temporarily present.

Developed/ Disturbed habitats have a wide variety of mostly non-native plant species such as Aleppo pine (*Pinus halepensis*), chinaberry tree (*Melia azedarach*), Tree of Heaven (*Ailanthus altissima*), blue gum tree (*Eucalyptus globulus*) and red gum tree (*Eucalyptus camaldulensis*).

Wildlife species resident in these habitats is limited to highly urbanized species such as house sparrow (*Passer domesticus*), house finch, rock dove (*Columba livia*) and American crow (*Corvus brachyrhynchos*). Amphibians are absent and lizard species limited to the side-blotch lizard and occasionally the southern alligator lizard (*Gerrhonotus multicarinatus*).

5.6 Wildlife Habitat Distribution Along Reach A

A system to classify California wildlife habitats was developed in the early 1980s (Mayer & Laudenslayer 1988). This is the California Wildlife Habitat Relationships System (WHR), and it consists of about 50 types intermediate in scale and definition between Munz and Keck's and Thorne's community types. The WHR system also consists of some non-native vegetation types, including eucalyptus groves and several types of agricultural and developed habitats not treated in other classifications.

The WHR system was developed primarily to classify and predict habitat value for the vertebrate animals. It is one of the few systems that identifies structural stages in various tree, shrub, and herb-dominated types. Because cover class rules and size rules are established, the system has use in predicting habitat value based on management practices.

WHR has been less successful in differentiating between vegetation types. Because the habitat types are inconsistently defined, a broad familiarity of its detailed descriptions is needed to differentiate among types of similar structure. Although mappers have constructed rules for discriminating among types, difficulties still remain because species dominance varies substantially within some types and broad overlaps in dominant plants occur among types. Other problems arise due to the small number of classes and the inconsistencies in scale among them.

The wildlife habitats along Reach A are described from west to east. Included in the description are areas impacted by human activity. Please see Appendix C for the list of plant and animal species observed.

5.6.1 California Street to Alabama Street

The beginning of Reach A is at the north terminus of California Street in northwest Redlands (Photo 1). The first section north from California Street is along a dirt access road and passes along the east side of what appears to be a landscaped open space (Photo 2). This dirt access road extends to the bank or levee above the Santa Ana River and turns east (Photos 3). There is a small pull-out area where this section of the Reach turns east along the landfill (Photo 4).

From the pullout-area, this section of the Reach travels along the landfill's joint-use access dirt road on the levee of the River. The joint-use access road is located between the River to the north and the existing landfill site to the south. Further east, this section of Reach A follows the dirt road past the Redlands Waste Water Treatment Facility (located to the south of the access road). This facility extends to Alabama Street.

There is no native habitat directly along this section of Reach A or on the south until just before Alabama Street. The alignment passes through a stand of the *Eriogonum fasciculatum* Shrubland Alliance on the

slopes on either side of this section of Reach A where it drops down to join Alabama Street (Figures 3a and 3b).

North of this section of Reach A in the Santa Ana River is *Lepidospartum squamatum* Shrubland Alliance (Photo 5). The road occupied by this section of Reach A sits atop the bank/ levee and the *Lepidospartum squamatum* Shrubland Alliance is outside of the proposed project's direct impact footprint (Figures 3a and 3b). There is also one small patch of willow riparian (*Salix lasiolepis* Shrubland Alliance) immediately adjacent to this section of Reach A (Figures 3a and 3b).

The *Lepidospartum squamatum* Shrubland Alliance in the river has been somewhat impacted by trash dumping and trespass. The level of disturbance increases as this section of Reach A approaches closer to Alabama Street.

5.6.2 Alabama Street South and East on Pioneer Avenue to Interstate 210

This section of Reach A is partially constructed. The constructed section extends along the east side of Alabama Avenue from approximately 600 feet north of River Bluff Avenue to Palmetto Avenue. From there, the proposed trail alignment parallels paved roads, separated from street traffic and outside of the road shoulder to Interstate 210.

The vegetation on either side of Alabama Street in this section includes ruderal (weedy), agricultural, orchard and developed/ disturbed (Photos 6 and 7). Vegetation along the Pioneer Avenue alignment includes orchard, developed/ disturbed (Photos 8 and 9).

5.6.3 Interstate 210 to Citrus Valley High School

The trail alignment under Interstate 210 is proposed within the existing road shoulder/ right-of-way under the freeway. There are no plant communities in this section. East of the Interstate 210 to Citrus Valley High School, the trail alignment parallels the paved road and will be separated from street traffic. Vegetation along this section includes ruderal, agricultural, developed developed/ disturbed (Figures 3a 3c).

5.6.4 Citrus Valley High School from Pioneer Avenue to Domestic Avenue to Texas Street

The proposed trail alignment turns north from Pioneer Avenue and connects with Domestic Avenue at the northwest corner of Citrus Valley High School. The proposed alignment then turns east along Domestic Avenue to Texas Street. The vegetation alliance along in this section of Reach A is a mix of ruderal (weedy), agricultural, orchard, and developed/ disturbed (Figures 3a and 3c, Photos 10 and 11).

5.6.5 Texas Street to the East End of Israel Beal Park

From where Domestic Avenue connects with Texas Street, Reach A is proposed to continue north on the west side of Texas Street for approximately one-quarter mile. Vegetation along this section includes orchard on the west, ruderal along the alignment and developed/ disturbed on the east (Figures 3a and 3c).

The alignment will then turn west, crossing Texas Street and continue east through ruderal habitat and an abandoned citrus orchard (Figures 3a and 3c, Photos 12 and 13). The proposed trail alignment crosses a small channel on the eastern side of Texas.

East of the abandoned orchard an approximately 500-foot segment of the trail has been constructed by a developer. This constructed section connects to an existing trail at Israel Beal Park. Developed/ disturbed is on both sides of the proposed trail alignment (Figures 3a and 3c).

The undergrowth in the former citrus orchard is dominated by weedy species such as slender wild oats, red brome, short-pod mustard and London rocket (*Sisymbrium irio*). There are also stumps of former citrus trees and isolated individuals of eucalyptus and Mexican elderberry (*Sambucus nigra*).

5.6.6 Israel Beal Park to Orange Street

This section of Reach A crosses through Israel Beal Park. The park is entirely landscaped and there is no native habitat (Photo 14).

5.7 Sensitive Biological Resources

There are five sensitive species that have the potential to occupy habitats adjacent to the proposed trail alignment.

5.7.1 Slender-horned Spineflower

The slender-horned spineflower (*Dodecahema leptoceras*) is a diminutive annual plant that is found primarily on sandy river terraces and washes below 2200 feet (670 meters). The spineflower is a delicate prostrate plant with red, spreading stems and spiny flower clusters. The flowers are white, becoming red to rose with age (California Native Plant Society 1985). A distinguishing feature for this species is the presence of six spines protruding from the top of each floral involucre and six smaller spines protruding from the base of each involucre.

Historically, the range was believed to extend from the San Fernando Valley to the San Bernardino Valley and into the area around Lake Elsinore (Munz 1974). The historical elevation range was from 500 to 2500 feet (150 to 770 meters) and included the Cajon Pass area (California Native Plant Society 1985).

This species has been extirpated from most of its historic range. The 1985 California Native Plant Society report identified 18 recorded localities, most of them from collections older than 30 or 40 years. Only four known sites were known in 1985.

The range of this species as of 1994 covers only eight locations: Bee Canyon and Big Tujunga Wash in Los Angeles County; Bautista Creek, Indian Creek, the San Jacinto River and Vail Lake in Riverside County; and Lytle Creek and the Santa Ana River in San Bernardino County (Rey-Vizgirdas 1994).

The habitat requirements of this species are poorly known. The spineflower is a floodplain endemic. Unlike some species, slender-horned flower is not restricted to any one floodplain type and seems to occur in all stages of scrub cover provided there are open areas of sandy soils within the scrub habitats. The greatest number of individuals has been found on recent alluvial deposits, including unconsolidated sediments in streams, river channels and alluvial fan deposits. It occurs on various floodplain types, ranging from small mountain streams to large alluvial systems like the Santa Ana River (Rey-Vizgirdas 1994).

The microhabitat for this species tends to be sandy, relatively clear patches within scrub, often associated with junipers. Other species commonly found are leathery spineflower (*Chorizanthe coriacea* = *Lastarriaea coriacea*) and stonecrop (*Crassula* spp.).

The principal threats to the spineflower are the loss of upper floodplain habitat to development and agriculture, and the loss of scouring action due to the control of flood waters. For this prostrate annual, the changes in hydrology along rivers and the loss of scouring action is possibly a larger threat than other human uses. When floodplains are not scoured, annual weedy grasses such as red brome, soft chess (*Bromus mollis*) and slender wild oats (*Avena barbata*) become established and create a dense grass cover. Cheatgrass (*Bromus tectorum*) is most abundant in the Santa Ana River wash. This cover precludes colonization of a site by the spineflower (California Native Plant Society 1985).

Other activities affecting the plant and its habitat include sand and gravel mining, groundwater recharge facilities and grazing (Rey-Vizgirdas 1994).

The spineflower was listed as endangered species in 1987 by the U. S. Fish and Wildlife Service (1987). The determination was based on the modification of existing habitat from increasing human use of the

drainages occupied by the species, the inadequacy of existing regulatory mechanisms (the listing as endangered by the California Fish and Game Commission did not confer protection against habitat loss) and the loss of habitat from the invasion of exotic weeds.

Project Findings

The proposed Reach A alignment mostly follows existing dirt roads and runs parallel but outside of the road shoulder along paved streets. The alignment enters natural habitats along the Citrus Valley High School from Pioneer Avenue to Texas Street and Texas Street to Israel Beal Park. These sections are in ruderal habitat that has been highly disturbed. None of the areas crossed by the alignment support habitat for the slender-horned spineflower. This species is not expected to be present and will not be impacted by trail construction or use.

5.7.2 Santa Ana River Woolly Star

The Santa Ana River woolly star is a short-lived perennial subspecies that only occurs along the Santa Ana River drainage in San Bernardino County (Wheeler 1988). It is a shrub with many branches rising from its base, and averages 5 to 75 centimeters in height (Munz 1974).

Historically, the range was believed to include the Santa Ana River, its tributaries and the bordering river plain from Rancho Santa Ana in Orange County to Highland in San Bernardino County (Zembal and Kramer 1984). The historical elevation range was from 152 meters (500 feet) to approximately 457 meters (1500 feet).

The species is believed to be extirpated in Orange and Riverside counties and persists only in San Bernardino County. In the original study by Zembal and Kramer (1984), known populations in San Bernardino County extended from the mouth of the Santa Ana Canyon off Greenspot Road (elevation 579 meters, 1900 feet), west to Lytle Creek, just south of Highland Avenue, at an elevation of 381 to 396 meters (1250 - 1300 feet). An update by Wheeler in 1988 found no populations west of the former Norton Air Force Base. As a result of his findings, the historical range of this species has been reduced from 60 miles to approximately eight linear miles (Wheeler 1988). One individual was found in 1997 west of the former Norton Air Force Base, between Tippecanoe and Waterman Avenues by Kirtland Biological Services.

The woolly star prefers recently scoured areas above main watercourses, in areas that are infrequently flooded, allowing for the establishment of shrubs (Zembal and Kramer 1984, Wheeler 1988), but may also occupy sandy patches on older benches. Soil types include sandy soils on the floodplains and fluvial terraces (California Native Plant Society 1985b). Shrub cover in these areas is typically very open; woolly star generally occurs where there are few or no ~~nor~~ shrubs and little herbaceous cover. As terraces begin to age, increased numbers of shrubs become established. The resulting competition prevents the establishment of woolly star seedlings, with the result that the resident population senesces and dies out (Zembal and Kramer 1984).

The principal threats to the woolly star include the loss of upper floodplain habitat to development and agriculture, and the loss of scouring action due to the control of flood waters. Other activities affecting the plant and its habitat include sand and gravel mining, groundwater recharge facilities and grazing (Zembal and Kramer 1984). Additional threats that are relatively recent, but becoming commonplace are off-road vehicle use, camping and dumping (Wheeler 1988; Kirtland Biological Services, personal observation).

The woolly star was listed as endangered species in 1987 by the U.S. Fish and Wildlife Service. The determination was based on the modification of existing habitat from increasing human use of the Santa Ana River, the inadequacy of existing regulatory mechanisms (the listing as endangered by the California Fish and Game Commission did not confer protection against habitat loss), and the loss of habitat from the invasion of exotic weeds.

Project Findings

The Santa Ana River woolly star is a perennial shrub that is present year-round. Our survey included searching for this species. No woolly star plants were observed within the footprint of Reach A. No direct impacts to woolly star are expected.

5.7.3 San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is described as being confined to primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes (McKernan 1997, U.S. Fish and Wildlife Service 1998a and 1998b). Burrows are dug in loose soil, usually near or beneath shrubs. In recent years, they have been found in highly disturbed habitats adjacent to otherwise suitable habitat (P. Vergne, pers. comm.). Burrows are dug in loose soil, usually near or beneath shrubs.

The San Bernardino kangaroo rat is one of three subspecies of the Merriam kangaroo rat (*Dipodomys merriami*). The Merriam kangaroo rat is a widespread species that can be found from the inland valleys to the deserts (Hall 1981 and Ingles 1965). The subspecies known as the San Bernardino kangaroo, however, is confined to inland valley scrub communities, and more particularly, to scrub communities occurring along rivers, streams and drainage.

Most of these drainages have been historically altered due to development, mining, off road use and flood control operations. This increased use of river resources has resulted in a reduction in both the amount and quality of habitat available for the San Bernardino kangaroo rat. The past habitat losses and potential future losses prompted the emergency listing of the San Bernardino kangaroo rat as an endangered species (U.S. Fish and Wildlife Service, 1998a).

Critical Habitat for SBKR was designated by the U.S. Fish and Wildlife Service in 2002 (U.S. Fish and Wildlife Service 2002). A revision was conducted in 2007, and the Final Rule was published in 2008 (U.S. Fish and Wildlife Service 2008).

Project Findings

Suitable habitat for SBKR occurs at various locations within the project limits as well as immediately adjacent to the project limits as summarized below.

California Street to Alabama Street

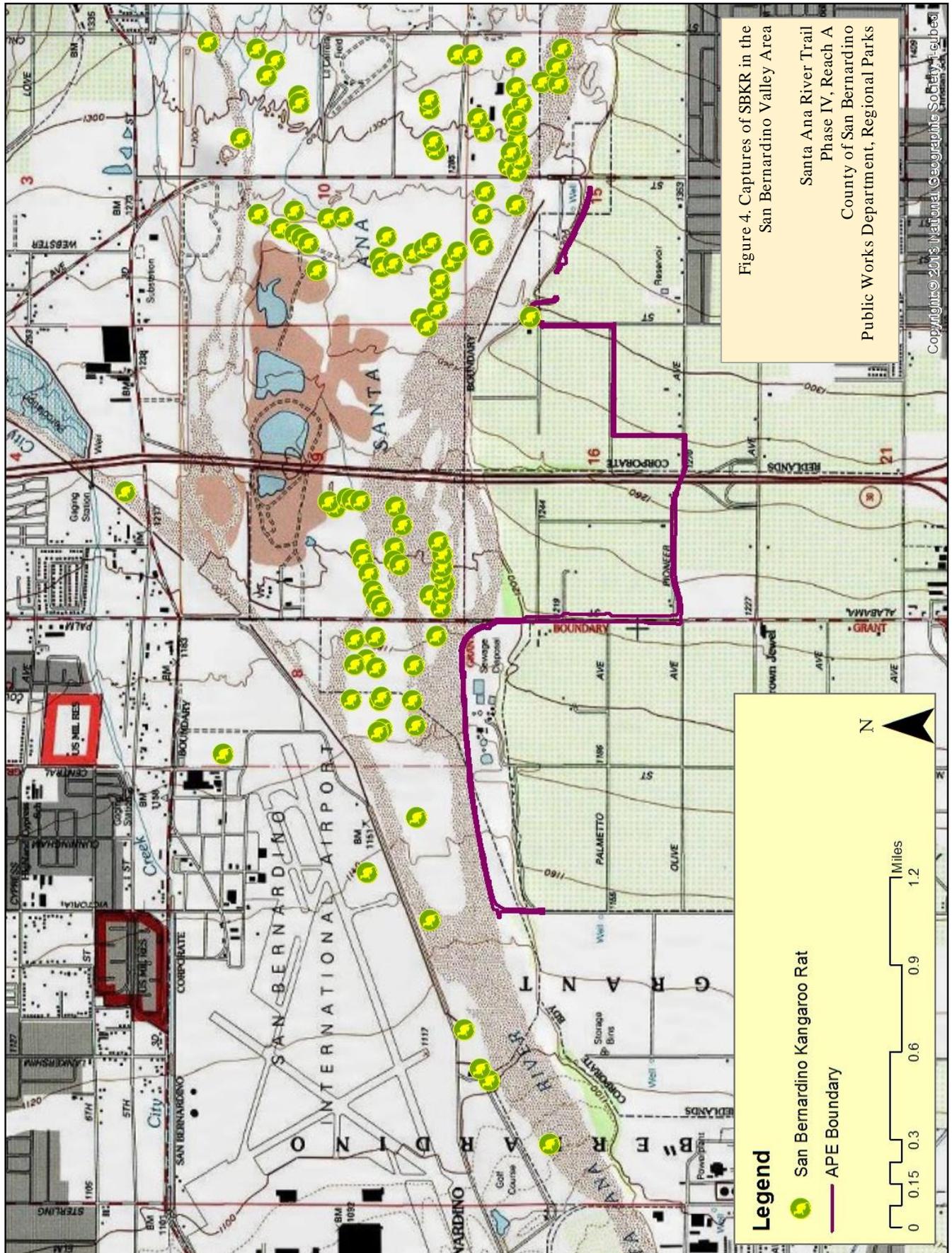
Suitable habitat occurs in the Santa Ana River along the northern boundary of the construction limits, between California Street and Alabama Street. However, the construction limits do not overlap the suitable habitat. Additionally, construction activities will be limited to the levee top; therefore, there is a topographical separation between the construction area and the suitable habitat. No direct impacts to SBKR are expected between California Street and the top of the western slope along Alabama Street.

Alabama Street South

Suitable habitat for SBKR exists on the west and east side of Alabama Street from the river south to the existing commercial buildings along River Bluff Avenue. The suitable habitat is continuous and includes the *Eriogonum fasciculatum* shrubland alliance and open fields on the west side down to other open fields and orchards south of River Bluff Avenue. Because this section of the trail is proposed beyond the limits of the existing road shoulders within the fields, there is a potential for direct impacts to SBKR.

Citrus Valley High School to East End of Israel Beal Park

SBKR has been previously trapped within the abandoned orchard on the east side of Texas Street (Natural Resources Assessment, Inc. 2013). SBKR populations are known all along the Santa Ana River



(Figure 4), and some populations have been found on the river bluffs such as those immediately north of the proposed trail alignment within this reach (Photo 17).

Because the orchards on the perimeter of the high school and abandoned citrus orchard east of Texas Street remain connected to SBKR populations in the Santa Ana River to the north, SBKR may still either persist in the orchards or continue to repopulate this area. There is a potential for direct impacts to SBKR at these locations.

Critical Habitat

The Reach A alignment crosses into Critical Habitat at three locations (Figure 4).

The first one is along the California Street to Alabama Street section. The northern section of the alignment and the pull-out area lie within Critical Habitat. It is not clear from the available information if the boundary for the Critical Habitat includes the joint-use access road. Regardless, suitable burrowing habitat is not present on the joint-use access road.

The second location is where the alignment follows the joint-use access road down to connect with Alabama Street. The *Eriogonum fasciculatum* Shrubland Alliance in this area is entirely within Critical Habitat. Critical Habitat also extends a short way south on either side of Alabama Street. Suitable habitat for the SBKR is present on the slopes along Alabama Street.

The third location is the section along Israel Beal Park. The Critical Habitat boundary extends to include what is now Israel Beal Park and existing development to the south. Suitable habitat does not exist within the park.

5.7.4 California Gnatcatcher

The California gnatcatcher is a small songbird that is a year-round resident of sage scrub communities. Sage scrub communities preferred by this species are typically dominated by low-growing, drought deciduous and succulent shrubs, as well as sub-shrub species including California sage (*Artemisia Californica*), California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia farinosa*), sage species (*Salvia* spp.), and cacti (*Opuntia* spp.).

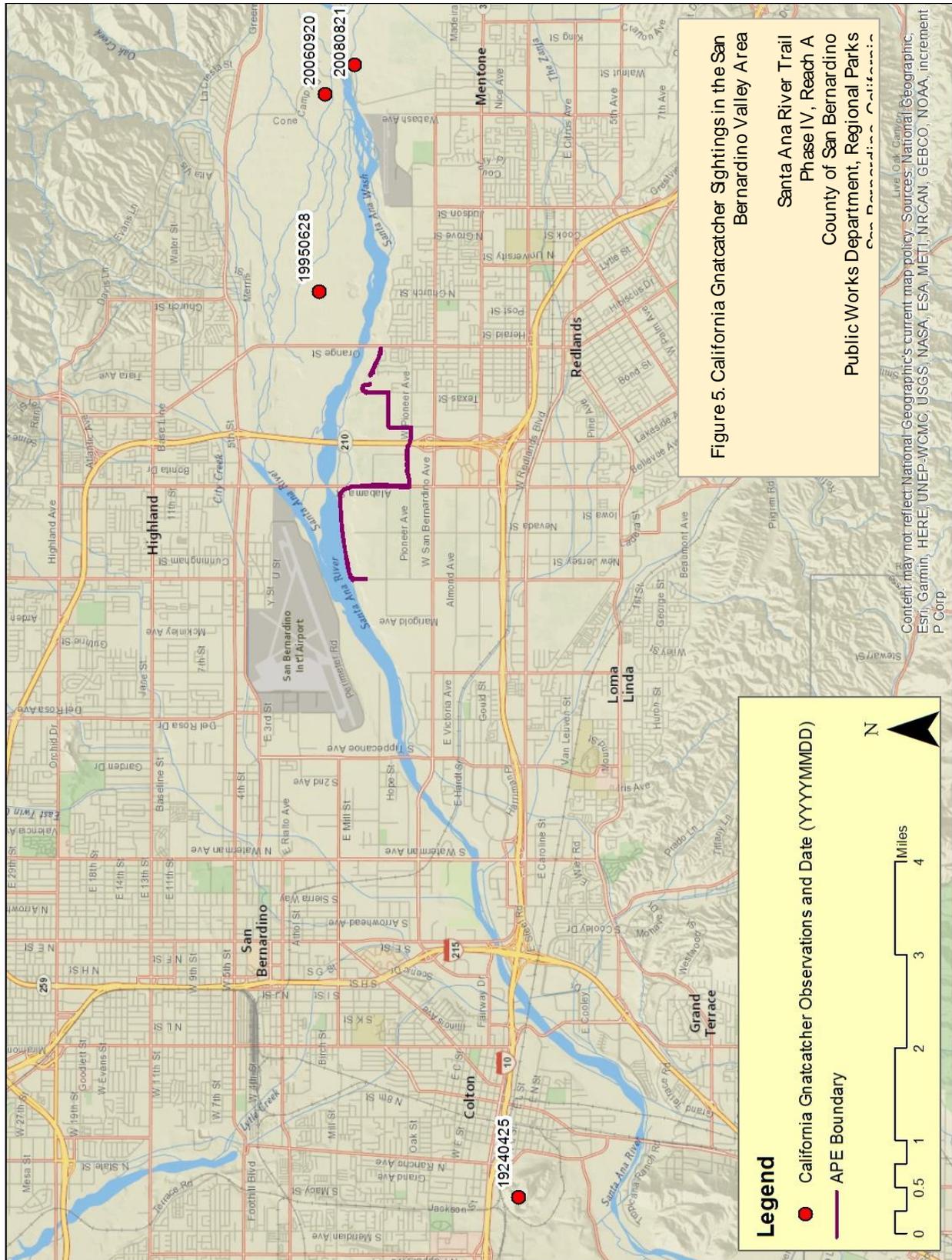
California gnatcatchers begin nesting in mid to late February. Re-nesting attempts may be made into August. Territory size ranges from 2 to 40 acres. They have a repetitive, kitten-like mewing call and appear to be most vocal in the early morning and evening. Detection is exceedingly difficult if the birds are not vocalizing.

The original range for this species included all of the coastal sage scrub communities of southern California, from Ventura County south to San Diego and on into Mexico. This species also occurred in extensive coastal sage scrub habitat in Riverside County. Fragmentation or removal of sage scrub plant communities has reduced the known populations to scattered localities in Los Angeles, Orange, Riverside and San Diego counties. Even these populations are generally found only in the larger open space areas in and around development.

On March 25, 1993, the California gnatcatcher was listed by the Service as a threatened species pursuant to the Federal Endangered Species Act (ESA). The ESA prohibits anyone from "taking" a listed species. Take includes, but is not limited to, harming, harassing or killing individuals of a listed species as well as destruction of habitat occupied by listed species.

Project Findings

Suitable habitat exists north of the entire Reach A within the Santa Ana River (Figure 5). The closest approach to the proposed trail alignment is along the California Street to Alabama Street section.



There could be indirect impacts from noise to nesting birds along the California Street to Alabama Street section.

5.7.5 Burrowing Owl

The burrowing owl (*Athene cunicularia hypogea*) is a resident species in lowland areas of southern California (Garrett & Dunn 1980). It prefers open areas for foraging and burrowing and is found widely scattered in open desert scrub. This species is scarce in coastal areas, being found mainly in agricultural and grassland habitats. The largest remaining numbers are in the Imperial Valley, where it is common in suitable habitat adjacent to the agricultural fields.

The burrowing owl prefers large flat open areas for nesting and hunting (Garrett & Dunn 1981). This species lives in burrows constructed by other ground-dwelling species in grassy or sparse shrubby habitat. Burrowing owls also take over other types of burrows, including manmade objects such as pipes. This species forages low over the ground surface for insect prey, and seldom flies very high in the air. As a result of coastal development, the burrowing owl is declining in coastal habitats. The California Department of Fish and Wildlife (CDFW) has designated the burrowing owl as a California Species of Special Concern (CSC). These species are so designated because “declining population levels, limited ranges and/ or continuing threats have made them vulnerable to extinction.” (California Department of Fish and Wildlife 2018).

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Project Findings

The California Street to Alabama Street section has suitable habitat on either side on the alignment, mostly on the River side. There is no suitable habitat immediately within the project’s construction limits.

The portion of the proposed trail alignment from Pioneer Avenue parallel to but outside the fence around the Citrus Valley High School and then east to Texas Street provides suitable habitat for burrowing owls. (Photo 18). No burrowing owls were observed, and no burrows were found adjacent to this section during the field surveys. However, there may be animals nesting outside the alignment in either of these two sections that could be indirectly affected by construction.

5.8 Jurisdictional Drainages and Wetlands

5.8.1 Army Corps of Engineers

The Corps regulates discharges of dredged or fill material into waters of the United States. These watersheds include wetlands and non-wetland bodies of water that meet specific criteria. The lateral limit of Corps jurisdiction extends to the Ordinary High-Water Mark (OHWM) and to any wetland areas

extending beyond the OHWM; thus, the maximum jurisdictional area is represented by the OHWM or wetland limit, whichever is greater.

Corps regulatory jurisdiction pursuant to Section 404 of the Clean Water Act is founded on a connection or nexus between the water body in question and interstate (waterway) commerce. This connection may be direct, through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the Corps regulations.

5.8.2 State Water Resources Control Board

The Corps has delegated the authority for use of 404 permits to each individual state. The use of a 404 permit in California is regulated by the State Water Resources Control Board (SWRCB) under Section 401 of the Clean Water Act regulations. The Board has authority to issue a 401 permit that allows the use of a 404 permit in the state, with the authority in the state being vested in regional offices known as Regional Water Quality Control Boards (RWQCB).

Under the Porter-Cologne Act of 2003, the SWRCB has extended its responsibilities to include impacts to water quality from non-point source pollution.

In addition, the SWRCB has the responsibility to require that projects address ground water and water quality issues, which would be evaluated as part of the geotechnical and hydrology studies. Their authority extends to all waters of the State (of California).

5.8.3 California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW), through provisions of the State of California Administrative Code, is empowered to issue agreements for any alteration of a river, stream or lake where fish or wildlife resources may adversely be affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. Lateral limits of jurisdiction are not clearly defined, but generally include any riparian resources associated with a stream or lake, CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream or lake as defined by CDFW.

Project Findings

The Santa Ana River comes under the jurisdiction of the Corps, RWQCB and CDFW. The small channel on the east side of Texas Street ultimately connects to the Santa Ana River, making it a potential jurisdictional water under the Corps and RWQCB. Because it is primarily a drainage channel for the road, the jurisdiction is in question.

5.9 Raptors, Migratory Birds, and Habitat

Raptors and all migratory bird species, whether listed or not, also receive protection under the Migratory Bird Treaty Act (MBTA) of 1918. The MBTA prohibits individuals to kill, take, possess or sell any migratory bird, bird parts (including nests and eggs) except per regulations prescribed by the Secretary of the Interior Department (16 U. S. Code 703).

Additional protection is provided to all bald and golden eagles under the Bald and Golden Eagle Protection Act of 1940, as amended. State protection is extended to all birds of prey by the CDFW Code, Section 2503.5. No take is allowed under these provisions except through the approval of the agencies or their designated representatives.

Project Findings

Suitable nesting habitat occurs along the California Street to Alabama Street section, the Citrus Valley High School from Pioneer Avenue to Texas Street section, and the Texas Street to Israel Beale Park section. Other sections of the alignment near native and landscape trees may also provide nesting habitat for raptors.

All native scrub habitat, non-native landscaping and orchards may provide suitable nesting habitat for some migratory bird species

5.10 Habitat Fragmentation and Wildlife Movement

Wildlife movement and the fragmentation of wildlife habitat are recognized as important issues that must be considered in assessing impacts to wildlife. In summary, habitat fragmentation is the division or breaking up of larger habitat areas into smaller areas that may or may not be capable of independently sustaining wildlife and plant populations. Wildlife movement (more properly recognized as species movement) is the temporal movement of species along various types of corridors. Wildlife corridors are especially important for connecting fragmented wildlife habitat areas.

Project Findings

Habitat fragmentation has already occurred along much of Reach A. Wildlife movement north to south along Reach A has been substantially reduced by residential housing, commercial and industrial development and agriculture. Movement from east to west is generally confined along the Santa Ana River.

6.0 Discussion

The Upper Santa Ana River Wash Plan (ICF 2018) is intended as a comprehensive Habitat Conservation Plan (HCP) that will conserve plant communities, species and associated habitats in southwestern San Bernardino County. It covers approximately 4,892 acres and identifies five covered species requiring specific protections. The draft HCP was published in January 2018 and has not yet been finalized.

Phase IV of the Santa Ana River Trail is a covered activity in the HCP. The HCP has identified mitigation measures for offsetting the impacts to the five covered species as well as sensitive and general biological resources in this area of San Bernardino County. The HCP has not yet been adopted; however, the relevant measures provided in the HCP are included here (Section 6.2.2) in the event the HCP is not adopted prior to the final environmental approvals of Reach A.

6.1 General Biological Resources

The impacts to general biological resources include the loss of ruderal and upland habitats. These impacts are minimal and are not considered to be significant.

6.2. Sensitive Biological Resources

6.2.1 Direct Impacts

Overall impacts to sensitive biological resources are primarily concerned with the loss of habitat. Most of Reach A is in close proximity to habitats, but because the proposed trail alignment follows an existing dirt road/ trail or otherwise disturbed surface, construction of the trail is not expected to have a significant direct impact on sensitive resources. No direct impacts are expected to occur to sensitive plant communities, habitats or species.

6.2.2. Indirect Impacts

Indirect impacts to sensitive resources, including one or more of the five covered species, may occur as a result of construction activities. There are also potential future impacts from the use of the trail.

It is recommended that the following general measures/ best management practices from the HCP be implemented during project construction and/ or operation as applicable:

- Barriers such as boulders, fences, and gates will be placed and maintained along work area and trail boundaries to help prevent unauthorized activities, including dumping and off-road vehicle use.
- The limits of construction will be marked, fenced, and maintained as necessary until work is completed.
- Personnel will strictly limit their activities, vehicles, equipment, and construction materials to the designated work area.
- Ingress and egress of construction equipment and personnel will be confined to designated access points. Cross-country travel by vehicles and equipment will be prohibited.
- All workers will receive environmental awareness training. The training will be developed in consultation with a qualified biologist and consist of an onsite or training center presentation for which supporting materials will be provided. Training will provide information about the special-status species potentially occurring on site and an explanation of the purpose and function of the avoidance and minimization measures and the possible penalties for not adhering to them.
- Qualified biologist or biological monitor will ensure compliance with protective measures for sensitive species. They will be required to monitor any construction or O&M activities that may result in impacts to sensitive species.
- Equipment (e.g., passenger vehicles, trucks, and heavy equipment) will be cleaned prior to entering the worksite and between worksites to prevent the importation and spread of exotic plant species.
- No open trenches or holes will be left overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they will be inspected for trapped wildlife by a qualified biologist or biological monitor prior to the start of work activities each day the trenches or holes remain uncovered. Animals found will be captured and moved to the nearest safe location outside the construction area.
- Adequate fire suppression capability will be maintained in active construction areas including having a water tender on site in active construction areas during periods of high fire danger.
- No firearms or pets will be allowed at the work areas. Firearms carried by authorized security and law enforcement personnel are exempt.
- Litter control measures will be implemented. Trash and food items will be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.
- Dust will be controlled. If water trucks are to be used, pooling of water will be avoided to minimize the potential of attracting opportunistic predators.

6.2.3 Slender-horned Spineflower and Santa Ana River Woolly Star

No individuals of slender-horned spineflower or Santa Ana River woolly star were found along the California Street to Alabama Street alignment of Reach A, and none are expected to occur.

Indirect impacts to slender-horned spinyflower and Santa Ana River woolly star habitat could occur along the California Street to Alabama Street section of Reach A. Implementation of the measures listed in Section 6.2.2 will avoid and/or minimize potential indirect impacts to these species to less than significant.

6.2.4 San Bernardino Kangaroo Rat

The Santa Ana River is known to support the SBKR. Construction of Reach A will impact suitable and potentially occupied habitat for the SBKR along Alabama Street, along Pioneer Avenue east of I-215, north from Pioneer Avenue along the Citrus Valley High School fence, west to Texas Street and the abandoned citrus orchard east of Texas Street.

It is recommended that protocol Presence-or-Absence trapping studies be conducted prior to construction to determine whether SBKR occupy these areas of the alignment.

Additionally, it is recommended that the following measures from the HCP be implemented:

- Soil temporarily stockpiled during construction will be fenced to exclude SBKR and stockpiles will be removed within 45 days of the end of construction.
- A qualified biologist or biological monitor with SBKR expertise will be present when construction or ground-disturbing activities that could result in take of SBKR occurs, or within 100 meter of SBKR habitat which is classified as low, medium or high habitat potential for SBKR in the HCP.

Direct impacts to the SBKR and its habitat would be considered significant and would require consultation with the U.S. Fish and Wildlife Service.

Indirect impacts to SBKR habitat could occur along the California Street to Alabama Street section of Reach A. Implementation of the measures listed in Section 6.2.2 will avoid and/or minimize potential indirect impacts to SBKR to less than significant.

6.2.5 California Gnatcatcher

Scrub habitat in the Santa Ana River is suitable for the California gnatcatcher. Suitable habitat for the species does not occur within proposed limits of construction; therefore, there is no direct impact to the species in the form of habitat loss. Construction activity may result in an indirect impact to the species if construction occurs during the nesting season.

If construction-related activities are to occur during the nesting season (February 1 through September 15), a qualified biologist will conduct a preconstruction survey of the proposed construction area and adjacent habitat in the near vicinity. This pre-construction survey will commence no more than 72 hours prior to the onset of construction. If any active nest is observed, an appropriate buffer will be established until nesting is completed, as determined by a qualified biologist/ biological monitor.

Implementation of the measures listed in Section 6.2.2 will avoid and/or minimize potential indirect impacts to California gnatcatcher to less than significant.

6.2.6 Burrowing Owl

The burrowing owl could occupy the Citrus Valley High School to east of Texas Street over time. Most of the available habitat is of low quality, but these areas are located close to the Santa Ana River and open

space areas. Because owls may move into these areas in the future, we recommend the following be conducted prior to construction:

NRAI recommends a burrowing owl breeding bird survey to determine presence following the guidelines of the CDFW 2012 Staff Report .

Implementation of the measures listed in Section 6.2.2 will avoid and/ or minimize potential indirect impacts to burrowing owl to less than significant.

6.3 Jurisdictional Waters

If the drainage along Texas Street is determined to be jurisdictional, construction in this area may require permit approvals from the resource agencies. We recommend the Corps, the Santa Ana River RWQCB and the CDFW be contacted to determine if this drainage comes under the jurisdiction of these agencies.

6.4 Raptors, Migratory Birds, and Habitat

Construction activity may indirectly affect nesting birds.

If construction-related activities are to occur during the nesting season (February 1 through September 15), a qualified biologist will conduct a preconstruction survey of the proposed construction area and adjacent habitat in the near vicinity. This pre-construction survey will commence no more than 72 hours prior to the onset of construction. If any active nest is observed, an appropriate buffer will be established until nesting is completed, as determined by a qualified biologist/ biological monitor.

Implementation of the measures listed in Section 6.2.2 will avoid and/ or minimize potential indirect impacts nesting birds to less than significant.

6.5 Habitat Fragmentation and Wildlife Movement

Habitat fragmentation has already occurred over most of the alignment, and wildlife movement is primarily confined to the River. This impact is not expected to be significant.

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Appendix A List of Field Meeting Attendees, August 13, 2009

SAN BERNARDINO COUNTY REGIONAL PARKS DEPARTMENT

August 13, 2009

SART PHASE 4 - ENVIRONMENTAL COORDINATION MEETING and FIELD RECON

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE NUMBER</u>	<u>EMAIL</u>
1. JIM CANADAY	Regional Parks Department	(909) 383-3202	icanaday@parks.sbcounty.gov
2. MICHAEL PERRY	MILBURN CORP	909 890-1818 1201	MIKE CHAMBERLAIN@MILBURN.COM
3. KATY KUGHEN	USFWS	760-931-9440	kathy_kughen@fws.gov
4. Kevan Kirtland	Natural Resources Assn	951 686 1141	krainc@earthlink.net
5. Michael D. Flores	CDFG	909 987-8397	mdflores@dfg.ca.gov
6. Juan Hernandez	Lilburn Corp.	909 860-1818	Juan@LilburnCorp.com
7. Nancy Ferguson	USPWS	760/431-9440 x844	nancy-ferguson@fws.gov
8. GERRY SAWAS	USACE	215 452-3417	GERARDO.SAWAS@USACE.ARMY.MIL
9. DAMIEN LARIVIERE	USACE		DAMIEN.A.LARIVIERE@USACE.ARMY.MIL
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Appendix B - Sensitive Biological Resources In the Vicinity of the Project

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Plants				
Chaparral sand-verbena <i>Abronia villosa</i> var. <i>aurita</i>	Annual. Coastal sage scrub, chaparral. From the head of the Coachella Valley to interior Riverside, Orange and San Diego counties. Sandy places below 5000 feet.	March - August	FED: ND STATE: ND CNPS: 1B	None. Suitable sandy habitat limited to the Santa Ana River bottom.
Marsh sandwort <i>Arenaria paludicola</i>	Perennial plant. Occasionally in boggy meadows, swamps and freshwater marshes. Less than 900 feet elevation. San Bernardino, Los Angeles, Santa Barbara counties. To Washington State. In San Bernardino, mostly along Santa Ana River.	May - Aug flowering period	FED: END STATE: END CNPS: 1B	None. Boggy meadow, swamp and freshwater marsh habitat absent along Reach A alignment.
Jaeger's milk-vetch <i>Astragalus pachypus</i> var. <i>jaegeri</i>	Perennial from woody caudex. On open sandy slopes, dry ridges and valleys. Often in valley and foothill grassland and oak chaparral. Also in coastal sage scrub, chaparral, cismontane woodland. Below 2500 feet. Banning to Aguanga and Temecula.	March to July Flowering period	FED: ND STATE: ND CNPS: 1B	None. Suitable habitat not present.
Coulter's saltbush <i>Atriplex coulteri</i>	Perennial. Somewhat alkaline low places, open sites, Los Angeles County to western San Bernardino County and Baja California.	March – October	FED: ND STATE: ND CNPS: 1B	None. Suitable habitat not present.
Parish's brittle scale <i>Atriplex parishii</i>	Annual. Alkali flats largely in valley or annual grassland. From cismontane California to the edge of the desert, extending into the Central Valley.	June - Oct	FED: C2* STATE: ND CNPS: 1B	None. Alkali flats habitat not present.
Nevin's barberry <i>Berberis nevinii</i>	Perennial. Sandy and gravelly places below 2000 feet. Coastal sage scrub and chaparral. Hills south of Loma Linda, San Bernardino Co. and in the area around Vail Lake, Riverside Co.	Year round	FED: END STATE: END CNPS: 1B	None. This species was not observed during the field surveys.
Orcutt's brodiaea <i>Brodiaea orcutti</i>	Near streams, in vernal pools and seeps, up to 5500 feet elevation. Chaparral, yellow pine forest, primarily San Diego Co.	April - July	FED: C2* STATE: ND CNPS: 1B.1	None. Suitable habitat not present.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Bristly sedge <i>Carex comosa</i>	Perennial. Swampy places, San Bernardino Valley. Central California to Washington.	Year round	FED: ND STATE: ND CNPS: 2.1	None. Swampy places are not present along the alignment.
Southern tarplant <i>Centromadia parryi</i> ssp. <i>australis</i>	Often in disturbed sites near the coast. Also found on alkaline soils at the edges of marshes and swamps. Found in valley and foothill grasslands, and sometimes vernal pools margins. Southern California and Baja California.	June - September	FED: ND STATE: ND CNPS: 1B	None. Suitable habitat not present.
Smooth tarplant <i>Centromadia pungens</i> ssp. <i>laevis</i>	Often in disturbed sites near the coast. Also found on alkaline soils at the edges of marshes, swamps, playas and chenopod scrub. Found in riparian areas, valley and foothill grasslands, and sometimes vernal pool margins. Southern California and Baja California.	April - September	FED: C2* STATE: ND CNPS: 1B.1	None. Suitable alkaline soils not present.
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	Found on dry sandy soils and dry slopes and flats. Sometimes at the interface of two vegetation types such as chaparral and oak woodland. Sandy openings in coastal sage scrub and chaparral, 130 to 5600 ft. Elevation, east Los Angeles Co. to San Geronio Pass and west Riverside Co.	April - June flowering period	FED: C2* STATE: ND CNPS: 3.2	None. Suitable habitat not present.
Summer holly <i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Shrub. Mixed chaparral, often following a burn. Southern California to northern Baja California.	May - June	FED: ND STATE: ND CNPS: 1B	None. Species was not observed during the surveys.
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Sandy and gravelly soils on alluvial fans and old floodplains; 500 to 2000 ft. elevation. Los Angeles, Riverside, and San Bernardino Counties.	Apr - Jun	FED: END STATE: END CNPS: 1B.1	None. Suitable habitat not present.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Annual. In heavy, often clayey soils on grassy slopes in chaparral, coastal sage scrub, valley and foothill grassland. Riverside, San Bernardino, and Orange counties. 15 to 790 m (50 - 2600 ft.) elevation.	April - July	FED: C2* STATE: ND CNPS: 1B.2	None. Suitable clayey soils not present.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Santa Ana River woolly star <i>Eriastrum densifolium</i> var. <i>sanctorum</i>	Perennial subshrub found in alluvial fan scrub, coastal sage scrub on alluvial deposits along the Santa Ana River, San Bernardino Co.	June - August flowering period	FED: END STATE: END CNPS: 1B.1	None. Species was not observed during the surveys.
Pious daisy <i>Erigeron breweri</i> var. <i>bisanctus</i>	Perennial from woody roots and slender branched caudex. Open dry slopes and washes. 300 to 1600 meters (900 to 4800 feet). San Bernardino and San Gabriel Mts.	? July - August flowering period	FED: ND STATE: ND CNPS: 1B	None. Species was not observed during the surveys.
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Chaparral, coastal scrub, valley & foothill grassland in clay soils on dry slopes & mesas below 1500 ft. elevation. Cismontane s. Calif. from Los Angeles Co. to NW Baja Calif., including Santa Catalina Island. One population at Dana Point Headlands.	March - April	FED: C2* STATE: ND CNPS: 2	None. Suitable habitat not present.
Los Angeles sunflower <i>Helianthus annuus</i>	Rhizomatous herb. Found in marshes and swamps. Both coastal salt marshes and freshwater marshes. Found at elevations from 10 - 1675 meters (33 to 5500 feet).	August - October	FED: ND STATE: ND CNPS: 1A	None. Suitable habitat not present.
Mesa horkelia <i>Horkelia cuneata</i> spp. <i>Puberula</i>	Perennial herb. Found in chaparral, cismontane woodland, and coastal scrub. Grows on sandy or gravelly soils. From 70 - 810 meters (230 - 2700 feet) elevation.	February - July (occasionally September)	FED: ND STATE: ND CNPS: 1B.1	None. Suitable habitat not present.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coastal salt marshes, alkali playas, valley & foothill grasslands, and vernal pools below 4000 ft. elevation. inland so. Calif. and along coast from San Luis Obispo Co. to Baja Calif.	Feb - Jun	FED: C2* STATE: ND CNPS: 1B.1	None. Site lacks suitable alkaline soils.
Robinson's pepper-grass <i>Lepidium vrigenicum</i> ssp. <i>robinsonii</i>	Annual. Chaparral, coastal sage scrub habitats, primarily on dry soils. From Los Angeles County south to Baja California.	Jan - April	FED: ND STATE: ND CNPS: 1B.2	None. Suitable habitat not present.
Pringle's monardella <i>Monardella pringlei</i>	Sandy places, coastal sage scrub near Colton. 900 - 1200 feet.	May - June	FED: C2* STATE: ND CNPS: 1A	None. Suitable habitat not present. NOTE: This species is presumed extinct.
California muhly <i>Muhlenbergia californica</i>	Perennial. Occasional in wet places up to 7000 feet. Coastal sage scrub, chaparral, yellow pine forest. Cismontane especially around the San Bernardino Valley to the edge of the desert.	July - Sept flowering period	FED: ND STATE: ND CNPS: 4.3	None. Species was not observed during the surveys.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
San Diego goldenstar <i>Muilla clevelandii</i>	Perennial, annual growth from corm. Mesa grasslands scrub edges on clay soils. Also found on raised mounds between vernal pools. Chaparral, coastal sage scrub, valley and foothill grasslands. San Diego and Baja California.	May	FED: ND STATE: ND CNPS: 1B	None. Species was not observed during the surveys.
Little mouseltail <i>Mysosurus minimus</i>	Vernal pools and alkaline marshes below 1500 feet. San Diego to west Riverside County.	April - May	FED: C2* STATE: ND CNPS: 3.1	None. Suitable habitat not present.
Mud nama <i>Nama stenocarpum</i>	Annual. Occasional muddy places below 1000 feet. Los Angeles to San Diego counties and into Baja California. Extends across the Colorado Desert to Texas.	Mar - May	FED: ND STATE: ND CNPS: 2	None. Suitable habitat not present.
Prostrate navarretia <i>Navarretia fossalis</i>	Annual herb. Saltbush scrub, various shallow freshwater marshes and swamps, and in vernal pools. Elevation 30 to 1300 meters (100 to 4300 ft).	April - June	FED: THR STATE: ND CNPS: 1B.1	None. Suitable marsh, swamp and vernal pool habitat not present.
California Orcutt grass <i>Orcuttia californica</i>	Vernal pools. Ventura Co. south to northern Baja California, including west Riverside Co. 15 – 660 m (50 – 2200 ft.)	April - August	FED: END STATE: END CNPS: 1B	None. Vernal pools not present.
Lyon's pentachaeta <i>Pentachaeta lyonii</i>	Annual herb. Chaparral, valley and foothill grassland. Edges of clearings in chap., usually at the ecotone between grassland and chaparral or edges of firebreaks. Elevations 30-630 meters.	March – August	FED: END STATE: END CNPS: 1B.1	Low. Suitable habitat limited.
Nuttall's scrub oak <i>Quercus dumosa</i>	Perennial. Coastal slopes and hills, canyons and bluffs in coastal sage scrub, chaparral and closed cone pine forests. Disjunct distribution from Santa Barbara County to Baja California.	February – April	FED: END STATE: ND CNPS: 1B	None. Species was not observed during the surveys.
Parish's gooseberry <i>Ribes divaricatum</i> var. <i>parishii</i>	Perennial. Willow thickets, swamps, similar moist and damp sites. Coastal sage scrub. San Bernardino region and Los Angeles County.	March - April flowering period	FED: C2* STATE: ND CNPS: 1B.1	None. Species was not observed during the surveys.
Gambel's water cress <i>Rorippa gambelii</i>	Perennial. Marshes, streambanks and lake margins. Ventura to San Diego counties, including Riverside and San Bernardino counties.	Unknown	FED: END STATE: THR CNPS: 1B.1	None. Suitable marsh and stream habitats not present.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
San Miguel savory <i>Satureja chandleri</i>	Rocky canyons below 2500 feet elevation; chaparral. Santa Ana Mountains near Murrieta and San Miguel and San Jamul Mtns. in San Diego County.	March - May	FED: ND STATE: ND CNPS: 4	None. Species was not observed during the surveys.
Rayless ragwort <i>Senecio aphanactis</i>	Annual wildflower. On drying alkaline flats. Cismontane woodland, coastal scrub. Elevations of 20 to 575 meters (60 to 2000 feet).	February – March	FED: ND STATE: ND CNPS: 2	None. Suitable alkaline soils not present.
Hammitt’s clay-cress <i>Sibaropsis hammittii</i>	Annual herb. Clay soils in openings in chaparral, valley and foothill grassland. 2400 to 3500 feet.	March – April	FED: ND STATE: ND CNPS: 1B	None. No suitable clay soils present.
Salt spring checkerbloom <i>Sidalcea neomexicana</i>	Alkaline, usually wet places. Coastal sage scrub, chaparral, creosote bush scrub. Los Angeles, Orange, San Bernardino, Riverside Counties.	April to June	FED: ND STATE: ND CNPS: 2.2	None. Suitable alkaline soils not present.
Parry’s tetracoccus <i>Tetracoccus dioicus</i>	Shrub. Coastal sage scrub and chaparral. 540 to 3300 feet.	April – May flowering period	FED: END STATE: ND CNPS: 1B	None. Species was not observed during the surveys.
Sonoran maiden fern <i>Thelypteris puberula</i> var. <i>sonorensis</i>	Occasional in wet shaded canyons below 3000 feet; chaparral, creosote bush scrub. Lower slopes of Peninsular and Transverse mountains to Baja California.	Year round	FED: ND STATE: ND CNPS: 2.2	None. Suitable wet habitat not present.
Crownbeard <i>Verbesina dissita</i>	Mill Creek, San Bernardino County and Arch Beach, Orange County to northern Baja California.	May	FED: THR STATE: THR CNPS: 1B	None. This species was not observed during the field surveys.
Fish				
Santa Ana speckled dace <i>Rhinichthys osculus</i> ssp. 3	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 temperatures of 17 - 20 degrees centigrade. Usually inhabits shallow cobble and gravel riffles.	Year round	FED: ND STATE: CSC	Unknown. The species may be present in the River but will not be affected by Reach A.
Santa Ana sucker <i>Catostomus santaanae</i>	Santa Ana, Santa Clara, San Gabriel and Los Angeles rivers.	Year round	FED: THR STATE: CSC	Unknown. The species may be present in the River but will not be affected by Reach A.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Unarmored threespine stickleback <i>Gasterosteus aculeatus williamsoni</i>	Coastal streams and rivers including Santa Ana, San Gabriel and other major rivers along the coastal slopes. Most of these rivers are dammed and unsuitable for this species.	Year round	FED: END STATE: END. CFP	Unknown. The species may be present in the River but will not be affected by Reach A.
Amphibians				
Western spadefoot <i>Spea hammondi</i>	Grasslands and occasionally hard wood woodlands; largely terrestrial but for breeding, requires rain pools or other ponded water for 3+ weeks; burrows in loose soils during dry season; Central Valley and foothills, coast ranges, inland valleys, to Baja Calif.	October - April (following onset of winter rains)	FED: ND STATE: CSC	Unknown. The species may be present in the River but will not be affected by Reach A.
Reptiles				
Southwestern pond turtle <i>Clemmys marmorata pallida</i>	Permanent or nearly permanent water in a wide variety of habitats; requires basking sites such as partially submerged logs, rocks, or open mud banks. Central California to northwestern Baja California.	Year-round with reduced activity Nov. - Mar.	FED: ND STATE: CSC	Unknown. The species may be present in the River but will not be affected by Reach A.
San Diego banded gecko <i>Coleonyx variegatus abbotti</i>	Occurs in coastal and cismontane southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	Year round	FED: ND STATE: ND	Unknown. May be present along Reach A alignment.
San Diego horned lizard <i>Phrynosoma coronatum blainvillei</i>	Wide variety of habitats including coastal sage scrub, grassland, riparian woodland; typically on or near loose sandy soils; coastal and inland areas from Ventura Co. to Baja Calif.	April - July (with reduced activity Aug. - Oct.)	FED: ND STATE: CSC	Unknown. May be present along Reach A alignment.
Coronado skink <i>Plestiodon skiltonianus interparietalis</i>	Early successional stages or open areas in grassland, chaparral, pinyon-juniper and juniper sage woodland, pine oak and pine forests in the coastal ranges of southern California. Also found in rocky areas close to streams, and on dry hillsides.	Active year round	FED: ND STATE: CSC	Unknown. Suitable habitat is limited to the Santa Ana River bottom.
Orange-throated whiptail <i>Aspidoscelis tigris stejnegeri</i>	Floodplains and terraces with perennial plants and open areas nearby; sea level to 3000 feet elevation; inland and coastal valleys of Riverside, Orange, and San Diego Counties. to Baja Calif.	March - July (with reduced activity Aug. - Feb.)	FED: ND STATE: CSC	Unknown. May be present along Reach A alignment.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Coastal western whiptail <i>Aspidoscelis tigris stejnegeri</i>	Firm, sandy or rocky soils in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas.	Year round	FED: ND STATE: ND	Unknown. May be present along Reach A alignment.
Silvery legless lizard <i>Anniella pulchra pulchra</i>	Found predominantly in the Coast Ranges, Transverse Mountains, and Peninsular Ranges and in northwest Baja California. Also found in scattered occurrences on the floor of the San Joaquin Valley, in the southern Sierra, Walker Basin and in the Piute, Scodie and Tehachapi Mountains. Desert-edge localities are recorded at the eastern end of Walker Pass in Kern County, Morongo Pass, in San Bernardino County, in the Little San Bernardino Mountains at Whitewater, Riverside County, and on the eastern slopes of the Peninsular Ranges. Prefers areas with sandy or loose organic soils or with abundant leaf litter.	Active year round - some winter activity	FED: ND STATE: CSC	None. Although sandy soils occur along the alignment, abundant leaf litter (providing a humid microclimate) does not exist along the alignment.
Rosy boa <i>Lichanura trivirgata</i>	Mix brushy cover and rocky soils. Desert and chaparral, found from the coast to the Mojave and Colorado deserts. Prefers moderate to dense vegetation.	Year round	FED: ND STATE: ND	Unknown. May be present in the River along parts of the Reach A alignment.
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Widely distributed from the lowlands up to 7000 feet. Found in grasslands, coastal sage scrub, and chaparral. On both rocky and sandy substrate. The coastal race is largely confined to coastal sage scrub and alluvial sage scrub habitats.	Year round	FED: ND STATE: CSC	Unknown. May be present in the River along parts of the Reach A alignment.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Northern red-diamond rattlesnake <i>Crotalus exsul</i>	Occurs in rocky areas & dense vegetation. Needs rodent burrows cracks in rocks or other surface material. Chaparral, woodland, grassland and desert areas. Coastal San Diego County to the eastern slopes of the mountains	Year round	FED: C2* STATE: CSC	Unknown. May be present in the River along parts of the Reach A alignment.
Birds				
Great blue heron <i>Ardea herodias</i>	Fairly common resident in most of southern California, becoming more numerous in warmer areas in winter. Found in a variety of aquatic habitats. Peak abundance in coastal estuaries. In the desert, mostly seen during migrations; winters locally in suitable habitats.	Year round	FED: ND STATE: ND	Low. May forage along the River.
Great egret <i>Casmerodius albus</i>	Fairly common winter visitor along the coast, commonly resident and a breeder at the Salton Sea and the Colorado River. An uncommon transient in the rest of southern California.	Year round in the desert; seasonal in other areas.	FED: ND STATE: ND	Low. May forage along the River.
Snowy egret <i>Egretta thula</i>	Common winter visitor along the coast, occasionally remaining throughout the summer. Common resident at the Salton Sea and the Colorado River. Uncommon transient elsewhere in southern California.	Year round in the desert; seasonal in other areas	FED: ND STATE: ND	Low. May forage along the River.
Black-crowned night heron <i>Nycticorax nycticorax</i>	Common but local resident along the coastal and the Salton Sea. Uncommon transient and rare winter visitor in the desert.	Year round in the coast and along the Salton Sea. Winters in the desert.	FED: ND STATE: ND	Low. May forage along the River.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
White-faced ibis <i>Plegadis chihi</i>	Fairly common transient and summer visitor at the Salton Sea. Irregular and local breeder. Uncommon in winter. Primarily transient throughout the rest of southern California, as well as a local visitor along the coast.	Most spring and summer in the desert; winter along the coast		Low. May forage along the River.
White-tailed kite <i>Elanus leucurus</i>	Open country in South America and southern North America.	Year-round	FED: ND STATE: ND (nesting) CFP	Low. May forage along the River.
Northern harrier <i>Circus cyaneus</i>	Grassland and marshy habitats in Southern California. Uncommonly in open desert and brushlands.	Year round	FED: ND STATE: CSC	Low. Not observed during the surveys. Forages over a wide range of open habitat and can be expected to occur throughout most of Southern California. Although no nesting habitat was found, foraging habitat exists along the alignment.
Sharp-shinned hawk <i>Accipiter striatus</i>	Nests in woodland, coniferous deciduous forest. Winter visitor and migrant to coastal Southern California. Forages over a variety of habitats.	Fall & winter; scarce in summers	FED: ND STATE: CSC	Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter.
Cooper's hawk <i>Accipiter cooperi</i>	Woodland and semi-open habitats, riparian groves and mountain canyons. Uncommon permanent resident in coastal, mountains, and deserts of Southern California. Transients fairly common on coast in fall.	Year round; predominant in summer	FED: ND STATE: CSC	Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter.
Golden eagle <i>Aquila chrysaetos</i>	Grasslands, brushlands, deserts, oak savannas, open coniferous forests and montane valleys. Nesting primarily in rugged mountainous country. Uncommon resident in Southern California.	Year round diurnal	FED: ND STATE: CSC (nesting and wintering). CFP	Low. Not observed during the surveys. Foraging habitat for this species exists over the entire property No suitable nesting habitat occurs along the alignment.
Ferruginous hawk <i>Buteo regalis</i>	Fairly common in winter in open grassland and agricultural regions in the interior, as well as some valleys along the coast. Rare and uncommon along the coast and in the desert.	Winter	FED: C2* STATE: CSC	Low. Not observed during the surveys. Poor quality foraging habitat for this species exists along the alignment. No suitable nesting habitat occurs along the alignment.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Merlin <i>Falco columbarius</i>	Frequents several habitats including coastal sage scrub and annual grassland. Forages along the coast, and in montane valleys and open deserts with scattered clumps of trees. Rare fall migrant and winter visitor to Southern California.	Fall & winter	FED: ND STATE: CSC	Low. Not observed during the surveys. Can be expected to forage over the site during migration and in winter. They are expected to use the area very infrequently.
American peregrine falcon <i>Falco peregrinus anatum</i>	Wetlands near high cliffs; few known to nest in urban settings on tall buildings. Scattered locations in North America; in California found nesting in coastal areas and inland mountains.	Fall & Winter (in migration and as winter visitor)	FED: ND STATE: END. CFP	Low. Species passes through region during migration and may winter in region; during migration or winter, could fly over site, perch in riparian woodland, and/ or forage in surrounding habitats.
Prairie falcon <i>Falco mexicanus</i>	Nest in cliffs or rocky outcrops; forage in open arid valleys, agricultural fields. Throughout the desert and arid interior portions of coastal counties. Uncommon resident in Southern California.	Year round diurnal	FED: ND STATE: CSC	Low. Not observed during the surveys. Foraging habitat exists for this species over the property, but there is no suitable nesting habitat.
Burrowing owl <i>Athene cunicularia hypugea</i>	Grasslands and rangelands, usually occupying ground squirrel burrows. Resident over most of Southern California. Found in agricultural areas.	Year round	FED: ND STATE: CSC	None. Suitable habitat limited to along the River.
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Breeds and nests in willow riparian forest. Rare and local in So. Calif.	May - Sept.	FED: END STATE: END (nesting)	None. Suitable riparian habitat is not present.
California horned lark <i>Eremophila alpestris actia</i>	Found in coastal regions, chiefly from Sonoma County to San Diego County. Also found in the main part of the San Joaquin Valley and east to the foothills. Prefers short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	Variable, year round	FED: ND STATE: CSC	Low. Foraging habitat may be present in the weedy grasslands along the bluff.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Bank swallow <i>Riparia riparia</i>	Nesting habitat is vertical banks of fine textured soils, most commonly along streams and rivers. In Southern California, fairly common spring and fall transient in interior; very uncommon spring transient and rare fall transient along coast. Casual in winter.	Variable year round	FED: ND STATE:THR (Nesting sites)	Low. The River bluffs are heavily vegetated and not suitable for this species. Surface area of the alignment does not provide actual foraging habitat. May be transient in migration.
Coastal cactus wren <i>Campylorhynchus brunneicapillus couesi</i>	Tall <i>Opuntia</i> required for nesting and roosting. Coastal sage scrub. Southern California.	Year round	FED: ND STATE: CSC	None. No suitable tall <i>Opuntia</i> observed
California gnatcatcher <i>Poliophtila californica</i>	Coastal sage scrub; occurs only in cismontane Southern California and northwestern Baja California in low-lying foothills and valleys.	Year-round	FED: THR STATE: ND	Low. Suitable habitat exists along the River, but the species is not known from this area of the River.
Loggerhead shrike <i>Lanius ludovicianus</i>	Open fields with scattered trees, open woodland, scrub. Fairly common resident throughout southern California.	Year round	FED: ND STATE: CSC	Moderate. This species may nest in suitable trees along the River and may forage in this area in winter.
Least Bell's vireo <i>Vireo bellii pusillus</i>	Riparian forests and willow thickets. Breeds and nests only in southwestern California; winters in Baja Calif.	Apr - Sept	FED: END STATE: END	None. Suitable riparian habitat is not present.
Yellow-breasted chat <i>Icteria virens</i>	Riparian thickets of willow, brushy tangles near watercourses. Nests in riparian woodland throughout much of western North America. Winters in Central America.	Year round. Nocturnal migrant	FED: ND STATE: CSC	None. Suitable riparian habitat is not present.
Yellow warbler <i>Dendroica petechia brewsteri</i>	Nesting habitat is protected. Riparian plant associations. Prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also found in montane shrubbery in open conifer forests.	Spring and summer for breeding	FED: ND STATE: CSC	None. Suitable riparian habitat is not present.
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	Fairly common resident along the coast of California; breeds very locally on desert mountain ranges. Preferred habitat is slopes with sparse shrubs and open grassy areas intermixed. Coastal sage scrub is the preferred habitat	Year round	FED: ND STATE: CSC	Unknown. Suitable habitat is present along the River.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Bell's sage sparrow <i>Amphispiza belli belli</i>	Uncommon to common resident. Nests in chaparral dominated by fairly dense stands of chamise. Fairly common in coastal sage scrub in the south portion of its range. Nests are located on the ground beneath a shrub or in a shrub six to eight inches above the ground. Individual territories are about 50 yards apart.	Year round	FED: ND STATE: CSC	None. Suitable scrub habitat is not present.
Grasshopper sparrow <i>Ammodramus savannarum</i>	Occupies grassland habitats across North America. They are found in a variety of tall- and mixed-grass habitats including native prairies, hayfields, pastures, and grassy fallow fields.	Year round	FED: ND STATE: CSC	None. Suitable grassland habitat is not present.
Tri-colored blackbird <i>Aeglaeus tricolor</i>	Resident year round in the coast and eastern edge of the desert. Occurs in all coastal counties including interior areas west of the deserts. Breeds in dense colonies in reed beds.		FED: ND STATE: CSC	None. No suitable nesting habitat present.

Mammals

California leaf-nosed bat <i>Macrotus californicus</i>	In California, these bats primarily occupy low-lying desert areas, where they roost in caves, mines, and old buildings. Historic records extend west to near Chatsworth, Los Angeles County, but most populations from the California coastal basins are believed to have disappeared. Occurs from northern Nevada, Southern California, and western Arizona south to southern Baja California and Sonora.	Year round nocturnal	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.
Townsend's western big-eared bat <i>Corynorhinus townsendii</i>	Requires caves, mines, tunnels, buildings or other similar structures for roosting. May use separate sites for night, day, hibernation or maternity roosts. Found in all but subalpine and alpine habitats throughout California.	Year round Nocturnal	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Pallid bat <i>Antrozous pallidus</i>	Day roost in caves, crevices, mines and occasionally hollow trees and buildings. Night roosts may be more open sites, such as porches and open buildings. Hibernation sites are probably rock crevices. Grasslands, shrublands, woodlands and forest from sea level through to mixed conifer. Throughout Southern California.	Spring, Summer, Fall Nocturnal Hibernates in Winters	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.
Spotted bat <i>Euderma maculatum</i>	Found in the western North America from southern British Columbia to the Mexican border, at a small number of widely scattered localities. Habitats range from arid deserts and grasslands through mixed conifer forest up to 10,600 foot elevation. Prefers rock crevices in cliffs, also uses caves and buildings.	Spring, Summer, Fall Nocturnal Hibernates in Winters	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.
Western yellow bat <i>Lasiurus xanthinus</i>	Found in valley foothill riparian, desert riparian, desert palm oasis and desert wash. Roosts in trees, particularly palms. This species forages over water and among trees.	Spring, Summer, Fall Nocturnal Hibernates in Winters	FED: ND STATE: ND	Unknown. There are trees along the alignment, and they may roost in these trees.
California mastiff bat <i>Eumops perotis californicus</i>	Historically from north-central California south to northern Baja California, eastward across the southwestern United States, and northwestern Mexico to west Texas and Coahuila (Hall, 1981; Williams, 1986). In California, most records are from rocky areas at low elevations where roosting occurs primarily in crevices.		FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
Big free-tailed bat <i>Nyctinomops macrotis</i>	Found from northern South America and the Caribbean Islands northward to the western United States (Williams, 1986). In the southwestern U.S., populations appear to be scattered. Known breeding localities are in parts of Arizona, New Mexico, and Texas. Prefers rocky, rugged terrain. Roosts in crevices in high cliffs or rocky outcrops. Ranges up to 8000 foot elevation.	Nocturnal spring - fall Hibernates in Winters	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	Variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa mountain ranges.	Year round, diurnal and Crepuscular activity	FED: ND STATE: CSC	Expected. Suitable habitat is present, mostly along the River.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Prefers sandy soil for burrowing, but has been found on gravel washes and stony soils. Found in coastal scrub. Los Angeles, Riverside, and San Bernardino Counties.	Nocturnal; active late spring to early fall.	FED: ND STATE: CSC	Expected. Suitable habitat is present along the River and possibly at the Texas Street locations.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	Sandy herbaceous areas, usually with rocks or coarse gravel. Arid coastal areas in grassland, coastal scrub and chaparral. San Diego, San Bernardino, Los Angeles, and Riverside Counties.	Nocturnal; active year round.	FED: ND STATE: CSC	Expected. Suitable habitat is present along the River
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	Primary and secondary alluvial fan scrub habitats, with sandy soils deposited by fluvial (water) rather than aeolian (wind) processes. The preferred substrate appears to be sandy and sandy loam soils and very little herbaceous ground cover. In isolated populations along the Santa Ana and San Jacinto drainage systems.	Nocturnal; active year round	FED: END STATE: ND	High. Suitable habitat is present along the River and at the Texas Street locations.

Table 1. Sensitive Biological Resources

Resource	Habitat And Distribution	Activity Period	Status Designation	Occurrence Probability
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Moderate to dense canopies, particularly in rocky areas. Coastal sage scrub and chaparral. Coastal southern California.	Nocturnal; active year round	FED: ND STATE: CSC	Expected. Suitable habitat is present.
Delhi sands flower-loving fly <i>Rhaphiomidas terminatus abdominalis</i>	Limited information suggests this species is found on "fine, sandy soils, often with wholly or partially consolidated dunes. These soil types are generally classified as the "Delhi" series (primarily Delhi fine sand)" (U.S. Fish and Wildlife Service, 1992). Restricted to western Riverside and San Bernardino Counties.	Above ground emergence August and Sep. Not visible during the rest of the year.	FED: END STATE: ND	None. Suitable soils not present.
Sensitive Habitats				
Southern California arroyo chub/ Santa Ana sucker stream	From Mount Rubidoux downstream to northeastern Anaheim, including tributaries, Chino, Aliso and Sunnyslope Creeks. Best habitat found below Riverside Narrows where groundwater is forced to the surface & flows become more perennial and stable, Santa Ana sucker and arroyo chub are the only native fish that still occur.	Year round	Protected by the presence of listed species.	Suitable habitat may exist in the River, but will not be affected by Reach A alignment.
Riversidian alluvial fan sage scrub	Creeks, rivers, canyons and drainages in Peninsular and Transverse Ranges. Riverside, San Bernardino Counties.	Year round	Declining plant community	Suitable habitat exists in the River, but will not be directly affected by Reach A alignment.

Legend

Federal Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
PE	Taxa proposed to be listed as endangered
PT	Taxa proposed to be listed as threatened
C2*	The U.S. Fish and Wildlife Service (USFWS) revised its classifications of candidate taxa (species, subspecies, and other taxonomic designations). The former designation of "Category 2 Candidate for listing" has been discontinued. The USFWS will continue to assess the need for protection of these taxa and may, in the future, designate such taxa as Candidates. NRAI has noted the change in species status by marking with an asterisk (*) those C2 candidates that were removed from the list.
C	Candidate for listing. Refers to taxa for which the USFWS has sufficient information to support a proposal to list as Endangered or Threatened and issuance of the proposal is anticipated but precluded at this time.
ND	Not designated as a sensitive species

State Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
CE	Candidate for endangered listing
CT	Candidate for threatened listing
CFP	California Fully Protected. Species legally protected under special legislation enacted prior to the California Endangered Species Act.
SSC	California Species of Special Concern. Taxa with populations declining seriously or that are otherwise highly vulnerable to human development.
SA	Special Animal. Taxa of concern to the California Natural Diversity Data Base regardless of their current legal or protected status.
ND	Not designated as a sensitive species

California Native Plant Society Classifications

1A	Plants presumed by CNPS to be extinct in California
1B	Plants considered by CNPS to be rare or endangered in California and elsewhere
2	Plants considered by CNPS to be rare, threatened or endangered in California, but which are more common elsewhere
3	Review list of plants suggested by CNPS for consideration as endangered but about which more information is needed.
4	Watch list of plants of limited distribution whose status should be monitored.

Occurrence Probabilities

Occurs	Observed on the site during this study or recorded on site by other qualified biologists.
Expected	Not observed or recorded on site, but likely to be present at least during a portion of the year.
High	Known to occur in the vicinity of the project site. Suitable habitat exists on site.
Moderate	Known to occur in the vicinity of the project site. Small areas or marginally suitable habitat exist on site.
Low	No reported sightings within the vicinity of the project. Available habitat limited and rarely used.
None	Focused surveys did not locate the species, or suitable habitat does not exist on site.
Unknown	No data is available on whether species is on or in the vicinity of the site, and information about the species is insufficient to make an accurate assessment of probability occurrence to make an accurate assessment of probability occurrence.

Appendix C - Plant and Animal Species Observed

Plant Species Observed

+Introduced or non-native weed
++Non-native and invasive weed

Pine Family

+Aleppo Pine

Moschatel Family

Mexican Elderberry

Amaranth Family

Prostrate Amaranth

+Tumbleweed

Cashew Family

++Peruvian Pepper

Sunflower Family

+Bristly Ox-tail

Bush Groundsel

Cudweed Aster

+Flax-leaved Horseweed

Mugwort

Mulefat

Pineappleweed

Sawtooth Goldenbush

Scalebroom

++Spiny Sow thistle

Tarragon

Telegraphweed

++Tocalote

Twiggy Wreath Plant

Western Ragweed

Wild Lettuce

++Yellow Star-thistle

Horseweed

Borage Family

Hairy Hierba Santa

Rancher's Fiddleneck

Mustard Family

++London Rocket

++Short-pod Mustard

Tansy Mustard

Cactus Family

California Cholla

Vasey's Prickly-pear

Goosefoot Family

+Pigweed

++Russian Thistle

PLANTS

PLANTAE

Gymnosperms

Gymnospermae

Pinaceae

Pinus halepensis

Angiosperms

Angiospermae

Dicotyledons

Adoxaceae

Sambucus nigra ssp. caerulea

Amaranthaceae

Amaranthus blitoides

Amaranthus albus

Anacardiaceae

Schinus molle

Asteraceae

Helminthotheca ericoides

Senecio flaccidus var. douglasii

Lessingia filaginifolia

Erigeron bonariensis

Artemisia californicus

Baccharis salicifolia

Matricaria discoidea

Hazardia squarrosa

Lepidospartum squamatum

Sonchus asper

Artemisia dracunculus

Heterotheca grandiflora

Centaurea melitensis

Stephanomeria virgata ssp. virgata

Ambrosia psilostachya

Lactuca serriola

Centaurea solstitialis

Erigeron canadensis

Boraginaceae

Eriodictyon trichocalyx

Amsinckia menziesii

Brassicaceae

Sisymbrium irio

Hirschfeldia incana

Descurainia pinnata

Cactaceae

Cylindropuntia californica

Opuntia vaseyi

Chenopodiaceae

Chenopodium album

Salsola tragus

Euphorb Family

- ++Castor Bean
- Doveweed
- +Spotted Spurge

Pea Family

- Deerweed

Geranium Family

- ++Red-stemmed Filaree

Mint Family

- ++Horehound
- +Rosemary
- Chia

Mallow Family

- +Cheeseweed

Mahogany Family

- +Chinaberry Tree

Myrtle Family

- +Blue Gum
- +Red Gum

Plantain Family

- +Water Speedwell

Buckwheat Family

- California Buckwheat
- Slender Buckwheat
- Thurber Buckwheat
- Wild Rhubarb

Willow Family

- Cottonwood
- Gooding's Willow

Tree of Heaven Family

- Tree of Heaven

Nightshade Family

- Jimson Weed
- Nightshade
- Tree Tobacco
- White Nightshade

Vervain Family

- Western Vervain

Caltrop Family

- Puncture Vine

Agave Family

- Our Lord's Candle

Palm Family

- Mexican Fan Palm

Cattail Family

- Cattail

Sedge Family

- Tall Umbrella Sedge

Grass Family

- ++Beardgrass
- ++Bermuda Grass

Euphorbiaceae

- Ricinus communis*
- Croton setiger*
- Euphorbia maculata*

Fabaceae

- Acmispon glaber*

Geraniaceae

- Erodium cicutarium*

Lamiaceae

- Marrubium vulgare*
- Rosamarinus officinalis*
- Salvia columbariae*

Malvaceae

- Malva parviflora*

Meliaceae

- Melia azedarach*

Myrtaceae

- Eucalyptus globulus*
- Eucalyptus camaldulensis*

Plantaginaceae

- Veronica anagallis-aquatica*

Polygonaceae

- Eriogonum fasciculatum* var. *polifolium*
- Eriogonum gracile* var. *gracile*
- Eriogonum thurberi*
- Rumex hymenosepalus*

Salicaceae

- Populus fremontii*
- Salix goodingii*

Simaroubaceae

- Ailanthus altissima*

Solanaceae

- Datura wrightii*
- Solanum xanti*
- Nicotiana glauca*
- Solanum americanum*

Verbanaceae

- Verbena lasiostachys*

Zygophyllaceae

- Tribulus terrestris*

Monocotyledons

Agavaceae

- Hesperoyucca whipplei*

Arecaceae

- Washingtonia robusta*

Typhaceae

- Typha latifolia*

Cyperaceae

- Cyperus eragrostis*

Poaceae

- Schismus barbatus*
- Cynodon dactylon*

++Downy Chess
++Fountaingrass
++Giant Reed
+Goose Grass
Mexican Sprangletop
+Ripgut Brome
++Slender Wild Oats
+Smilgrass

Bromus tectorum
Pennisetum setaceum
Arundo donax
Eleusine indica
Leptochloa fusca ssp. uninerva
Bromus diandrus
Avena barbata
Piptatherum miliacea

Iguanas

Side-blotched lizard

Spiny lizards

Western fence lizard

REPTILES

Reptilia

Iguanidae

Uta stansburiana

Phrynosomatidae

Sceloporus occidentalis

Hawks, Eagles

Red-tailed Hawk

Bushtits

Bushtit

Larks

Horned Lark

Doves

+Eurasian Collared-dove

Mourning Dove

Crows and Jays

American Crow

California Scrub-jay

Common Raven

Sparrows

California Towhee

Spotted Towhee

White-crowned Sparrow

Falcons

American Kestrel

Finches

House Finch

Blackbirds

Red-winged Blackbird

Western Meadowlark

Mimic Thrushes

California Thrasher

New World Warblers

Orange-crowned Warbler

Yellow-rumped Warbler

Woodpeckers

Acorn Woodpecker

Northern Flicker

Nuttall's Woodpecker

Kinglets

BIRDS

AVES

Accipitridae

Buteo jamaicensis

Aegithalidae

Psaltriparus minimus

Alaudidae

Eremophila alpestris

Columbidae

Streptopelia decaocto

Zenaida macroura

Corvidae

Corvus brachyrhynchos

Aphelocoma californica

Corvus corax

Emberizidae

Melospiza crissalis

Pipilo maculatus

Zonotrichia leucophrys

Falconidae

Falco sparverius

Fringillidae

Haemorhous mexicanus

Icteridae

Agelaius phoeniceus

Sturnella neglecta

Mimidae

Toxostoma redivivum

Parulidae

Oreothlypis celata

Setophaga coronata

Picidae

Melanerpes formicivorus

Colaptes auratus

Picoides nuttallii

Regulidae

Ruby-crowned Kinglet

Sylviid Warblers

Wrentit

Hummingbirds

Anna's Hummingbird

Black-chinned Hummingbird

Wrens

Bewick's Wren

Rock Wren

Tyrant Flycatchers

Ash-throated Flycatcher

Black Phoebe

Cassin's Kingbird

Say's Phoebe

Regulus calendula

Sylviidae

Chamaea fasciata

Trochilidae

Calypte anna

Archilochus alexandri

Troglodytidae

Thryomanes bewickii

Salpinctes obsoletus

Tyrannidae

Myiarchus cinerascens

Sayornis nigricans

Tyrannus vociferans

Sayornis saya

MAMMALS

MAMMALIA

Canidae

Canis latrans

Geomyidae

Thomomys bottae

Leporidae

Lepus californicus

Sciuridae

Spermophilus beecheyi

Dogs, Coyotes, Wolves

Coyote

Gophers

Botta's Pocket Gopher

Rabbits and Hares

Black-tailed Hare

Squirrels

California Ground Squirrel

Appendix D - Site Photographs



Photo 1. Northern end of Reach A looking south down California Street.



Photo 2. View of the (former?) landscaped area west of California Street.



Photo 3. Reach A between California Street and Alabama Street. Looking east.



Photo 4. Small pull-out area at the northern end of California Street.



Photo 5. Reach A between California Street and Alabama Street. Looking west from center.
Note the *Lepidospartum squamatum* Shrubland Alliance habitat along the northern side of the Reach.



Photo 6. Reach A along Alabama Street. Looking north.
In this area, parts of Reach A have already been constructed. It is the asphalted area to the left of the sidewalk.



Photo 7. Alabama Street section. Looking south.
Ruderal and orchard habitat present on both sides.



Photo 8. Pioneer Street section before Interstate 210. Looking east.
Ruderal habitat along the north side.



Photo 9. Pioneer Street section before Interstate 210. Looking east.
Developed/ disturbed habitats.



Photo 10. West side of Citrus Valley High School. Looking southwest.
Citrus orchard on the right outside of the alignment. Ruderal habitat within the alignment.



Photo 11. North side of Citrus Valley High School. Looking west.
The citrus orchard on the right extends to the bluffs along the River and could support SBKR.



Photo 12. East side of Texas Street. Looking south.
Ruderal habitat with isolated trees.



Photo 13. East side of Texas Street. Looking northeast.
Ruderal habitat with isolated trees. There is no barrier in the connection with bluffs along the River.



Photo 14. Israel Beal Park landscaping. Looking east. Taken 2010.



Photo 15. Suitable SBKR habitat east of Texas Street and west of Israel Beal Park. Looking north.



Photo 16. Suitable burrowing owl and nesting bird habitat east of Texas Street and west of Israel Beal Park.
Standpipes are sometimes used by burrowing owls and nesting sites.

APPENDIX A-1
UPDATED FOCUSED
BIOLOGICAL ASSESSMENT



NATURAL RESOURCES ASSESSMENT, INC.

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**Telephone 951 686 4483
Fax 951 686 8418**

December 16, 2019

Ms. Cheryl Tubbs
Lilburn Corporation
905 Business Center Drive
San Bernardino, CA 92408

Subject: Santa Ana River Trail, Section IV, Report Amendment

Dear Ms. Tubbs,

Natural Resources Assessment, Inc. (NRAI) conducted a second survey on Tuesday, December 10, 2019 of the Santa Ana River Trail IV, Section A, (SART IV). The second survey was focused on noting substantive changes in the habitats crossed by the trail since the last survey was conducted on October 24, 2018 and determine how those changes might affect trail design and use.

Project Description

The Santa Ana River Trail is a hiking and biking trail that extends from the Pacific Ocean to the mountains of San Bernardino. Phase IV, Reach A is the last segment of the trail scheduled for construction.

The County of San Bernardino has initiated environmental review under the California Environmental Quality Act (CEQA) for the Santa Ana River Trail (SART) Phase IV (Reach A) Project. This reach extends from California Street to Orange Street within the City of Redlands in San Bernardino County. On its western end, the trail would connect to the Santa Ana Trail Phase III; on the eastern end, the trail would ultimately connect to a future component of SART Phase IV (Reach B).

The Santa Ana River corridor extends over approximately 110 miles from the Pacific Ocean inland to the San Bernardino National Forest. Upon completion, the Santa Ana River Trail (SART) would be the “Crest to Coast” regional trail link connecting an area encompassing over four million residents in three counties (Orange, Riverside and San Bernardino). Reach A is an approximately 3.9-mile long segment of SART that would begin on the west side of California Street in the City of Redlands and terminate at Orange Street. Segments of the trail have been built in Orange, Riverside, and San Bernardino Counties.

Construction activities anticipated as part of the proposed project include excavation, grading, embankment/ retaining walls; installation of fencing, railing, access gates, trail delineators, and signage; pavement striping and markings and all other appurtenant work. Expected earthwork would include cut

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Lilburn Corporation

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(approximately 2 feet) and fill (approximately 3 feet) for trail grading and retaining wall construction. Additionally, it is anticipated that construction would require the removal and/ or relocation of various trees, shrubs, bushes, and grasses along the proposed alignment.

Project Background

The Upper Santa Ana River Wash Habitat Conservation Plan (“Wash Plan”) is intended as a comprehensive Habitat Conservation Plan (HCP) that will conserve plant communities, species and associated habitats in southwestern San Bernardino County. It covers approximately 4,892 acres and identifies five covered species requiring specific protections. The draft HCP was published in January 2018 and the comment period for the Draft EIR/ EIS and the HCP have been extended to January 21, 2020.

Phase IV of the Santa Ana River Trail is a covered activity in the HCP. The HCP has identified mitigation measures for offsetting the impacts to the five covered species as well as sensitive and general biological resources in this area of San Bernardino County. The HCP has not yet been adopted; however, the relevant measures provided in the HCP are included in the CEQA document in the event the HCP is not adopted prior to the final environmental approvals of Reach A.

Project History

NRAI has worked with the County and Lilburn Corporation on the Phase IV section since 2009, including informal surveys with County and resources agencies staff, and formal biological assessment surveys.

Excluding the present effort, our work has included:

- April 19, 2009, NRAI reviewed available information on biological resources for the then current alignment from California Street east to Opal Avenue.
- May 20, 2009. Preliminary site assessment to identify sections of Phase IV for potentially sensitive areas
- August 13, 2009. Field meeting with local, state and federal agencies to identify the issues for each agency.
- May 24 and 25, 2010. Conducted a formal survey of Reach A and B.
- May 5 and May 28, 2014. Updated our previous site assessment of SART IV, Reach A and B. The purpose of the survey was to document any substantial changes that may have occurred along the proposed alignment since our 2010 survey.
- October 24, 2018. Conducted a formal survey of Reach A from California Street in San Bernardino to Orange Street in Redlands.

Our 2018 findings included direct impacts and indirect impacts as a result of trail construction and use.

General Biological Resources

Direct impacts to general biological resources include the loss of ruderal and upland habitats. These impacts are minimal and are not considered to be significant.

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Lilburn Corporation

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Indirect impacts to general biological resources such as ruderal and upland habitats are not considered significant.

Sensitive Biological Resources

Direct impacts to sensitive biological resources are primarily concerned with the loss of habitat. Most of Reach A is in close proximity to habitats, but because most of the proposed trail alignment follows an existing dirt road/ trail or otherwise disturbed surface, construction of the trail is not expected to have a significant direct impact on sensitive resources with the potential exception of the San Bernardino kangaroo rat and the burrowing owl. No direct impacts are expected to occur to sensitive plant communities, habitats or species.

Indirect impacts to sensitive resources, including one or more of the five covered species, may occur as a result of construction activities and noise. There are also potential future impacts from the use of barriers such as boulders, fences, and gates will be placed and maintained along work area and trail boundaries to help prevent unauthorized activities, including dumping and off-road vehicle use. Litter control measures will be implemented. Trash and food items will be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.

- San Bernardino Kangaroo Rat – Direct impacts include the potential loss of occupied habitat east of California Street. This species has been trapped just south of the trail alignment.
- Burrowing Owl – Direct impacts include the potential loss of occupied habitat. Suitable habitat exists along the California Street to Alabama Street south to Pioneer Street section on either side on the alignment, mostly on the River side. Suitable habitat also exists along Citrus Valley High School to east of Texas Street section. Indirect impacts include the noise disturbances from construction along in both sections.
- California Gnatcatcher – Indirect impact to suitable habitat exists north of the entire Reach A within the Santa Ana River. Indirect impacts include the noise disturbances from construction.
- Slender-horned Spineflower and Santa Ana River Woolly Star – Indirect impacts from project construction dust and debris.
- Jurisdictional Waters – Direct impact to the drainage along Texas Street. This drainage may be jurisdictional because it ultimately connects to the Santa Ana River.
- Raptors, Migratory Birds, and Habitat – Indirect impacts from construction activity.

December 2019 Survey Findings

NRAI found only one substantial change in the environment since the October 24, 2018 survey (Figures 3c, 2018 and 3c, 2019). Along Alabama Street, there was an area of *Hirschfeldia* Semi-Natural Alliance habitat (a mostly weedy, non-native plant community often found in fallow agricultural fields) west of Alabama Street south to Palmetto Avenue. This area has since been reduced in extent. The southern three-fourths of this *Hirschfeldia* Semi-Natural Alliance habitat has been graded and appears to be under development. The northern one-fourth appears to be abandoned and remains as *Hirschfeldia* Semi-Natural Alliance habitat

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No substantial new impacts will result from the change in land use from abandoned/ agriculture to commercial development.

If the northern quarter of *Hirschfeldia* Semi-Natural Alliance habitat remains unused over time it might eventually develop into marginally suitable habitat for burrowing owl.

Because the project construction limits do not include this habitat, any impacts to the burrowing owl would be indirect.

It is recommended that the following general measures/ best management practices from the HCP and the January 30, 2019 Biological Assessment Report be implemented during project construction and/ or operation as applicable:

- Barriers such as boulders, fences, and gates will be placed and maintained along work area and trail boundaries to help prevent unauthorized activities, including dumping and off-road vehicle use.
- The limits of construction will be marked, fenced, and maintained as necessary until work is completed.
- Personnel will strictly limit their activities, vehicles, equipment, and construction materials to the designated work area.
- Ingress and egress of construction equipment and personnel will be confined to designated access points. Cross-country travel by vehicles and equipment will be prohibited.
- All workers will receive environmental awareness training. The training will be developed in consultation with a qualified biologist and consist of an onsite or training center presentation for which supporting materials will be provided. Training will provide information about the special-status species potentially occurring on site and an explanation of the purpose and function of the avoidance and minimization measures and the possible penalties for not adhering to them.
- Qualified biologist or biological monitor will ensure compliance with protective measures for sensitive species. They will be required to monitor any construction or O&M activities that may result in impacts to sensitive species.
- Equipment (e.g., passenger vehicles, trucks, and heavy equipment) will be cleaned prior to entering the worksite and between worksites to prevent the importation and spread of exotic plant species.
- No open trenches or holes will be left overnight without covering, fencing, or providing escape ramps with a minimum 3:1 slope. If trenches are not covered, they will be inspected for trapped wildlife by a qualified biologist or biological monitor prior to the start of work activities each day

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the trenches or holes remain uncovered. Animals found will be captured and moved to the nearest safe location outside the construction area.

- Adequate fire suppression capability will be maintained in active construction areas including having a water tender on site in active construction areas during periods of high fire danger.
- No firearms or pets will be allowed at the work areas. Firearms carried by authorized security and law enforcement personnel are exempt.
- Litter control measures will be implemented. Trash and food items will be contained in closed containers and removed daily to reduce the attractiveness of the area to opportunistic predators.
- Dust will be controlled. If water trucks are to be used, pooling of water will be avoided to minimize the potential of attracting opportunistic predators.

If you have any questions or would like to discuss this scope of work, please feel free to contact me at 951 686 4483 or at k.kirtland@naturalresourcesassessment.com.

Sincerely,



Karen Kirtland
President

Attachments: Figures 3c (2018) and 3c (2019).

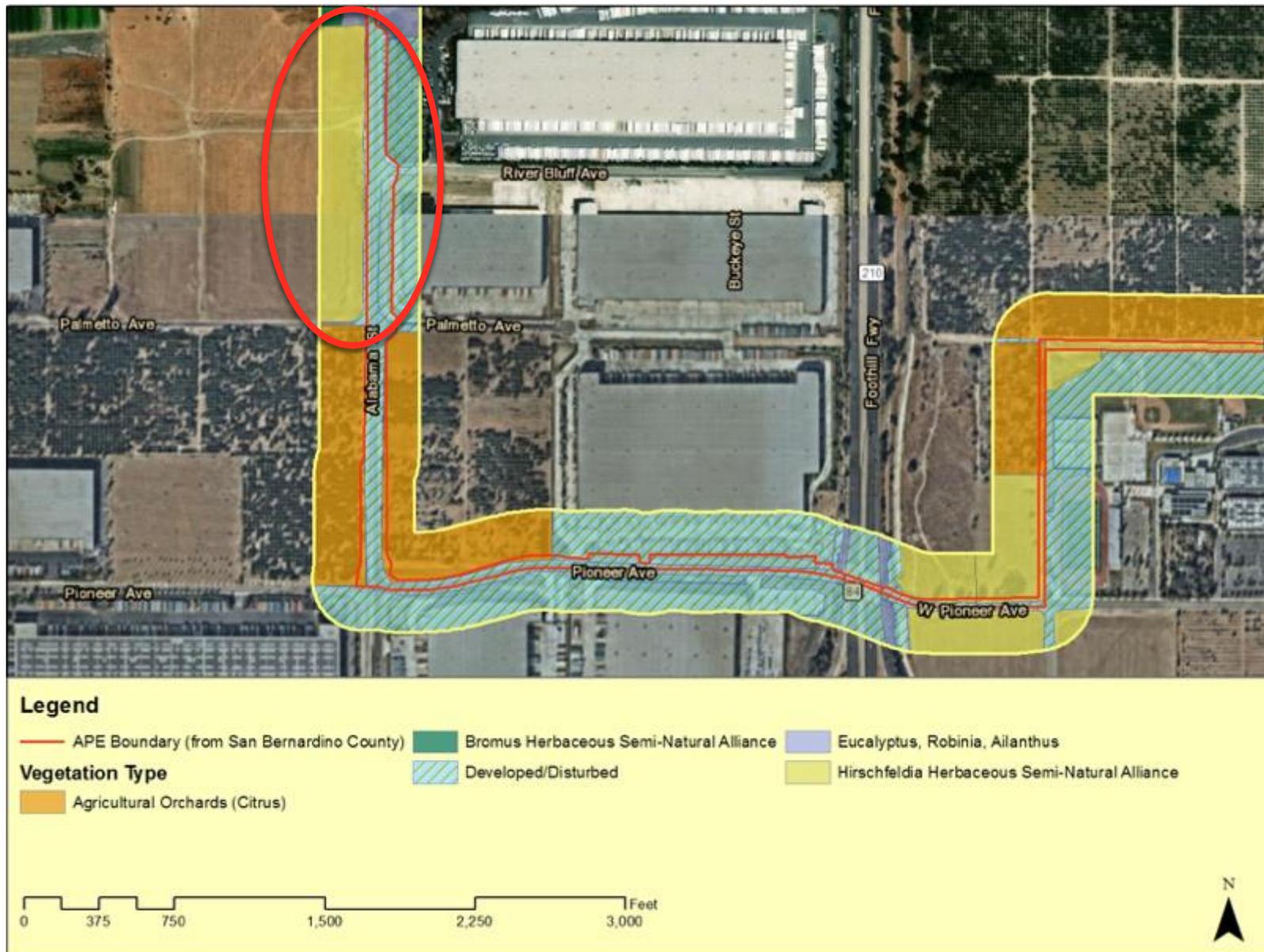


Figure 3c (2018)

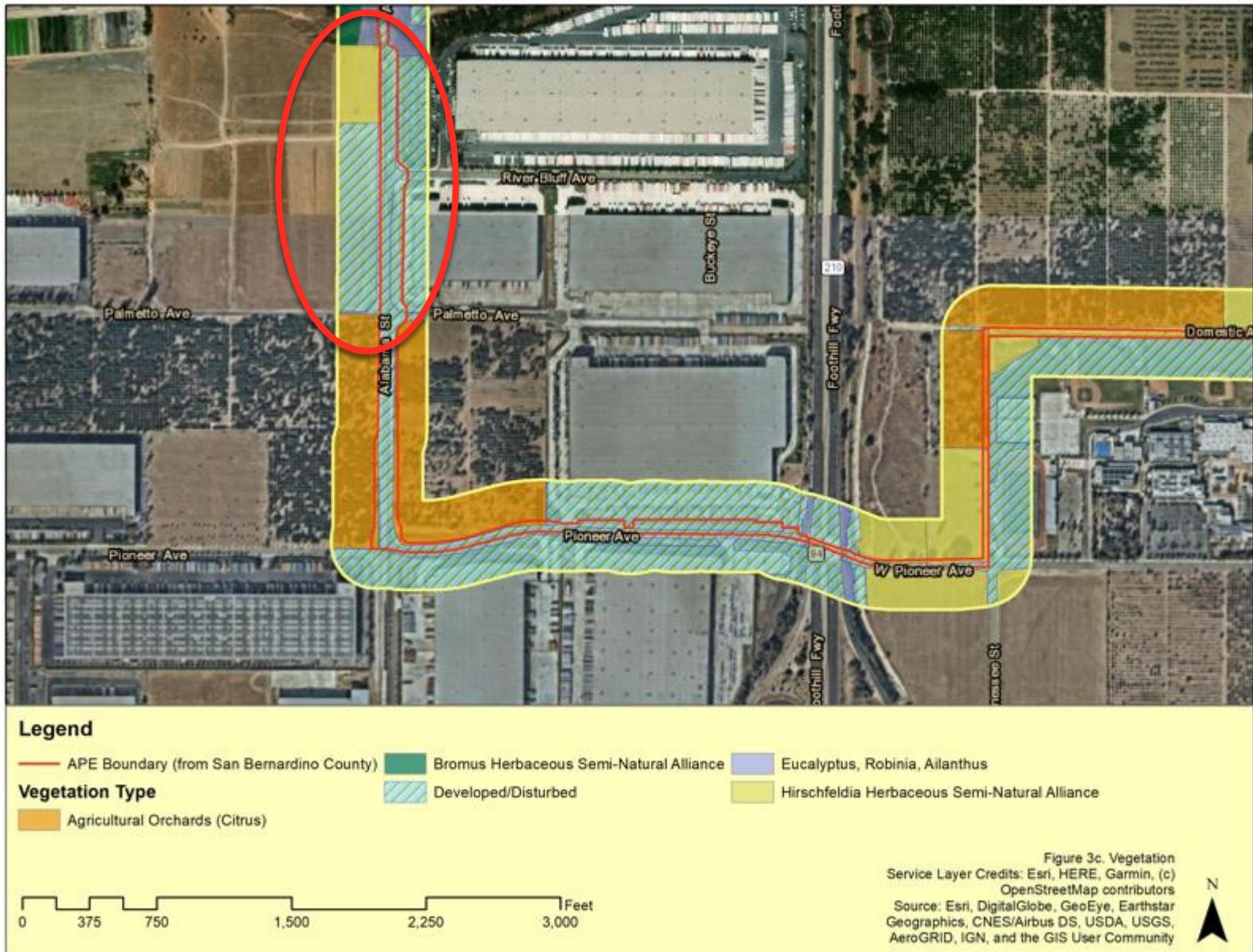


Figure 3c (2019)