

# Jurisdictional Delineation Report Pico Rivera Regional Bikeway Project

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**May 2019**

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**LIST OF ABBREVIATIONS AND ACRONYMS**

BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
FGC	Fish and Game Code
OHWM	Ordinary High Water Mark
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
VCS	VCS Environmental
WOS	Waters of the State
WOUS	Waters of the United States

## 1.0 Introduction

The purpose of this report is to provide the results of the jurisdictional delineation conducted by VCS Environmental for the Pico Rivera Regional Bikeway Project (Project) as required by the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB), collectively called “the Agencies”. This report provides the documentation required to process a Section 404 Nationwide Permit, a Section 1602 Streambed Alteration Agreement, and a Section 401 Water Quality Certification (regulatory permits).

The City of Pico Rivera is proposing to construct a 1.5-mile bicycle facility along Mines Avenue, a bike/pedestrian bridge over the San Gabriel River, and a bicycle facility along Dunlap Crossing Road. The Project would construct a Class IV separated bikeway along Mines Avenue from Paramount Boulevard in the west to the existing Class I bike trail along the San Gabriel River in the east. The Project also includes a new bridge structure and Class I and II bike lanes along Dunlap Crossing Road from the San Gabriel River to Norwalk Boulevard. The alignment along Dunlap Crossing Road will connect an existing publicly accessible bike path on the west side of the San Gabriel River to the San Gabriel River Mid Trail. The Proposed improvements on Mines Avenue include but are not limited to: pavement reconstruction; installation of bioswales, stormwater catch basins and other improvements such as, reconfiguration of parking lanes; upgrading street lights; traffic signal modifications at Rosemead Boulevard and Mines Avenue; signage; striping; utility relocation; and landscaping. The only Jurisdictional area within the Project footprint is the San Gabriel River. Therefore, the only portion of the Project subject to regulatory permits is the new bike bridge over the river.

The proposed Project would cause permanent and temporary impacts to the San Gabriel River which are considered Waters of the United States (WOUS) and State (WOS). The permanent impacts are the result of bridge piers that will be installed in the San Gabriel River totaling approximately 57.0 square feet. Temporary impacts for the construction zone and construction access will also occur.

### *Mines Avenue Bikeway Bridge*

The Mines Avenue Bikeway Bridge would be constructed approximately 800 feet downstream of the Whittier Boulevard Crossing over the San Gabriel River. The western end of the bridge would generally be constructed at the location where the San Gabriel River Spreading Basins Trail and the San Gabriel River Trail meets. The eastern end of the bridge would tie into the existing San Gabriel River Trail.

The proposed Mines Avenue Bikeway Bridge would have a width of 8 feet and span approximately 350 feet over the San Gabriel River. The bridge would be a prefabricated structure that would be installed in segments. The construction activities for the bikeway bridge would involve 3 primary construction phases; mobilization, construction of bridge foundations and installation of the bridge.

## 2.0 Project Information

### 2.1 Contact Information

Applicant:

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### 2.2 Project Location

The Project site is located in the City of Pico Rivera (City), County of Los Angeles, California; approximately 2.5 miles from the southern City limits and 3.5 miles from the northern City limits. The Project site is approximately 0.30 miles west of the Interstate 605 freeway (I-605) between Whittier Boulevard and Mines Avenue to the west and Dunlap Crossing Road to the east. The bike lanes on Mines Avenue will run the width of the City. The Project is located within the San Bernardino Meridian, Township 2S, Range 11W, Section 18. A regional location and vicinity map are attached as Figures 1 and 2, respectively. The Biological Study Area (BSA) shown on Figure 3, included the entire Project site of Mines Avenue, Dunlap Crossing Road, the pathway around the San Gabriel Coastal spreading grounds adjacent to the San Gabriel River, and a portion of the San Gabriel River.

### 2.3 Land Uses

The Project site consists of developed residential streets, a portion of the San Gabriel River, and an existing paved pathway around the spreading grounds used for flood control and water conservation located south of Whittier Boulevard, north of Mines Avenue, and west of the San Gabriel River. The Project is bisected by the San Gabriel River but otherwise surrounded by developed residential and commercial land. As noted above, the only jurisdictional feature within the Project footprint is the San Gabriel River.

## 3.0 Setting

### 3.1 Description

The Project will permanently impact a total of approximately 57.0 square feet of jurisdictional WOUS and WOS for construction of bridge piers. Temporary impacts will include a construction zone, which is an area approximately 50 feet wide on each side of the bridge as shown on Figures 4a and 4b. The remainder of the area identified as temporarily impacted is expected to be reduced to only what is necessary for access. This will depend on the vegetation regime at the time of construction. We therefore identified a larger area than necessary and will provide a construction as-built to the Agencies for the actual amount of impact. Prior to construction, a qualified biologist will meet with the contractor to identify the least impactful method to access the construction zone. Any sensitive vegetation within the temporary construction access area will be avoided. Work will occur outside of the flood season, and no work will occur during high flow regimes. If low flow is present during construction, a diversion technique will be identified for approval by the Agencies.

This portion of the San Gabriel River is a soft bottom channel lined with concrete riprap along the slopes. Adjacent to the Project impacts are the San Gabriel Coastal spreading grounds which contain jurisdictional waters; however, these will not be impacted. During the delineation of the Project, VCS Environmental biologists took soil samples at different locations throughout the BSA to determine wetland and non-wetland areas. Soil sample locations are shown in Figure 4a.

### 3.2 Vegetation

The upland ruderal areas within the San Gabriel River have mostly non-native plant species such as short pod mustard (*Hirschfeldia incana*), wild radish (*Raphanus sativus*), red-stemmed filaree (*Erodium cicutarium*), sow thistle (*Sonchus oleraceus*), prickly lettuce (*Lactuca serriola*), toothed dock (*Rumex dentatus*), and annual barley grassland (*Hordeum murinum*). Vegetation within the lower limits of the San Gabriel River appears to be disturbed with routine annual maintenance; species present include swamp smartweed (*Periscaria hydropiperoides*), Bermuda grass (*Cynodon dactylon*), weakleaf bur ragweed (*Ambrosia confertiflora*), common sunflower (*Helianthus annuus*), English plantain (*Plantago lanceolata*), California bulrush (*Schoenoplectus californicus*), mulefat (*Baccharis salicifolia*), and black willow (*Salix gooddingii*) as shown in Table 1 below. The developed area, which includes the existing bike path, contains ornamental species such as silk floss tree (*Ceiba speciosa*) and carob tree (*Ceratonia siliqua*), and a few native landscaped species, such as California bush sunflower (*Encelia californica*) and white sage (*Salvia apiana*). A Vegetation Map is attached as Figure 5.

Table 1: Vegetation Present in the San Gabriel River

Impact Type	Wetland	Dominant Vegetation*	Latitude (centerpoint)	Longitude (centerpoint)
Permanent (0.001 acres) and Temporary	Emergent Wetland/Emergent Riparian	Bermuda grass ( <i>Cynodon dactylon</i> ) [FACU], common sunflower ( <i>Helianthus annuus</i> ) [FAC], swamp smartweed ( <i>Persicaria hydropiperoides</i> ) [OBL], weakleaf bur ragweed ( <i>Ambrosia confertiflora</i> ) [NI], rough cocklebur ( <i>Xanthium strumarium</i> ) [FAC]	33.992984	-118.073483
Temporary	Wetland/Riparian	Bulrush ( <i>Shoenoplectus californicus</i> ) [OBL], swamp smartweed, weakleaf bur ragweed, black willow ( <i>Salix gooddingii</i> ) [FACW], mulefat ( <i>Baccharis salicifolia</i> ) [FAC]	33.993110 33.992746	-118.073779 -118.073109
Temporary	Non-wetland/streambed	Wild radish ( <i>Raphanus sativus</i> ) [NI], Bermuda grass, disturbed/developed	33.993250 33.992553	-118.073795 -118.073196

\*UPL = Upland Species; FAC = Facultative; FACU = Facultative Upland Species; FACW = Facultative Wetland; OBL = Obligate; NI = No Indicator (USDA 2019b)

### 3.3 Hydrology

The Project site is located in the San Gabriel River Watershed. The San Gabriel River Watershed lies mostly within Los Angeles County with small portions in San Bernardino and Orange Counties. The San Gabriel River flows from the San Gabriel Mountains in the north through the Los Angeles Coastal Plain, and empties into the Los Angeles/Long Beach Harbor. The major tributaries to the San Gabriel River are Walnut Creek, San Jose Creek, and Coyote Creek. The Project site topography is relatively flat overall with elevations ranging from 146 feet to 160 feet. The average annual rainfall of Pico Rivera, CA is approximately 17 inches.

The Project site overlies the Puente Basin within the San Gabriel Valley Groundwater Basin (San Gabriel Basin). The San Gabriel Basin is located in eastern Los Angeles County, where it underlies most of the San Gabriel Valley and a portion of the upper Santa Ana Valley.

### 3.4 Soil

The United States Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey lists four soil types for the Project site and BSA. The soil types within the Project site and BSA are listed below.

Urban land-Hueneme, drained-San Emigdio complex [1000] – 0 to 2% slopes

This soil complex is usually found on alluvial fans at elevations from 10 to 300 feet. It is very slightly saline to slightly saline and somewhat poorly drained. Its distribution profile ranges from sandy loam to loamy sand.

Urban land-Biscailuz-Hueneme, drained complex [1005] - 0 to 2 percent slopes

This soil complex is usually found on alluvial fans at elevations from 0 to 190 feet. It is nonsaline to very slightly saline and somewhat poorly drained. Its distribution profile ranges from loam to very fine sandy loam.

\*Pits and Quarries [1180]

This soil complex is usually found on alluvial fans at elevations 10 – 1950 feet.

\*Xeropsamments, frequently flooded [1264] - 0 to 2% slopes

This soil complex is usually found in channels and rivers at elevations from 100 to 460 feet. It is susceptible to frequent flooding and is somewhat excessively drained. Its distribution profile is stratified sand.

The United States Department of Agriculture (USDA) Natural Resources Conservation Service lists two of the above as hydric soils (USDA 2019), Pits and Quarries [1180] and Xeropsamments [1264]. A soils map is attached as Figure 6.

*\*Soil type is within jurisdictional waters*

## 4.0 Methodology

### 4.1 Delineation Statement

#### *USACE*

The BSA was assessed for jurisdictional wetland and non-wetland WOUS. To determine the presence of a wetland, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the USACE 1987 Wetland Delineation Manual and the Arid West Supplement sets the standards for meeting each of the three indicators, which normally require that 50 percent or more dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present.

Jurisdictional non-wetland WOUS are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the “line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (33 CFR 328.3(e)). The following guidance documents were utilized in making this determination:

- Field Guide to OHWM Determinations in the Arid West (August 2008);
- Updated OHWM Datasheet for the Field Guide to OHWM Determinations in the Arid West (July 2010); and
- Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region (2011).

Projects with impacts to WOUS are regulated under Sections 401 and 404 of the Clean Water Act and by connectivity with adjacent watersheds. Section 401 of the CWA (33 U.S.C. 1341) requires any applicant of a federal license or permit conducting any activity that may result in a discharge of a pollutant into WOUS to obtain certification from the state in which the discharge originates.

#### *CDFW*

CDFW has jurisdiction over WOS (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720). Section 1602 of the California Fish and Game Code (FGC) applies to natural rivers, streams, and lakes:

“An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material

containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.”

CDFW defines a stream as “a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course regime, and where the width of its course can reasonably be identified by physical or biological indicators” (Brady and Vyverberg 2013). CDFW regulates wetland areas only to the extent that those wetlands are part of a stream, river, or lake as defined by the CDFW. Based on the collective results of these investigations, areas that exhibited physical or biological indicators determined to be within the jurisdiction of CDFW were mapped. CDFW regulates activities that would alter the flow, bed, channel or bank of streams and lakes by issuing Lake or Streambed Alteration Agreements. In riparian areas, CDFW jurisdictional limits are usually delineated by the top of the stream or lake banks, or the outer edge of riparian vegetation; whichever is wider.

To determine the areas where waters flow or have flowed and the width of its course, the delineators conducted a site visit to walk the entire site; reviewed previous biological, cultural, and construction reports on the site; and reviewed historical aerial imagery. Based on the collective results of these investigations, areas that exhibited physical or biological indicators determined to be within the jurisdiction were mapped. The VCS delineators concluded that the site does exhibit the characteristics of a stream, river, or lake, and therefore WOS are present, which are shown on Figure 3b.

### *RWQCB*

The RWQCB has jurisdiction over both Waters of the State and Waters of the United States (Porter-Cologne Water Quality Control Act; California Code or Regulations title 23, section 3831(w); Executive Order W-59-93; Section 401 of the CWA; 33 U.S.C. 1341). As identified in the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State adopted on April 2, 2019,

“The Water Boards define an area as wetland as follows:

An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.

The Water Code defines “waters of the state” broadly to include “any surface water or groundwater, including saline waters, within the boundaries of the state.” “Waters of the state” includes all “waters of the U.S.” The following wetlands are waters of the state:

1. Natural wetlands,
2. Wetlands created by modification of a surface water of the state, and
3. Artificial wetlands that meet any of the following criteria:
  - a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
  - b. Specifically identified in a water quality control plan as a wetland or other water of the state;
  - c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
  - d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
    - i. Industrial or municipal wastewater treatment or disposal,
    - ii. Settling of sediment,
    - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
    - iv. Treatment of surface waters,
    - v. Agricultural crop irrigation or stock watering,
    - vi. Fire suppression,
    - vii. Industrial processing or cooling,
    - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
    - ix. Log storage,
    - x. Treatment, storage, or distribution of recycled water, or
    - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
    - xii. Fields flooded for rice growing

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the

wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.”

Projects with impacts to RWQCB jurisdictional waters would either be required to obtain a Section 401 Water Quality Certification or a Waste Discharge Requirements permit, depending on whether the Project has impacts to both Waters of the United States and Waters of the State, or only Waters of the State. Furthermore, impacts to RWQCB jurisdiction may be subject to an Alternative Analysis, should a) permanent impacts to more than two tenths of an acre or 300 lineal feet of waters of the State be required, b) the Project supports rare, threatened or endangered species habitat in the waters of the State, or c) the Project would result in impacts to wetlands.

In summary, the San Gabriel River would be considered jurisdictional by the USACE, CDFW, and RWQCB.

## **4.2 Dates of Field Work**

The jurisdictional delineation was conducted on March 15, 2019 by Wade Caffrey, Erin Hayes, and Sierra Coleman.

## 5.0 Results

### 5.1 Waters of the United States and Waters of the State

*Permanent Impacts*

Permanent Impacts to USACE, CDFW, and RWQCB jurisdiction within the Project site include approximately 57.0 square feet (0.001 acre) to emergent wetlands for construction of two bridge piers.

*Temporary Impacts.*

Temporary impacts to USACE, CDFW, and RWQCB jurisdiction within the Project site will be caused by:

1. A construction impact zone defined as 50 feet upstream and downstream of the proposed bridge estimated at approximately 0.77 acres; and
2. Equipment access to the construction zone estimated at approximately 20 feet in width, but the actual path may vary depending on the access point(s) and vegetation present.<sup>1</sup> Every effort will be made to avoid sensitive vegetation.

Following completion of bridge construction, an after the fact map with the actual area of temporary impacts will be provided to the Agencies and the impacted vegetated areas will be returned to their prior state.

A jurisdictional delineation map is attached as Figure 3a and 3b.

The USACE, CDFW, and RWQCB impacts and jurisdiction are further classified in Tables 2-7 below.

Table 2: Approximate Impacts to USACE Jurisdictional Waters

Impact Type	Impact Acreage
Total Permanent – Emergent Wetland	0.001*
Total Temporary	2.16
Wetland	0.57
Emergent Wetland	1.38
Non-wetland	0.21

\*0.001 acre = 57.0 square feet

<sup>1</sup> Ultimate impacts are expected to be limited to access and/or water diversion if needed. Water diversion would be approved in advance by CDFW and RWQCB.

Table 3: Approximate Impacts to CDFW Jurisdictional Waters

Impact Type	Impact Acreage
Total Permanent –Emergent Riparian	0.001*
Total Temporary	2.72
Riparian	0.58
Emergent Riparian	1.38
Streambed	0.76

\*0.001 acre = 57.0 square feet

Table 4: Approximate Impacts to RWQCB Jurisdictional Waters

Impact Type	Impact Acreage
Total Permanent –Emergent Wetland	0.001*
Total Temporary	2.72
Wetland	0.58
Emergent Wetland	1.38
Non-Wetland	0.76

\*0.001 acre = 57.0 square feet

Table 5: USACE Jurisdiction Measurements

Impact Type	Wetland	Cowardin Class	Acreage	Linear Feet	Width
Permanent (0.001 acres) and Temporary	Emergent Wetland	R4SBCx	1.38 acre	415 feet	240 feet
Temporary	Wetland	R4SBCx	0.57 acre	760 feet	35 feet
Temporary	Non-wetland	N/A	0.21 acre	765 feet	25 feet
<b>Total</b>			<b>2.16 acres</b>	<b>1940 feet</b>	<b>N/A</b>

Table 6: CDFW Jurisdiction Measurements

Impact Type	Wetland	Cowardin Class	Acreage	Linear Feet	Width
Permanent (0.001 acres) and Temporary	Emergent Riparian	R4SBCx	1.38 acre	415 feet	240 feet
Temporary	Riparian	R4SBCx	0.58 acre	760 feet	40 feet
Temporary	Streambed	N/A	0.76 acre	1000 feet	40 feet
<b>Total</b>			<b>2.72 acres</b>	<b>2175 feet</b>	<b>N/A</b>

Table 7: RWQCB Jurisdiction Measurements

Impact Type	Wetland	Cowardin Class	Acreage	Linear Feet	Width
Permanent (0.001 acres) and Temporary	Emergent Wetland	R4SBCx	1.38 acre	415 feet	240 feet
Temporary	Wetland	R4SBCx	0.58 acre	760 feet	40 feet
Temporary	Non-Wetland	N/A	0.76 acre	1000 feet	40 feet
<b>Total</b>			<b>2.72 acres</b>	<b>2175 feet</b>	<b>N/A</b>

## **5.2 Photo Documentation**

Photopages are attached as Appendix A.

## **5.3 Data**

Wetland Determination Data forms are attached to this document as Appendix B.

## **6.0 Conclusions**

Permanent impacts to USACE WOUS will be approximately 57.0 square feet (0.001 acres) within the emergent wetland area shown on Figure 4a. USACE jurisdiction through WOUS totals 2.16 acres, with temporary impacts to 0.57 acre of wetlands, 1.38 acres of emergent wetlands, and 0.21 acre of non-wetlands. A Section 404 permit would be required for these impacts.

Permanent impacts to CDFW WOS will be approximately 57.0 square feet (0.001 acres) within the emergent riparian area shown on Figure 4b. CDFW jurisdiction through WOS totals 2.72 acres, with temporary impacts to 0.58 acre of riparian, 1.38 acres of emergent riparian, and 0.76 acre of streambed. A Section 1600 permit would be required for these impacts.

RWQCB jurisdiction includes both WOUS and WOS described above. A 401 certification would be required for these impacts.

## 7.0 References

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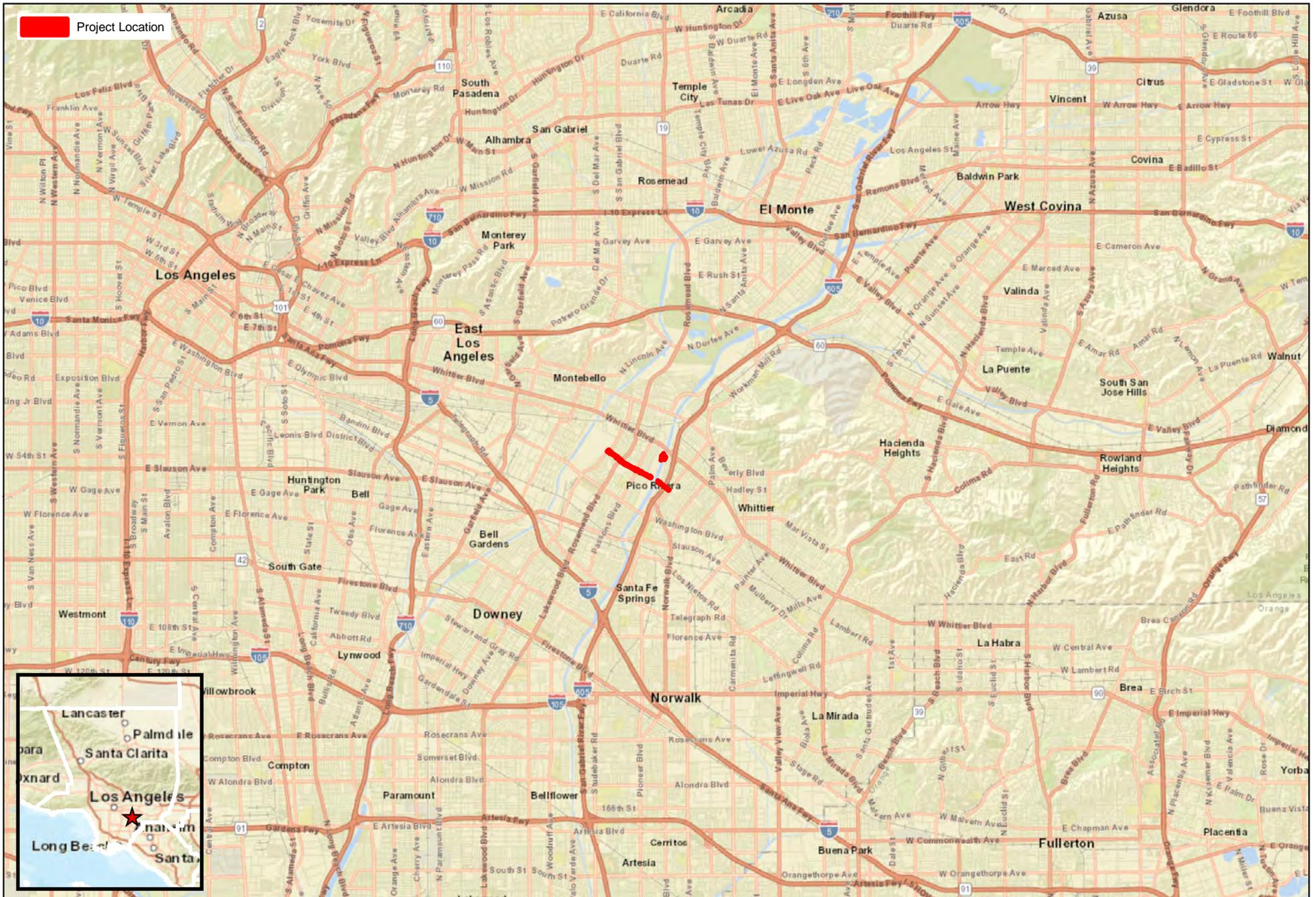
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# Figures



Project Location



Prepared By:



VCS Environmental

Map Created: April 2019

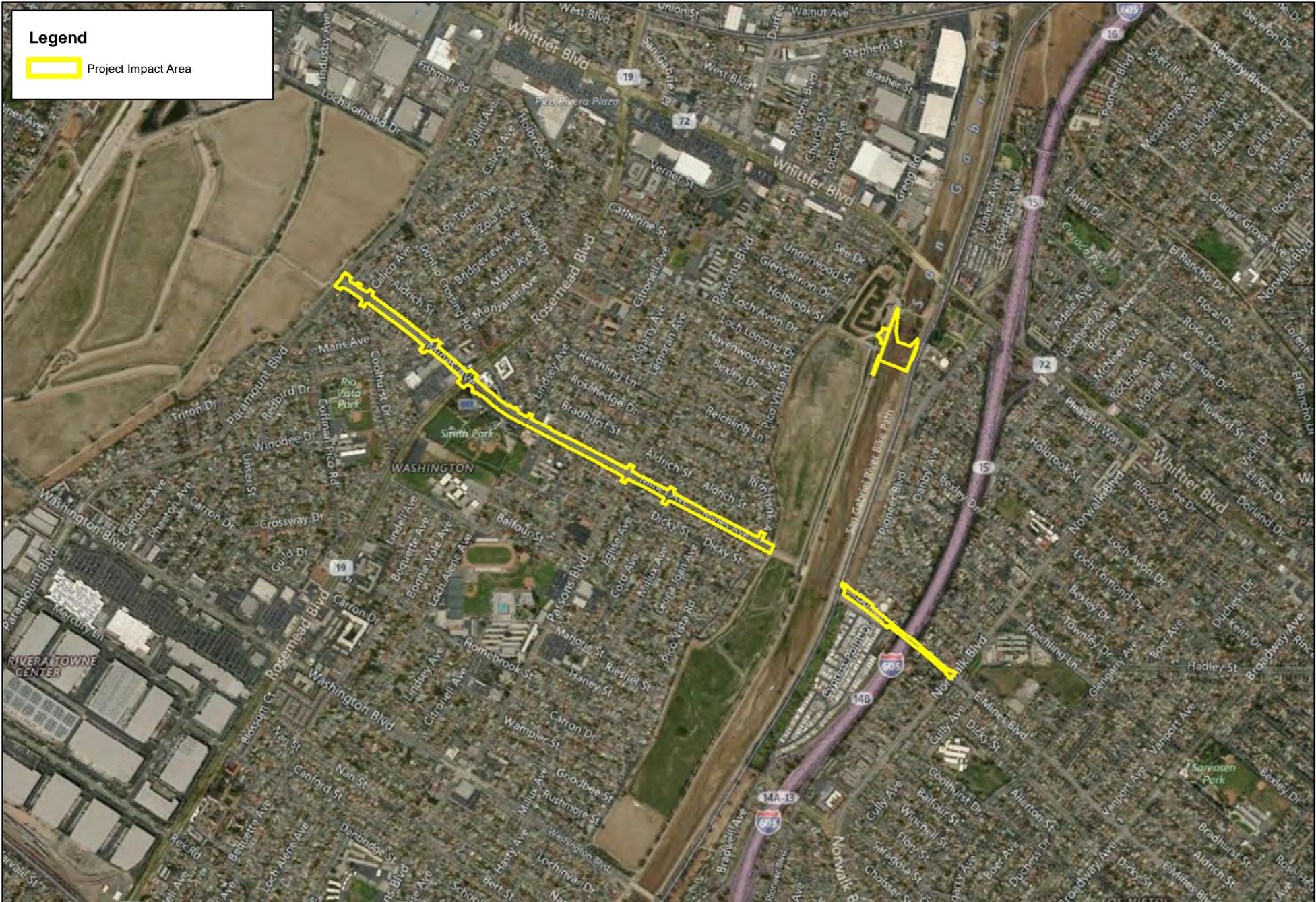


Data Source: ESRI

Figure 1

**Pico Rivera  
Regional Bikeway Bridge Project**

Project Location Map



**Legend**

Project Impact Area

Prepared By:



VCS Environmental

Map Created: April 2019




Data Source: BING,  
City of Pico Rivera, BFK

**Pico Rivera  
Regional Bikeway Bridge Project**

**Figure 2**

Project Impact Area



**Pico Rivera  
Regional Bikeway Bridge Project**

**Figure 3**

Biological Study Area

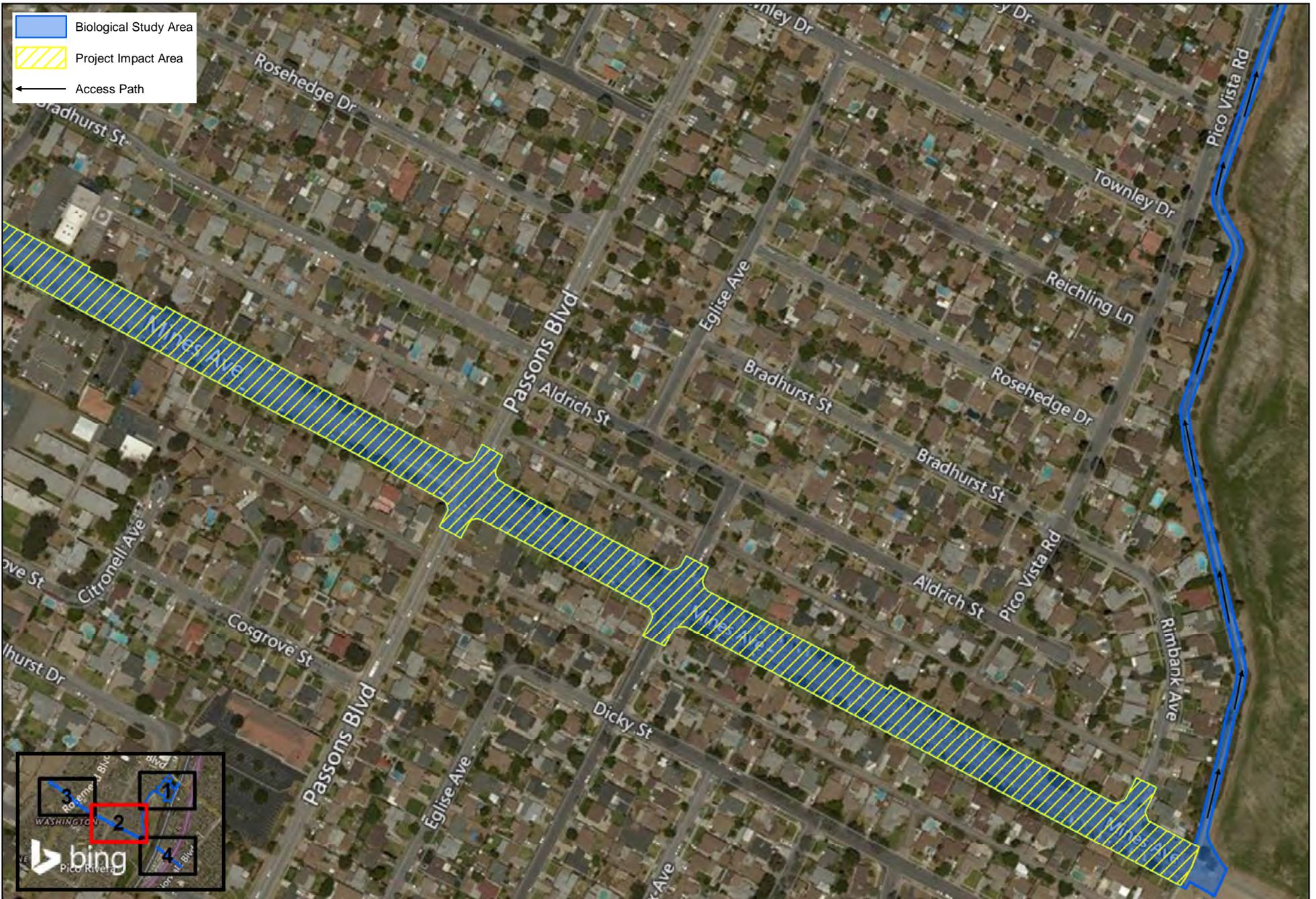
Prepared By:  
  
 VCS Environmental

Map Created: April 2019

0 300 600 Feet



Data Source: BING, Kidd  
 City of Pico Rivera, BFK, VCS



**Pico Rivera  
Regional Bikeway Bridge Project**

Biological Study Area

**Figure 3**

Prepared By:

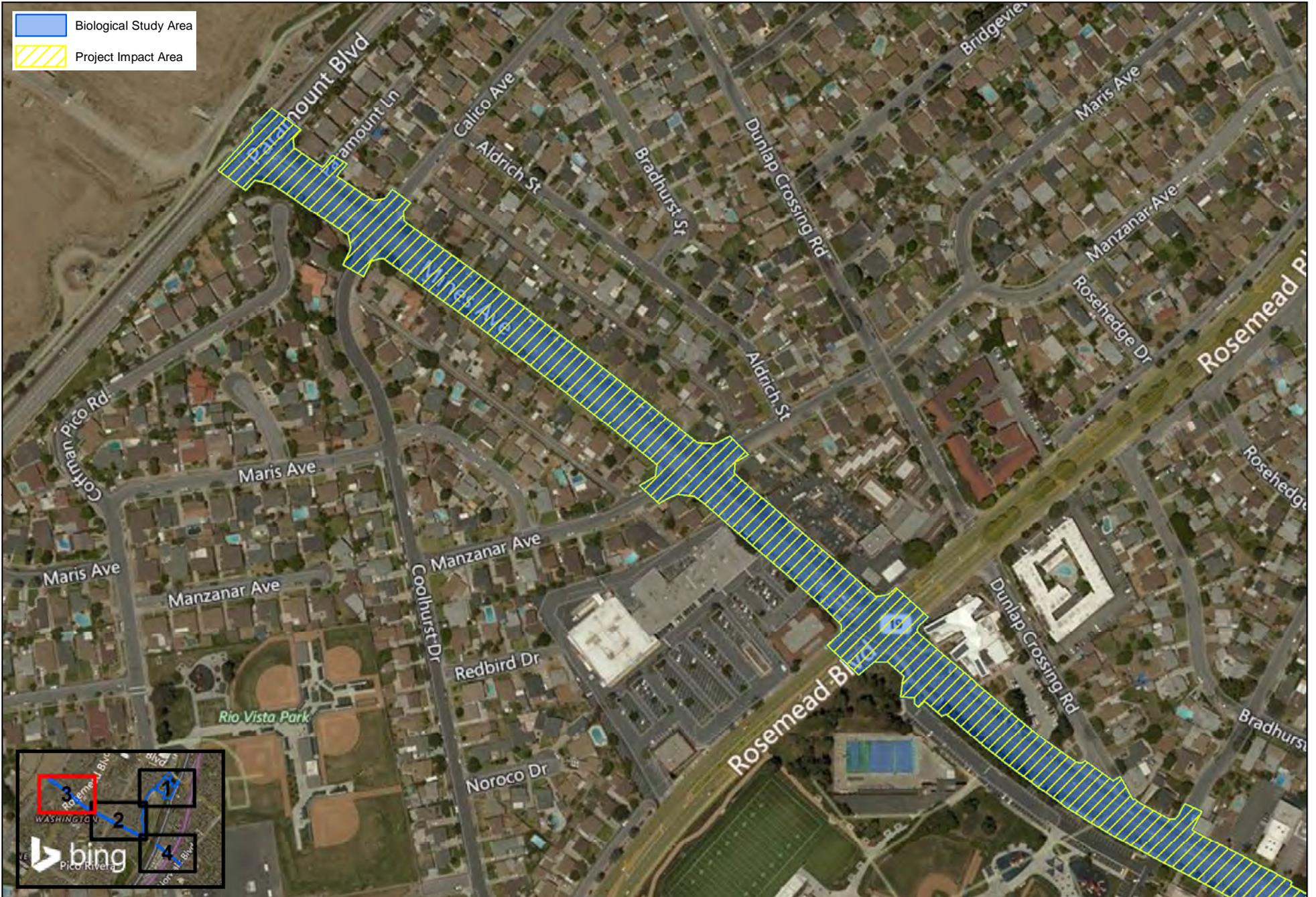


VCS Environmental

Map Created: April 2019




Data Source: BING, Kidd  
City of Pico Rivera, BFK, VCS



Biological Study Area  
 Project Impact Area



**Pico Rivera  
Regional Bikeway Bridge Project**

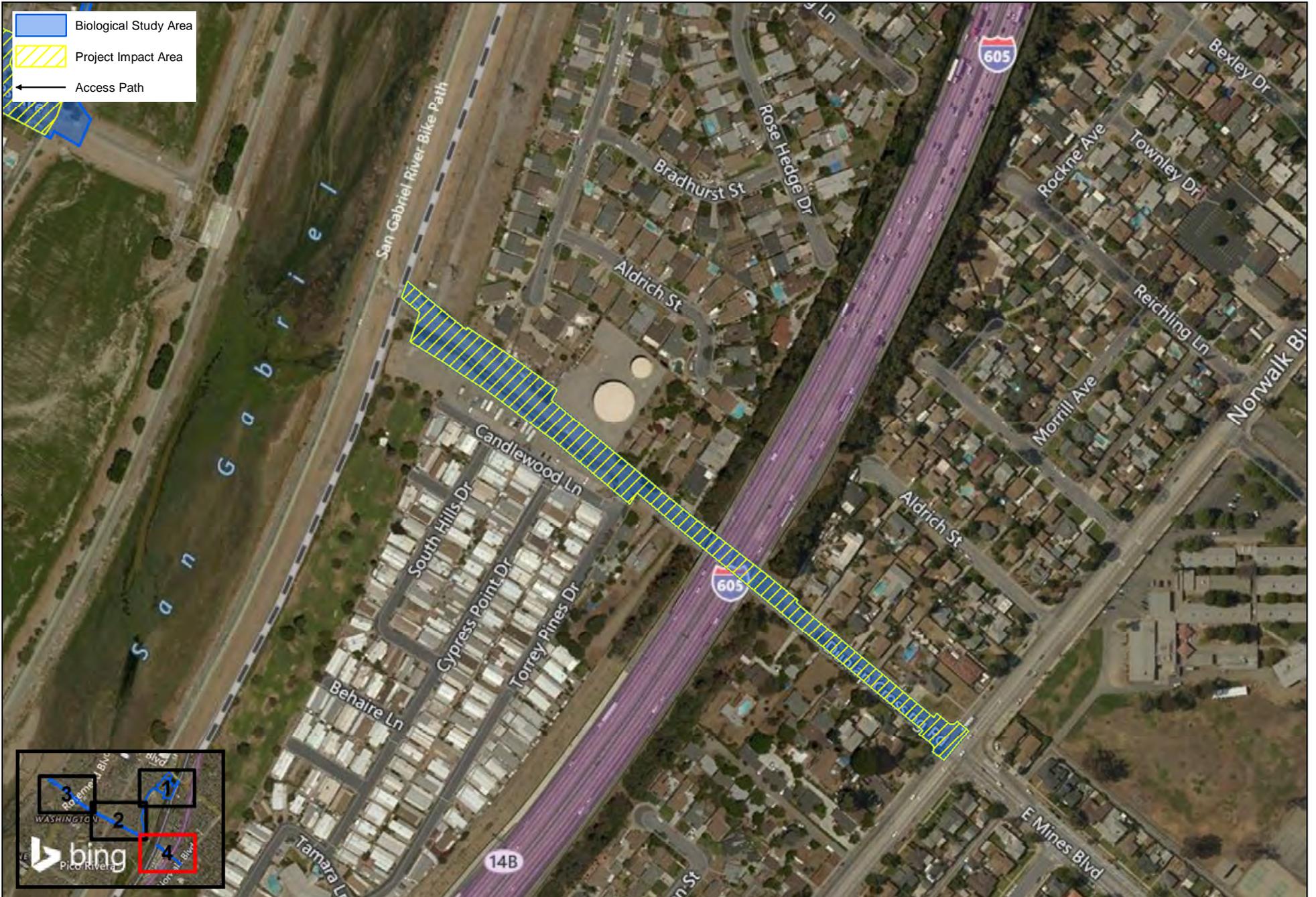
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 VCS Environmental  
 Map Created: April 2019



Data Source: BING, Kidd  
City of Pico Rivera, BFK, VCS

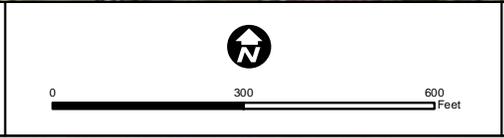
**Figure 3**

Biological Study Area



Prepared By:  
  
 VCS Environmental

Map Created: April 2019



Data Source: BING, Kidd  
 City of Pico Rivera, BFK, VCS

**Pico Rivera  
 Regional Bikeway Bridge Project**

**Figure 3**

Biological Study Area



- Project Impact Area
- Temporary Construction Zone
- Temporary Construction Access
- Potential Staging Area
- Waters of the U.S.
- Soil Pits

**Waters of the U.S. (Temporary Impacts) \***

- Wetland
- Emergent Wetland
- Non-Wetland

\* No impact occurs outside the extent of this map.

57 sq. ft  
Permanent Impact by Concrete Columns

100 ft

Prepared By:



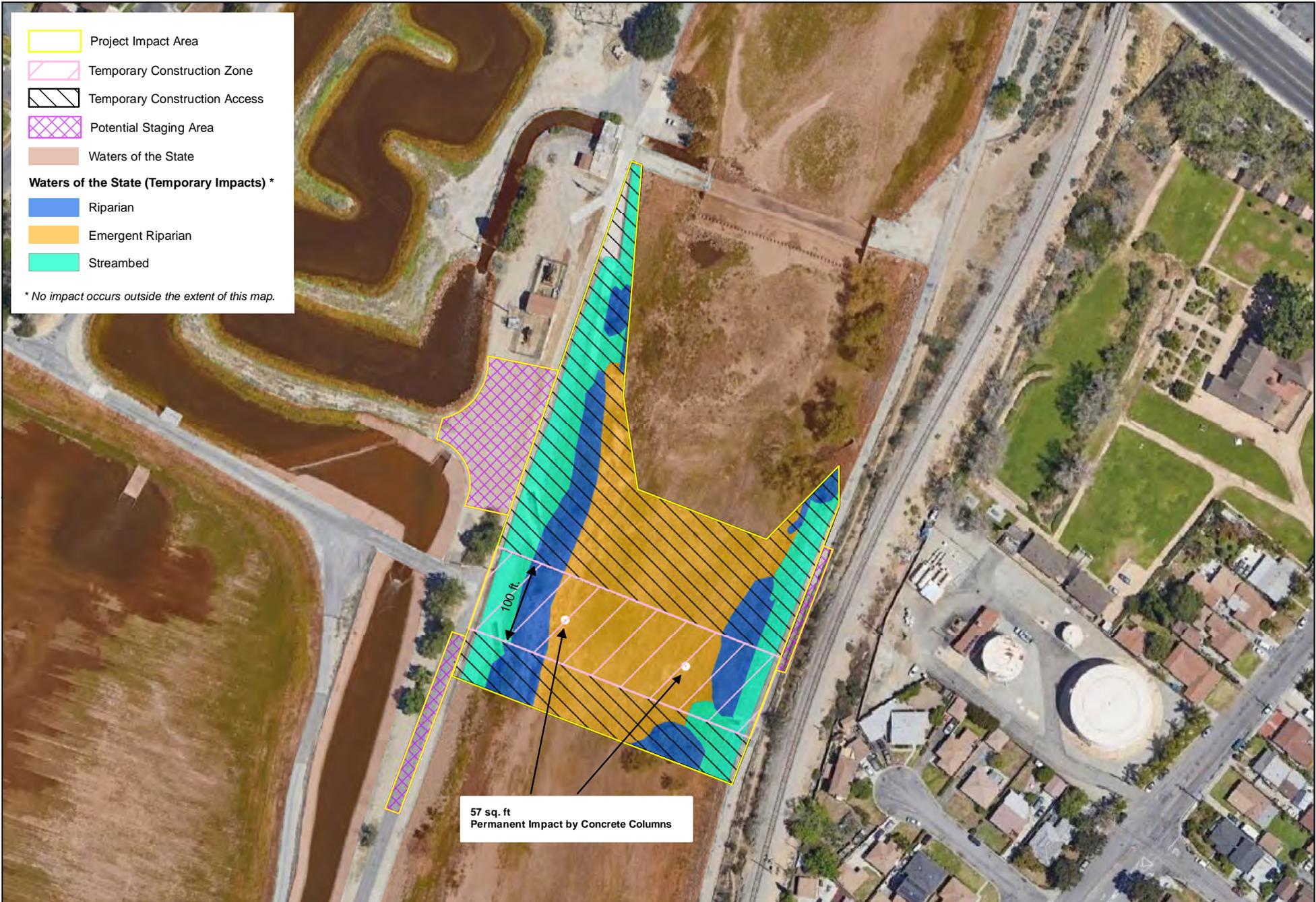
VCS Environmental

Map Created: April 2019



Data Source: Google Earth, BING,  
City of Pico Rivera, BFK, VCS

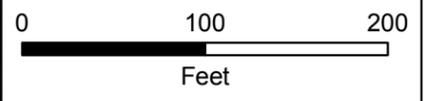
Figure 4a



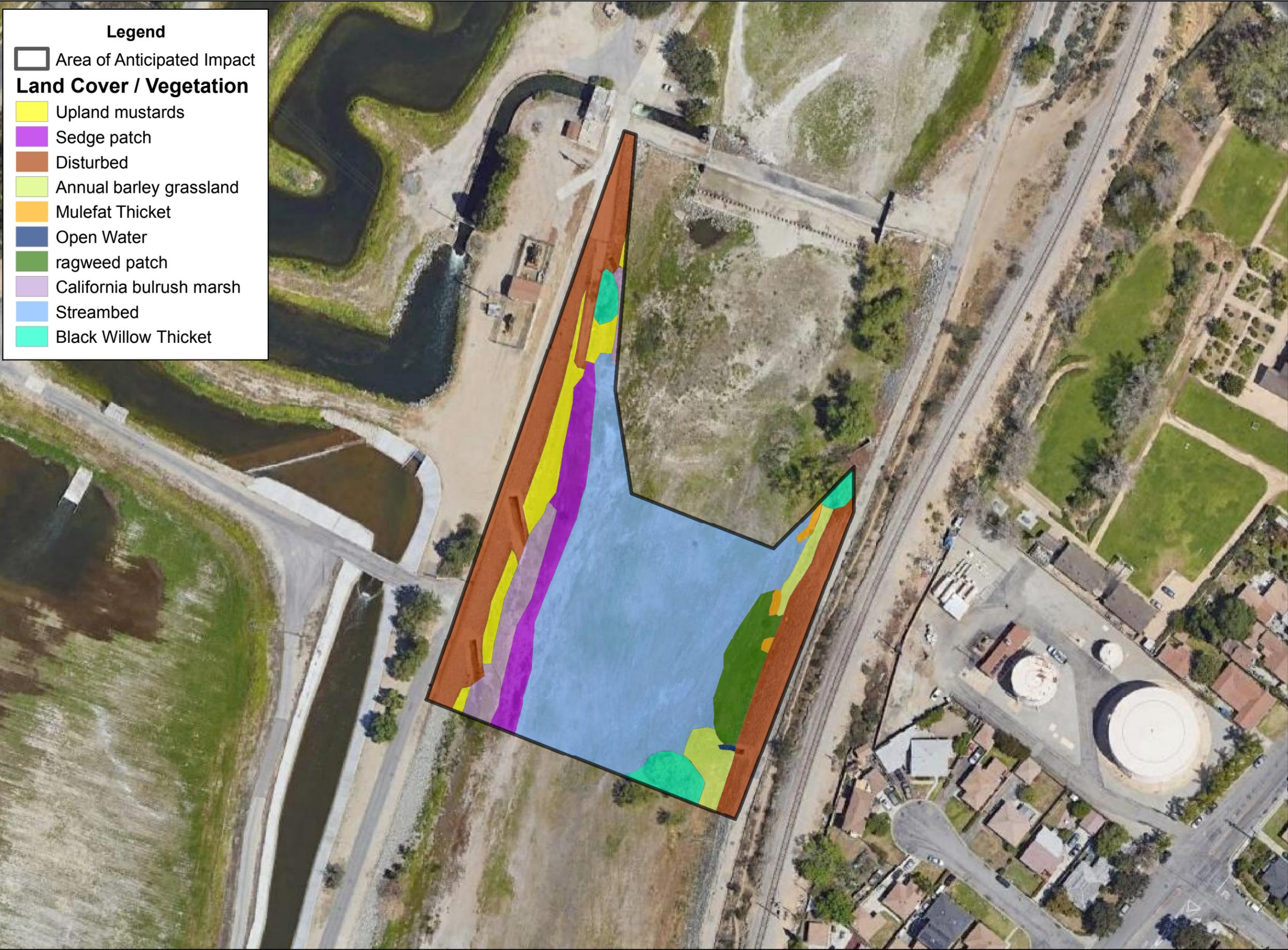
# Pico Rivera Regional Bikeway Project

## Vegetation Map

Figure 5



Map Date: April 2019  
Data Source: Google Earth, BING,  
City of Pico Rivera, BFK, VCS,



**Legend**

- Area of Anticipated Impact
- Land Cover / Vegetation**
- Upland mustards
- Sedge patch
- Disturbed
- Annual barley grassland
- Mulefat Thicket
- Open Water
- ragweed patch
- California bulrush marsh
- Streambed
- Black Willow Thicket



**Legend**

□ Area of Anticipated Impact

**Soil Type**

■ Pits and Quarries

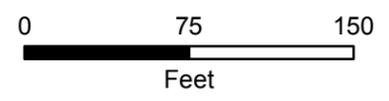
■ Xeropsamments, frequently flooded, 0-2% slopes



# Pico Rivera Regional Bikeway Project

## Soils

Figure 5



1 in = 80 ft

Map Date: April 2019  
Data Source: WSS, BING, City of Pico Rivera, BFK, VCS.

# Appendix A

## Photopages



Photo 1: View of potential temporary construction access area for bridge construction within the San Gabriel River, facing south.



Photo 2: View of potential temporary construction access area within the San Gabriel River, facing northeast.



Photo 3: View of California bulrush (*Shoenoplectus californicus*) in the potential temporary construction access impact area within the San Gabriel River, facing southeast.



Photo 4: View of annual grasses in the potential construction zone/access impact area within the San Gabriel River, facing north.

**Appendix B**  
**Wetland Delineation Forms**

**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Pico Rivera Regiona Bikeway City/County: Pico Rivera, LA County Sampling Date: 3/15/19

Applicant/Owner: City of Pico Rivera State: CA Sampling Point: 1

Investigator(s): Wade Caffrey Section, Township, Range: S18, T2S, R11W

Landform (hillslope, terrace, etc.): Riverbed Local relief (concave, convex, none): None Slope (%): Flat

Subregion (LRR): California Lat: 33.99407113 Long: -118.07344442 Datum: NAD 83

Soil Map Unit Name: CA 696 NWI classification: R4SBCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No

Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

**VEGETATION – Use scientific names of plants.**

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				_____ = Total Cover
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
				_____ = Total Cover
<u>Herb Stratum</u> (Plot size: _____)				
1. <u>Wild radish (Raphanus sativus)</u>	5		NI	
2. <u>Bermuda grass (Cynodon dactylon)</u>	90	Y	FACU	
3. <u>Common sunflower (Helianthus annuus)</u>	3		FAC	
4. <u>English plantain (Plantago lanceolata)</u>	1		FAC	
5. <u>Stinging nettle (Urtica dioica)</u>	1		FAC	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
				100 = Total Cover
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
				_____ = Total Cover
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____			
Remarks:				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____ x 1 = _____	
FACW species _____ x 2 = _____	
FAC species <u>5</u> x 3 = <u>15</u>	
FACU species <u>90</u> x 4 = <u>360</u>	
UPL species _____ x 5 = _____	
Column Totals: <u>95</u> (A)	<u>375</u> (B)

Prevalence Index = B/A = 3.95

**Hydrophytic Vegetation Indicators:**

Dominance Test is >50%

Prevalence Index is ≤3.0<sup>1</sup>

Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No



## WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Pico Riveria Regional Bikeway City/County: Pico Rivera, LA County Sampling Date: 3/15/19

Applicant/Owner: City of Pico Rivera State: CA Sampling Point: 2

Investigator(s): Wade Caffrey Section, Township, Range: S18, T2S, R11W

Landform (hillslope, terrace, etc.): Riverbed Local relief (concave, convex, none): Concave Slope (%): Flat

Subregion (LRR): California Lat: 33.99388970 Long: -118.07346194 Datum: NAD 83

Soil Map Unit Name: CA 696 NWI classification: R4SBCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No

Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
<b>Herb Stratum (Plot size: _____)</b>				
1. <u>California Club-Rush (Shoenoplectus californicus)</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>60</u> % Cover of Biotic Crust _____				
Remarks:				



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Pico Rivera Regional Bikeway City/County: Pico Rivera, LA County Sampling Date: 3/15/19

Applicant/Owner: City of Pico Rivera State: CA Sampling Point: 3

Investigator(s): Wade Caffrey Section, Township, Range: S18, T2S, R11W

Landform (hillslope, terrace, etc.): Riverbed Local relief (concave, convex, none): None Slope (%): Flat

Subregion (LRR): California Lat: 33.99381930 Long: -118.07313161 Datum: NAD 83

Soil Map Unit Name: CA 696 NWI classification: R4SBCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No

Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	--	--	---

Remarks:  
Center of drainage, recent sediment deposit / active floodplain

**VEGETATION – Use scientific names of plants.**

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Bermuda grass (Cynodon dactylon)</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Common sunflower (Helianthus annuus)</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
3. <u>swamp smartweed (Persicaria hydropiperoides)</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>70</u> % Cover of Biotic Crust _____				

Remarks:  
Mostly dead vegetation



**WETLAND DETERMINATION DATA FORM – Arid West Region**

Project/Site: Pico Rivera Regional Bikeway City/County: Pico Rivera, LA County Sampling Date: 3/15/19  
 Applicant/Owner: City of Pico Rivera State: CA Sampling Point: 4  
 Investigator(s): Wade Caffrey Section, Township, Range: S18, T2S, R11W  
 Landform (hillslope, terrace, etc.): Riverbed Local relief (concave, convex, none): None Slope (%): Flat  
 Subregion (LRR): California Lat: 33.99306744 Long: -118.07323689 Datum: NAD 83  
 Soil Map Unit Name: CA 696 NWI classification: R4SBCx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <b>Active floodplain</b>	

**VEGETATION – Use scientific names of plants.**

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
_____	_____	_____	_____		
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
_____ = Total Cover					
<b>Herb Stratum</b> (Plot size: _____)					
1. <u>Swamp smartweed (Persicaria hydropiperoides)</u>	<u>80</u>	<u>Y</u>	<u>OBL</u>		
2. <u>Weakleaf bur ragweed (Ambrosia confertiflora)</u>	<u>10</u>		<u>NI</u>		
3. <u>Rough Cocklebur (Xanthium strumarium)</u>	<u>10</u>		<u>FAC</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
_____ = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Woody Vine Stratum</b> (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>20</u> % Cover of Biotic Crust _____					
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Remarks:  
**dead/re-sprouting/emergent**

**SOIL**

Sampling Point: 4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	3/5 B6 Gley	100					CL	Floodplain
8-16	6/2 7.5 YR	100					S	Floodplain

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input checked="" type="checkbox"/> Sandy Gleyed Matrix (S4)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

Any area with hydrophytic vegetation and wetland hydrology in the active floodplain would be a wetland, and this is an active floodplain.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

**Field Observations:**

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (Includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: